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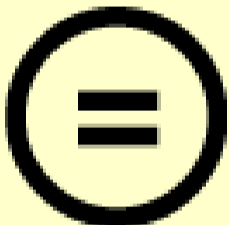
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A Consumer Ethnocentrism Model of Foreign
Grocery Retail Store Patronage in Beijing: Do
extrinsic cues and shopping orientation matter?

.....

by

Chee Hsien Kelvin Tay

Doctoral Thesis

Submitted in partial fulfilment of the requirements

for the award of

PhD of Loughborough University.

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Abstract

The most widely used marketing concept to explain consumers' reluctance to patronise foreign retail stores and to purchase imported products is consumer ethnocentrism (CET). To date, however, research has mostly concentrated on the antecedents and consequences of CET, whilst little is known about variables that may offset the impact of CET. This study represents the first step in addressing this gap by examining shopping orientation, specifically utilitarian value, as a moderator of the relationship between CET and the consumers' willingness to shop in foreign grocery retail stores (WTS). Other important research gaps addressed in this study are context specific (i.e., consumers and grocery retailers in China), which includes an investigation of the impact of country-of-origin cue, store brand cue, CET and shopping orientation on WTS, the causal relationships between CET, WTS and customer loyalty (i.e., attitudinal and behavioural loyalty) as well as between shopping orientation and customer loyalty, and the robustness of the CETSCALE (i.e., CET measurement instrument) in relation to socially desirable response bias.

Building on an extensive literature review, a consumer ethnocentrism model of foreign grocery retail store patronage was conceptualised and examined for its theoretical applicability in Beijing via an initial qualitative study. The conclusive quantitative phase was store-intercept surveys conducted in four Beijing hypermarkets owned by two established domestic and foreign grocery retailers in China; this achieved a total sample of 500 questionnaires. Rigorous statistical assessment of the collected questionnaires was undertaken, where the raw data was verified for data entry accuracy, missing values in the raw datasets were resolved via the multiple imputation method, and the multiple imputed datasets were assessed for outliers and non-normality.

The conceptual model was then tested using Structural Equation Modelling (SEM). Based on conventional SEM procedures, the main results revealed that utilitarian value was a significant moderator of the relationship between CET and WTS, whilst the country-of-origin cue and store brand cue returned non-significant effects. In addition, store origin was a significant moderator of the relationship between WTS and loyalty intention towards foreign grocery retailers, i.e., this relationship was positively related for Beijing consumers who shop in foreign grocery stores but non-significant for those who shop in domestic grocery stores. The findings, theoretical and managerial implications, limitations and directions for future research are discussed.

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1.0 INTRODUCTION

1.1 Retail Internationalisation: An Overview

Increasing globalisation of markets presents numerous opportunities for retail enterprises to expand into geographically distant and culturally diverse markets but poses considerable challenges for these international retailers (c.f., Davies and Brookes, 1989; McGoldrick, 1994; McGoldrick and Davies, 1995; Akehurst and Alexander, 1996; Alexander, 1997). Several factors have emerged that provide retailers with added impetus to expand their operations beyond local boundaries or beyond geographically and/or culturally proximate countries, such as:

1. Political: Formation of global regions, such as the Single European Market (SEM), North American Free Trade Area (NAFTA), Association of South East Asian Nations (ASEAN), Asia-Pacific Economic Cooperation (APEC), leading to greater opportunities for cross-border expansion due to lower costs and greater access to markets.
2. Economic:
 - Disintegration of command economies and their replacement by free market economies in countries situated in Central Europe, Eastern Europe, Asia and Latin America.
 - Increasing GDP level and high population growth in developing countries.
 - Attractive profit and growth opportunities in emerging markets.
 - Saturation within domestic market, high overhead cost of maintaining domestic operations and intense domestic competition prompting domestic retailers to explore new markets (e.g., Treadgold and Davies, 1988; Burt, 1993; Alexander, 1997).

3. **Social:** Greater disposable income and increasing consumerism in emerging markets and hence, increasing demand for better services, products and international brands (Alexander and Myers, 1999; Alexander and Silva, 2002).
4. **Culture:** Growing convergence of consumer behaviour in urban cities globally leading to similarities in consumption of goods and services (Davies and Flemmer, 1995; Alden, Steenkamp and Batra, 1999)
5. **Retail Structure:** Opportunities for expansion may exist in emerging markets where retail structures are less developed (Alexander and Myers, 1999; Alexander and Silva, 2002).
6. **Technology:** Advanced telecommunication and information technology tools to monitor retail operations situated in geographically distant countries, thus providing retailers with greater flexibility and ease of controlling and localising their international operations.

Nevertheless, intense competition from both international and domestic retailers and inappropriate market positioning in foreign markets have led to high profile corporate failures in international markets, even though these retail formats are excellently positioned in the retailers' own domestic markets, e.g., Carrefour in the USA (Burt, 1994), Daimaru in Australia (Clark and Rimmer, 1997), Marks & Spencer in continental Europe (Burt et al., 2002), and Wal-Mart in Germany (Fernie and Arnold, 2002).

Previous research suggests that the failure of international retail operations may be attributed to a lack of adaptation of the retail offer in foreign markets (e.g., McGoldrick and Blair, 1995; Dupuis and Prime, 1996; Vignali, 2001). There is some evidence that international retailers who adapt their retail offer to foreign market conditions perform better than those who standardise their retail offer (e.g., Dupuis and Prime, 1996; O'Grady and Lane, 1996; Evans, Treadgold and Mavondo, 2000). Successful international retailers are able to differentiate themselves from their competitors through correct positioning in foreign

markets (Doyle, 1990; Ellis and Kelly, 1992; Birtwistle, Clarke and Freathy, 1999), and a strong positioning is likely to attract consumers that subsequently yield greater profits for the retailers (Buzzell and Gale, 1987; Davies and Brookes, 1989). Retailing is a very localised concept that requires great sensitivity to local consumption behaviour (Dupuis and Prime, 1996; Murphy, 1999). As de Mooij and Hofstede (2002, pp.68) concluded, international retailers “expanding operations to countries with different cultural values than one’s own, without adapting to these differences, can lead to serious losses”.

Market positioning in the retailing literature has generally been associated with store image (e.g., Martineau, 1958; Arons, 1961; Kotler, 1973; Lindquist, 1974; Hansen and Deutscher, 1977; Spiggle and Sewell, 1987; Doyle, 1990; Burt and Carralero-Encinas, 2000; Burt et al., 2002; Barron, 2003). Store image provides retailers with a means to differentiate themselves from their competitors (Wortzel, 1987), and is an important attribute in consumers’ store choice (e.g., Stanley and Sewall, 1976; Nevin and Houston, 1980; Malhotra, 1983) and store patronage decisions (e.g., Kunkel and Berry, 1968; Pathak, Crissy and Sweitzer, 1974; Darden, Erdem and Darden, 1983; Mason, Durand and Taylor, 1983; Lea-Greenwood, 1991). Early research on store image has generally focused on the retail stores’ interior environment, emphasising on functional qualities (tangible benefits) and psychological attributes (intangible benefits) that consumers expect from retail stores (e.g., Martineau, 1958; Aron, 1961; Kunkel and Berry, 1968; Lindquist, 1974). That is, each retail store has its own unique ‘personality’ and consumers are likely to repeatedly patronise retail stores that match their perceived image of the retail stores, i.e., congruency between the consumers’ perception of the retail stores and the actual retail store offering (Martineau, 1958; Aron, 1961; Weale, 1961; Pathak, Crissy and Sweitzer, 1974).

However, subsequent studies have shown that consumers have dissimilar perceptions toward different types of retail formats (e.g., Hansen and Deutscher, 1977; Schiffman, Dash and Dillon, 1977; Birtwistle, Clarke and Freathy, 1999). For instance, grocery shoppers stress on utility, time-pressure and the conduciveness of shopping in grocery retail stores, whilst department store shoppers focus on aspects relating to the physical product, such as brand image and style of product offering (Hansen and Deutscher, 1977). Therefore, store image is

context-specific (e.g., Schiffman, Dash and Dillon, 1977; Davies, 1992; Birtwistle, Clarke and Freathy, 1999), and “successful store positioning requires more knowledge about shoppers, their values, their shopping orientations, their media habits, their incomes, their socioeconomic characteristics, and their lifestyles” (Darden and Lusch, 1983, pp.3). Specifically, different types of retail store formats are likely to attract shoppers of differing characteristics (Darden and Lusch, 1983).

Hence, research on retail store image has moved on significantly from examining consumers’ cognitive elements (i.e., perceptions of retail stores) in early research to encompass consumers’ affective elements, such as utilitarian and hedonic shopping orientations (e.g., Babin, Darden and Griffin, 1994; Babin and Attaway, 2000; Stoel, Wickliffe and Lee, 2004), and normative elements, such as “consumer habitat” where shoppers may interact or consume within a habitat (e.g., shopping malls) in their own unique ways (Bloch, Ridgway and Dawson, 1994, pp.25). Despite the importance of store image in consumers’ store choice and patronage decisions (e.g., Kunkel and Berry, 1968; Malhotra, 1983; Babin and Attaway, 2000), research on the impact of retail store image (i.e., market positioning) on consumers’ store patronage decision is relatively limited in Far Eastern countries, particularly in the People’s Republic of China (PRC) (McGoldrick and Ho, 1992).

The PRC is an emerging market that has attracted strong interest from international retailers. For instance, international retailers such as Carrefour from France, Parkson from Malaysia, Makro from The Netherlands, IKEA from Sweden, Price Smart from the U.S.A., and Ito-Yokado and Seiyu from Japan already have a significant presence in Beijing (Wang, 2003). Coupled with the PRC’s full entry into the World Trade Organisation and the upcoming 2008 Olympic Games, the international retailers’ entry and store coverage in the PRC are likely to accelerate in the next few years (Chain Store Age, 2003). Although various retail formats are currently available to PRC consumers, hypermarkets (i.e., large-scale grocery-related retail stores) are the leading retail format in the PRC today, especially those owned by international retailers such as Walmart and Carrefour (The Economist, 2001, 2004). Revenues from hypermarkets alone have been growing at an average rate of 64% a year although hypermarkets only accounted for less than 2% of all Chinese retail sales (Miu and

Penhirin, 2003). Given the growing importance of international grocery retailers in the PRC's retail sector development, relatively little is known about the PRC consumers' attitudes, values and shopping orientation toward international grocery retailers in the PRC. Therefore, the focus of this study is on international grocery retailers in the PRC.

An international grocery retailers' ability to attract consumers in the PRC requires an in-depth understanding of the PRC consumers' cognitive, affective and normative attitudes toward foreign retail stores in order to formulate its store image positioning strategy. Coupled with the lack of studies that identified factors contributing to international retailers' success/failure in foreign markets (Dupuis and Prime, 1996), international grocery retail managers need to know which store image variables attract/hinder the PRC consumers' decision to patronise their retail stores (to be elaborated in the following section). Therefore, the relationship between store image and the PRC consumers' grocery retail store patronage decision is in need of examination.

1.2 Store Image – Research Gaps

Store image is "... the way the store is defined in the shopper's mind, partly by its functional qualities and partly by an aura of psychological attributes" (Martineua, 1958, pp.47), and it represents the personality of the store that is presented to consumers (Arons, 1961). As previously mentioned, early research on store image has generally been associated with tangible and intangible benefits within retail stores. For instance, Kunkel and Berry (1968, pp.26) categorised the store image of departmental stores in 12 dimensions, namely price of merchandise, quality of merchandise, assortment of merchandise, fashion of merchandise, sales personnel, locational convenience, other convenience factors (e.g., parking, store opening hours, store layout), services (e.g., credit, delivery, restaurant facilities), sales promotions, advertising, store atmosphere, and reputation on adjustments. Lindquist (1974, pp.31) further narrowed down store image to 9 tangible and intangible dimensions, namely merchandise (i.e., goods and services offered by the retail store), service, clientele, physical

in-store facilities, convenience, promotion, store atmosphere, institutional factors (e.g., reputation and reliability), and post-transaction satisfaction.

Although international retail managers have considerable knowledge about the aforementioned tangible and intangible store benefits that attract their targeted consumer segments to their retail stores (i.e., these benefits are established dimensions of store image), international retailers still failed in foreign markets even though they are excellently positioned in their domestic markets (e.g., Burt, 1994; Dupuis and Prime, 1996; Clack and Rimmer, 1997; Burt et al., 2002; Fernie and Arnold, 2002). Specifically, in a retail internationalisation context, international retail managers need to know what other factors, in addition to the established tangible and intangible store benefits, that are likely to attract/repel consumers to their retail stores in foreign markets.

In this respect, a major research focus of retail store image in the marketing and retailing literature is the investigation of the impact that 'foreignness', as a dimension of store image, has on consumers' perceptions and evaluations of foreign retailers (c.f., McGoldrick and Ho, 1992; Alexander and Myers, 1999; Alexander and Silva, 2002). This 'foreignness' dimension of store image is important because it is well documented in a significant number of countries that some consumers have strong preferences for domestic products. Reasons for this domestic bias range from negative perceptions of imported products to feelings of patriotism (Bilkey and Nes, 1982; Netemeyer, Durvasula and Lichtenstein, 1991; Sharma, Shimp and Shin, 1995; Balabanis et al., 2001). A widely used construct to explain this phenomenon is consumer ethnocentrism (CET).

1.2.1 Consumer ethnocentrism (CET)

Consumer ethnocentrism (CET) is defined as the beliefs held by consumers that it is inappropriate (and maybe even immoral) to purchase imported products (Shimp and Sharma, 1987). Previous studies have consistently shown that ethnocentric consumers tend to reject imported products (e.g., Sharma, Shimp and Shin, 1995; Klein, Ettenson and

Morris, 1998; Balabanis et al., 2001) and foreign-owned retail stores (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002). Nevertheless, few studies have examined variables that may moderate the impact of CET (Sharma, Shimp and Shin, 1995; Wang and Chen, 2004), whereby the existing state of understanding of moderating variables in the CET literature is limited to four constructs, namely perceived economic threat (Sharma, Shimp and Shin, 1995; Jo, 1998), perceived product necessity (Sharma, Shimp and Shin, 1995; Huddleston, Good and Stoel, 2001), country-of-origin (COO) effect (refer to Section 2.1 in Chapter 2 for a review of the COO literature) and conspicuous consumption (Wang and Chen, 2004).

In the PRC context, Wang and Chen's (2004) study is the only one where moderating effects, namely COO and conspicuous consumption, were investigated and were found to offset the impact of CET. Conspicuous consumption refers to the consumers' desire to publicly display their social status by possessing visible luxuries and therefore, is culture-specific (Mason, 1981). A recent study by Hung, Gu and Tse (2005) found that status-seeking PRC consumers tend to be hedonic-oriented, whereas those who refrain from status-seeking consumption tend to be utilitarian-oriented. This suggests that hedonic and utilitarian values may be moderators of the CET effect. In the retail-shopping context, utilitarian-oriented consumers tend to find value only if their shopping trips are completed successfully, whilst hedonic-oriented consumers gain satisfaction through the shopping experience itself apart from any task-related motives (Babin, Darden and Griffin, 1994).

Prior studies have shown that domestic retailers in developing countries are generally perceived to be less competent than foreign retailers in providing consumers with quality goods and services, particularly in grocery-related shopping environments (e.g., Good and Huddleston, 1995; Lo, Lau and Lin, 2001). Since consumers relate grocery shopping as a function of utilitarian value (e.g., Mai and Zhao, 2004; Business Week, 2005), the task-related needs (e.g., locational convenience, wide assortment of merchandise) that utilitarian-oriented consumers in developing countries expect from foreign retailers are likely to moderate the influence of their CET levels. Research into this gap is important because there

is a need to identify variables that may moderate the impact of CET, particularly moderating variables that are not context specific.

As previously mentioned, there are only four variables that have been shown to offset the impact of CET, namely perceived economic threat, perceived product necessity, COO effect and conspicuous consumption. The first three moderating variables are related to consumer perceptions, which are transient as perceptions may change over time and may be different for consumers from different cultures and nations. Conversely, the conspicuous consumption moderating variable is culture-specific and is limited to countries where consumers are likely to exhibit conspicuous consumption tendencies. Given the limited general applicability of the above four constructs to international retail managers, there is a greater need to identify moderating variables that may be generalisable across cultures and nations. In this respect, the utilitarian value construct (proposed in this study as a moderator of the CET effect) is an enduring shopping value that has shown to be salient across both developed and developing countries (e.g., Babin and Attaway, 2000; Li et al., 2004; Stoel, Wickliffe and Lee, 2004). Consequently, the theoretical and practical scope for generalisability is greater for the utilitarian value construct than the perceived economic threat, perceived product necessity, COO effect and conspicuous consumption constructs.

Demographic variables (i.e., age, gender, education and income) have also been considered as moderators of the relationship between CET and the consumers' reluctance to shop in foreign stores in this study. Nevertheless, demographic variables have been well researched in previous studies and they have consistently been positioned as predictors, rather than as moderators, of CET, i.e., males, better-educated, higher incomes consumers tend to be less ethnocentric (e.g., Shimp, 1984; Good and Huddleston, 1995; Sharma, Shimp and Shin, 1995; Balabanis et al., 2001). Although demographic variables may still be examined as moderators of the impact of CET, investigation of demographic variables as moderators (of the CET effect) does not add value to advancement in theoretical knowledge because, as aforementioned, a considerable number of studies have already established this relationship between demographic variables and CET. Conversely, the evaluation of the utilitarian value construct as a potential moderator of the CET effect in this study represents the first step in

the understanding of the impact that the utilitarian construct has on ethnocentric consumers' willingness to shop in foreign grocery retail stores.

Given that CET has been shown to be real and strong in numerous studies (i.e., consumers from numerous countries have been found to hold high consumer ethnocentric tendencies) (e.g., Klein, Ettenson and Morris, 1998; Balabanis et al., 2001; Steenkamp, Batra and Alden, 2003), international retail managers need to know which variable(s) is capable of counteracting the impact of CET on consumers' reluctance to shop in foreign retail stores. As a result of the general applicability of the utilitarian value construct as a strategic retail store positioning tool for international retail managers, the potential moderating effect of utilitarian value on the relationship between CET and consumers' reluctance to shop in foreign retail stores is in need of investigation.

In addition, few studies have assessed the CET effect in the PRC context (exceptions include Klein, Ettenson and Morris (1998), Yu and Albaum (2002), and Wang and Chen (2004)), although various CET studies have been conducted in developing countries (e.g., Good and Huddleston, 1995; Sharma, Shimp and Shin, 1995; Durvasula, Andrews and Netemeyer, 1997; Jo, 1998; Kucukemiroglu, 1999; Batra et al., 2000; Balabanis et al., 2001; Lindquist et al., 2001; Supphellen and Rittenburg, 2001; Kaynak and Kara, 2002; Suh and Kwon, 2002; Steenkamp, Batra and Alden, 2003; Supphellen and Gronhaug, 2003; Ang et al., 2004; Thelen and Honeycutt, 2004; Reardon et al., 2005). More significantly, no known studies have been found to investigate the impact of CET in the context of foreign retailers in the PRC, in particular foreign grocery-related retailers (i.e., PRC consumers' reluctance to shop in foreign grocery stores).

Given the importance of foreign grocery retailers in the PRC's retail sector development (as detailed in Section 1.1), it is important to understand the precise nature of CET in the PRC within the foreign grocery retail context. Research into this gap is important because researchers tend to assume that similar results are expected when a study is replicated in another context (i.e., products versus retailers) (c.f., Steenkamp and Baumgartner, 1998; Craig and Douglas, 2001; Douglas and Nijssen, 2003). Nonetheless, it is not a foregone

conclusion that the PRC consumers' negative attitudes toward foreign products will be the same as their attitudes toward foreign retailers. In a foreign retailer context, as compared to a foreign product setting, additional factors such as superior product range and service quality offered by foreign retailers (as compared to domestic retailers) are likely to impact on the consumers' foreign retail store patronage intentions (Lo, Lau and Lin, 2001). Since international retail managers need to know about the general attitude that PRC consumers hold towards foreign retailers (i.e., level of openness towards foreign retailers), there is a need to identify whether the PRC consumers are willing/reluctant to shop in foreign stores.

1.2.2 Country-of-origin (COO)

Given that the consumer ethnocentrism (CET) concept is the prevailing explanation for domestic country bias in the country-of-origin (COO) literature (Balabanis and Diamantopoulos, 2004), whereby CET is categorised as a normative COO cue (c.f., Verlegh and Steenkamp, 1999), it is imperative that the COO cue be examined vis-à-vis the CET construct. COO, as a country image cue, is commonly referred to as the impact of generalisations and perceptions about a country, its citizens and its culture on consumers' evaluations of the country's products (Nagashima, 1970). Previous research on the COO effect have generally found that COO, as a country image cue, is an important extrinsic cue whereby consumers draw inferences from this cue in forming their perceptions and evaluations of product quality and purchase intent, particularly when they lack information about and/or are unfamiliar with products of foreign origins (Bilkey and Nes, 1982; Papadopoulos and Heslop, 1993; Verlegh and Steenkamp, 1999).

Despite the existence of numerous COO studies, previous findings on the saliency of the COO cue in consumers' perceptions and evaluations of foreign products have generally been inconclusive due to the use of single-cue models (i.e., COO cue as the only variable in a particular study) versus multiple-cue models (i.e., more than one extrinsic cue used in a particular study) (Bilkey and Nes, 1982). For instance, brand name, as an extrinsic cue, has a negative effect on the saliency of the COO cue in some multiple-cue studies (e.g., Chao,

1989a; Tse and Lee, 1993; Teas and Agarwal, 2000), but not in others (e.g., Han and Terpstra, 1988; Tse and Gorn, 1993; Ahmed and d'Astous, 1996). In the relatively few multiple-cue COO studies that incorporated store image as an extrinsic cue, these studies were mostly examined in the context of products made in foreign countries (i.e., relationship between foreign-made products and prestigious retailers in consumers' quality judgement and purchase intentions) (e.g., Reiersen, 1967; Morganosky and Lazarde, 1987; Chao, 1989a; Thorelli, Lim and Ye, 1989; Lin and Sternquist, 1994; Agarwal and Teas, 2001, 2004), whilst no known studies was found to investigate consumers' perceptions and evaluations of retailers from foreign origins, particularly foreign grocery retailers.

Research into this gap is important because researchers tend to assume that similar results are expected when a study is replicated in another context (c.f., Steenkamp and Baumgartner, 1998; Craig and Douglas, 2001; Douglas and Nijssen, 2003). However, it is not a foregone conclusion that

1. Consumers' perceptions and evaluations of foreign products will be the same as their perceptions and evaluations of foreign retailers.
2. Consumers' perceptions and evaluations of foreign grocery retailers will be the same as their perceptions and evaluations of other foreign retail formats (e.g., shopping malls, fashion apparel stores, general merchandise stores).

In the foreign retailer context, as compared to a purely foreign product setting, additional factors such as perceived reputation of foreign retail brands as well as perceived quality image of products sold by foreign retailers are likely to impact on the consumers' perceptions and evaluations of foreign retailers and their subsequent foreign store patronage intention/decision (Thorelli, Lim and Ye, 1989; Davis, Kern and Sternquist, 1990; Agarwal and Teas, 2001, 2004).

In the foreign grocery retail context, as compared to other foreign retail formats, factors such as shopping orientation (i.e., hedonic and utilitarian shopping values), store location, product range and price are likely to impact on the consumers' patronage of grocery retail stores

because consumers generally relate grocery-shopping as a function of utilitarian value (e.g., Bellizzi and Bristol, 2004; Mai and Zhao, 2004; Moschis, Curasi and Bellenger, 2004). Note that shopping motive attributes such as convenience in store location and wide product range (i.e., convenience in locating desired products) are generally associated with utilitarian shopping value (c.f., Babin, Darden and Griffin, 1994). In other words, consumers' grocery shopping motives are likely to be different from their motives for shopping in other types of retail formats (e.g., retail formats positioned to attract hedonic-oriented consumers).

As such, research into this gap is important because relatively little is known about consumers' perceptions of foreign grocery retailers (i.e., COO cue), especially those originating from European countries, and their likely acceptance of foreign grocery retail brands (i.e., store brand cue), in particular European retail brands, from a developing country perspective such as the PRC. International grocery retail managers need to know which variables (i.e., COO cue and/or store brand cue) influence their firms' ability to attract consumers to their retail stores. Hence, there is a need to identify factors specific to the firms' retail store positioning strategies (i.e., store image) that may play an important role in the consumers' foreign grocery retail store patronage intention/decision.

1.2.3 Customer loyalty

Research on store image has generally examined the customer loyalty construct as a consequence of consumers' store patronage intention/decision (e.g., Kunkel and Berry, 1968; Enis and Paul, 1970; James, Walker and Etzel, 1975; Babin and Attaway, 2000; Carpenter and Fairhurst, 2005), because this construct provides international retail managers with an in-depth understanding of its in-store customers' loyalty level, and a tool to identify variable(s) that may attract and retain the loyalty of its in-store customers. The ability of retailers to attract and retain store loyal customers is a key competitive advantage in a globalised retail environment (i.e., influx of foreign retailers and threats posed by domestic retailers) because past studies have consistently shown that retailers with the highest number of loyal customers own the largest share of the market (e.g., Enis and Paul, 1970; Fornell

and Wernerfelt, 1987; Chaudhuri and Holbrook, 2001), store loyal customers allocate much larger proportions of their expenditures to their first choice stores than do less store loyal customers (Enis and Paul, 1970), and loyal customers are less likely to switch allegiance to rival stores (e.g., Reichheld and Teal, 1996; Rhee and Bell, 2002). As such, the relationship between customer store patronage intention and customer loyalty is in need of investigation.

Given the importance of this customer loyalty construct in the marketing and retailing literature as aforementioned, it is surprising that

1. No known studies in the consumer ethnocentrism (CET) literature have investigated the relationship between CET, willingness to shop in foreign retail stores, and customer loyalty (i.e., CET -> willingness to shop -> customer loyalty).
2. No known studies in the shopping orientation literature have examined the relationship between hedonic and utilitarian shopping values and customer loyalty towards foreign grocery retailers in the PRC (i.e., hedonic and utilitarian shopping values -> customer loyalty).

In the former, although consumers who are willing to shop in specific retail stores are likely to develop store loyalty intentions toward these retailers (i.e., attitudinal loyalty) and subsequently, are likely to spend more time and money in these retail stores (i.e., behavioural loyalty) (e.g., Babin and Attaway, 2000; Reynolds and Arnold, 2000; Carpenter and Fairhurst, 2005), it is not a foregone conclusion that this linear relationship (i.e., willingness to shop -> attitudinal loyalty -> behavioural loyalty) is applicable to every consumer segment and retail context. This is because consumers who hold high CET levels are likely to reject foreign retail stores and are thus not likely to exhibit store loyalty intentions toward foreign retailers. Since international retail managers need to know which variable(s) hinders the consumers' intention to be store loyal, this relationship (i.e., CET -> willingness to shop -> customer loyalty) is in need of investigation, i.e., are ethnocentric consumers likely to exhibit loyalty intentions toward foreign retailers?.

In the latter, previous research indicates that utilitarian and hedonic values are significant positive predictors of retail brand and product brand loyalty (e.g., Babin and Attaway, 2000; Chaudhuri and Holbrook, 2001; Carpenter and Fairhurst, 2005). Nevertheless, recent findings suggest that utilitarian value is negatively related to retail brand loyalty (e.g., Ailawadi, Neslin and Gedenk, 2001; Stoel, Wickliffe and Lee, 2004), particularly in the PRC (e.g., Lo, Lau and Lin, 2001; Li et al., 2004). That is, findings on the relationship between utilitarian value and customer loyalty are still inconclusive to date, which might be due to the different contexts (e.g., types of retail stores, samples from different countries) where past studies were undertaken. Research into this gap is important because it is not a foregone conclusion that the relationship between the PRC consumers' hedonic and utilitarian shopping values and their intended loyalty towards foreign grocery retail stores will be the same for other types of foreign retail formats (as detailed in Section 1.2.2). Furthermore, the application of attitudinal loyalty in retailing, particularly grocery retailing, is still a relatively recent occurrence (Rafiq and Fulford, 2005).

Therefore, the nature of this relationship (i.e., hedonic and utilitarian shopping values -> attitudinal loyalty) in the PRC context needs examination. An international retailer's ability to attract and retain loyal customers, especially in foreign markets, requires an in-depth understanding of the consumers' hedonic and utilitarian shopping values that involves considerable long-term resource commitment to service its targeted consumer segment. Hence, in light of the debate concerning the role that the utilitarian value construct may have on the consumers' loyalty intentions toward retailers, the relative costs and benefits of positioning retail stores to attract utilitarian-oriented consumers is in need of investigation.

1.2.4 Researchers' methodological concern regarding the CETSCALE

Lastly, researchers have stressed the importance of including measures of social desirability bias in empirical studies, especially in cross-cultural or cross-national research (e.g., Crowne and Marlowe, 1960, 1964; King and Bruner, 2000; Harkness, Van de Vijver and Mohler, 2003). Social desirability bias is particularly important when conducting research in Asian countries because Asian consumers generally have a tendency to provide socially desirable answers (Schutte and Ciarlante, 1998; Briley, Morris and Simonson, 2000; Middleton and Jones, 2000), and socially desirable answers reduce the reliability and validity of the construct measurements and consequently the reliability of the research findings (Craig and Douglas, 2000; King and Bruner, 2000; Harkness, Van de Vijver and Mohler, 2003).

Given that (1) researchers have argued for the need to establish the reliability and validity of the CETSCALE in countries where consumers are likely to exhibit strong social desirability bias (Hult, Keillor and Lafferty, 1999; Keillor, D'Amico and Horton, 2001), and (2) as CET is the most important variable in this study, it is important to establish the construct equivalence of the CETSCALE (i.e., CET measurement instrument) in the PRC. Note that no known studies have assessed the CETSCALE in the PRC context. Hult, Keillor and Lafferty's (1999) study was conducted in the U.S., Sweden and Japan, and Keillor, D'Amico and Horton's (2001) study was conducted in the U.S., France and Malaysia. As such, the relationship between socially desirable response bias and the CETSCALE (as well as the other construct measurements in this study) needs examination.

1.2.5 Summary of research gaps

To summarise, six important research gaps are identified and addressed in this study:

1. No known studies that identified or empirically tested utilitarian value as a moderator of the relationship between consumer ethnocentrism (CET) and the consumers' willingness to shop in foreign grocery stores.
2. No known CET studies conducted in the PRC that assessed the impact of CET on consumers' willingness to shop in foreign grocery stores.
3. No known multiple-cue country-of-origin (COO) studies that simultaneously examined the COO cue and store brand cue in the context of consumer store patronage intention towards foreign grocery stores.
4. No known studies in the CET literature that extended the conceptual framework beyond the 'willingness to shop' decision to customer loyalty.
5. No known studies in the shopping orientation literature that investigated the relationship between hedonic and utilitarian shopping values and customer loyalty towards foreign grocery retailers in the PRC context.
6. No known CET studies that assessed the impact of socially desirable response bias on the robustness of the CETSCALE in the PRC.

1.3 Research Objectives

The objectives of this study follow from the aforementioned research gaps and are centred on the generation of empirical evidence in the context of consumers' evaluations and intended patronage of foreign grocery retail stores in the People's Republic of China (PRC).

1. To investigate the impact of country-of-origin (COO) cue, store brand cue, consumer ethnocentrism (CET), hedonic value, and utilitarian value on consumers' willingness to shop in foreign grocery stores.
2. To investigate the moderating effect of utilitarian value on the relationship between consumer ethnocentrism (CET) and the consumers' willingness to shop in foreign grocery stores.
3. To investigate the impact of consumer ethnocentrism (CET) on consumers' store loyalty intentions toward foreign grocery retailers.
4. To investigate the impact of hedonic value and utilitarian value on the consumers' loyalty (i.e., attitudinal loyalty and behavioural loyalty) towards foreign grocery retailers.
5. To investigate the impact of socially desirable response bias on the robustness of the CETSCALE (i.e., instrument to measure consumer ethnocentric tendencies).

The attainment of these objectives is important for a number of reasons. First, as detailed in Section 1.1, the PRC is an emerging market that has attracted strong interest from international retailers, and hypermarket retailers such as Walmart and Carrefour are the leading retailers in the PRC today (The Economist, 2001, 2004). Given the importance of international grocery retailers in the PRC's retail sector development, relatively little is known about the consumers' attitudes, values and shopping orientation toward international grocery retailers in the PRC. As such, the empirical results in this study will be able to provide insights into which factor(s) is/are important to the PRC consumers' foreign grocery retail store patronage decisions. Specifically, consumers are likely to use one or more of their cognitive (i.e., perceptions and evaluations of retail stores from the country-of-origin and store brand cues), affective (i.e., utilitarian and/or hedonic values), and/or normative

(i.e., negative attitudes toward foreign grocery retailers due to consumer ethnocentrism) elements to evaluate foreign grocery retailers, and these evaluations assist them to make decisions on whether to patronise or not to patronise foreign grocery retail stores. The results in this study may help to provide substantive conclusions concerning the antecedents of the PRC consumers' foreign grocery store patronage intentions, and further our understanding of the interaction between these three elements (i.e., cognitive, affective and normative) in the PRC consumers' foreign grocery retail store evaluative criteria.

The second objective aims to determine whether utilitarian value moderates the impact of CET on consumers' reluctance to shop in foreign retail stores. Although it is valuable to understand that CET is real and strong in numerous countries (e.g., Good and Huddleston, 1995; Klein, Ettenson and Morris, 1998; Klein and Ettenson, 1999; Kucukemiroglu, 1999; Balabanis et al., 2001, Steenkamp, Batra and Alden, 2003), it is theoretically insufficient because it does not advance our understanding of how its effect may be counteracted. In this respect, this finding will significantly contribute to our understanding of variables that may offset the impact of CET, an issue that is much neglected in the CET literature.

With reference to the third objective, it is theoretically insufficient to recognise that CET is a significant negative predictor of consumers' foreign retail store patronage intentions and yet, not extend our understanding of how this relationship may affect consumers' loyalty towards foreign retailers, particularly since customer loyalty is such an important construct in the marketing and retailing literature today (e.g., Fornell and Wernerfelt, 1987; Reichheld and Sasser, 1990; Hallowell, 1996; Reichheld and Teal, 1996; Babin and Attaway, 2000; Rafiq and Fulford, 2005). Based on the findings from previous studies, ethnocentric consumers are reluctant to patronise foreign retail stores (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002). Ethnocentric consumers are thus likely to exhibit low store loyalty intentions toward foreign retailers since they are reluctant to shop in foreign retail stores. Nevertheless, this relationship has not been tested in any prior consumer ethnocentrism studies. Hence, it would be erroneous to assume that ethnocentric consumers are not loyal towards foreign retailers without actually testing this relationship. As such, the results in this study may provide conclusive empirical evidence for this relationship and

broaden our understanding of the consequences corresponding to the consumer ethnocentrism effect.

The next objective of this study is to investigate the relationship between hedonic value, utilitarian value, and customer loyalty (i.e., attitudinal and behavioural loyalties). As detailed in Section 1.2.3, findings on the relationship between utilitarian value and customer loyalty are still inconclusive to date, and the application of attitudinal loyalty in retailing, particularly grocery retailing, is still a relatively recent and rare occurrence. Hence, the analysis conducted in this research should contribute to a greater understanding of this relationship in the context of grocery retailing in the PRC. That is, the results of this study may provide insights into the utilitarian-oriented and hedonic-oriented PRC consumers' likelihood to be loyal to foreign grocery retailers.

The final study objective is to examine the robustness of the CETSCALE against socially desirable response bias. Given that consumer ethnocentrism is the most important construct in this study, it is prudent to examine the CETSCALE for its robustness against socially desirable response bias so as to increase the reliability of this research's findings, especially in countries such as the PRC where social desirability bias is common (e.g., Schutte and Ciarlante, 1998; Briley, Morris and Simonson, 2000; Middleton and Jones, 2000). Specifically, the results reported in this study may be perceived to be more reliable if socially desirable response bias does not affect the reliability of the measurement properties of the CETSCALE when the CETSCALE is administered in a country where the consumers have been found to exhibit socially desirable response bias. This also applies to the other constructs in this study, where measures for the constructs are examined for socially desirable response bias.

There are also practical benefits to be gained by undertaking this study. Perhaps the most significant of these concerns the moderating effect of utilitarian value on the relationship between consumer ethnocentrism and consumers' reluctance to shop in foreign retail stores. Suppose that utilitarian value is a significant moderator of this relationship, international retailers may be able to use utilitarian value as a strategic marketing tool to counteract the

effect of consumer ethnocentrism. In other words, international retailers can position their retail stores towards an utilitarian orientation so as to attract the ethnocentric consumers to their retail stores. This finding will be particularly useful for international retailers venturing into the PRC, where 70% of the PRC consumers sampled in Beijing, Shanghai, Guangzhou and Chengdu were familiar with foreign retailers but preferred to shop in domestic retail stores because “I’m Chinese”, “I love my country”, and “for the interest of Chinese business” (Chain Store Age, 2003, p.53).

The results from this study may also be valuable for international grocery retailers who intend to enter or have already set up grocery retail stores in the PRC. The findings regarding foreign grocery retail store evaluative criteria (i.e., cognitive, affective and normative elements) that PRC consumers utilise in their store patronage decision may assist international grocery retailers to better understand the general grocery shopping motives of the PRC consumers and their perceptions of foreign grocery retail stores. Likewise, the findings regarding customer loyalty may provide useful information for international grocery retailers in terms of identifying which consumer segment in the PRC (i.e., low ethnocentric consumers versus high ethnocentric consumers, utilitarian-oriented consumers versus hedonic-oriented consumers) are likely to be loyal to foreign grocery retailers. This information may potentially provide a strong platform for international retailers to sustain and increase their presence in the PRC, where the grocery retailing sector is becoming increasingly competitive with the emergence of domestic grocery retailers as well as the influx of foreign grocery retailers.

Three important issues here concern whether the research objectives should be framed (1) to be more representative of the PRC urban and rural population by sampling consumers from a few Chinese cities or to focus on the population from one Chinese city, (2) to generalise foreign retail stores that encompass all types of retail formats or to focus on one specific type of retail format, and (3) to obtain the opinions of the general public or those who shop in domestic and foreign retail stores. PRC is not a homogeneous market and the consumers from various regions, as well as those from rural and urban areas, have different values, lifestyles and customs (e.g., Yao, 1999; Cui and Liu, 2001; Sun and Wu, 2004). In order to

obtain a representative sample of the PRC consumers, the research has to be undertaken in various regions of the PRC that include samples from urban and rural consumers. Since this study is an initial test of a consumer ethnocentrism model of foreign retail store patronage, this study is framed in an exploratory context and the findings in this study are thus not meant to be generalised across the entire PRC population. Instead, the aim of this study is to provide researchers with ideas for future exploration and/or to develop a more substantive consumer ethnocentrism model of foreign retail store patronage that may be equally applicable in other retail and country context. As such, the sampling population in this study is consumers from Beijing because Beijing is the capital city of the PRC and is also perceived to be one of the most cosmopolitan cities in the PRC associated with adaptations of new retail formats (Mai and Zhao, 2004).

The next issue relates to generalising foreign retail stores that encompass all types of retail formats or to focus on one specific type of retail format in this study. Since shopping orientation research is store-specific (e.g., Bellizzi and Bristol, 2004; Mai and Zhao, 2004; Moschis, Curasi and Bellenger, 2004; Carpenter, Moore and Fairhurst, 2005), it is not possible to generalise foreign retail stores that include all types of retail formats because consumers have different shopping motives when they patronise different types of retail store formats. For instance, utilitarian value is likely to moderate the impact of consumer ethnocentrism in retail formats associated as utilitarian-oriented, but is not likely have a moderating effect in retail formats associated as hedonic-oriented. As such, any investigation of hedonic and utilitarian shopping values as moderators on the impact of consumer ethnocentrism has to first verify the retail context in which the study is going to be undertaken. In this respect, this study focuses on grocery retailers because there are few studies in the country-of-origin, consumer ethnocentrism, shopping orientation and customer loyalty literature that examined foreign grocery retailers in the PRC.

The last issue relates to obtaining the opinions of the general public or the opinions of consumers who specifically shop in domestic and foreign grocery retail stores. On the one hand, opinions from the general public may be more representative with respect to the attitudes, values and shopping orientation of the sampling population (i.e., Beijing

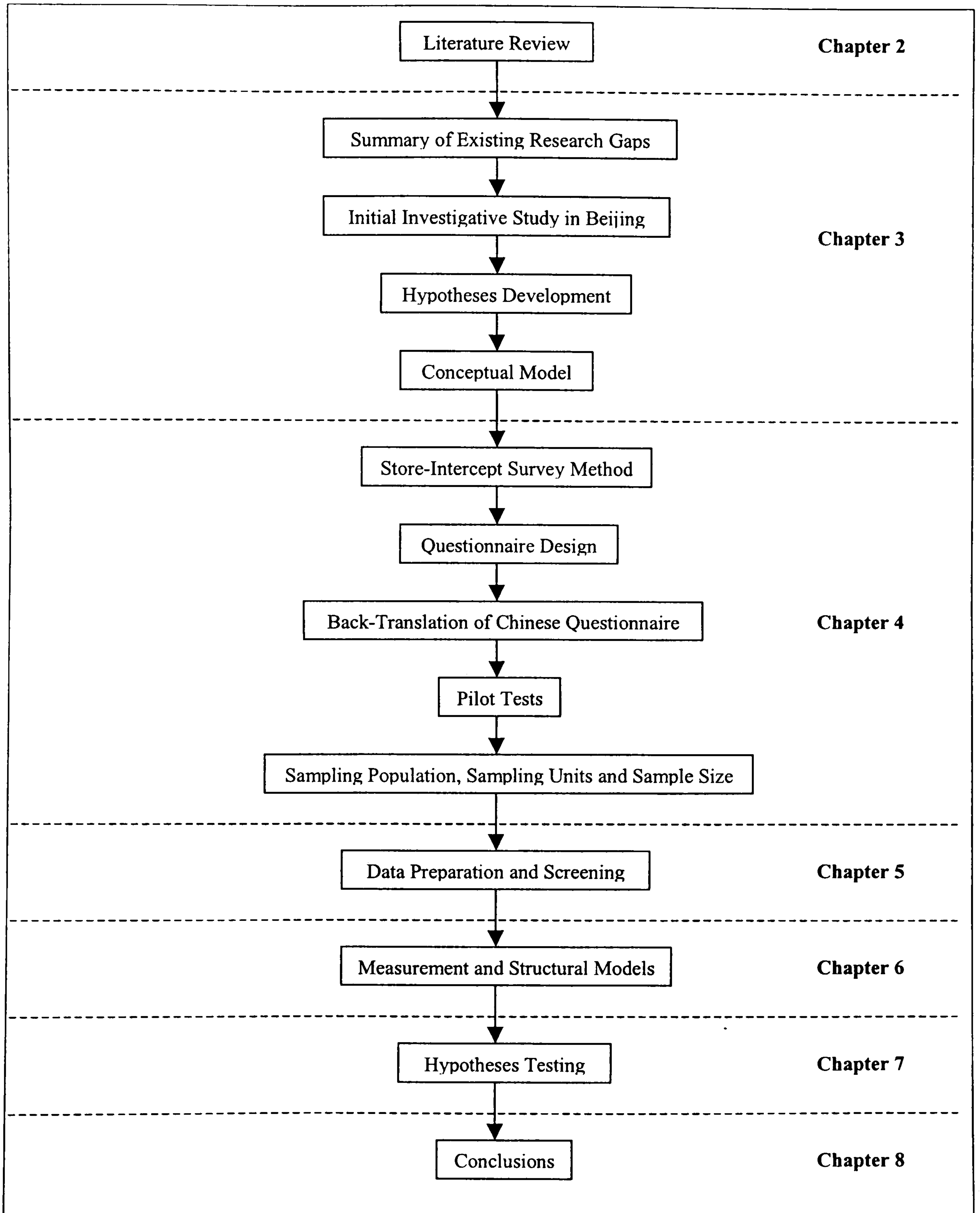
consumers). On the other hand, consumers who shop in domestic and foreign grocery retail stores may be more knowledgeable about shopping in the respective grocery retail stores and hence, may be better able to provide in-depth information about store-oriented information (Bush and Hair, 1985). Given due consideration, this study employs the latter sampling method of administering the survey to Beijing consumers who shop in domestic and foreign grocery retail stores because the two samples provide a means of comparing whether there are any differences in attitudes, values and shopping orientation of the Beijing consumers who shop in domestic grocery retail stores and those who shop in foreign grocery retail stores. That is, if there are no differences in attitudes, values and shopping orientation between these two samples, findings from these two samples may be generalised to Beijing consumers who shop in grocery retail stores. However, if significant differences are detected, these findings will contribute to our understanding of the determinants of foreign retail store patronage between Beijing consumers who shop in domestic grocery retail stores and those who shop in foreign grocery retail stores.

For these reasons, the decision was made to focus the research on consumers who shop in domestic and foreign grocery retail stores in one Chinese city (i.e., Beijing). In order to achieve the objectives outlined above, this study is organised as follows.

1.4 Outline of Thesis Structure

The thesis is structured into eight chapters (including present chapter), as illustrated in Figure 1.1.

Figure 1.1
Research overview and thesis structure



Chapter 2 provides a literature-based assessment of the country-of-origin, consumer ethnocentrism, shopping orientation and customer loyalty constructs. The various philosophical perspectives of the constructs are discussed and any contradicting findings resulting from previous research in relation to the respective constructs are highlighted. Specifically, the constructs are first discussed with respect to their main conceptual components, followed by an in-depth review of past and recent studies that examined various aspects of the respective constructs, such as the impact of each construct and its implications in consumer research studies, the conceptual evolution of each construct from its introduction in the marketing or retailing literature till present day research, empirical evidence of the constructs' antecedents and consequences, possible lack of conclusive findings drawn from previous studies, and/or empirical validation of the constructs in cross-cultural and/or cross-national research, particularly in the context of the PRC.

In Chapter 3, existing research gaps are summarised from the review of the respective literature in Chapter 2, and these research gaps are explicitly identified as this study's contribution to enhancing knowledge in the respective literature. Following from this, hypotheses regarding the research gaps are described in the context of Beijing consumers and their perceptions and evaluations of foreign grocery retailers, where the hypotheses were developed from previous empirical evidence as well as findings from an investigative study (of focus group studies and structured interviews) conducted in Beijing. Finally, a conceptual model corresponding to the hypotheses is detailed, whereby this conceptual model is the foundation for testing the sampled data using structural equation modelling.

Chapter 4 presents a description of the methodology employed to investigate the conceptual model quantitatively. First, the chosen quantitative data collection method, store-intercept survey approach, is detailed and the limitations of this method are discussed and addressed in the actual store-intercept survey in Beijing. Next, justifications for the scales adopted from previous studies to measure the constructs are described. The scales are then compiled in a questionnaire format (i.e., measurement instrument) that is translated into Chinese for use in the store-intercept survey in Beijing. Details of the back-translation process for the Chinese questionnaire, as well as the two pilot tests to enhance the construct equivalence of

the measurement instrument to the Beijing consumers, are outlined. Finally, the sampling population, sampling units and sample size in this study are discussed.

The next three chapters are concerned with analysing the data obtained from the store-intercept survey in Beijing. In Chapter 5, the procedures undertaken to ensure that the data in the SPSS spreadsheet is consistent with those in the collected Chinese questionnaires are first described. Next, the raw data is examined for severity of missing data, and justifications for using the multiple imputation method to solve the missing data issue is detailed. Lastly, details of outliers and normality in the multiple imputed datasets, as well as justifications for not using data transformation to resolve non-normality in the two datasets, are provided.

Chapter 6 deals with analysing the two multiple imputed datasets using structural equation modelling via AMOS 5.0. General issues relating to structural equation modelling, which include a summary of the goodness-of-fit indexes used in this study, are first discussed. Next, the three-step structural equation modelling procedure (i.e., analysis strategy), namely single construct measurement model, full measurement model and structural model, undertaken to analyse the two datasets are detailed. Following from this, results corresponding to the analyses of the two datasets are provided, which include (1) reliability (i.e., composite reliability and average extracted variance values) and validity (i.e., convergent validity and discriminant validity) of the two datasets corresponding to the indicators in this study's constructs (or latent variables), (2) adequacy of model fit (i.e., measurement and structural models) for the two datasets, and (3) nested model comparison between the two datasets (i.e., multiple group analysis). In addition, details of the robustness of this study's results (i.e., path coefficients and t-values) to data non-normality via bootstrapping are discussed.

Chapter 7 is the final analysis chapter, in which the consumer ethnocentrism model of foreign retail store patronage developed in Chapter 3 is tested. Specifically, the results attained in Chapter 6 are examined vis-à-vis the hypotheses developed in Chapter 3. Since one of the hypotheses requires an evaluation of moderating effects, the procedures undertaken to examine latent variable interactions using structural equation modelling is

detailed, including justification for using Ping's (1996a) two-step estimation method. Next, although results for the two datasets in relation to this study's hypotheses are presented separately, a summary of the tested hypotheses for the two datasets is discussed in the last section of this chapter. Finally, the last section includes a discussion of the total effects (i.e., path analysis) that each exogenous construct in the structural equation models has on the decisive endogenous construct (i.e., 'customer share' construct).

Chapter 8 concludes the thesis, drawing together the findings outlined in the previous chapters. A discussion of the research findings with reference to previous empirical evidence is first provided. Next, the significance of the research findings is examined and both the academic and managerial implications are discussed. Finally, an evaluation of the limitations of this study is presented and several recommendations for future research are proposed.

2.0 REVIEW OF LITERATURE

The aim of this section is to provide a literature-based assessment of the country-of-origin, consumer ethnocentrism, shopping orientation and customer loyalty constructs in order to identify existing theoretical gaps in the respective research streams to be addressed in this study. The first three constructs are proposed to be antecedents, whilst the last construct is proposed to be the consequence, of foreign retail store patronage intention. These four constructs are discussed separately with respect to their main conceptual components and previous empirical findings, and provide the theoretical foundation for this research's proposed consumer ethnocentrism model of foreign retail store patronage.

The notion of consumer ethnocentrism finds its roots in the country-of-origin literature, where consumers were found to exhibit strong preferences for domestic-made products. Reasons for this domestic bias ranged from negative perceptions of imported products to feelings of patriotism (Bilkey and Nes, 1982; Netemeyer, Durvasula and Lichtenstein, 1991; Sharma, Shimp and Shin, 1995; Balabanis et al., 2001). Despite the existence of numerous country-of-origin studies, these findings were generally inconclusive, in part due to the use of single-cue models versus multiple-cue models (Bilkey and Nes, 1982). The impact that this methodological limitation has on the saliency of the country-of-origin cue is discussed in Section 2.1.

The consumer ethnocentrism concept has been a popular research topic in the marketing literature ever since Terence Shimp and Subhash Sharma introduced the CETSCALE (i.e., an instrument to measure consumers' ethnocentric tendencies) in 1987. The consumer ethnocentrism concept is prominent because numerous empirical results have consistently shown that consumers from various developed and developing countries believe it is inappropriate to purchase imported products (e.g., Netemeyer, Durvasula and Lichtenstein, 1991; Klein, Ettenson and Morris, 1998; Balabanis et al., 2001). However, few studies examined the negative relationship between consumer ethnocentrism and foreign retail store patronage (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002). Hence, this study attempts to provide further empirical insights into this relationship. As such, the

emergence of the consumer ethnocentrism concept in the marketing literature and its impact on consumers' preference for domestic-made products and domestic-owned retail stores are discussed in Section 2.2.

Another concept that emerged from the retailing literature to explain consumers' store patronage behaviour is shopping orientation, i.e., utilitarian and hedonic shopping values (Babin, Darden and Griffin, 1994). Consumers who hold different shopping values have dissimilar needs in their choice of retail stores (Hirschman and Holbrook, 1982; Batra and Ahtola, 1991; Babin, Darden and Griffin, 1994). These two dimensions of shopping orientation are discussed in Section 2.3. Studies on shopping orientation have also indicated that utilitarian and hedonic values are positively related to behavioural loyalty (Babin and Attaway, 2000) and attitudinal loyalty (Carpenter and Fairhurst, 2005). A discussion of the customer loyalty concept is presented in Section 2.4. Lastly, a chapter summary is provided in Section 2.5.

2.1 Country-Of-Origin (COO)

Consumer research studies have shown that consumers use various information cues in their purchasing decisions. A cue is defined as an information stimulus available to consumers prior to consumption of goods and/or services (Monroe and Krishnan, 1985), and a cue can be intrinsic (e.g., taste, design and performance) or extrinsic (e.g., country-of-origin, brand name and price) (Olson and Jacoby, 1972; Rao and Monroe, 1988). Previous research indicates that consumers are likely to use extrinsic cues in the absence of intrinsic cues (Jacoby, Olson and Haddock, 1971; Olson and Jacoby, 1972; Jacoby, Syzbillo and Busato-Schach, 1977), or when consumers are not familiar or experienced with the products (Johansson, Douglas and Nonaka, 1985; Han and Terpstra, 1988). They would thus infer product quality from the country where the product originated or was manufactured (Papadopoulos and Heslop, 1993), and/or from their perceived image of a product by its brand name, physical attributes, packaging, advertising or price (Ahmed and d'Astous, 1996).

The country of origin (COO) of a product is an important extrinsic cue that is used as a surrogate for product performance, particularly when consumers are unfamiliar with products of foreign origins (Bilkey and Nes, 1982; Huber and McCann, 1982; Cordell, 1992; Elliott and Cameron, 1994). Despite the presence of other extrinsic cues (e.g., brand name, warranty, price), empirical evidence suggests that the COO cue may be the most salient and enduring one in consumers' perception and evaluations of product quality and purchase intent (e.g., Han and Terpstra, 1988; Tse and Gorn, 1993; Ahmed and d'Astous, 1996). The earliest COO study may be traced back to Schooler's (1965) seminal work. In this study, two products (i.e., juice sample and fabric sample) were manipulated to be identical in all aspects except for their country of origin, and the results showed that consumers do not evaluate products from different countries equally.

Since then, a plethora of empirical studies have reported the saliency of the COO effect on consumer product judgement and their buying intentions (c.f. Bilkey and Nes, 1982; Ozsomer and Cavusgil, 1991; Papadopoulos and Heslop, 1993; Peterson and Jolibert, 1995; Verlegh and Steenkamp, 1999). For instance, Peterson and Jolibert (1995) identified about 187 academic articles relating to COO, whereas a number closer to 300 was mentioned by Nebenzahl, Jaffe, and Usunier (2003) (refer to Appendix 1 for a review of commonly cited papers on single-cue and multiple-cue COO studies). In addition, Al-Sulaiti and Baker (1998) provided a comprehensive review of the COO literature spanning from 1965 to early 1997, where they identified 118 articles, summarised the findings, and segmented the findings according to the different dimensions of the COO effect. Researchers' interest in the COO effect does not seem to be declining in recent years: there were more than 20 academic articles published in various journals on the COO effect in the period from 2003 to 2005 (Table 2.1).

Table 2.1
Literature review of COO effects from 2003 to 2005

No.	Author(s)	Journal	Location	Population	Category	Findings
1	Moon (2004)	Advances in Consumer Research	Korea	University Students	Product	Regardless of consumers' ethnocentrism, low-knowledge consumers' product attitude is more strongly influenced by COO perception than high-knowledge consumers' product attitude.
2	Chiou (2003)	Psychology & Marketing	Taiwan	University Students	Product	COO as 'made-in' cue had an impact on the pretrial expectation in both the novice and expert group, regardless of the ambiguity of the product performance.
3	Hui and Zhou (2003)	European Journal of Marketing	USA	University Students	Product	COO as 'made-in' cue produces more negative effects on product evaluations for low equity brands than high equity brands when a branded product is made in a country with a less reputable image than that of the brand origin.
4	van Ittersum, Candel and Meulenberg (2003)	Journal of Business Research	Netherlands	Public	Product	COO as country image cue is positively related to product preference, but this effect is product-specific.
5	Jo, Nakamoto and Nelson (2003)	Journal of Business Research	USA and Australia	University Students	Product	Results from two studies indicated that a strong brand image provides effective protection against countries with low quality images (i.e., COO as country image cue).
6	Ruth and Simonin (2003)	Journal of Advertising	USA	University Students and Staff	Product	No home-country bias (i.e., COO as country image cue) but evaluations of events are penalised when sponsored by domestic rather than foreign brands whose products are controversial.
7	Nebenzahl, Jaffe and Usunier (2003)	Management International Review				Developed a multidimensional summated rating scale for the personification of country image as products source for use in cross-country COO studies.
8	Andersen and Chao (2003)	Management International Review				Literature review on COO effects on global industrial sourcing, as well as develop a conceptual model and propositions in the context of industrial buying decisions.
9	Thakor and Lavack (2003)	Journal of Product and Brand Management	Canada	University Students	Product	Consumers are highly influenced by knowing the country where the brand is owned (i.e., COO as country image cue), and less influenced by knowing the country where the product's parts are made or where the product is assembled (i.e., COO as 'made-in' cue).

No.	Author(s)	Journal	Location	Population	Category	Findings
10	Orth and Firasova (2003)	Agribusiness	Czech Republic	Public	Product	COO as country image cue is more likely to be evoked when the product requires high involvement, and the COO effect may diminish as the amount of information available to the consumer increases.
11	Balabanis and Diamantopoulos (2004)	Journal of the Academy of Marketing Science	United Kingdom	Public	Product	Home country (i.e., COO as country image cue) products are not consistently favoured, further supporting findings from previous studies that the COO effect is product-specific.
12	Wang, Siu and Hui (2004)	European Journal of Marketing	China	Public	Product	Consumers who prefer to buy imported brand clothing (i.e., COO as country image cue) tend to have a unique lifestyle and shopping orientation that differ from those who prefer domestic brand clothing. However, COO cue was associated with branded foreign products (i.e., not a multiple-cue COO study).
13	Ahmed et al. (2004)	International Marketing Review	Singapore	University Students and Public	Product	COO as country image cue is important in consumers' evaluation of low-involvement products but, in the presence of other extrinsic cues (price and brand), the impact of COO is weak and brand becomes the determinant factor.
14	Hsieh, Pan and Setiono (2004)	Journal of the Academy of Marketing Science	Multiple Countries; data set owned by MORPACE International	Public	Product	brand-purchase behaviour is positively affected by consumers' feelings toward the corporate image and country image (i.e., COO as country image cue) of an individual brand in developed and developing countries. In other words, COO is positively related to consumers' perceptions and product purchase intentions.
15	Insch and McBride (2004)	Journal of Business Research	USA and Mexico	Students (USA) and Public (Mexico)	Product	COO as 'made-in' cue is positively related to product evaluation. However, this effect varies between US and Mexican consumers with respect to the importance of country of product design, assembly and parts.
16	Ahmed and d'Astous (2004)	Journal of Fashion Marketing and Management	China	Public	Product	COO as 'made-in' cue is more positively for products made in highly industrialised countries than for those made in newly industrialised countries. Perception of T-shirt quality was strongly related to price and product satisfaction assurance, whereas perception of T-shirt purchase value was mainly linked to satisfaction assurance.
17	Paswan and Sharma (2004)	Journal of Product and Brand Management	India	Public	Product	COO as country image cue is positively related to accuracy of brand-COO knowledge, whereas COO image is negatively related to inaccurate brand-COO knowledge.

No.	Author(s)	Journal	Location	Population	Category	Findings
18	Agarwal and Teas (2004)	Journal of Product and Brand Management	Sweden	University Students	Product	COO as country-image cue has a significant positive relationship with perceptions of quality in the case of ski-jackets but not in the case of sunglasses, i.e., COO effect is product-specific. Perceived quality mediates the relationships between brand, store, and COO and performance risk.
19	DeLong et al. (2004)	Journal of Fashion Marketing and Management	China	Public	Product	US brands (i.e., COO as country image cue) were evaluated more positively than Chinese brands on attributes of design innovation, workmanship, brand image, service and display of products. Chinese brands received more positive marks on fit and price satisfaction.
20	Wang and Chen (2004)	Journal of Consumer Marketing	China	Public	Product	COO as country image cue has a significant positive moderating effect on the relationship between consumer ethnocentrism and consumers' willingness to buy domestic products.
21	Laroche et al. (2005)	International Marketing Review	USA	Public	Product	COO as country image cue and product beliefs affect product evaluations simultaneously regardless of consumers' level of familiarity with a country's products.
22	Pereira, Hsu and Kundu (2005)	Journal of Business Research	China, Taiwan and India	University Students	Product	Validation of Parameswaran and Pisharodi's (1994) country image instrument using data from China, Taiwan and India.
23	Verlegh, Steenkamp and Meulenberg (2005)	International Journal of Research in Marketing	Germany	Public	Product	COO as country image cue strongly influences consumer product evaluations, even in the presence of additional information presented by ad claims. Consumer use COO as a cognitive shortcut, a strategy that is relied upon when consumers seek to minimise cognitive efforts.
24	Miyazaki, Grewal and Goodstein (2005)	Journal of Consumer Research	USA	University Students	Product	When intrinsic information is scarce, the relationship is more pronounced when a positive price cue is paired with a positive second cue (e.g., strong warranty, positive COO as country image cue, or strong brand). When the two cues are inconsistent, consumers find the negative cue more salient and overwrite it in their evaluations.
25	Liu and Johnson (2005)	Journal of Advertising	USA	Public	Product	COO as 'made-in' cue and country image cue were scored and the countries with the highest (Japan) and lowest (China) scores were used for evaluation. COO effects occurred automatically and contributed to product evaluations without participants' intention or control. Country stereotype can alter evaluations of brands about which the individual has information sufficient to allow for an unbiased judgement.

COO effects have generally been conceptualised as either a ‘made-in’ cue or ‘country stereotype or image’ cue in previous research. One important issue that a large number of past COO studies failed to address was the distinction between consumers’ perception of the country where the product was manufactured/assembled (e.g., Sony assembled in Indonesia – COO as a ‘made-in’ cue) and the country that a product is associated with (e.g., Sony from Japan – COO as a ‘country image’ cue) (Samiee, 1994). The ‘made-in’ cue is mostly important in the product category, particularly when the products are designed in one country, the parts are sourced from another country and the products are assembled in yet another country (e.g., Nagashima, 1970; Erickson, Johansson and Chao, 1984; Johansson, Douglas and Nonaka, 1985; Han and Terpstra, 1988; Hong and Wyer, 1989; Khachaturian and Morganosky, 1990; Roth and Romeo, 1992; Tse et al., 1996; Kim and Pysarchik, 2000; Hui and Zhou, 2003; Thakor and Lavack, 2003; Liu and Johnson, 2005). Findings from these studies generally concurred that the ‘made-in’ cue influenced consumers’ perception and evaluation of foreign products, i.e., products made in countries with positive image such as the U.S., Japan and Italy are perceived favourably, and vice versa (e.g., Tse and Gorn, 1993; Ahmed and d’Astous, 1996; Zhang, 1996).

In contrast, country stereotype, also known as country image, is commonly referred to as the impact of generalisations and perceptions about a country, its citizens and its culture on consumers’ evaluation of the country’s products (Nagashima, 1970). According to Nagashima (1970, pp.68), country image is “the picture, the reputation, the stereotype that businessmen and consumers attach to products of a specific country. This image is created by such variables as representative products, national characteristics, economic and political background, history, and traditions”. Findings from previous studies indicate that consumers draw inferences from country images in their evaluation of product qualities (Reiersen, 1966; Gaedeke, 1973; Etzel and Walker, 1974; Darling and Kraft, 1977; Bannister and Saunders, 1978; Kaynak and Cavusgil, 1983; Wang and Lamb, 1983; Hsieh, Pan and Setiono, 2004). However, a number of studies suggest that the level of impact that the COO effect, either as a ‘made-in’ cue or country image cue, has on consumers’ product judgement is product-specific and country-specific (Cattin, Jolibert and Lohnes, 1982; Kaynak and Cavusgil, 1983; Papadopoulos et al., 1987; Balabanis and Diamantopoulos, 2004).

The influence of country image cue on consumers' perception and evaluation has also been found to affect the services industry, such as airliners (Kaynak, Kucukemiroglu and Kara, 1994; Bruning, 1997), ophthalmology (Harrison-Walker, 1995), seminars (Shaffer and O'Hara, 1995), and sponsored events (Ruth and Simonin, 2003). Despite the existence of a relatively large number of COO studies conducted in the PRC, where most of these studies was related to the fashion apparel industry and the findings were generally consistent with the positive relationship between COO and perceptions and evaluations of foreign products and retailers (e.g., Thorelli, 1985; Vernon-Wortzel and Wortzel, 1987; Yau, 1988; Brunner, Flaschner and Lou, 1993; Zhang, 1996; Li, Fu and Murray, 1997; Siu and Ming-Chang, 1997; Ahmed and d'Astous, 2004; DeLong et al., 2004; Dickson et al., 2004; Wang and Chen, 2004; Wang, Siu and Hui, 2004), no known studies have been found to investigate COO effects on consumers' perceptions of grocery-related retailers in the People's Republic of China (PRC).

Furthermore, findings from the aforementioned studies were generally inconclusive; in part due to the use of single-cue COO models versus multiple-cue COO models, and in part, due to the extensive use of student populations in most studies (Bilkey and Nes, 1982). Previous research has indicated that the COO effect is salient only when COO is the only cue available to consumers, whilst this effect is less significant in the presence of other information cues. For instance, brand name, as an extrinsic cue, has a negative effect on the saliency of the COO cue in some studies (e.g., Chao, 1989a; Teas and Agarwal, 2000), but not in others (e.g., Han and Terpstra, 1988; Tse and Gorn, 1993; Ahmed and d'Astous, 1996). A review of the saliency of the COO cue in the presence of product and retail brand name cues are detailed in Section 2.1.3 and Section 2.1.4 respectively. Lastly, to address the aforementioned research gaps in the COO literature, this study was conducted in Beijing, capital city of the PRC, and sampled consumers who shop in hypermarkets using a multiple-cue study approach (i.e., COO as country image cue and store brand cue).

2.1.1 Country image as a stereotyping effect in consumer product evaluation

Stereotyping at the macro level has shown to be a global phenomenon, to the extent that a nation may be viewed as a brand (O'Shaughnessy and O'Shaughnessy, 2000). Reiersen (1966), one of the earliest researchers to examine COO bias, found that the attitudes of 1000 U.S. students in his sample were mostly influenced by national stereotypes rather than opinions about specific products. Gaedeke (1973) extended this notion of national stereotypes to products originating from developing countries, and similar results were reflected in his findings where products from developing countries were rated lower than products from the U.S. Although the country image of products originating from developing countries were perceived less favourably than those in developed countries, consumers do not perceive products from developed countries equally. For instance, U.K. consumers associated products from the U.K., Germany and Japan as high image, whilst mediocre image was attached to products from France, Italy and the U.S. (Bannister and Saunders, 1978).

Hence, country image was posited to vary according to a country's level of industrialisation, i.e., products from more industrialised nations were perceived more positively than products from less industrialised nations. Wang and Lamb (1983) examined the influence of macro-level variables (i.e., economic development, culture and political climate) on U.S. consumers' willingness to purchase products made in 36 developing countries. Their results revealed that consumers have biases against products made in developing countries and they are more willing to purchase products from economically developed and politically free countries (i.e., European nations, Australia and New Zealand). Some studies have also suggested that consumers from countries with similar cultural values tend to evaluate products similarly (Cattin, Jolibert and Lohnes, 1982; Yavas and Alpay, 1986), although this finding was not supported in other studies (Papadopoulos et al., 1987; Zhang, 1996).

In the PRC, Chinese consumers have been shown to rely heavily on a product's country of origin in their product judgement. Past studies have generally found that products from highly industrialised (or high image countries) (e.g., U.S.A., Japan, Canada, Italy, France

and Germany) were perceived more positively than those from newly industrialised countries (or low image countries) (e.g., LaTour and Henthorne, 1990; Zhang, 1996; Klein, Ettenson and Morris, 1998; Ahmed and d'Astous, 2004; DeLong et al., 2004; Dickson et al., 2004). However, Li, Fu and Murray (1997) suggested that product image should be analysed separately from country image. They found that product image was an important determinant of country image, whereas the effects of country image on product image was dependent on the Chinese consumers' level of familiarity with the reference country. Moreover, the COO cue is more salient for sophisticated or high-involvement products (Zhang, 1996), more significant for symbolic products (Zhou and Hui, 2003; Wang and Chen, 2004), and varies significantly across geographic regions in the PRC (LaTour and Henthorne, 1990). For instance, Chinese consumers in Nanjing have strong animosity against Japan due to the "Nanjing Massacre" in World War II and thus, are strongly reluctant to purchase Japanese-made products (c.f., Klein, Ettenson and Morris, 1998). Nevertheless, recent research indicates that the saliency of the COO cue is so strong that Chinese consumers are willing to purchase foreign products from developed countries even though they are highly ethnocentric (Wang and Chen, 2004).

Similar national stereotypes were also observed in past COO studies conducted in the services industry. U.S. consumers who travel by domestic airlines tend to prefer domestic airlines to foreign airlines (Kaynak, Kucukemiroglu and Kara, 1994), and tend to prefer American and Japanese ophthalmologist to Indian and Spanish ophthalmologist (Harrison-Walker, 1995). Chinese consumers evaluated U.S. retail brands such as Calvin Klein, Levi's, Ralph Lauren, BCBG MAX AZRIA and Tommy Hilfiger more positively than domestic brands (DeLong et al., 2004), and evaluated events sponsored by domestic brands less favourably than those sponsored by foreign brands (Ruth and Simonin, 2003). Similarly, Israeli consumers preferred foreign multinational enterprises, including retailers (home improvement, office, toys, books and general retail), than domestic enterprises because foreign enterprises were better able to satisfy the needs of the Israeli consumers (Fiegenbaum, Lavie and Shoham, 2004). In a franchising context, Indian consumers have more negative feelings about American products when they could not relate the product brands to their country of origin (Paswan and Sharma, 2004).

Recent studies on COO effects have extended beyond country-specific analyses to regional evaluations at the micro and macro levels. In an analysis of micro level regional COO effects, van Ittersum, Candel and Meulenberg (2003) examined consumers' perception and preferences of products from seven Dutch regions. Their findings showed that the Dutch consumers' product preferences were positively related to their perceived suitability of the products' region of origin for producing those products. At the macro level, a new concept of COO labelling, "made in Europe", was examined vis-à-vis products "made in the USA" and "made in Japan" (Schweiger, Haubl and Friederes, 1995). The results indicated that consumers' quality perceptions of various products with the "made in Europe" label were as highly regarded as products from the U.S. and Japan (Schweiger, Haubl and Friederes, 1995). Nonetheless, the perceived image of developed/industrialised countries on product and service evaluations should not be assumed to be consistently positive. Jaguar, a high image British car brand, had to distance itself from its British roots when marketing its cars in foreign markets because some of its brand connotations and associations were perceived negatively by foreign consumers (Barrett, 1996).

Researchers have attempted to explain the saliency of the country image cue via a halo and summary model (Erickson, Johansson and Chao, 1984; Johansson, Douglas and Nonaka, 1985; Han, 1989). As a halo construct, consumers draw inferences about product quality from the country image and use this country image cue to assist them in their evaluation of important purchasing attributes when they have little knowledge about the country's products (Han, 1989). That is, country image as a halo directly affects consumers' beliefs about product attributes and through these beliefs, indirectly affects consumers' attitudes toward the products (i.e., country image → beliefs → product/brand attitude). For instance, consumers who are unfamiliar with Sony stereo sets may draw inferences from their knowledge that Japan manufactures good quality electronic products and thus, generalise that Sony stereo sets or all Japan-made electronic products have similar product attributes. Conversely, as consumers become familiar with a country's product, consumers may form country images from their beliefs about the perceived product attributes made in certain countries and sold under certain brand names. These country images (formed by consumers' beliefs) directly affect their attitudes toward the brands or products (i.e. beliefs → country

image → product/brand attitude) (Hong and Wyer, 1989; Howard, 1989). For instance, consumers who have experience using Sony stereo sets and are satisfied with the product quality may generalise that all Sony products or Japan-made electronic products have similar product attributes.

2.1.2 Familiarity effect

Some researchers posit that experience with a country's products has a negative effect on the saliency of the COO cue (e.g., Nagashima, 1970; Gaedeke, 1973). That is, as consumers' experience with a country's products increases, their reliance on the COO cue decreases. This familiarity effect may be explained via the information processing paradigm proposed by Johansson, Douglas and Nonaka (1985) and Han and Terpstra (1988). Consumers are likely to use extrinsic cues, such as COO and brand cues, when intrinsic cues (e.g., performance) are not available (Jacoby, Olson and Haddock, 1971; Olson and Jacoby, 1972; Huber and McCann, 1982). They will thus use extrinsic cues to form impressions and/or expectations about a product's performance when they have no prior experience with a country's products. If consumers have negative stereotype image of a country's products and the actual product performance does not live up to the consumers' expectations, then the consumers' negative stereotype image of the country's product is established. However, if the product performance matches the consumers' expectations, the consumers' negative stereotype image of the country's product may be altered to become positive and they will subsequently minimise using extrinsic cues in their post-experience evaluation (Hong and Wyer, 1989; Johansson, 1989).

Previous research suggests that the COO cue may not be salient when other information cues are available. A relatively large number of studies have found that the COO cue was less significant when the brand was famous (e.g., Kaynuk and Cavusgil, 1983; Cordell 1992; Kim and Pysarchik, 2000), thus suggesting that consumers are more likely to relate product familiarity to the brand name cue rather than the COO cue. Consumers have limited abilities to assimilate and process information within a given timeframe. They are more likely to

process information in chunks so that information may be stored and retrieved in their long-term memory (Jacoby, Speller and Berning, 1974; Jacoby, Syzbillo and Busato-Schach, 1977). As such, brand name and/or manufacturer name (e.g., Budweiser) represents information chunks and convey much more meaning to an average consumer (e.g., beer drinker) than other types of information cues (Jacoby, Speller and Berning, 1974).

Nonetheless, previous studies have shown that consumers are likely to use the COO cue to evaluate products when brand familiarity is low (Wall, Liefeld and Heslop, 1991; Cordell, 1992; Ahmed and d'Astous, 1993). For instance, Cordell's (1992) study showed that the consumers' preference for Tempomax watches, a watch with an unfamiliar name, decreased significantly from 33% to 8% when the product country of origin was shifted from West Germany to Pakistan, whereas the consumers' preference for a branded watch decreased by only 2.4% in the same experimental condition. More importantly, the COO cue was found to be impervious to consumers' information processing objectives (Hong and Wyer, 1989) and product experience (Tse and Gorn, 1993; Chiou, 2003; Laroche et al., 2005).

2.1.3 Interaction between COO cue and brand name cue

The information processing paradigm (Johansson, Douglas and Nonaka, 1985; Han and Terpstra, 1988) is equally applicable to the COO cue as it was for brand name cue. Note that the COO cue in this study refers to country image cue. The COO label induces beliefs about the country similar to brand name eliciting beliefs about a product. Consumers are thus likely to draw inferences of product qualities from the COO cue when they are unfamiliar with the product brand names. Specifically, consumers who have experiences with products from a country may store the product attributes as chunks in their memory and retrieve these information in their evaluation of similar or related products from the same country during their next purchase.

The interaction between the COO cue and brand name cue may function in two directions: (1) the products' country of origin may be used to infer the brand name, and (2) brand name

may represent the products' country of origin (Samiee, 1994). In the former, product brand name may be enhanced if the products originate from countries with positive image and vice versa, the image of a product brand name may deteriorate if the products originate from countries with unfavourable image. Consumers are likely to perceive and evaluate products negatively for products originating from countries with low/poor country image regardless of brand popularity (Wall, Liefeld and Heslop, 1991; Tse and Gorn, 1993; Nebenzahl and Jaffe, 1996). In the latter, the country image cue may be enhanced through its association with its brand name. Consumers are likely to associate well-known brands with their countries of origin instead of the countries where the products were designed, sourced or assembled (Tse and Lee, 1993; Okechuku, 1994; DeLong et al., 2004). The direction used in this research adheres to the former concept. Despite the importance of both extrinsic cues, a review of the COO literature suggests that there is still no conclusive findings as to which extrinsic cue is more salient in consumers' product evaluations and attitudes (refer to Table 2.2 which is arranged in chronological order).

Findings from past studies that reported a stronger brand effect than COO effect have generally agreed that consumers who have positive image of a product brand name will perceive the product attributes positively (Han and Terpstra, 1988; Kim and Pysarchik, 2000; Ahmed et al., 2004), a strong brand name will be able to reduce negative perceptions toward products made in less favourable countries/images (Chao, 1989a; Tse and Lee, 1993; Ahmed and d'Astous, 1995; Jo, Nakamoto and Nelson, 2003; Thakor and Lavack, 2003), and the brand name cue has a more significant effect than COO cue on consumers' purchase intentions (Kim and Pysarchik, 2000) and purchase value (Ahmed and d'Astous, 1995). Previous research has also indicated that the manner in which a brand name is pronounced and/or spelled may induce consumers to relate the products with a country that may not be the products' actual country of origin (Leclerc, Schmitt and Dube, 1994; Thakor and Pacheco, 1997). For instance, consumers tend to associate a product brand name pronounced or spelt in French with the stereotype country image of France, its people and its culture. This strategy of spelling or pronouncing a brand name in a foreign language, which as a dominant single cue, is sufficient to influence consumers' perception and attitudes toward these products (Leclerc, Schmitt and Dube, 1994; Thakor and Pacheco, 1997).

Table 2.2

Multiple-cue COO studies examining COO and brand name effects

Authors	Year	Sample	Country of Research	COO cue stronger than brand cue	Brand cue stronger than COO cue	Both COO and brand cues are equally vital
Liu and Johnson	2005	Public	USA			
Miyazaki, Grewal and Goodstein	2005	Students	USA			
Agarwal and Teas	2004	Students	Sweden			
Paswan and Sharma	2004	Public	India			
Hsieh, Pan and Setiono	2004	Public	20 countries			
Ahmed et al.	2004	Students, Public	Singapore			
Jo, Nakamoto and Nelson	2003	Students	USA, Australia			
Hui and Zhou	2003	Students	USA			
Thakor and Lavack	2003	Students	Canada			
Ruth and Simonin	2003	Students, Staffs	USA			
O'Cass and Lim	2002	Public	Singapore			
Agarwal and Teas	2001	Students	USA			
Teas and Agarwal	2000	Students	USA			
Kim and Pysarchik	2000	Students	USA			
Tse	1999	Students	Hong Kong			
Thakor and Pacheco	1997	Students	Canada			
Ahmed and d'Astous	1996	Public	Canada			
Nebenzahl and Jaffe	1996	Students	USA			
Haubl	1996	Public	Germany, France			
Ahmed and d'Astous	1995	Public	Canada			
LeClerc, Schmitt and Dube	1994	Students	USA			
Okechuku	1994	Public	USA, Netherlands, Canada, Germany			
Ahmed and d'Astous	1993	Public	Canada, Belgium			
Ettenson	1993	Public	Russia, Poland, Hungary			
Tse and Gorn	1993	Students	USA			
Tse and Lee	1993	Students	USA			
Cordell	1992	Public	USA			
Wall, Liefeld and Heslop	1991	Public	Canada			
Han	1990	Public	USA			
Chao	1989a	Public	USA			
Han and Terpstra	1988	Public	USA			
Morganosky and Lazarde	1987	Public	USA			
Johansson and Nebenzahl	1986	Public	USA			
Johansson, Douglas and Nonaka	1985	Students	USA, Japan			
Darling and Kraft	1977	Public, Students	Finland			
Gaedeke	1973	Students	USA			

Nevertheless, the COO cue has shown to be a more enduring and salient cue than the brand name cue in some multiple-cue COO studies (e.g., Wall, Liefeld and Heslop, 1991; Tse and Gorn, 1993; Ahmed and d'Astous, 1996). Findings from previous studies indicate that the COO cue has a greater impact on consumers' preference for brands made in developed countries (e.g., Ettenson, 1993; Ahmed and d'Astous, 1996; O'Cass and Lim, 2002), sensitises consumers to use fewer cues (Tse and Gorn, 1993), affects actual shopping behaviour and satisfaction (Darling and Kraft, 1977) and is product-specific (Han and Terpstra, 1988). Research has also shown that a product's brand image erodes significantly when production in developed countries is transferred to less developed countries (Khachaturian and Morganosky, 1990; Wall, Liefeld and Heslop, 1991; Tse and Gorn, 1993; Ettenson, 1993; Nebenzahl and Jaffe, 1996), the COO image affects purchase behaviour in both developed and developing countries (Hsieh, Pan and Setiono, 2004), a favourable COO image is positively related to product safety (Tse, 1999) and is negatively related to perceived risk associated with products (Agarwal and Teas, 2001, 2004), and the COO effect occurs automatically without the consumers' intention or control in their product evaluations (Liu and Johnson, 2005).

These differences in findings in multiple-cue COO studies may be due to a number of reasons, such as the sample group that were examined (industrial buyers vs. household buyers), level of product technological complexity (simple vs. complex), types of products that consumers were seeking (hedonic vs. utilitarian), product prices (e.g., large ticket items), and products that do not have a specific country of origin. For instance, Ahmed and d'Astous (1995) reported that the COO cue was more important to organisational purchasers than brand cue, whereas household purchasers rated brand cue to be more significant. Similarly, consumers perceive and evaluate the COO information of hedonic and utilitarian products differently (Leclerc, Schmitt and Dube, 1994), the COO effect increases with product technological complexity (Okechuku, 1994), and some brands do not have a fixed country of origin (e.g., the brand 'Singer' was known to German consumers as a German firm, British consumers as a British firm and American consumers as a U.S. firm) (Samiee, 1994). Well-known brands inherently contain COO information that are inseparable (e.g., large ticket items), and past COO studies incorporating brands have used such branded

products in their analyses which may have caused a residual COO effect to spill over in the experimental condition (Samiee, 1994). The familiarity effect may also have contributed to these inconclusive results. The brand name cue may be a better predictor of consumer product evaluation when consumers are familiar with the brand (Kim and Pysarchik, 2000). However, the COO cue becomes significant when consumers are unfamiliar with the brand and thus, rely on the product country of origin to evaluate product quality (Johansson and Nebenzahl, 1986; Cordell, 1992).

More importantly, most of the multiple-cue COO studies failed to examine an important extrinsic cue, store brand cue, which may affect the saliency of the COO cue in consumers' perception and intentions to patronise retail stores. The significance of a high image brand name in consumers' quality evaluation and product purchase intention is synonymous with a high image store brand in consumers' perception of products sold in retail stores and their store patronage intentions.

2.1.4 Influence of store brand cue on the saliency of the COO cue

A review of the COO literature suggests that there are relatively few multiple-cue COO studies that examined the interaction between COO cue and store brand cue, as most of these studies focused on U.S. consumers' perceptions and evaluations of foreign products and there is a lack of multiple-cue studies that examined foreign retailers in developing countries (refer to Table 2.3 which is arranged in chronological order). Furthermore, findings on the saliency of the COO cue in the presence of store brand cue in past studies have generally been inconclusive (Table 2.3).

Table 2.3

Multiple-cue COO studies examining COO and store brand effects

Authors	Sample	Location	Category	Retail Format	COO cue stronger than store brand cue	Store brand cue stronger than COO cue	Both COO and store brand cues equally vital	Additional Findings
Agarwal and Teas (2004)	Uni. Student	Sweden	Product (ski-jacket and sunglasses)	Fine-jewellery and general merchandise stores				Ski-jacket: Store name and COO are significant predictors of performance risk. Sunglasses: store name and COO are insignificant predictors of performance risk.
Agarwal and Teas (2001)	Uni. Student	USA	Product (wristwatch and calculator)	Bookstore, jeweller, general merchandise and discount stores				Wristwatch: empirical support for positive relationship between favourability of store name and quality, but partial support for COO image. Calculator: Store image is not supported and COO image is partially supported.
Teas and Agarwal (2000)	Uni. Student	USA	Product (wristwatch and calculator)	Bookstore, jeweller, general merchandise and discount stores				Store brand is significant in the low-brand condition but insignificant in the high-brand condition for perception of wristwatch quality; Store brand is insignificant in both conditions for perception of calculator quality; COO is significant for perception of quality for both products.
Lin and Sternquist (1994)	Public	Taiwan	Product (sweater)	Department stores				COO was found to influence significantly Taiwanese consumers' perceptions of sweater quality but not for their price estimates; manipulation of store image did not influence either price estimates or quality perceptions.
Wood and Darling (1993)	Public	Finland	Product (no specific product type)	No specific retail store type				COO plays a significant role in consumer perceptions but both intrinsic and extrinsic information cues are equally important. Reputation of retail stores contributes to consumer satisfaction, and marketing practices-satisfiers of the Western nations were more readily perceived by respondents relative to their USSR counterparts.
Davis, Kern and Sternquist (1990)	Public	USA	Product (sweater and shirt)	Not disclosed in journal article				Store prestige significantly influenced price estimates and quality perceptions. Neither COO nor "Buy American" campaign materials significantly influenced consumers' quality or price judgements; COO has limited influence on consumer decision making.

Authors	Sample	Location	Category	Retail Format	COO cue stronger than store brand cue	Store brand cue stronger than COO cue	Both COO and store brand cues equally vital	Additional Findings
Thorelli, Lim and Ye (1989)	Uni. Student	USA	Product (AM/FM stereo cassette recorder)	General merchandise and discount stores				The effect of COO on the perceived quality and overall attitude is significantly less when the product is sold in a prestigious retail store with an excellent warranty. COO and warranty have significant main effects on perceived product quality, overall attitude and purchase intention. Store image showed significant effects only for perceived quality
Chao (1989b)	Public	USA	Product (TV, VCR and stereo component system)	National chain and discount stores				Both quality perception and purchase intent are influenced by country, price and distribution; the mean quality rating and purchase intent were significantly higher for Korean-made products if they were distributed through Hudson's (a prestigious retailer).
Chao (1989a)	Public	USA	Product (TV, VCR and stereo component system)	Department stores				A successful export strategy is sustainable if US retail distributors are carefully chosen (relates to the level of store prestige).
Darling and Arnold (1988)	Public	Finland	Product (no specific product type)	No specific retail store type				Knowledge by the consumer of a country's country of origin is sufficient to provoke significantly differing images. The COO label can play a large role in the purchase decision in new export markets where a firm's brand name is not well-known. Associating products of a particular firm (or a particular country) with the name of highly reputable local retailers can provide a general improvement in image where prejudices are initially not too great.
Morganosky and Lazarde (1987)	Public	USA	Product (fashion apparel)	Department, discount, national chain and off-price stores				US-made apparel was rated considerably higher in terms of quality than imported apparel; image of quality was significantly lowered by association with imports, but not significantly enhanced by association with US-made apparel (except for discount stores); US-made association did not increase or decrease perception of name-brand quality but store brands were perceived as significantly higher in terms of quality if they were made in USA.
Sternquist and Davis (1986)	Uni. Student	USA	Product (sweater)	Department stores				Consumers perceived significant differences in quality due to store prestige but did not perceive quality differences between the domestic and imported sweaters; domestic-made products are not automatically presumed to be of higher quality than imports.

Authors	Sample	Location	Category	Retail Format	COO cue stronger than store brand cue	Store brand cue stronger than COO cue	Both COO and store brand cues equally vital	Additional Findings
Darling and Kraft (1977)	Uni. Student, Staff and Public	Finland	Product (no specific product type)	No specific retail store type				Knowledge of COO positively affects Finnish consumers' attitudes toward other (non-product) aspects of the marketing mix, such as brand name and reputation of retailers; knowledge of COO positively affects actual shopping behaviour and satisfaction; the COO label plays a large role in the purchase decision when a firm's brand name is completely unknown or relatively unfamiliar.
Reierson (1967)	Uni. Students	USA	Media (i.e., films, periodical advertising, publication)	General merchandise stores				The image of nation's products can be made more favourable by associating these products with prestigious retailers.

Results in previous studies have generally found that the COO effect on perceived quality and overall attitude was significantly reduced when products were sold in prestigious retail stores (Chao, 1989a, 1989b; Thorelli, Lim and Ye, 1989; Davis, Kern and Sternquist, 1990), a negative COO effect may be counteracted if the products were distributed through prestigious retailers (Reierson, 1967; Chao, 1989a), and the perceived quality was significantly higher for products sold in high-prestige stores than those sold in low-prestige stores (Sternquist and Davis, 1986; Davis, Kern and Sternquist, 1990). For instance, the store brand cue has a significant effect on perceived quality and value in the evaluation of wristwatches associated with a low brand image (Teas and Agarwal, 2000), and is a significant predictor of performance risk for wristwatches and ski-jackets (Agarwal and Teas, 2001, 2004). Consumers are more likely to have positive perception of products sold in prestigious retail stores because consumers rely on the reputation of high-prestige stores for an inferred product guarantee (i.e., maintaining a reputation for high product quality) to reduce the perceived risk associated with purchases (Davis, Kern and Sternquist, 1990).

Nevertheless, empirical findings reported in past studies on the interaction between COO cue and store brand cue are product- and context-specific. For instance, retail store image

was found to have a significant effect on perceived quality for wristwatches in the low brand image group but not in the high brand image group, whereas the COO cue has a significant effect on perceived quality for the wristwatches in both the low and high brand image groups (Teas and Agarwal, 2000). Similar results were reflected in Agarwal and Teas's (2001) study; the store brand cue has a significant effect on perceived quality for wristwatches but not for calculators, whereas the COO cue has a significant effect on perceived quality for both the wristwatch and calculator categories. In the U.S., both the COO and store brand cues were not significant in consumers' product purchase intention in Thorelli, Lim and Ye's (1989) work even though an earlier study by Chao (1986b) suggested that consumers exhibit higher purchase intent for products from low image countries if the products were distributed through reputable retail stores. In contrast, the effect of store prestige on quality perception was weak and the COO cue was the only extrinsic cue to affect Taiwanese consumers' quality perceptions (Lin and Sternquist, 1994). Consumers from less developed countries were more likely to rely on the COO cue due to a lack of product information and purchase experience with foreign-made products (Lin and Sternquist, 1994).

The findings from Morganosky and Lazarde's (1987) study offered a different perspective to the research of interaction effects between the COO cue and store brand cue. The authors found that the quality perception of retail stores who associated themselves with imported products were significantly lower compared to those that stocked domestic-made products. The cause of this domestic-bias appears to be the result of consumers' reactions to the \$11 million 'Crafted with Pride' advertising campaign, launched by the American Fibre, Textile and Apparel Coalition (AFTAC) in 1983, to encourage American consumers to purchase domestic-made products (Morganosky and Lazarde, 1987; Ettenson, Wagner and Gaeth, 1988; Davis, Kern and Sternquist, 1990). Consumers' preference for domestic products has been detailed in a large number of COO studies that included consumers from countries such as the U.S. (e.g., Reiersen, 1966; Nagashima, 1970; Gaedeke, 1973; Han, 1988; Johansson, Ronkainen and Czinkota, 1994), France (Baumgartner and Jolibert, 1978), Finland (Darling and Kraft, 1977), Japan (Narayana, 1981; Gurhan-Canli and Maheswaran, 2000), Canada (Kaynak and Cavusgil, 1983; Wall and Heslop, 1996). Poland and Russia

(Good and Huddleston, 1995), Germany and Netherlands (Okechuku, 1994), UK (Bannister and Saunders, 1978), PRC (Klein, Ettenson, and Morris, 1998; Wang and Chen, 2004), and Europe (Schweiger, Haubl and Friederes, 1995).

2.2 Consumer Ethnocentrism (CET)

2.2.1 Impact of attitudes on the link between extrinsic cues and product evaluation

Three elements of attitude, namely cognitive, affective and normative, are generally found to affect COO on product quality (Obermiller and Spangenberg, 1989; Nebenzahl, Jaffe and Lampert, 1997; Verlegh and Steenkamp, 1999). According to Verlegh and Steenkamp (1999), COO, as a cognitive cue, is used as a surrogate for overall product quality and quality attribute when consumers are not able to determine the product quality from intrinsic cues or when consumers are not familiar with products of foreign origin. As an affective cue, COO is an image attribute that associates products with symbolic and emotional value to consumers. Lastly, as a normative cue, COO influences consumers' preferences and behaviours through social and personal norms (Table 2.4).

These three elements of attitude are not independent and are constantly interacting with each other (Verlegh and Steenkamp, 1999). For instance, domestic bias, such as patriotism (Han, 1988) and "Buy American" campaign (Morganosky and Lazarde, 1987; Ettenson, Wagner and Gaeth, 1988; Davis, Kern and Sternquist, 1990), has shown to be a common attitude-based consumer trait that incorporates all three forms of attitudes in consumers' evaluation and perception of foreign countries and products. Patriotic consumers are generally willing to sacrifice for the overall interests of the country and forgo personal goals and objectives for national interests. They are also more likely to take upon themselves the tasks of protecting their country's economy and support domestic manufacturers (Han, 1988; Feshbach, 1990; Balabanis et al., 2001). For instance, patriotism has a significant effect, whereas cognitive attitude towards products made in various nations does not have a significant effect, on consumers' perception of product quality and purchase intention of

foreign products (Han, 1988). Therefore, patriotic consumers are more likely to avoid foreign products if these imported products are perceived to increase competition within the domestic market and affect the domestic economy. As such, patriotic consumers may be unconsciously be biased against products of foreign origins since patriotic attitudes are deep-rooted and resistant to change (Druckman, 1994; Balabanis et al., 2001).

Table 2.4
Examples of cognitive, affective and normative mechanisms for country-of-origin effects

Mechanism	Description	Major findings
Cognitive	Country of origin is a cue for product quality	Country of origin is used as a "signal" for overall product quality and quality attributes, such as reliability and durability (Li & Wyer, 1994; Steenkamp, 1989).
Affective	Country of origin has symbolic and emotional value to consumers	Country of origin is an image attribute that links the product to symbolic and emotional benefits, including social status and national pride (Askegaard & Ger, 1998; Batra et al., 1998).
Normative	Consumers hold social and personal norms related to country of origin	Purchasing domestic products may be regarded as a "right way of conduct", because it supports the domestic economy (Shimp & Sharma, 1987). By the same token, consumers may refrain from buying goods from countries with objectionable activities or regimes (Smith, 1990; Klein, Ettenson & Morris, 1998).

Source: Verlegh and Steenkamp (1999, pp. 524)

Advertising and media may also influence the consumers' predisposition towards domestic-made products, such as the "Crafted with Pride in the U.S.A." campaign (Morganosky and Lazarde, 1987; Ettenson, Wagner and Gaeth, 1988; Davis, Kern and Sternquist, 1990), "Thai buy Thai" campaign (Ang et al., 2004), and buy "Czech made" campaign (Balabanis et al., 2001). The effect of patriotic appeals to "Buy American" products were strongest among blue-collar workers who were affected by job losses due to foreign competition

(Sloan, 1986). Researchers have also identified a correlation between consumer demographics and their preference for domestic products. Consumers who have a domestic bias generally have low disposable income, are from the older age group, have relatively high status concern, high conservatism and dogmatism, and are generally not well educated (e.g., Anderson and Cunningham, 1972; Kern, 1986; Sloan, 1986; Wall and Heslop, 1986). Consumers, regardless of gender (Wall, Heslop and Hofstra, 1988), prefer domestic-made products because "... it is patriotic, good for the economy, and keeps money in ... the country" (Kaynak and Cavusgil, 1983, pp.151).

Patriotism may be differentiated into two groups, (1) healthy patriotism (love of country) and (2) ethnocentric patriotism (or pseudopatriotism) (Adorno et al., 1950) or nationalism (Balabanis et al., 2001). Consumers who belong to the healthy patriotism group exhibit strong feelings of attachment and loyalty to their own countries without attaching negative feelings towards people, symbols and values which are dissimilar to theirs, whereas ethnocentric patriotic or nationalistic consumers view their own countries as superior to other countries and are thus hostile towards foreign nations and objects (Adorno et al., 1950; Balabanis et al., 2001). Although ethnocentrism originated in the psychology and sociology literature, this concept was later adopted by Shimp and Sharma (1987) in the marketing literature, which the authors termed as consumer ethnocentrism (CET). CET is the most widely used construct in the marketing literature today to explain this phenomenon (i.e., consumers having strong preferences for domestic products). Although CET is categorised as a normative cue, CET includes affective elements such as the need to fit into a common national or ethnic identity, and cognitive beliefs through its moderation on the effect of consumers' preference formation, such as the fear of foreign competition hurting domestic jobs and economy (Verlegh and Steenkamp, 1999).

2.2.2 A review of the consumer ethnocentrism (CET) concept

The *feeling* that consumers have towards foreign products has been, for many years, a subject of immense interest within the consumer behaviour and international marketing literature. Despite the widely recognised applicability of ethnocentrism as a psychological and sociological phenomenon (e.g., Sumner, 1906; Adorno et al., 1950; Freud, 1955a, 1955b; Booth, 1979; Worchel and Cooper, 1979; Forbes, 1985), there was only sporadic research associating the ethnocentrism concept with consumer behaviour prior to the 1980s (e.g., Markin, 1974; Berkman and Gilson, 1978). Shimp's (1984) seminal work was widely acknowledged to be the first study to introduce the ethnocentrism concept to the marketing literature. Nevertheless, it was from Shimp and Sharma's 1987 article, where they first termed this concept as consumer ethnocentrism (CET) and developed the CETSCALE to measure consumers' ethnocentric tendencies, that researchers started to take notice and further explore this construct.

CET is derived from the general concept of ethnocentrism, which refers to the tendency of individuals to view their own groups with high esteem, and embrace symbols and values that are culturally similar to their own, whilst rejecting people, symbols and values that are culturally dissimilar (Shimp and Sharma, 1987). CET is defined as the beliefs held by consumers that it is inappropriate (and maybe even immoral) to purchase imported products (Shimp and Sharma, 1987). CET emphasises the economic dimension of ethnocentrism and its emotional implications on oneself and the society at large, such as the fear of harming the nation's economic prosperity by buying non-domestic products, the morality of purchasing imported products, and personal prejudice against foreign objects (Shimp and Sharma, 1987; Netemeyer, Durvasula and Lichtenstein, 1991; Sharma, Shimp and Shin, 1995; Balabanis et al., 2001).

Shimp and Sharma (1987) developed a multi-item scale, termed as the CETSCALE, to capture ethnocentric tendencies in consumers. The CETSCALE was useful in explaining why consumers' have higher tendencies to purchase domestic-made products even though imported products may be of higher quality and lower prices (Shimp and Sharma, 1987).

More importantly, the CETSCALE has been shown to demonstrate strong psychometric properties across cross-cultural and cross-national settings such as the U.S. (Shimp and Sharma, 1987; Netemeyer, Durvasula and Lichtenstein, 1991; Herche, 1992; Durvasula, Andrews and Netemeyer, 1997; Hult, Keillor and Lafferty, 1999), Spain (Luque-Martinez, Ibanez-Zapata and del Barrio-Garcia, 2000), Japan (Netemeyer, Durvasula and Lichtenstein, 1991; Hult, Keillor and Lafferty, 1999), Belgium, U.K. and Greece (Steenkamp and Baumgartner, 1998), Russia (Durvasula, Andrews and Netemeyer, 1997), Sweden (Hult, Keillor and Lafferty, 1999), West Germany and France (Netemeyer, Durvasula and Lichtenstein, 1991).

The CETSCALE is a reliable predictor of consumers' preferences for domestic-made products (e.g., Sharma, Shimp and Shin, 1995; Klein, Ettenson and Morris, 1998; Balabanis et al., 2001), as well as inclinations toward domestic-owned retail stores (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002). However, some researchers have noted that the suitability of administering the shortened 10-item CETSCALE in developing countries (Lindquist et al., 2001), the response styles of consumers from different countries (Baumbartner and Steenkamp, 2001), and social desirability bias (Hult, Keillor and Lafferty, 1999; Keillor, D'Amico and Horton, 2001) are potential sources that may affect the validity of conclusions drawn from international market research data.

Studies on CET generally have found that CET is negatively related to willingness to shop in foreign retail stores (WTS) (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002), willingness to buy imported products (e.g., Klein, Ettenson and Morris, 1998; Watson and Wright, 2000; Suh and Kwon, 2002; Wang and Chen, 2004), quality perceptions of imported products (e.g., Lantz and Loeb, 1996; Huddleston, Good and Stoel, 2001; Supphellen and Gronhaug, 2003; Ettenson and Klein, 2005), purchase intention (e.g., Herche, 1994; Granzin and Painter, 2001; Yoo, 2002; Steenkamp, Batra and Alden, 2003), consumer innovativeness (Steenkamp, Hofstede and Wedel, 1999), cultural openness, education and income (e.g., Sharma, Shimp and Shin, 1995; Klein and Ettenson, 1999; Watson and Wright, 2000; Balabanis et al., 2001; Kaynak and Kara, 2002).

Conversely, CET is positively related to gender (i.e., female consumers) (e.g., Good and Huddleston, 1995; Nielsen and Spence, 1997; Klein and Ettenson, 1999; Watson and Wright, 2000; Balabanis et al., 2001), quality perceptions of domestic products (Balabanis and Diamantopoulos, 2004), religiosity (Kaynak and Kara, 2002), patriotism and conservatism (e.g., Sharma, Shimp and Shin, 1995; Klein and Ettenson, 1999; Kucukemiroglu, 1999; Balabanis et al., 2001). Furthermore, ethnocentric consumers are more likely to have positive perceptions of domestic brands even though foreign brands are perceived to be superior to domestic brands (Supphellen and Rittenburg, 2001), to have favourable attitudes toward products from culturally similar countries (Lantz and Loeb, 1996), and to purchase products from culturally similar countries when domestic products are unavailable (Watson and Wright, 2000).

Nevertheless, findings from a recent study by Balabanis and Diamantopoulos (2004) suggest that there is no correlation between cultural similarity and the impact of CET on consumers' product preferences. Other studies have suggested that the CET effect does not have an impact on consumers' foreign product purchase intention (McLain and Sternquist, 1991; Good and Huddleston, 1995; Ettenson and Klein, 2005), was more capable of explaining positive bias toward perceptions of domestic products than negative bias against perceptions of foreign products from specific countries (Balabanis and Diamantopoulos, 2004), was effective only in countries where consumers perceive a high level of foreign threat (Sharma, Shimp and Shin, 1995; Jo, 1998), and is significant only when domestic products/brands are available (Herche, 1992; Douglas and Nijssen, 2003; Nijssen and Douglas, 2004). Due to these contrasting findings, the CET effect was postulated to be country-specific (e.g., Jo, 1998; Ang et al., 2004; Balabanis and Diamantopoulos, 2004; Reardon et al., 2005), and product-specific (e.g., Kim and Pysarchik, 2000; Suh and Kwon, 2002).

Regardless of the aforementioned contradicting findings, the economic threat that the CET effect poses on foreign manufacturers and retailers is real and strong (refer to Table 2.5). More importantly, little is known about variables that may counteract the impact of the CET effect, particularly in developing nations (Sharma, Shimp and Shin, 1995). Previous studies of Polish, Australian, Indian and Korean consumers found that perceived economic threat

(Sharma, Shimp and Shin, 1995; Jo, 1998) and perceived product necessity (Sharma, Shimp and Shin, 1995; Huddleston, Good and Stoel, 2001) had a moderating effect on the relationship between CET and the consumers' quality evaluation and purchase intent. In the People's Republic of China (PRC) context, Wang and Chen's (2004) study is the only one where two moderating variables, namely country-of-origin (COO) and conspicuous consumption, were investigated and were found to offset the impact of CET.

The empirical work by Wang and Chen (2004) on PRC consumers indicates that when CET and conspicuous consumption are taken together to predict consumers' attitudes toward domestic products and their purchase intentions, the former becomes a significant predictor only when consumers hold low conspicuous consumption values. Conspicuous consumers seek social status within their community and are motivated by social/symbolic benefits rather than economic benefits in their product purchase decisions (Mason, 1981). A recent study by Hung, Gu and Tse (2005) found that status-seeking PRC consumers tend to be hedonic-oriented, whereas those who refrain from status-seeking consumption tend to be utilitarian-oriented. This suggests that shopping orientation (i.e., utilitarian and hedonic shopping values) is a potential moderator on the impact of CET, and this shopping orientation concept is discussed in details in the next section.

More importantly, none of the previous CET studies examined the relationship between CET and consumers' foreign retail store patronage intention and/or identified variable(s) that may moderate this relationship in the context of grocery-related retail stores in the PRC (refer to Table 2.5 which is arranged according to country of analysis in alphabetical order).

Table 2.5
A review of past studies in the CET literature

Authors	Year	Sample	Country	Category	Was the CET effect significant?		Additional Findings
					YES	NO	
Ettenson and Klein	2005	Public	Australia	Product			2 studies conducted: CET was a significant negative predictor of product judgement in Study 1 and 2 but not willingness to buy in Study 1. The animosity model was examined.
Zarkada-Fraser and Fraser	2002	Public	Australia	Store			Attitudes toward domestic-owned supermarkets were identical between Australians and Greek-Australians, but the latter group was significantly more supportive of foreign supermarkets.
Jo	1998	Student	Australia and India	Advert			Ethnocentrism-pitched advertisement is effective in a country where consumers perceive a high level of foreign threat (i.e., Australia). However, it is counter-effective in a country where consumers only perceive a low level of foreign threat (i.e., India). Furthermore, it is not effective if consumers have no distinctive quality evaluation, compared to foreign products.
Wang and Chen	2004	Public	China	Product			Product judgement (COO) and conspicuous consumption moderates the relationship between CET and consumers' willingness to buy domestic products.
Yu and Albaum	2002	Public	China (Hong Kong)	Product			CET was related to product preferences. Results showed that the 1998 post-handover group was more ethnocentric than those prior to the handover to China (refer to Yu and Albaum, 1997).
Klein, Ettenson and Morris	1998	Public	China	Product			CET was a significant negative predictor of product judgement and willingness to buy foreign products. The animosity model was proposed in this paper.
Orth and Firasova	2003	Public	Czech Republic	Product			Younger consumers are more likely to be less ethnocentric.
Lindquist et al.	2001	Student	Czech Republic, Hungary and Poland	Product			The shortened 10-item CETSCALE was not found to be a universally 'good fit' solution in these countries.
Balabanis et al.	2001	Public	Czech Republic, Turkey	Product			Turkish consumers are more ethnocentric, patriotic and internationalist than Czech consumers. Female, older and lower income Turkish consumers tend to be more ethnocentric. For the Czech sample, income was the only significant influence. Turkish consumers are patriotic whereas Czech consumers are nationalistic.
Baumbartner and Steenkamp	2001	Public	European Union (11 countries)				Marketing researchers should pay greater attention to the phenomenon of stylistic responding (i.e., acquiescence response styles, extreme response range, midpoint responding, non-contingent responding) when constructing and using measurement instruments.
Steenkamp, Hofstede and Wedel	1999	Public	European Union (11 countries)	Product			CET has a negative effect on consumer innovativeness.

Authors	Year	Sample	Country	Category	Was the CET effect significant?		Additional Findings
					YES	NO	
Batra et al.	2000	Public	India	Product			CET does not have a significant negative moderating impact on the effect of perceived brand local or nonlocal origin on brand attitudes. Consumers higher in CET do not have a reduced attitudinal preference for nonlocal brands if they admire economically developed countries' lifestyles.
Moon	2004	Student	Korea	Product			Low-ethnocentric consumers' product attitude is influenced by COO perception, whereas high-ethnocentric consumers' product attitude is not influenced by COO perception.
Sharma, Shimp and Shin	1995	Public	Korea	Product			Correlation between cultural openness, education, income and CET was negative. Correlation between combined patriotism/conservatism, gender, and CET was positive. Perceived product necessity and perceived economic threat were significant moderators of CET.
Ang et al.	2004	Public	Korea, Indonesia, Malaysia, Singapore, Thailand	Product			Level of CET is dependent on how severely hurt the country was by the Asian financial crisis in 1998 and nationalistic campaigns such as "Thai buy Thai" to help the severely-hit economy. Findings were country-specific. The animosity model was examined.
Nijssen and Douglas	2004	Public	Netherlands	Product			Feelings of ethnocentrism can only play a role when a domestic brand is available.
Douglas and Nijssen	2003	Public	Netherlands	Product			Feelings of ethnocentrism can only play a role when a domestic brand is available. The saliency and cross-national equivalence of the CETSCALE need to be further explored in cases where countries have no or few domestic brands.
Watson and Wright	2000	Public	New Zealand	Product			Respondents with high CET levels are more likely to be female, older, less educated, and less wealthy. Ethnocentric consumers have more favourable attitudes toward, and are more willing to buy, products from culturally similar countries, even when domestic-made products are unavailable. Even low ethnocentric consumers are more willing to purchase domestic-made products even though the quality is perceived to be inferior to foreign products.
Supphellen and Rittenburg	2001	Public	Poland	Gas Station			When foreign brands are superior to domestic ones, CET is displayed in more positive perceptions of the domestic brand, with little or no effect on perceptions of foreign brands.
Huddleston, Good and Stoel	2001	Public	Poland	Product			CET, country of origin, and product necessity influence product quality perceptions of Polish consumers.
Good and Huddleston	1995	Public	Poland and Russia	Store			CET did not influence purchase intent of Polish and Russian consumers. Polish consumers are more ethnocentric than Russian consumers. Older female Polish consumers with low educational level and income tend to be more ethnocentric. Russian consumers who are more ethnocentric are less educated. No relationship between CET and product choice but there is a relationship between CET and store type.
Thelen and Honeycutt	2004	Public	Russia	Product			Significant differences exist between Soviet Russian and contemporary Russian with respect to CET.

Authors	Year	Sample	Country	Category	Was the CET effect significant?		Additional Findings
					YES	NO	
Supphellen and Gronhaug	2003	Public	Russia	Product			The effect of Western brand personalities is heavily moderated by CET. High ethnocentric consumers are older than low ethnocentric consumers.
Piron	2002	Public	Singapore	Retail Shopping			This study evaluated the attitudes of Singaporeans towards spending money overseas instead of at home in order to support the Singapore economy.
Luque-Martinez, Ibanez-Zapata and del Barrio-Garcia	2000	Student	Spain	Product			The CETSCALE is a reliable and valid measure of Spanish consumers' ethnocentric tendencies.
Kaynak and Kara	2002	Public	Turkey	Product			As Turkish consumers become more community oriented, they tend to become more ethnocentric, whereas as they become more opinion leadership/authority oriented, they become less ethnocentric. Religiosity has an impact on CET.
Kucukemiroglu	1999	Public	Turkey	Product			Non-ethnocentric Turkish consumers tend to have significantly more favourable beliefs, attitudes, and intentions regarding imported products than do ethnocentric Turkish consumers. The middle and high income non-ethnocentric consumers have similar behavioural tendencies as their counterparts in the Western nations. High ethnocentric consumers are traditionalists/conservatives.
Balabanis and Diamantopoulos	2004	Public	UK	Product			CET was more capable of explaining positive bias toward home products rather than negative bias against foreign products from specific countries. CET is country-specific. COO effect is product- and country-specific. Economic competitiveness and cultural distance do not affect CET.
Steenkamp and Baumgartner	1998	Public	UK, Belgium, and Greece	Product			The CETSCALE was invariant across the 11 EU countries. That is, the scale was robust in assessing cross-national comparability.
Reardon et al.	2005	Public	USA, Slovenia, Kazakhstan	Advert, Brand			CET effect on advertisement attitude was supported in Kazakhstan but not supported in Slovenia and USA. CET affected brand formation only indirectly through advertisement.
Steenkamp, Batra and Alden	2003	Public	USA and Korea	Product			CET moderates the relationship between perceived brand globalness and purchase likelihood.
Klein	2002	Public	USA	Product			CET was negatively related to preferences for Japanese over U.S. products, as well as product judgement of Japanese products.
Suh and Kwon	2002	Student	USA and Korea	Product			CET negatively affects product judgement for Korean sample but not for US sample. CET positively affects reluctance to buy foreign products for both samples.
Yoo	2002	Student & Public	USA	Product			CET was a significant predictor of perceived quality and purchase intention.
Keillor, D'Amico and Horton	2001	Public	USA, France, Malaysia	Product			Malaysian and French consumers have higher CET levels than U.S. consumers. No significant differences in social desirability bias in all samples. Older consumers have higher CET levels than younger consumers.

Authors	Year	Sample	Country	Category	Was the CET effect significant?		Additional Findings
					YES	NO	
Granzin and Painter	2001	Public	USA and Portugal	Product			In both nations, supportive purchase-related behaviour increases as purchasers feel competent to help, believe that the threat of imports is salient, perceive social influences that support helping; hold values that derogate foreigners but support domestic citizens.
Kim and Pysarchik	2000	Student	USA	Product			CET has a positive impact on US consumers' evaluation of Japanese brands but not for Korean brands. The authors noted that Nikon (Japanese brand) may not be perceived to be foreign.
Hult, Keillor and Lafferty	1999	Public	USA, Sweden and Japan	Product			US consumers have higher CETSCALE scores than Swedish and Japanese consumers. CETSCALE's psychometric properties are stable across different cultural and national samples. Social desirability bias and gender has a moderating effect on CET.
Klein and Ettenson	1999	Public	USA	Product			Consumers high in CET levels tend to be female, of lower socioeconomic status, patriotic, are union members, and are concerned about their personal finances and the nation's economy.
Durvasula, Andrews and Netemeyer	1997	Student	USA and Russia	Product			Results from both countries support the CETSCALE's unidimensionality, reliability, discriminant and nomological validity. The U.S. consumers are more ethnocentric than Russian consumers. The Russian consumers have more favourable beliefs and attitudes toward foreign products.
Nielsen and Spence	1997	Public	USA	Product			Women are marginally more ethnocentric than men. Those in the military are more ethnocentric than those who have not been in the military. CETSCALE score increases for those who have not served in the military during 'Patriotic Week'.
Pullman, Granzin and Olsen	1997	Public	USA	Product			Saliency is affected strongly by CET. Saliency embodies to various degrees, the allied concepts that the victims are needy, that their plight is serious, and that it is therefore important to assist these victims.
Levin and Jasper	1996	Student	USA	Recruitment			Employing U.S. workers was an important factor in the preferences the consumers across all product categories. However, preference for U.S. companies was significant in most cases only for those with high CET.
Lantz and Loeb	1996	Student	USA and Canada	Product			Consumers with high CET levels have more favourable attitudes toward products from culturally similar countries. Foreign products should be priced slightly lower than domestic products to capture the less ethnocentric segment.
Herche	1994	Public	USA	Product			CET plays a larger role in import buying decisions than traditional marketing strategy.
Herche	1992	Public	USA	Product			The CETSCALE is a better measurement instrument for predicting import purchase behaviour than demographics and marketing mix variables. However, it is unstable across product types because domestic industry does not manufacture all types of products.

Authors	Year	Sample	Country	Category	Was the CET effect significant?		Additional Findings
					YES	NO	
Netemeyer, Durvasula and Lichtenstein	1991	Student	USA, West Germany, France and Japan	Product			Results from all the countries support the CETSCALE's unidimensionality, reliability, discriminant and nomological validity. CET is positively related to the importance of buying domestic products in all the countries, and negatively related to general attitude toward buying foreign products in all countries except West Germany.
McLain and Sternquist	1991	Public	USA	Product			Consumers who display strong CET were no more likely to purchase U.S. made products than consumers who were less ethnocentric. The greater the degree of importance places on whether a product is U.S. made, the more ethnocentric the consumer. The greater the education level, the lesser the degree of CET.
Chasin, Holzmuller and Jaffe	1989	Purchasing Agent	USA and Austria	Product			Ethnocentrism may influence country image where the strength of other cues, such as product attributes, are limited.
Shimp and Sharma	1987	Student	USA	Product			Developed the CETSCALE and validated the strong psychometric properties of the CETSCALE through multiple studies.
Shimp	1984	Public	USA	Product			Introduced the CET concept to the marketing literature
Andersen and Chao	2003						Paper identifies propositions: purchasing and technical managers with high CET levels will give lower evaluations of products and suppliers from foreign countries, and have lower purchase intention for foreign products.
Javalgi and White	2002						Paper identifies future research: few articles explored the effect of CET on the evaluation of foreign services.

2.3 Hedonic And Utilitarian Shopping Values

Research on hedonic and utilitarian orientation is generally investigated from two different perspectives: products and retail stores. In the product context, hedonic products are judged in terms of the level of pleasure that consumers are likely to derive from the products, whilst utilitarian products are judged in terms of the products' level of functional utility (Crowley, Spangenberg and Hughes, 1992; Mano and Oliver, 1993; Leclerc, Schmitt and Dube, 1994; Voss, Spangenberg and Grohmann, 2003). In the retail store (i.e., shopping orientation) context, utilitarian value is characterised as being task-related and rational, where post-shopping satisfaction is achieved through the successful acquisition of products, product information and/or services (Batra and Ahtola, 1991; Babin, Darden and Griffin, 1994). Conversely, hedonic value refers to the quality of the shopping experience itself and results more from emotional pleasures derived from the shopping experience, such as fun, excitement, perceived freedom, fantasy fulfilment, sense of escapism and sensory stimulation (Hirschman and Holbrook, 1982; Babin, Darden and Griffin, 1994). Since this research evaluates the relationship between consumer shopping value and store patronage intention, the following literature review is based on the shopping orientation context.

Early research into shopping orientation has seen consumers being classified as 'recreational shoppers', i.e., consumers who derive pleasure through shopping as a leisure-time activity (Bellenger and Korgaonkar, 1980). Other researchers suggested that it is the consumers' personality trait that determines the degree to which consumers enjoy the shopping process, e.g., the desire to establish relationships with in-store staffs (Forsythe, Butler and Schaefer, 1990). Thus, recreational shoppers were posited to possess general and similar tendencies regarding the shopping process and these tendencies were consistent across all situations. However, some researchers suggested that consumers' shopping motivation was situation-specific. That is, consumers shop for a variety of reasons and have multiple motives on a single shopping trip. For instance, Tauber (1972) developed a list of personal consumer shopping motives (e.g., role playing, self-gratification, learning about new trends and sensory stimulation) and social shopping motives (e.g., communication with others, peer group attraction, and pleasure of bargaining) that were significant in describing consumers'

shopping behaviour. Similarly, Westbrook and Black's (1985) typologies of shopping motivations reflected both utilitarian and hedonic values, whereby each typology may be more utilitarian or more hedonic in nature.

Hirschman and Holbrook (1982) proposed that consumers might shop for experience-related motives, i.e., utilitarian and hedonic shopping experiences. Utilitarian-oriented consumers relate shopping trips as errands or task-related. They achieve personal satisfaction only if the errand/task is completed successfully with minimal time and effort wasted (Batra and Ahtola, 1991; Babin, Darden and Griffin, 1994; Babin and Attaway, 2000). Therefore, consumers who hold high utilitarian value are likely to spend minimal time in the retail stores, are likely to get irritated when they cannot find the products that they desire, and are likely to perceive shopping as a mission (i.e., they are satisfied as long as the mission is accomplished) (Babin, Darden and Griffin, 1994). In contrast, consumers who hold high hedonic value achieve gratification through the shopping process (Hirschman and Holbrook, 1982; Babin, Darden and Griffin, 1994). For instance, the Christmas shoppers in Fischer and Arnold's (1990) study seek shopping experiences that increase their arousals, are fun and exciting, and provide them with a gratifying sense of achievement.

Hedonic-oriented consumers are also likely to perceive shopping as a form of escapism or adventure (Babin, Darden and Griffin, 1994). Alternatively, they may seek hedonic gratification through the process of bargaining as the achievement attained from bargaining provides consumers with a sense of increased sensory involvement, self-fulfilment and excitement (Sherry, 1990). Hedonic-oriented consumers have also been shown to exhibit rational and irrational buying behaviours. For instance, purchases made by product enthusiasts are categorised as a mild form of irrational hedonic buying behaviour (Bloch and Bruce, 1984), whereas impulsive (Rook, 1987; Beatty and Ferrell, 1998) and compulsive buying behaviours (Faber and O'Guinn, 1989; Hirschman, 1992) are considered to be highly irrational hedonic purchasing behaviours. As Sherry (1990, pp. 27) concluded, "the seeking of such experience is often far more significant than the mere acquisition of products".

Studies on shopping orientation generally have found that utilitarian and hedonic values are positively related to consumer repatronage intention (e.g., Jones, 1999; Babin and Attaway, 2000; Carpenter and Fairhurst, 2005), perceptions of the retail store (Haytko and Baker, 2004; Carpenter, Moore and Fairhurst, 2005), and approach behaviour (i.e., refers to consumers' increased willingness to interact with others in an environment, to spend time and return to an environment, and to spend money) (Babin, Chebat and Michon, 2004). Hedonic-oriented consumers have also been shown to exhibit various levels of hedonic value in different retail store settings, whereas both utilitarian- and hedonic-oriented consumers expect a minimum level of utilitarian value in retail stores, particularly in grocery-related environments (e.g., Bellizzi and Bristol, 2004; Mai and Zhao, 2004; Moschis, Curasi and Bellenger, 2004; Carpenter, Moore and Fairhurst, 2005). Consumers are more likely to exhibit repatronage and store loyalty intentions toward grocery retailers if the stores offer a wide variety of products, are conveniently located both in physical locations and display units, and have fast check-out registers (i.e., all these attributes are related to utilitarian value) (Bellizzi and Bristol, 2004; Mai and Zhao, 2004; Moschis, Curasi and Bellenger, 2004).

Nevertheless, some researchers suggest that patronage intention is not positively related to hedonic value (Babin and Babin, 2001), utilitarian value is not positively related to repatronage intention (Stoel, Wickliffe and Lee, 2004), and consumers associated with low hedonic attributes (i.e., utilitarian value) tend to relate store loyalty with cost savings, even at the expense of product quality (Ailawadi, Neslin and Gedenk, 2001). This suggests that the relationship between hedonic and utilitarian values and repatronage/store loyalty intention is country- and context-specific. For instance, Chinese shoppers in the PRC are less hedonistic than Korean shoppers (Kim et al., 2002), American shoppers (Li et al., 2004), and Hong Kong shoppers (Tsang et al., 2003); French Canadian shoppers are more hedonistic than English Canadian shoppers (Michon and Chebat, 2004); and Hispanic American adolescents are more hedonistic than White and Native American adolescents (Shim and Gehrt, 1996).

A summary of research findings (from 1994 to 2005) on shopping orientation is presented in Table 2.6. Note that the review tabulated in Table 2.6 focused more on papers published from 2000 to 2005 because research on the shopping orientation construct have moved on significantly from the typical identification of utilitarian and hedonic values (e.g., Fischer and Arnold, 1990; Sherry, 1990; Batra and Ahtola, 1991) into other domains, such as diverse retail settings (with respect to retail format, demographics, culture and ethnicity) and antecedents and consequences of utilitarian and hedonic shopping values (refer to Table 2.6 which is arranged in chronological order). Furthermore, some studies in the last 6 years were found to contradict prior established results or offered different insights into consumer store patronage behaviour (e.g., Griffin, Babin and Modianos, 2000; Ailawadi, Neslin and Gedenk, 2001; Babin and Babin, 2001; Stoel, Wickliffe and Lee, 2004).

Table 2.6

A review of past studies on shopping orientation in the retailer context (1994-2005)

Authors	Year	Sample	Location	Category	Findings
Carpenter and Fairhurst	2005	Student	USA	Specialty Apparel Retailers	The relationship between utilitarian and hedonic shopping benefits and customer satisfaction were significant and positive. Customer satisfaction is positively related to customer loyalty and word of mouth communication.
Carpenter, Moore and Fairhurst	2005	Student	USA	Specialty Apparel Retailers	Significant differences in consumer perceptions of hedonic value across the three retail apparel brands. Consumers expect retailers to consistently deliver a minimum level of utilitarian value.
Eroglu, Machleit and Barr	2005	Public	USA	Hypermarkets, Department Store and Mall	Perceived retail crowding negatively affects shopping value. Utilitarian and hedonic values are positively related to shopping satisfaction.
Babin et al.	2005	Public	Korea	Family-style Chain Dinner Houses	Increased positive affect leads to higher hedonic and utilitarian service value assessments. Negative affect has no significant effect on perceived service value. Both utilitarian and hedonic values are positively related to satisfaction and WOM (i.e., word of mouth).
Hung, Gu and Tse	2005	China National Readership Survey	China	Media (TV and newspaper)	Participants who score high mean values on trend-conscious and personal taste would be more likely to engage in status-seeking consumption, whereas participants who score high mean values on utilitarian and conservatism would be more likely to refrain from engaging in status-seeking consumption.
Michon and Chebat	2004	Public	Canada	Shopping Mall	French Canadian mall shoppers are more hedonistic than English Canadian mall shoppers. French Canadian mall shoppers are also more utilitarian than English Canadian shoppers. French shoppers are less likely than English shoppers to engage in mall activities other than buying products or services.
Moschis, Curasi and Bellenger	2004	Public	USA	Grocery Retailers	more than 80% of the respondents indicated that ease of locating merchandise/item and location near to the respondent's residence are important factors in their decision to start or to continue patronising the grocery store. This suggests that they are mostly utilitarian-oriented.
Haytko and Baker	2004	Public	USA	Shopping Mall	Exploratory study of adolescent girls' experiences in shopping malls: Hedonic orientation leads to positive perception of shopping malls.
Bellizzi and Bristol	2004	Public	USA	Grocery Retailers	Respondents indicated that they would more likely be loyal to stores offering a wide variety of fresh produce, a high quality meat department, a fresh bakery, a wide-selection deli counter, convenient location and quick-moving check-out lines. This suggests that they are mostly utilitarian-oriented.
Babin, Chebat and Michon	2004	Public	USA	Shopping Mall	Both utilitarian and hedonic values are related positively to approach behaviour.
Stoel, Wickliffe and Lee	2004	Public	USA	Shopping Mall	Hedonic shopping value positively influences repatronage intention but utilitarian shopping value does not.
Li et al.	2004	Public	USA and China	Shopping Mall	The shopping motives of Chinese consumers for visiting shopping malls are mostly utilitarian-oriented, whereas U.S. consumers patronise shopping malls for both hedonic and utilitarian needs.
Mai and Zhao	2004	Public	China	Supermarkets	Beijing consumers rated "closeness to home", followed by "satisfactory product assortment, "good quality" and "reasonable price" for their patronage motives. This suggests that they are utilitarian-oriented.
Tsang et al.	2003	Public	Xi'an (China) and Hong Kong	Shopping Mall	Xi'an shoppers tend to be more utilitarian and make more planned purchases. Hong Kong shoppers go to malls with multiple shopping intents. However, Xi'an shoppers visit malls with some non-utilitarian motives and make unplanned purchases, suggesting that a "shopping lifestyle" may be emerging in West China.

Authors	Year	Sample	Location	Category	Findings
Arnold and Reynolds	2003	Student	USA		Developed a scale for measuring hedonic shopping motivations.
Kim et al.	2002	Female Shoppers	China and Korea	Apparel Retailers	Chinese consumers are less hedonic than Korean consumers. Both samples rated functional needs (i.e., utilitarian needs) the highest.
Babin and Babin	2001	Female Shoppers	USA	Hypothesised Apparel Retailers	Patronage intention is positively related to utilitarian value but not to hedonic value.
Otnes and McGrath	2001	Public / Student	USA	Shopping Mall	Two studies were conducted. Male shoppers evaluate alternative products, goes bargain hunting, and enjoy shopping. This suggests that they are mostly hedonic-oriented.
Ailawadi, Neslin and Gedenk	2001	Public	USA	Shopping Mall	Consumers associated with low hedonic attributes tend to relate store loyalty with cost savings, even at the expense of product quality.
Babin and Attaway	2000	Public	USA	Shopping Mall	Hedonic and utilitarian shopping value is positively related to customer share.
Griffin, Babin and Modianos	2000	Public	Russia	Shopping Mall	Consumers exposed to relatively poor conditions show little difference in enjoyment than those who benefit from richer conditions. Russian shoppers report lower ratings in their ability to complete a shopping task. In contrast, their reports for hedonic values are similar to those in the U.S.
Jones	1999	Student and Public	USA	No specific type of retail store	Customer factors (e.g., utilitarian and hedonic orientation) were found to be more memorable than retailer factors such as the environment.
Shim and Gehrt	1996	Student	USA	No specific type of retail store	Hispanic adolescents are more hedonic-oriented than White and Native U.S. adolescents. White adolescents are more utilitarian-oriented than Hispanic and Native adolescents.
Babin and Darden	1995	Public	USA	Shopping Mall	Action-oriented shoppers' utilitarian shopping value is affected more by increased resource expenditures than it is among state-oriented shoppers. The direct effects of pleasure and arousal on hedonic shopping value are greater among action oriented shoppers. Action-oriented individuals generally form relatively firm intentions prior to starting an activity, whereas state-oriented individuals possess a cognitive structure guided more by social and emotional elements of some internal or external state.
Babin, Darden and Griffin	1994	Public	USA	Shopping Mall	Developed a scale to measure utilitarian and hedonic shopping value.

2.4 Customer Loyalty

Previous research indicates that hedonic and utilitarian values contribute to retail store and product brand loyalty (e.g., Babin and Attaway, 2000; Chaudhuri and Holbrook, 2001), although customer satisfaction is a mediator of this relationship (Carpenter and Fairhurst, 2005). Despite strong empirical evidence supporting customer satisfaction as an antecedent of loyalty (e.g., Biong, 1993; Gronholdt, Martensen and Kristensen, 2000; Szymanski and Henard, 2001), a recent study by Bennett and Rundle-Thiele (2004) empirically showed that customer satisfaction does not result in loyalty. This shift in emphasis from satisfaction to loyalty was also prominent for organisations because customer loyalty contributes various benefits to organisations (e.g., Fornell and Wernerfelt, 1987; Reichheld and Sasser, 1990; Hallowell, 1996; Reichheld and Teal, 1996). Loyal customers are less likely to switch allegiance to rival stores (Reichheld and Teal, 1996; Rhee and Bell, 2002), retailers with the highest number of loyal customers own the largest share of the market (Enis and Paul, 1970; Fornell and Wernerfelt, 1987; Chaudhuri and Holbrook, 2001), and firms are rewarded with more capital from investors (Anderson, Fornell and Mazvancheryl, 2004). Furthermore, store loyal customers allocate much larger proportions of their expenditures to their first choice stores than do less store loyal customers, and loyal customers are no more expensive to serve than non-loyal customers (Enis and Paul, 1970).

According to Oliver (1997, pp.392), customer loyalty is “a deeply held commitment to rebuy or repatronise a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour”. Customer loyalty represents the highest level of patronage motives (James, Walker and Etzel, 1975), and companies have benefited from building long term relationships with their customers (Parasuraman, Berry and Zeithaml, 1991; Zeithaml, Berry and Parasuraman, 1993). Store loyal customers place a high priority to patronise their preferred retail stores, and this tendency (to patronise their preferred stores) is repetitive and constant until they experience negative shopping incidents within the stores (e.g. poor customer service, poor returns policy) (Kunkel and Berry, 1968). They are also less likely to switch their purchasing attention to rival retail stores as long as the core attributes of their

preferred stores matches those of the store loyal customers (Anderson, 1973). In addition, the longer the shoppers continue to shop in their main retail stores or online stores, the less likely they are to switch allegiance to rival stores (Reichheld and Sasser, 1990; Rhee and Bell, 2002; Rafiq and Fulford, 2005). Osman (1993, pp.137) identified five dimensions of customer loyalty patronage behaviour that were commonly conceptualised and measured in past studies:

1. Percentage of purchases of a specified product category at a chosen store.
2. Frequency of visits to the store in relation to other stores during a certain specified period.
3. Ratio of ranking between stores.
4. Propensity to shop at the store in the future.
5. Extent of the customers' willingness to recommend the store to their friends.

Nevertheless, researchers suggest that customer loyalty should be separated into behavioural (e.g, items 1-3 in the list above) and attitudinal (e.g, items 4 and 5 in the list above) so as to improve the predictive ability of the customer loyalty construct (e.g., Dick and Basu, 1994; Chaudhuri, 1995; Baldinger and Rubinson, 1996; Park, 1996). Behavioural loyalty refers to repeated purchase of the same brands, whereas attitudinal loyalty includes brand preference or emotional commitment associated with the brand (Chaudhuri and Holbrook, 2001). In other words, behavioural loyalty is based on consumers' actual loyalty to a specific brand as reflected in their product or retail store choice, whereas the attitudinal dimension emphasises consumers' intentions to be loyal to the product or store brands. Although numerous studies have examined the customer loyalty construct (c.f., Szymanski and Henard, 2001), researchers are still prone to conceptualise this construct based on the behavioural definition (von Riesen, von Riesen and Herndorn, 1999). This may be due to methodology issues, such as measurement (i.e., easier to measure as behavioural loyalty is observable) and cost efficiency (i.e., data on behavioural loyalty is less costly to collect than data on attitudinal loyalty) (Dekimpe et al., 1997). In spite of this, behavioural definitions fail to address 'how' and 'why' brand loyalty is developed and evolved in consumers, thus the need to explore the loyalty concept beyond operational measures (Dick and Basu, 1994). Specifically, there is a

need to examine the psychological dimensions of customer loyalty, which is attitudinal loyalty (Jacoby, 1971; Dick and Basu, 1994).

The application of attitudinal loyalty in retailing, particularly grocery retailing, is still a relatively recent occurrence (Rafiq and Fulford, 2005). Most of the attitudinal loyalty studies focused on products (e.g., Jacoby, 1971; Lichtenstein, Netemeyer and Burton, 1990; Fournier and Yao, 1997) and services such as consultancy (Patterson, Johnson and Spreng, 1997), accounting (Shimp and Dyer, 1981) and the service industry in general (Gwinner, Gremler and Bitner, 1998). In the retailing context, past studies have generally found a positive relationship between customer satisfaction and loyalty (e.g., Gronholdt, Martensen and Kristensen, 2000; Reynolds and Arnold, 2000; Bloemer and Odekerkem-Schroder, 2002; Juhl, Kristensen and Ostergaard, 2002; Eskildsen et al., 2004; Carpenter and Fairhurst, 2005), whereas some researchers argued that customer satisfaction is different from attitudinal loyalty and high levels of satisfaction does not necessarily lead to greater loyalty (e.g., Grisaffe, 2001; Bennett and Rundle-Thiele, 2004).

More importantly, the empirical work by Reynolds and Arnold (2000) suggest that competitive resistance (i.e., customers' willingness to resist competitive offerings from other retailers), as a dimension of attitudinal loyalty, is positively related to share of purchase, which is a dimension of behavioural loyalty. That is, attitudinal loyalty drives behavioural loyalty, which is generally in the direction predicted by theory in the psychological and sociological literature, i.e., attitudes drive behaviour (e.g., Reynolds and Arnold, 2000; Uncles, Dowling and Hammond, 2003).

2.5 Summary

This chapter provided a literature-based assessment of five main constructs, namely the country-of-origin and store brand effects in multiple-cue country-of-origin studies, the consumer ethnocentrism effect, shopping orientation (i.e., utilitarian and hedonic values), and customer loyalty. Existing research gaps in the respective literature are summarised in the next chapter. The next chapter also includes an attempt to reconcile these constructs within a conceptual model in the context of consumers who patronise grocery-related retail stores in the PRC and their evaluations and intended patronage of foreign grocery stores.

3.0 CONCEPTUAL FRAMEWORK

The purpose of this chapter is threefold. First, drawing from the findings of the country-of-origin (COO), consumer ethnocentrism (CET), shopping orientation, and customer loyalty literature in Chapter 2, existing research gaps in the respective literature are detailed in Section 3.1 with respect to where this research adds theoretical contribution to the existing literature. In Section 3.2, an initial investigative study was conducted in Beijing (i.e., capitol of the People's Republic of China) in order to provide further evidence for the research hypotheses developed in Section 3.3. Next, a conceptual framework consisting of the paths to be formally analysed via structural equation modelling is provided in Section 3.4. Finally, a chapter summary is provided in Section 3.5.

3.1 A Summary of Existing Research Gaps

To recap the main points from the literature review in Chapter 2, empirical evidence in the existing COO literature indicate that (1) there are still no conclusive findings with respect to the saliency of the COO cue in the presence of store brand cue, and (2) there are relatively few multiple-cue COO studies that examined both the COO cue and store brand cue simultaneously within a study, particularly in the context of grocery retailing in the People's Republic of China (PRC). Nevertheless, studies on the COO effect generally have found that both the COO cue and store brand cue are positively related to consumers' perceptions, evaluations and purchase intentions (e.g., Darling and Kraft, 1977; Morganosky and Lazarde, 1987; Chao, 1989a; Lin and Sternquist, 1994; Teas and Agarwal, 2000, 2001).

As for the CET literature, there are few studies that explicitly investigated the CET construct in the PRC and these studies were based on consumers' attitudes toward imported products rather than attitudes toward foreign retailers (e.g., Klein, Ettenson and Morris, 1998; Yu and Albaum, 2002; Wang and Chen, 2004). Moreover, relatively little is known about (1) variables that may counteract the impact of CET (e.g., Sharma, Shimp and Shin, 1995; Wang and Chen, 2004), (2) studies that include the customer loyalty construct as an

extension of the consequences of CET beyond willingness to shop in foreign retail stores, and (3) studies that investigate the impact of socially desirable response bias on the robustness of the CETSCALE in the PRC context (e.g., Hult, Keillor and Lafferty, 1999; Keiller, D'Amico and Horton, 2001).

In the shopping orientation literature, there are few studies that evaluated the level of utilitarian and hedonic values of the PRC consumers (e.g., Kim et al., 2002; Tsang et al., 2003; Li et al., 2004), especially in the context of grocery retailing. Furthermore, few studies have attempted to explore the relationship between shopping orientation and customer loyalty (e.g., Babin and Attaway, 2000; Stoel, Wickliffe and Lee, 2004; Carpenter and Fairhurst, 2005), particularly in the context of grocery retailing in the PRC. In summary, these are the current research gaps in the respective literature:

- (1) No known multiple-cue country-of-origin studies that simultaneously examined the country-of-origin and store brand cues in the context of consumer store patronage intention towards foreign grocery stores in the PRC.
- (2) No known consumer ethnocentrism studies conducted in the PRC that assessed the impact of consumer ethnocentrism on consumers' willingness to shop in foreign grocery stores.
- (3) No known studies that identified or empirically tested shopping orientation as a moderator of the relationship between consumer ethnocentrism and the consumers' willingness to shop in foreign grocery stores.
- (4) No known studies in the consumer ethnocentrism literature that extended the conceptual framework beyond the 'willingness to shop' decision to customer loyalty.
- (5) No known studies that investigated the relationship between shopping orientation and customer loyalty towards foreign grocery retailers in the PRC context.
- (6) No known consumer ethnocentrism studies that assessed the impact of socially desirable response bias on the robustness of the CETSCALE in the PRC.

As has been mentioned in Chapter 1, the PRC is an emerging market that has attracted strong attention from international retailers and these international retailers, particularly those in the grocery sector, have contributed significantly to the retail landscape in the PRC such as retail structure, distribution network, technology transfer and general retail management. Nevertheless, little is known about PRC consumers' motivations for or against patronising retail stores owned by these international grocery retailers. The issues addressed in this study, as detailed in terms of the aforementioned research gaps, are important for marketing theory development towards gaining a better understanding of consumer retail store patronage behaviour in an emerging powerful market. This study builds upon relevant streams of research advancement, namely country-of-origin effect, consumer ethnocentrism effect, shopping orientation, and customer loyalty, as possible antecedents and consequences of consumers' willingness to shop in foreign grocery retail stores. Whilst these concepts in previous studies were generally investigated in isolation, this study represents the first step in the respective literature to reconcile these concepts into a model of foreign retail store patronage, with particular emphasis on international grocery retailers in the PRC.

This study is also the first attempt in the consumer ethnocentrism literature (1) to examine shopping orientation, specifically utilitarian value, as a moderator of the relationship between consumer ethnocentrism and consumers' reluctance to shop in foreign retail stores, and (2) to extend beyond the commonly investigated consumer ethnocentrism-store patronage intention relationship to include customer loyalty. Whilst researchers have established the saliency of the consumer ethnocentrism effect on consumers' negative attitudes toward foreign products and foreign retailers, the variables that may moderate this relationship is still relatively unknown in the consumer ethnocentrism literature (Sharma, Shimp and Shin, 1995). Specifically, our knowledge of this construct is mostly limited to an understanding of the antecedents and consequences of this construct based on the plethora of consumer ethnocentrism articles in the marketing literature. Hence, this study sets a new precedence in consumer ethnocentrism research by investigating an established concept in the marketing literature, shopping orientation, as a significant moderator of consumer ethnocentrism.

Likewise, no studies in the consumer ethnocentrism literature have been found to examine the customer loyalty construct, even though this construct is such an important construct in the marketing and retailing literature today (e.g., Fornell and Wernerfelt, 1987; Reichheld and Sasser, 1990; Hallowell, 1996; Reichheld and Teal, 1996; Babin and Attaway, 2000; Rafiq and Fulford, 2005). Therefore, empirical findings from this study may shed new lights about the determinants of customer loyalty. Lastly, socially desirable response bias is a serious yet often ignored issue in international marketing research (King and Bruner, 2000). Nonetheless, there were only two studies found in the CET literature that assessed the relationship between social desirability bias and consumer ethnocentrism, namely Hult, Keillor and Lafferty (1999) and Keillor, D'Amico and Horton (2001). Despite the potential of socially desirable response bias reducing the quality of the collected data, few studies have tested for this response bias vis-à-vis other constructs. Hence, this study has made a concerted attempt to provide further insights on the impact of socially desirable response bias on the robustness of established measurement instruments as well as data quality.

3.2 Initial Investigative Study In Beijing

Conducting an initial investigative study in the identified sampling population (i.e., Beijing in this study) may assist researchers to determine the best research design, data collection method and selection of subjects (Saunders, Lewis and Thornhill, 2000). Likewise, findings from an initial study may shed light on whether the research problems actually exist, i.e., whether it is worth exploring the proposed research questions. The findings may also assist researchers to develop their research hypotheses, particularly in cases where there is a lack of previous empirical evidence in relation to a specific sampling population. Another reason for conducting an initial study is related to cost. Given that it is expensive to conduct consumer surveys in foreign countries, the financial implications will be high if the proposed research questions are irrelevant to the sampling population. Lastly, an initial study is a useful means to minimise cultural bias and improve data quality.

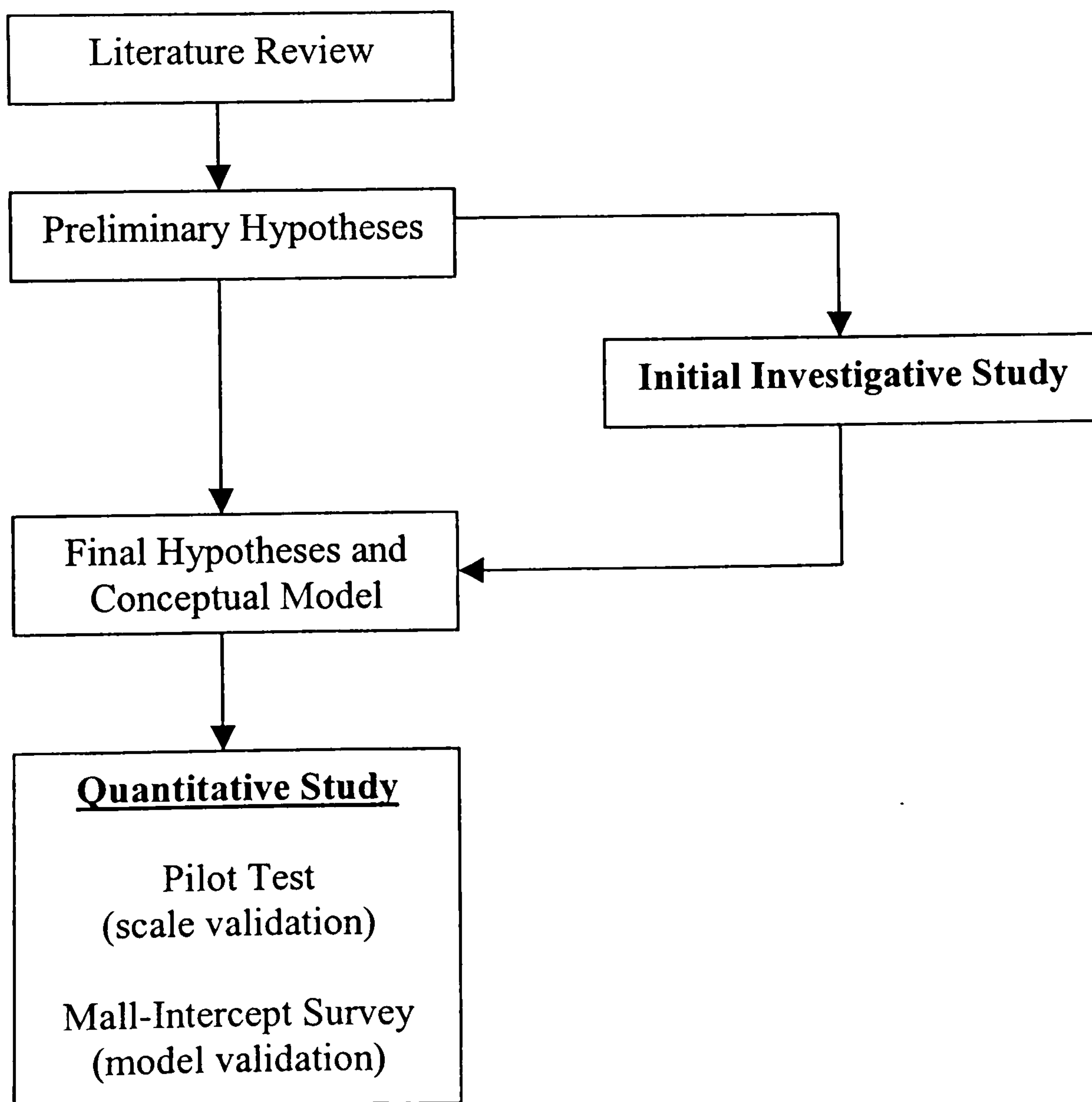
Cultural bias arises when researchers are unable to comprehend or accurately interpret the (store/mall-intercept) data from another culture. As such, cultural bias may reduce the effectiveness of the research design (Craig and Douglas, 2000). In the context of this study, the researcher may be susceptible to inadequate appreciation of cultural nuances in the PRC and thus, may not fully understand how the Beijing consumers' values and cultural behaviour patterns impact on their store patronage decision. To address these cultural biases, an initial study in Beijing is important in order to identify the relevant research questions, establish the appropriate constructs, operationalise definitions and measures, and ensure that the measurement instrument is adapted to Beijing's socio-cultural environment. General issues relating to cultural bias is further elaborated in Chapter 4 (Section 4.1.2).

An initial investigative study should therefore be an important prelude to the actual data collection (Figure 4.1). As such, the aim of employing an initial investigative study in this research is threefold: (1) to ensure that the research questions are applicable to the Beijing consumers, (2) to use the findings to develop this study's research hypotheses, and (3) to minimise the effects of cultural bias. Focus group studies and structured interviews with the consumers in Beijing were undertaken to determine the validity of the research questions to the sampling population, as well as to use these findings to develop the research hypotheses in this study. The Beijing consumers were asked about (1) their perceptions of domestic and foreign retail stores in Beijing, particularly grocery-related retail stores, (2) their attitudes toward foreign grocery-related retailers, and (3) their grocery shopping motives (i.e., utilitarian or hedonic shopping values) and attitudes toward shopping in general. Findings from the focus group studies and structured interviews are detailed in Appendix 2. These findings were valuable because it ensured that the facts could be measured quantitatively (Saunders, Lewis and Thornhill, 2000). In addition, this initial study provided an opportunity for the researcher to be familiarised with the actual survey environment. The following information was collected in Beijing for a period of 2 weeks (from 15th to 28th June 2004) by the researcher:

1. The types of foreign retail establishments in Beijing.
2. The location of the foreign grocery retail stores and their surrounding environments.

3. The traffic flow of consumers at different times of the day and week in and around the foreign grocery retail stores.
4. The types of consumers, in terms of demographics and shopping orientation, who shop in foreign grocery retail stores versus those who shop in domestic grocery retail stores.
5. The type of products purchased by consumers in domestic and foreign grocery retail stores.
6. The patronage level of consumers who shop in foreign grocery retail stores as compared to those who shop in domestic grocery retail stores.

Figure 3.1
Initial investigative study



3.3 Research Hypotheses

It is important to note at this point that the following hypotheses are framed in the context of consumers from Beijing, capital of the People's Republic of China (PRC), and their evaluations, intended patronage and loyalty towards foreign grocery-related retail stores in Beijing. Past studies have indicated that the PRC is not a homogeneous market (e.g., LaTour and Henthorne, 1990; Khan et al., 1993; Sum, 1997; Cui, 1999; Cui and Liu, 2001; Hansen, 2001; Dickson et al., 2004), and the PRC may be divided into eight distinctive regional markets based on economic development, local culture and consumer attitudes, namely South China (e.g., Guangdong, Hong Kong), East China (e.g., Shanghai), North China (e.g., Beijing), Northeast China (e.g., Heilongjiang), Central China (e.g., Hunan), Southwest China (e.g., Sichuan), Northwest China (e.g., inner Mongolia), and West China (e.g., Tibet) (Cui, 1999). Therefore, findings from this study may only be, at best, generalisable to consumers within the North China region.

Previous research on country-of-origin (COO) effect in the PRC has indicated that COO, as a country image cue, is positively related to product preference, i.e., products from highly industrialised or high image countries (e.g., U.S.A., Japan, Canada, Italy, France and Germany) were perceived more favourably than those from newly industrialised countries or low image countries (e.g., LaTour and Henthorne, 1990; Zhang, 1996; Klein, Ettenson and Morris, 1998; Ahmed and d'Astous, 2004; DeLong et al., 2004; Dickson et al., 2004). For instance, PRC consumers preferred products from Japan, West Germany and the U.S. as compared to domestic-made products in Latour and Henthorne (1990)'s study of 481 consumers from Beijing, Shanghai, Tianjin, Guangzhou and Chong Qing. Likewise, Zhang (1996) found that the 300 Beijing shoppers in his study preferred Japan- and U.S.-made products to Korean-made products even though Korea is more culturally similar to the PRC than Japan and U.S.A. More significantly, Wang and Chen (2004) suggested that the impact of the COO cue was so strong that even consumers who hold negative attitudes against imported products (due to conservative and/or patriotic reasons) were willing to purchase foreign-made products. The 800 samples in Wang and Chen's (2004) study were obtained from Beijing, Shanghai, Guangzhou and Chengdu (i.e., 200 consumers per city) via a

stratified sampling plan based on the population distribution in the districts of each city. Conversely, some studies suggested that the saliency of the COO cue varies across geographic regions in the PRC (e.g., Latour and Henthorne, 1990; Klein, Ettenson and Morris, 1998; Hansen, 2001; Dickson et al., 2004).

Nevertheless, given that (1) Beijing consumers have positive perceptions of Western products (e.g., Latour and Henthorne, 1990; Zhang, 1996; Wang and Chen, 2004), and (2) findings from the initial investigative study of Beijing consumers in this study indicate that Beijing consumers have positive perceptions of foreign products and retailers (i.e., Beijing consumers have a general positive perception of ‘foreignness’) (refer to Appendix 2), the COO cue is hypothesised to have a positive effect on the Beijing consumers’ willingness to shop in foreign grocery stores originating from Europe.

Note: (1) the COO cue in this study refers to the impact of generalisations and perceptions about a country, its citizens and its culture on consumers’ evaluation of the country’s products and retailers (Nagashima, 1970). (2) Europe was chosen as the COO cue because consumers have shown to perceive products “made in Europe” as favourably as those made in the U.S. and Japan (c.f., Schweiger, Haubl and Friederes, 1995). Moreover, there are a significant number of European hypermarkets (i.e., large scale grocery retail format) currently operating in the PRC (e.g., Auchan, Carrefour, SPAR). Although Beijing consumers may be familiar with European hypermarket retailers, they may not be able to differentiate sufficiently between hypermarket retailers from different European countries. As such, Europe, as a single entity that received favourable consumer perception (Scheweiger, Haubl and Friederes, 1995), was used to represent the COO cue in this study.

H₁: Country-of-origin (COO) cue will be related positively to the Beijing consumers’ willingness to shop in foreign grocery stores.

The store brand cue has also been found to have a significant positive effect on consumers’ perceptions of foreign products in previous multiple-cue COO studies. That is, past studies have generally found that the store brand cue has a positive impact on consumers’ perceived

quality and overall attitude when foreign products are sold in prestigious retail stores (e.g., Reiersen, 1967; Thorelli, Lim and Ye, 1989; Agarwal and Teas, 2001, 2004). Specifically, consumers who have positive images of a store brand name would perceive the product attributes displayed in the retail store positively, particularly if consumers are familiar with the store brand name and/or the retailer has a reputation for high product quality (e.g., Chao, 1989a, 1989b; Thorelli, Lim and Ye, 1989; Davis, Kern and Sternquist, 1990; Teas and Agarwal, 2000; Agarwal and Teas, 2001, 2004).

Consumers rely on the reputation of prestigious stores for an inferred product warranty so as to reduce the perceived risk associated with purchases (Davis, Kern and Sternquist, 1990). For instance, the most commonly cited reasons that PRC consumers patronise Carrefour, a French hypermarket, are its strong reputation, its dependable product quality, and its convenience due to its wide product range (Chain Store Age, 2003). Similar findings were found in the initial investigate study of Beijing consumers in this study (refer to Appendix 2), i.e., Beijing consumers shop in Carrefour because of its reliable product quality and convenience. Hence, the store brand cue is hypothesised to have a positive effect on the Beijing consumers' willingness to shop in foreign grocery stores.

H₂: Store brand cue will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.

Another factor that has been shown to have a strong influence on consumers' willingness to shop in foreign retail stores is consumer ethnocentrism (CET) (Good and Huddleston, 1995). CET refers to the beliefs held by consumers that it is inappropriate to purchase imported products (Shimp and Sharma, 1987). Ethnocentric consumers' tend to prefer domestic-made products (e.g., Sharma, Shimp and Shin, 1995; Klein, Ettenson and Morris, 1998; Suh and Kwon, 2002), and domestic-owned retail stores (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002). In the PRC context, empirical evidence has indicated that consumers who hold high CET levels are reluctant to purchase imported products (Klein, Ettenson and Morris, 1998; Yu and Albaum, 2001; Wang and Chen, 2004).

Although no known studies have been found to examine the relationship between CET and consumers' willingness to shop in foreign retail stores in the PRC, a recent report published by Chain Store Age (a magazine for retailing executives) in 2003 suggests that patriotism may have an impact on consumers' reluctance to shop in foreign grocery stores. According to the report, which was designed by Leo J. Shapiro & Associates (a Chicago-based research firm) and conducted in Beijing, Shanghai, Guangzhou and Chengdu by Beijing-based Feng & Associates in September 2002, 70% of the consumers who are familiar with foreign grocery retailers preferred to shop in domestic grocery stores "because I'm Chinese", "I love my country", and "for the interest of Chinese business" (Chain Store Age, 2003, pp.53). Since patriotism is an antecedent of consumer ethnocentrism (CET) (Sharma, Shimp and Shin, 1995; Klein and Ettenson, 1999; Balabanis et al., 2001); CET is hypothesised to be negatively related to the Beijing consumers' willingness to shop in foreign grocery stores.

H₃: Consumer ethnocentrism (CET) will be related negatively to the Beijing consumers' willingness to shop in foreign grocery stores.

The empirical work by Wang and Chen (2004) on PRC consumers indicates that when CET and conspicuous consumption are taken together to predict consumers' attitudes toward domestic products and their purchase intentions, CET becomes a significant predictor only when consumers hold low conspicuous consumption values. Conspicuous consumers seek social status within their community and are motivated by social/symbolic benefits rather than economic benefits in their product purchase decisions (Mason, 1981). A recent study by Hung, Gu and Tse (2005) found that status-seeking PRC consumers tend to be hedonic-oriented, whereas those who refrain from status-seeking consumption tend to be utilitarian-oriented. This suggests that hedonic and utilitarian values may be moderators of CET.

In a retail-shopping context, utilitarian-oriented consumers relate shopping trips as errands or task-specific. They achieve personal satisfaction only if the task is completed successfully with minimal time and effort wasted. Conversely, hedonic-oriented consumers seek shopping experiences that are fun, exciting, and stimulating, i.e., a rewarding shopping experience (e.g., increased arousal, heightened involvement, perceived freedom) is more

crucial than the product purchase outcome (Hirschman and Holbrook, 1982; Babin, Darden and Griffin, 1994; Babin and Attaway, 2000; Li et al., 2004; Stoel, Wickliffe and Lee, 2004). It is important to note at this point that early research in hedonic and utilitarian values has generally conceptualised these two shopping values as a two-factor solution of one construct (i.e., Personal Shopping Value) (see Babin, Darden and Griffin, 1994, pp.649). However, recent studies have generally conceptualised hedonic and utilitarian values as two separate constructs (e.g., Babin and Attaway, 2000; Stoel, Wickliffe and Lee, 2004; Babin et al., 2005). That is, empirical evidence in these recent studies showed that hedonic value and utilitarian value are not highly correlated (i.e., correlation between hedonic value and utilitarian value less than 0.7). In light of these recent findings, this study adopts the latter conceptualisation, i.e., hedonic value and utilitarian value as two separate constructs.

In a developed country, CET and utilitarian value are positively correlated in most instances because both domestic and foreign grocery retailers are equally capable of satisfying the consumers' utilitarian needs. Consequently, consumers who are ethnocentric, regardless whether they hold high or low utilitarian value, are likely to reject foreign grocery retail stores. However, in a developing country such as the PRC, where the efficiency of goods and services in domestic grocery retail stores is perceived to be inferior to their foreign counterparts (Lo, Lau and Lin, 2001), utilitarian value may mitigate the impact of CET on consumers' foreign grocery retail store patronage intentions because utilitarian-oriented consumers who hold high CET levels are likely to patronise foreign retail stores if they are unable to obtain their desired products in domestic retail stores (further justification is detailed as follows).

On the one hand, high ethnocentric consumers tend to believe that it is inappropriate to shop in foreign grocery retail stores. On the other hand, utilitarian-oriented consumers are likely to seek immediate product purchase solutions in foreign grocery retail stores. Thus, consumers face a dilemma between two shopping values in their choice of domestic or foreign grocery retail stores: CET versus utilitarian value. Research on Russian consumers has shown that the domestic producers' lack of ability to satisfy demand, as a dimension of utilitarian value, is related to preference for imported products whereas patriotism, a

dimension of CET, is related to preference for Russian products (Good and Huddleston, 1995). Since the provision of goods and services by foreign grocery retailers is perceived to be superior to those by PRC grocery retailers (Lo, Lau and Lin, 2001), ethnocentric Beijing consumers who hold high utilitarian values are hypothesised to be more willing to shop in foreign grocery stores than those who hold low utilitarian values because foreign grocery retailers are generally perceived to be more competent than domestic PRC grocery retailers in satisfying the functional needs of high utilitarian-oriented ethnocentric consumers.

H₄: The relationship between CET and the Beijing consumers' willingness to shop in foreign grocery stores is moderated by the consumers' level of utilitarian value: specifically, under conditions of low utilitarian value, the relationship is negative and strong; at moderate levels of utilitarian value, the relationship becomes less negative; and under conditions of high utilitarian value, the relationship is neutralised.

Previous studies have consistently shown that PRC consumers are mostly utilitarian-oriented (Kim et al., 2002; Tsang et al., 2003; Li et al., 2004), and Beijing consumers patronise grocery stores that offer them the greatest convenience and product prices, quality and range (i.e., attributes that are associated with utilitarian value) (Mai and Zhao, 2004). These findings were also supported in the initial investigative study of Beijing consumers in this study (refer to Appendix 2). Given that Beijing consumers relate grocery shopping as a function of utilitarian value, utilitarian value is hypothesised to have a positive effect on Beijing consumers' willingness to shop in foreign grocery stores. Conversely, hedonic-oriented Beijing consumers are not likely to shop in grocery stores, regardless whether it is domestic or foreign grocery stores, because hedonic-oriented consumers are less likely to obtain the emotional gratification that they desire in grocery stores as grocery formats have a utilitarian orientation by nature (c.f., Bellizzi and Bristol, 2004; Mai and Zhao, 2004; Moschis, Curasi and Bellenger, 2004). As such, hedonic value is hypothesised to have a negative effect on Beijing consumers' willingness to shop in foreign grocery stores.

H_{4a}: Hedonic value will be related negatively to the Beijing consumers' willingness to shop in foreign grocery stores.

H_{4b}: Utilitarian value will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.

Empirical evidence indicates that hedonic and utilitarian values contribute to retail store and product brand loyalty (e.g., Babin and Attaway, 2000; Chaudhuri and Holbrook, 2001; Carpenter and Fairhurst, 2005). Researchers have indicated that the loyalty construct should be differentiated into behavioural loyalty and attitudinal loyalty in order to improve the predictive ability of this construct (Dick and Basu, 1994; Chaudhuri, 1995; Baldinger and Rubinson, 1996; Park, 1996). Behavioural loyalty refers to repeated patronage of the same retail brands and attitudinal loyalty includes retail brand preference or emotional commitment associated with the retail brand (Chaudhuri and Holbrook, 2001). In other words, behavioural loyalty is based on consumers' actual loyalty to a specific brand as reflected in their product or retail store choice, whereas the attitudinal dimension emphasises on consumers' intentions to be loyal to the product or store brands. Hence, attitudinal loyalty is represented as 'store loyalty intention' (Sirohi, Mclaughlin and Wittink, 1998) and behavioural loyalty is represented as 'customer share' (Babin and Attaway, 2000) in this study, where 'customer share' refers to frequency of store patronage and amount of expenditure spent in foreign grocery stores.

Researchers have also suggested that attitudinal loyalty drives behavioural loyalty (Reynolds and Arnold, 2000), which is generally in the direction predicted by theory in the psychological and sociological literature (Uncles, Dowling and Hammond, 2003). Therefore, Beijing consumers who are willing to shop in certain retail brands are likely to develop specific brand preferences (i.e., attitudinal loyalty) and subsequently, are likely to repeatedly patronise those retail brands (i.e., behavioural loyalty).

H₅: Beijing consumers' willingness to shop in foreign grocery stores will be related positively to store loyalty intention towards foreign grocery retailers.

H₆: Store loyalty intention towards foreign grocery retailers will be related positively to customer share in foreign grocery stores.

Although loyal customers are likely to repeatedly patronise retail stores that cater to their respective hedonic and utilitarian needs (Babin and Attaway, 2000), recent findings indicate that utilitarian value is not positively related to repatronage intention (Stoel, Wickliffe and Lee, 2004), and consumers associated with low hedonic attributes (i.e., utilitarian value) tend to relate store loyalty with cost savings, even at the expense of product quality (Ailawadi, Neslin and Gedenk, 2001). In the PRC context, as previously mentioned, the consumers were found to be mostly utilitarian-oriented (Kim et al., 2002; Tsang et al., 2003; Li et al., 2004), patronise grocery stores that offer them the greatest convenience and product prices, quality and range (Mai and Zhao, 2004; Business Week, 2005), and are less likely to be store loyal (Lo, Lau and Lin, 2001).

Therefore, utilitarian-oriented Beijing consumers are less likely to exhibit store loyal intentions towards any grocery retailers because they may be tempted to patronise other grocery retailers that can offer greater economic and functional benefits (see Lo, Lau and Lin, 2001). In contrast, hedonic-oriented consumers are more likely to exhibit store loyalty intentions as long as the grocery stores that they frequent are able to consistently satisfy their emotional/non-functional demands (Babin and Attaway, 2000; Stoel, Wickliffe and Lee, 2004; Carpenter and Fairhurst, 2005). Specifically, hedonic value is expected to be positively related to store loyalty intentions and utilitarian value is expected to be negatively related to store loyalty intentions.

H₇: Hedonic value will be related positively to store loyalty intention.

H₈: Utilitarian value will be related negatively to store loyalty intention.

Last but not least, there are only two studies found in the CET literature that assessed the relationship between social desirability bias and consumer ethnocentrism, namely (1) Hult, Keillor and Lafferty's (1999) study of consumers from the U.S., Sweden and Japan, and (2) Keillor, D'Amico and Horton's (2001) study of consumers from the U.S., France and Malaysia. Social desirability bias refers to consumers' tendencies to behave in a culturally acceptable manner within their own community even if such behaviour is significantly different from the consumers' own ideas (Crowne and Marlowe, 1964). In this respect, no

known CET studies have been found to examine this relationship in the PRC context. King and Bruner (2000) found that there were only 13 marketing-related studies, although none of these studies is related to CET, which reported testing for social desirability bias through a review of six high level marketing journals from 1980 to 1997. Likewise, Supphellen and Rittenburg (2001) noted that Hult, Keillor and Lafferty's (1999) work was the only known study that assessed social desirability bias in the CET literature.

In the CET context, consumers who exhibit strong social desirability bias are likely to have higher CETSCALE (i.e., the instrument that measures a consumers' level of ethnocentric tendencies) scores than those who exhibit low social desirability bias. Nevertheless, the CETSCALE should be consistent and not affected by levels of social desirability bias if it is indeed psychometrically sound (Hult, Keillor and Lafferty, 1999), as was reported in previous studies on the CETSCALE's robust psychometric properties (e.g., Netemeyer, Durvasula and Lichtenstein, 1991; Durvasula, Andrews and Netemeyer, 1997; Steenkamp and Baumgartner, 1998). Therefore, the following hypothesis is proposed.

H₉: There is no difference between an individual's CETSCALE scores based on social desirability bias.

Similarly, the CETSCALE should be consistent and not affected by different samples randomly obtained within the same sampling population. Specifically, the mean CETSCALE score of the Beijing consumers should be similar if more than one sample was randomly obtained in Beijing. However, previous CET studies have shown that consumers who support domestic retailers generally have higher CETSCALE scores than those who are receptive towards foreign retail stores (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002). To validate the findings from previous studies, the null hypothesis is proposed as follows.

H₁₀: There is no difference between a sample's mean CETSCALE score based on the same sampling population.

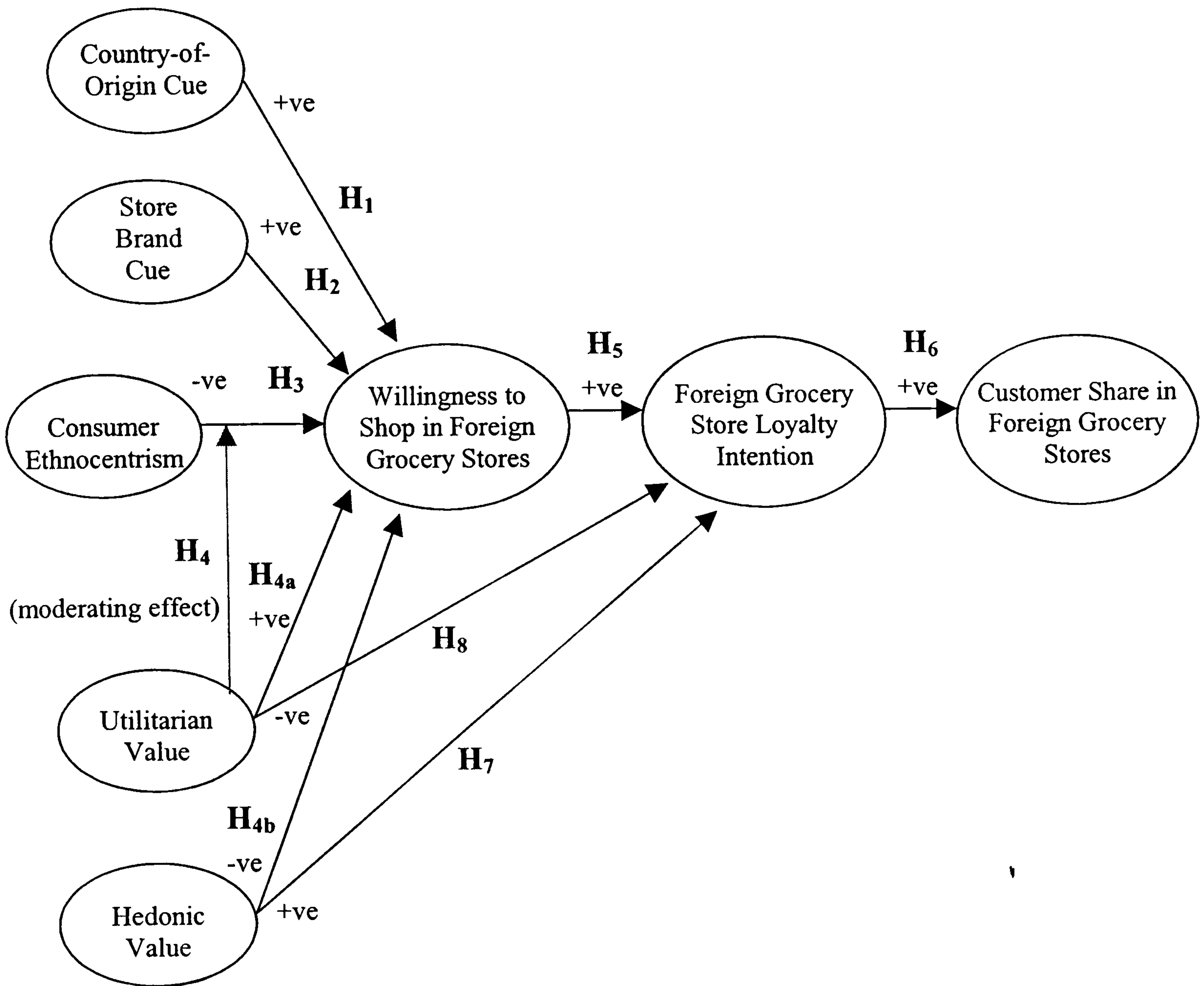
3.4 Conceptual Model

Figure 3.1 presents a conceptual model based on the research hypotheses specified in Section 3.2. Whilst previous research has only tested or provided empirical evidence for parts of this proposed model (Figure 3.1), this study represents the first step in the relevant literature to examine the various constructs simultaneously in one model. This model (Figure 3.1) hypothesises that the Beijing consumers' decision to shop in foreign grocery stores is determined by their perceived importance of the grocery retailers' country-of-origin (COO) and store brand image, which is influenced by their attitudes toward grocery retailers originating from Europe. The model also postulates that consumer ethnocentrism negatively affects the Beijing consumers' beliefs regarding shopping in foreign grocery stores, i.e., high ethnocentric consumers are reluctant to shop in foreign grocery stores.

Nevertheless, the model suggests that ethnocentric Beijing consumers who hold high utilitarian value are willing to shop in foreign grocery stores because foreign grocery retailers are more competent than domestic grocery retailers in serving the functional needs of the Beijing consumers. Following from this, the model posits that utilitarian-oriented Beijing consumers are willing to shop in foreign grocery stores because foreign grocery stores are able to satisfy their functional needs. Conversely, hedonic-oriented Beijing consumers are reluctant to shop in foreign grocery stores because they are less likely to find emotional gratification in grocery stores. Next, the model proposes that Beijing consumers who are willing to shop in foreign grocery stores are likely to develop store loyalty intentions toward these foreign grocery retailers and consequently, are likely to increase their expenditure in the foreign grocery stores (i.e., customer share). Finally, the model hypothesises that Beijing consumers who hold high hedonic value are likely to be store loyal, whereas Beijing consumers who hold high utilitarian value are less likely to be store loyal.

Figure 3.2

A consumer ethnocentrism model of foreign retail store patronage



3.5 Summary

The purpose of this chapter is threefold. First, existing research gaps in the respective literature have been identified and these research gaps represent this study's theoretical contribution to the country-of-origin, consumer ethnocentrism, shopping orientation, and customer loyalty literature. Next, an initial investigative study was conducted in Beijing (i.e., capitol of the People's Republic of China) in order to provide further evidence with respect to developing the research hypotheses in the context of consumers from Beijing (People's Republic of China) and their evaluations, intended patronage and intended loyalty towards foreign (i.e., European) grocery retailers. Specifically, the arguments leading to the research hypotheses were detailed based on past empirical findings of the PRC consumers and findings from the initial investigative study conducted in Beijing. In the case of insufficient information directly related to the PRC consumers, the arguments were drawn from previous results in other context (i.e., alternative country, product and/or retail settings) as well as practitioner reports. Finally, the research gaps were conceptualised as a model to be formally analysed via structural equation modelling.

4.0 RESEARCH METHODOLOGY

Having provided the foundations of a conceptual framework, this chapter describes the process undertaken to generate the data in order to test the proposed hypotheses. Data was collected from 500 adult consumers in the Chinese capital city of Beijing via a store-intercept survey for a period of 2 weeks (from 5th to 18th December 2005).

The first section in this chapter provides a discussion of

1. The reasons for using the store-intercept survey method (Section 4.1.1), which is similar to the mall-intercept survey approach in concept, via the interviewer-administered method (Section 4.1.3);
2. Issues pertaining to store/mall-intercept surveys such as the need to train interviewers before they commence on the actual survey due to cultural bias (Section 4.1.2), social desirability bias (Section 4.1.4), questionnaire length (Section 4.1.5), frequent shopper bias (Section 4.1.6), and length-based sampling bias (Section 4.1.8); and
3. The need to employ probability sampling in this study (Section 4.1.7).

The next section in this chapter deals with the design of the measurement instrument (Sections 4.2.1 to 4.2.7), the back-translation method employed to ensure conceptual equivalence in the Chinese instrument (Section 4.2.8), and the two pilot tests used to test the effectiveness of the Chinese instrument (Section 4.2.9). The third section in this chapter discusses the reasons for selecting Beijing as the sampling population (Section 4.3.1), the decision to administer the survey in hypermarkets belonging to one foreign retailer and one domestic retailer (Section 4.3.2), and the need to collect 250 samples per retailer and to provide the respondents with gift vouchers (Section 4.3.3). Lastly, a summary of this chapter is provided in Section 4.4.

4.1 Issues Relating to Data Collection in International Marketing Research

The hypotheses developed in Chapter 3 suggest the adoption of a deductive approach where “laws provide the basis of explanation, permit the anticipation of phenomena, predict their occurrence and therefore allow them to be controlled” (Hussey and Hussey, 1997, pp.52). This approach requires the use of a highly structured methodology to facilitate replication in order to ensure reliability (Gill and Johnson, 1997). This section begins with a discussion of the reasons for using the store-intercept survey method, which is similar to the mall-intercept survey approach in concept (Section 4.1.1). The subsequent sections provide a discussion of issues pertaining to store/mall-intercept surveys such as cultural bias (Section 4.1.2), interviewer-administered versus respondent-administered methods in store/mall-intercept surveys (Section 4.1.3), social desirability bias (Section 4.1.4), questionnaire length (Section 4.1.5), frequent shopper bias (Section 4.1.6), probability sampling (Section 4.1.7), and length-based sampling bias (Section 4.1.8).

4.1.1 Store-intercept survey versus other types of quantitative data collection methods

The common quantitative survey administrative methods utilised by academics and practitioners in consumer behaviour studies are (a) personal interviews (face-to-face interviews conducted either at home, in malls or in retail stores), (b) telephone interviews, (c) mailed questionnaires, (d) email surveys (either embedded or contained in an attached file), and (e) Web surveys (Craig and Douglas, 2000; Saunders, Lewis and Thornhill, 2000; Churchill and Iacobucci, 2002). Nevertheless, difficulties of obtaining sampling lists in many countries and the absence of population lists commonly used as sampling frames may limit the feasibility of employing data collection techniques such as door-to-door interviews, mailed questionnaires and telephone surveys (Craig and Douglas, 2000; Saunders, Lewis and Thornhill, 2000). In most cases, the personal interview approach may be the only feasible method in international marketing research (Craig and Douglas, 2000).

In developing countries, low levels of literacy may rule out the usage of mail surveys, low level of telephone ownership may prohibit the usage of telephone surveys, and low level of computer literacy may preclude the use of email and Web surveys (Saunders, Lewis and Thornhill, 2000). Although the literacy level of PRC nationals is 87% as of year 2002 (Jagersma and van Gorp, 2003), it is relatively difficult to employ the mailed questionnaire survey method in the PRC because sampling and population lists are difficult to obtain in the PRC. Furthermore, the onus on the researcher to develop a low cost and efficient method that ensures the safe delivery of mailed questionnaires to and from the PRC respondents is near impossible to develop and control in a real world situation due to the relatively less advanced postal system in developing countries (Craig and Douglas, 2000). In addition to the high cost of administering mail surveys in the PRC (refer to Table 4.1), the effectiveness (i.e., response rate) of mail surveys is generally limited by the reluctance of respondents to respond to mail surveys, particularly in developing countries (Craig and Douglas, 2000).

Likewise, the cost of administering a large number of telephone interviews in an international market research will be exceptionally expensive due to the need for good quality (i.e., clear response and low distortion) international phone calls (refer to Table 4.1). Most importantly, the researcher had no access to the sampling list and population list of consumers and households in Beijing. Hence, the mail survey and telephone interview methods were considered inappropriate for use in this study due to the need for international market research primary data. It was also not feasible to administer email or Web surveys in the PRC for two reasons. First, the personal computer ownership level in the PRC is low, i.e., currently standing at around 23.5% (Foreign Affairs Office of Beijing Municipality, 2004). Second, a representative sample of the population is not achievable via email and Web survey methods because the sampled population will only consist of consumers who are adept at using the Internet and/or personal computers. As such, there is a heavy reliance on personal interviews in international market research, especially in less developed countries (Craig and Douglas, 2000; Saunders, Lewis and Thornhill, 2000). Therefore, the chosen method in this study was the personal interview method.

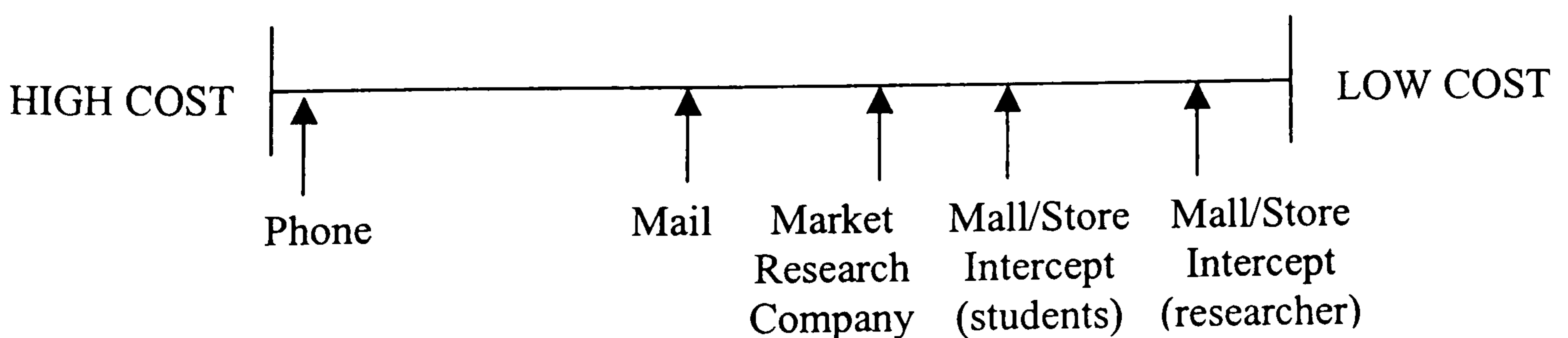
Table 4.1

Estimated cost comparison of five survey methods (in Sterling Pounds)

Mall/Store Intercept Survey (administered personally by researcher)	Estimated Cost
Return Train Ticket from Loughborough to London	50.00
Return Flight Ticket from London to Beijing	600.00
Respondent Incentive for Participation (~70p per questionnaire)	350.00
<i>Total Cost (500 Questionnaires)</i>	<i>1000.00</i>
Mall/Store Intercept Survey (recruiting university students)	Estimated Cost
Return Train Ticket from Loughborough to London	50.00
Return Flight Ticket from London to Beijing	600.00
Interviewers wages (appx. 70p per questionnaire)	350.00
Respondent Incentive for Participation (appx. 70p per questionnaire)	350.00
<i>Total Cost (500 Questionnaires)</i>	<i>1350.00</i>
Market Research Company	Estimated Cost
Cost per Questionnaire	5.00
<i>Total Cost (500 Questionnaires)</i>	<i>2500.00</i>
Mailed Questionnaire	Estimated Cost
Stamp Cost per Questionnaire to the PRC (assume 40g per airmail letter)	1.12
Prepaid return envelope (assume 70% of stamp cost from U.K. to PRC)	0.78
<i>Total Cost (assume 1000 Questionnaires and one wave, i.e., no extra surveys)</i>	<i>1900.00</i>
Telephone Interview	Estimated Cost
BT Standard International Call for a 30 minutes phone call to PRC (evening Mon to Fri before 8 am and after 6 pm)	30.81
<i>Total Cost (500 Questionnaires)</i>	<i>15405.00</i>

Figure 4.1

Cost comparison of survey methods in Beijing



The common personal interview methods used by researchers are mall-intercept and door-to-door surveys (Gates and Solomon, 1982). Gates and Solomon (1982) compared the cost between mall-intercept surveys and door-to-door interviewing, and found that the cost of administering a mall-intercept questionnaire may potentially be one-half to one-quarter cheaper than administering a door-to-door questionnaire. The cost savings, in terms of hourly interviewer wages, of mall-intercept surveys as compared to door-to-door interviews are accrued from the reduction of interviewer travelling time, mileage and non-response rates (e.g., respondents not at homes or not available at particular time to be interviewed) (Gates and Solomon, 1982). In addition to the cost factor, the lack of a sampling list in Beijing limits the possibility of using the door-to-door survey method in this study. Therefore, the only feasible option was to employ the store-intercept survey method, which is conceptually similar to mall-intercept survey method except that store-intercept surveys are conducted within retail stores and mall-intercept surveys are conducted within shopping malls, in this study.

A store-intercept survey may be administered via three methods: (1) the researcher personally conducts the survey, (2) employ university students, or (3) engage a market research company. A cost breakdown of the three methods is tabulated in Table 4.1 and a cost comparison is illustrated in Figure 4.2. Although the cheapest option was for the researcher to conduct the store-intercept surveys personally, it was not feasible because the researcher does not speak Mandarin in the same tone and accent as the Beijing consumers, which could negatively affect the quality of the sampled data. That is, the potential for miscommunication between the researcher and respondents, as well as irritation to the respondents if they could not understand the researcher's questions or the researcher could not explain clearly to queries posed by the respondents with respect to the questionnaire items, would be detrimental to the data quality. Note that data collection issues of such nature (i.e., cross-cultural research) are commonly associated with cultural bias, which are further elaborated in the following section (Section 4.1.2).

Moreover, the opportunity cost (i.e., required time, effort and monetary cost) of collecting 500 questionnaires by the researcher personally as compared to recruiting field-based

interviewers indicated that enlisting the assistance of native speakers such as university students in Beijing to conduct the store-intercept surveys was justified. In this respect, the researcher had an associate in Beijing who was able to assist in recruiting the university students. Finally, due to a significant lack of literature specifically relating to store-intercept surveys, the following discussion pertaining to general issues in face-to-face interviews, such as interviewer-administered versus respondent-administered methods (Section 4.1.3), social desirability bias (Section 4.1.4), questionnaire length (Section 4.1.5), frequent shopper bias (Section 4.1.6), probability sampling (Section 4.1.7), and length-based sampling bias (Section 4.1.8), were reviewed from the mall-intercept survey literature because store-intercept surveys and mall-intercept surveys are conceptually and operationally identical.

4.1.2 Cultural bias in international marketing research

Cultural bias occurs frequently in international marketing research because researchers from one culture are typically required to conduct studies in another culture. Cultural bias arises when researchers are unable to comprehend or accurately interpret the store/mall-intercept data from another culture (Craig and Douglas, 2000). This scenario is likely to be particularly severe when the researchers are unfamiliar with the host country socio-cultural environments (Craig and Douglas, 2000). That is, researchers might perceive or interpret a phenomenon or behaviour observed in a foreign country from the researchers' own cultural orientation. Hence, cultural bias may result in a bias in research design and/or interpretation of the collected data (Craig and Douglas, 2000). In the context of this study, unfamiliarity with the Beijing consumers' values and cultural behaviour patterns may be a major obstacle when interpreting the Beijing consumers' attitudes and behaviours. Therefore, it was important to address these cultural biases by conducting an initial study in Beijing as detailed in Section 3.2 (Chapter 3).

Cultural bias may also arise in communication between the interviewer and the respondent (Craig and Douglas, 2000). That is, cultural bias occurs when researchers from one culture are not able to communicate instructions about the task to be performed clearly and

effectively to the interviewers or respondents from another culture. In the context of this study, cultural bias may arise when the researcher is uncertain whether the interviewers fully understood the tasks to be performed, since the interviewers are recruited from Beijing. In order to minimise these cultural biases, the researcher was present in Beijing prior to the actual commencement of the store-intercept survey, as well as the entire data collection process, in order to brief the interviewers personally on their expected tasks and clarify any uncertainties that the interviewers may have.

In addition, cultural bias may cause confusion as to whether a response from participants is due to the measurement instrument error or whether it is a valid response, particularly if it is not an expected response (Craig and Douglas, 2000). As such, this study minimised measurement instrument error by employing a rigorous back-translation process and conducting two pilot tests to verify the reliability of the measurement instrument (to be elaborated in Section 4.2). Finally, cultural bias is context-specific. Asian consumers tend to react depending on situations and environments (Schutte and Ciarlante, 1998). In other words, responses obtained from Asian consumers may not be a true reflection of their attitudes and behaviours when surveys are administered in different environments, e.g., Asian consumers responding to questionnaires at home as compared to responding in a retail store. In this respect, distorted responses are less likely to occur in this study because the Beijing consumers are approached in the same environment (i.e., store-intercept survey in hypermarkets).

4.1.3 Interviewer-administered versus respondent-administered store-intercept surveys

Two common methods are generally utilised in mall-intercept surveys: (1) ‘self’, respondent-administered questionnaires, and (2) interviewer-administered questionnaires (Bush, Bush and Chen, 1991). Interviewers who are not professionally trained to conduct mall-intercept surveys may potentially introduce interviewer bias. That is, the physical interaction between the interviewer and respondents may create a number of potential

sources of error, such as the interviewer's voice intonations when asking questions, how closely the interviewer follows instructions and question format, the demand characteristics of the interviewer, the interviewer's accuracy when interpreting and recording the respondent's answers, and the potential that respondents may provide socially acceptable answers in the presence of the interviewer (Bush, Bush and Chen, 1991). In contrast, the respondent-administered method is similar to a mailed questionnaire survey method. The weaknesses associated with this approach are that non-response rate may be high, no control over questionnaire administration, possible omissions or unable to comprehend questions, certain types of questions cannot be asked (e.g., politically sensitive questions), and interviewers are unable to probe to obtain further information (Craig and Douglas, 2000).

Although Bush, Bush and Chen (1991) found no differences between the respondent-administered and interviewer-administered methods with respect to response distortion, item omission and completeness of data, the interviewer-administered approach was preferred in this study because

- (1) Face-to-face interviews are well received amongst PRC consumers (i.e., response rate was reported to be good) and answers provided by the PRC consumers are usually rich in quality because PRC consumers tend to be excited about being interviewed and asked about their opinions (Schutte and Ciarlante, 1998).
- (2) In the context of PRC consumers' response to questionnaire items, the perceived rate of high item omissions is lower in the interviewer-administered method than the respondent-administered approach based on findings from the exploratory study and general observations noted by Schutte and Ciarlante (1998) of PRC consumers' response style.
- (3) Response rate for the interviewer-administered method has been shown to be high in previous research (e.g., Boyd, Westfall and Stasch, 1977; Tyebjee, 1979).
- (4) The interviewer-administered method has the potential to collect sensitive information and to provide more in-depth responses from the respondents, as well as providing the researcher with greater control of the interviewing environment (Gates and Solomon, 1982).

Previous research has shown that respondents were more willing to provide details about their income during personal interviews (Rogers, 1976), and mall-intercept respondents may be more knowledgeable about shopping and are thus better able to provide in-depth information about brands and store-oriented information (Bush and Hair, 1985). In other studies, Tyebjee (1979) reported a response rate of between 45% and 95%, whilst Boyd, Westfall and Stasch (1977) indicated that an average of only 10% of the approached consumers refused to participate in personal interviews. Therefore, the interviewer-administered method is employed in this study. Four interviewers (i.e., university students in Beijing) were recruited to conduct the store-intercept surveys and they were trained in interviewing skills over a 1-week period in order to minimise the effects of interviewer bias (Bush, Bush and Chen, 1991; Craig and Douglas, 2000).

Despite the significant advantages of administering store/mall-intercept surveys in international market research, this method suffers from social desirability effect, a lower completion rate as compared to other survey methods, the restriction in applying probability sampling techniques and most importantly, the difficulty in obtaining a true cross section of the population (Gates and Solomon, 1982). These limitations are detailed in the following sections.

4.1.4 Social desirability bias in store-intercept surveys

Social desirability bias is a challenging issue in international marketing research (Craig and Douglas, 2000). Previous studies have indicated that respondents, in particular Asian respondents, are more inclined to provide socially desirable answers in the physical presence of the interviewer (e.g., Hochstim, 1967; Tyebjee, 1979; Briley, Morris and Simonson, 2000; Middleton and Jones, 2000). For instance, female respondents were less likely to be outspoken about their drinking habits in face-to-face interviews than by mail or telephone data collection methods (Hochstim, 1967). In the PRC context, the Chinese respondents have a tendency to be suspicious or reluctant to speak up during interviews (Schutte and Ciarlante, 1998). Furthermore, the courtesy of most Asians tends to bring positive bias into

the surveys (Schutte and Ciarlante, 1998). In other words, Asian consumers generally have a tendency to provide socially desirable answers.

The work of Middleton and Jones (2000) showed that individuals from Eastern societies were more likely to provide socially desirable responses than individuals from Western societies. Middleton and Jones (2000) administered the Marlowe-Crowne Social-Desirability scale (Crowne and Marlowe, 1964) to a convenience sample of 237 Western (i.e., individuals born in the U.S.) and 104 Eastern (i.e., individuals born in Hong Kong, Singapore, Thailand, Taiwan, Japan, and the People's Republic of China) students. Their results revealed that Eastern students were more likely to deny socially undesirable traits and to admit to socially desirable ones than were Western students (Middleton and Jones, 2000). Another study by Briley, Morris and Simonson (2000) investigated the social desirability effect on responses from 119 Hong Kong and 39 U.S. students in a university. The authors found that Hong Kong students tend to be more supportive and less critical towards comments made by fellow students so as not to disparage the students' thinking, thus reflecting the Hong Kong students' relative appreciation for socially acceptable answers. In other studies, Asian (China, Japan and Hong Kong) respondents were found to exhibit greater uncertainty avoidance tendencies than respondents from the West (U.S.A., Germany and U.K.) (e.g., Si and Cullen, 1998; Shiomi and Loo, 1999).

Although Asian consumers are perceived to be more socially desirable biased than their Western counterpart, some researchers have argued that the store/mall-intercept survey method is less susceptible to the social desirability bias effect because respondents perceive high anonymity in store/mall-intercept surveys and are thus less likely to provide socially desirable response bias (Bush and Hair, 1985). Specifically, the store/mall-intercept method tends to elicit more accurate (and thus less distorted) responses than other types of data collection methods (Bush and Hair, 1985; Han, Lee and Ro, 1994). Nonetheless, Sudman and Bradburn (1974) and Hochstim (1967) suggested that socially desirable responses might be minimised by providing respondents with greater anonymity, i.e., questions that are not sensitive or threatening to the respondents are less likely to elicit socially desirable answers. In line with the recommendation proposed by Sudman and Bradburn (1974) and Hochstim

(1967), the items in the questionnaire were framed to be not sensitive or threatening to the respondents, and the participants in this study were only required to respond to basic demographic questions such as gender, age, educational and income levels.

4.1.5 Questionnaire length in store/mall-intercept surveys

Previous research has shown that questionnaire length is negatively related to response rate and data quality (Rogers, 1976; Gates and Soloman, 1982). In a large-scale study conducted by MARC, Inc. (i.e., U.S. marketing research company) of 44,446 consumers in permanent mall test centres in the USA, only 12% (5,461) of the eligible respondents participated and completed the interviews, whilst 10% (4,280) of the eligible respondents refused to participate after screening the questionnaire items (see Gates and Soloman, 1982). Consumers are usually in a hurry during shopping trips and hence, unsolicited interviews are generally undesirable. Furthermore, the sight of a long questionnaire may irritate the respondents and cause them to withdraw from the survey (Gates and Soloman, 1982). That is, consumers generally perceive interviews of 15-20 minutes as nuisance and interviews that exceed 45 minutes as intolerable (Gates and Soloman, 1982). Additionally, a long questionnaire is likely to cause respondent fatigue resulting in carelessly filled and/or omitted items. Likewise, item omissions may arise when respondents refuse to answer questions that are sensitive or threatening to themselves, such as personal finances and unlawful campaigning (Rogers, 1976). As such, the average survey completion time by the respondents in this study was 20 minutes, and the questionnaire items were not sensitive or threatening to the respondents (i.e., design of measurement instrument to be elaborated in Section 4.2).

4.1.6 Frequent shopper bias in store-intercept surveys

The most significant disadvantage of using the store/mall-intercept survey method is related to sampling. It is near impossible to obtain a representative cross section of the population

via this method. The frequent mall shoppers tend to be female, either middle or upper middle class, and lives in urban or suburban areas (e.g., Chapin, 1974; Sudman, 1980; Dupont, 1987; Roy, 1994). These findings were also reflected in Mai and Zhao's (2004, pp.59) recent study of grocery shoppers in Beijing, where their respondents consisted of more female shoppers than male shoppers (i.e., 55.5% versus 45.5%), were mostly married (i.e., 70%), belonged to the higher income group (i.e., categorised as "salary class" and "little rich"), and made small and frequent shopping trips to the supermarkets (i.e., more than 85% of the respondents shopped more than 3 times a week and spent less than RMB100 per visit). In other words, the lack of representativeness from the young and employed male shopper category suggests that empirical findings obtained through store/mall-intercept surveys may not be generalised to the entire population. In addition, frequent shoppers may be overly represented in the survey data.

Shoppers who do not patronise the hypermarkets in this study further compounded the sampling problem. That is, it will be extremely difficult to obtain a true sample of the population if a segment of the consumers in the population do not shop in the hypermarkets identified in this study. Similarly, the sampling problem is complicated by the selection of respondents in store/mall-intercept surveys. That is, respondents in store/mall-intercept surveys are typically selected out of a continuous stream rather than out of a pool (i.e., households) (Gates and Solomon, 1982). Due to these sampling limitations, data collected from store/mall-intercept surveys are representative of the retail formats that the consumers visit but are not necessarily representative of the target population. As such, the results obtained in this study are, at best, generalisable to Beijing consumers who shop in grocery-related retail stores and are not generalisable across the entire Beijing population.

4.1.7 Probability sampling

Nevertheless, the frequent shopper bias in store/mall intercept surveys may be minimised by undertaking some simple data administrative measures. Sudman (1980) suggested some procedures where the data quality may be improved:

1. Select sampling areas and then select sampling points (malls) within the sampling areas on a probability basis.
2. Station interviewers at locations in the mall such that a respondent has a known probability of being selected from the pool of shoppers in the mall at that time.
3. Sample days of the week and times of day proportionate to mall traffic at those days/times.
4. Set quotas or weight samples to compensate for the fact that women are more likely than men to be found in malls, especially on weekdays.
5. Since frequent mall shoppers have a higher probability of being sampled, determine frequency of shopping in that mall (Sudman suggests asking the number of visits in the past two weeks or past month). Then weight the sample inversely by the number of visits (frequent visitors get a low weight and infrequent visitors a high weight) (Dupont, 1987, pp.46).

Although the procedures recommended by Sudman (1980) may be useful in reducing frequent shopper bias, some of the guidelines may not be feasible in the practical world due to operational restrictions placed on store/mall-intercept surveys during actual data collection (Gates and Soloman, 1982). Dupont (1987) concluded that there was no basis to the notion that uncontrolled frequency of mall shopping would lead to a biased sample, and the biased samples in favour of frequent shoppers would have an impact on the survey results. Furthermore, the process of weighting proposed by Sudman (1980) is likely to introduce extra sources of error variances that are difficult to quantify (c.f., Gate and Soloman, 1982; Dupont, 1987). As such, this study employed most of Sudman's (1980) proposed controls except weighting:

1. Trained interviewers were stationed at all entrances of the hypermarkets since sampling from only one entrance can cause the sample to be biased in terms of socioeconomic and geographic data.
2. Store-intercept surveys were conducted on Monday, Tuesday, Saturday and Sunday throughout the shopping mall's opening hours for a period of 2 weeks. Note that

Monday and Tuesday are ‘unpopular’ shopping days, and Saturday and Sunday are ‘popular’ shopping days.

3. Probability sampling – the first customer approached on a particular survey day is the 10th person to walk into the store and subsequent customers approached are the 5th person to walk into the store. At any point in time that the 5th person declined to be interviewed, the next 5th person who walked into the store was approached. Essentially, only every 5th customer who walked into the store was approached except for the first interviewed customer of the day.

4.1.8 Length-based sampling bias in store-intercept surveys

The last sampling bias commonly associated with store/mall-intercept surveys is length-based sampling. Length-based sampling bias occurs when shoppers who spend a long period of time in the shopping mall is over-represented in a sample of mall population (Nowell and Stanley, 1991). For instance, hedonic consumers generally spend more time in shopping malls than utilitarian consumers (Babin, Darden and Griffin, 1994). As such, length bias occurs when significantly more hedonic consumers are sampled than utilitarian consumers. Other information gathered in the survey, such as demographic data, may not be representative of the sampled population since it is correlated with shopping orientation (Roy, 1994). Nevertheless, no length bias will occur if store/mall-intercept surveys are conducted at the entrances of the retail stores or shopping malls because consumers are assumed to be entering shopping malls to commence their shopping trip, which thus equates to zero time spent in the retail stores or shopping malls (Nowell and Stanley, 1991). As discussed in Section 4.1.7, the interviewers in this study were stationed at all the hypermarkets’ entrances and the consumers were intercepted when they enter the hypermarkets. Therefore, the data collected in this research was not susceptible to length-based sampling bias.

4.2 Questionnaire Design

This research adopted construct measures that have consistently demonstrated good reliability and validity in past studies. A summary of the scales is detailed as follows:

1. The 6-item *country-of-origin (COO)* scale and 3-item *store brand cue* scale developed by Teas and Agarwal (2000) to examine the interaction between COO cue and store brand cue in the Beijing consumers' perceptions and evaluations of foreign hypermarkets.
2. The 10-item *CETSCALE* developed by Shimp and Sharma (1987) to evaluate the Beijing consumers' level of consumer ethnocentric tendencies.
3. The 9-item *Personal Shopping Value (PSV)* scale used in Babin and Attaway's (2000) study to investigate the Beijing consumers' hedonic and utilitarian shopping values.
4. The 6-item *willingness to shop in foreign stores* scale adapted from the *willingness to buy foreign products* scale developed by Klein, Ettenson and Morris (1998) to examine the Beijing consumers' willingness to shop in foreign hypermarkets.
5. The 4-item *customer share* scale, as well as an additional item, from Babin and Attaway's (2000) study to measure the total time and amount of expenditure spent by Beijing consumers in foreign hypermarkets (i.e., behavioural loyalty).
6. The 3-item scale developed by Sirohi, McLaughlin and Wittink (1998) to measure consumer *store loyalty intention* towards foreign hypermarkets (i.e., attitudinal loyalty).
7. The 13-item *Marlowe-Crowne Social Desirability* scale constructed by Reynolds (1982) to measure the Beijing consumers' level of behavioural bias.
8. The *familiarity* scale developed by Rao and Monroe (1988) to measure the Beijing consumers' level of familiarity with foreign hypermarkets.

Two of the above scales, namely the *CETSCALE* and *Personal Shopping Value* scale, have been strongly recommended for their robust psychometric properties in the 'Handbook of Marketing Scales' by Bearden and Netemeyer (1999). Additionally, the 4-item *customer*

share scale developed by Babin and Attaway (2000) was adapted from Mehrabian and Russell's (1974) Pleasure-Arousal-Dominance (PAD) scale, and the PAD scale was listed in the 'Handbook of Marketing Scales'. Further justification for using the proposed scales is detailed from Section 4.2.1 to 4.2.7. The subsequent two sections provide a discussion of the back-translation method employed in this study to ensure conceptual equivalence in the Chinese translated measurement instrument (Section 4.2.8), and two pilot tests used to examine the effectiveness of the Chinese instrument (Section 4.2.9).

4.2.1 Items for measuring country-of-origin (COO) and store brand cues

This study adopted the scale developed by Teas and Agarwal (2000), which was further validated by Agarwal and Teas (2001, 2004), to investigate the interaction effect between the country-of-origin (COO) cue and store brand cue. In Teas and Agarwal's (2000) study, the authors examined the effects of extrinsic cues, namely price, brand name, store name and COO, on consumers' perceptions of quality, sacrifice and value. The experimental design utilised in Teas and Agarwal's (2000) study involved two levels of brand image (high and low), two levels of store image, two levels of COO image and 3 levels of price based on a 2x2x2x3 full factorial design. A manipulation check using ANOVA (i.e., Analysis of Variance) was conducted to establish the internal validity of the aforementioned variables, and each of the manipulation checks suggested successful manipulation of the four variables in the high and low conditions (Teas and Agarwal, 2000).

This study is similar to the experimental design in Teas and Agarwal's (2000) study. This study manipulated two levels of store image by using domestic hypermarkets (i.e., grocery retailer 'Domestic Hypermarket') to represent low store image and foreign hypermarkets (i.e., grocery retailer 'European Hypermarket') to represent high store image, which was justified by findings obtained from the exploratory study in Beijing. This study also manipulated two levels of COO by using PRC to represent low country image and Europe to represent high country image, which was also justified by findings obtained from the

exploratory study in Beijing. The items relating to COO cue and store brand cue in Teas and Agarwal's (2000) study is detailed in Table 4.2.

Table 4.2

Store image and country-of-origin items from Teas and Agarwal's (2000) study

Items	Extremely unlikely	-	Extremely likely
1 Likelihood that the retail store sells high quality merchandise.	1	-	7
2 Likelihood that the retail store is a prestigious store.	1	-	7
3 Likelihood that the retail store is a high-quality store.	1	-	7
	Strongly disagree	-	Strongly agree
1 In general, I would expect products made in (country of origin) to be high quality.	1	-	5
2 In general, I would expect products made in (country of origin) to be durable.	1	-	5
3 In general, I would expect products made in (country of origin) to be high in prestige.	1	-	5
4 In general, I would expect products made in (country of origin) to be reliable.	1	-	5
5 In general, I would expect products made in (country of origin) to be made with meticulous workmanship.	1	-	5
6 In general, I would expect products made in (country of origin) to be dependable.	1	-	5

Source: Teas and Agarwal (2000, pp.282)

Correspondingly, the choice of utilising Teas and Agarwal's (2000) scale was due to a lack of multiple-cue COO studies that simultaneously examined the COO and store brand cues (e.g., Darling and Kraft, 1977; Morganosky and Lazarde, 1987; Thorelli, Lim and Ye, 1989). In the few studies that examined both extrinsic cues, most of these studies used actual print ads or actual products as the manipulated cues instead of structured questionnaires (e.g., Sternquist and Davis, 1986; Chao, 1989a, 1989b; Davis, Kern and Sternquist, 1990; Lin and Sternquist, 1994). More importantly, the attributes used in Teas and Agarwal's (2000) scale have been utilised in a number of prominent past studies. For instance, the attributes "sells high quality merchandise", "is a prestigious store" and "is a high-quality store" to describe attributes associated with store brand cue in Teas and Agarwal's (2000) scale were used by Thorelli, Lim and Ye (1989, pp.39) ("reliable", "reputable", "high/low quality"), Jacoby and Mazursky (1984, pp.111) ("high/low quality", "good/poor reputation", "good/bad"), and Baker, Grewal and Parasuraman (1994, pp.334) ("the workmanship of gifts purchases in this store would be high", "customers could expect to be treated well in this store", "gifts purchased from this store would be high in quality"). Other researchers have also associated the store brand cue as store prestige or reputation (Sternquist and Davis, 1986; Chao, 1989a; Davis, Kern and Sternquist, 1990; Lin and Sternquist, 1994).

Likewise, the attributes "quality", "durability", "prestige", "reliability", "workmanship", and "dependability" used in Teas and Agarwal's (2000) scale to describe characteristics associated with product country of origin were used in past studies by researchers such as Nagashima (1970, pp.71) ("mass produced / handmade", "unrecognisable / recognisable brand names", "unreliable / reliable", "not so careful / careful and meticulous workmanship", "technically advanced / technically backwards"), Papadopoulos, Heslop and Bamossy (1990, pp.288) ("poor / good quality", "appearance / performance oriented", "unrecognisable / recognisable brands", "unreliable / reliable", "poor / good workmanship", "poor / good service and warranties"), Parameswaran and Yaprak (1987, pp.39) ("country produces highly technical products", "products are long-lasting (durable)", "known for "luxury" products", "products need frequent repairs", "products are made with meticulous workmanship", "concerned with product performance, not appearance"), and Darling and Kraft (1977, pp.522-3) ("products made in ... are generally of a lower quality than similar

products available in other countries”, “the brand names of products made in ... are easily recognisable and generally quite well known”, “products made in ... are usually quite reliable and seem to last the desired length of time”, “products made in ... are carefully produced and have a fine workmanship”, “products made in ... are produced by firms that are more concerned with the outward appearance of the product than with product performance”).

Past studies have also shown that the COO attributes used in Teas and Agarwal’s (2000) study were equally applicable in the PRC. For instance, Latour and Henthorne (1990, pp.12-13) adopted their scale from Nagashima’s (1970, 1977) work, and their COO attributes were “inexpensive/expensive”, “reliable/unreliable”, “made with careful and meticulous workmanship/made with not careful and meticulous workmanship”, “manufacturers are more concerned with outward appearance of the product/ manufacturers are more concerned with performance of the product”. In Zhang’s (1996, pp.57) study, the COO attributes, namely “unreliable/reliable”, “common/exclusive”, “of not careful and meticulous workmanship/of careful and meticulous workmanship”, “technically not advanced/technically advanced”, “of poor/good style” reflected a coefficient α of 0.92.

In sum, this study adopted Teas and Agarwal’s (2000) scale because

1. Lack of structured and developed scales in past multiple-cue COO studies that simultaneously examined both the COO and store brand cues.
2. The scale’s internal validity was established (Teas and Agarwal, 2000; Agarwal and Teas, 2001, 2004).
3. The items used to measure the COO and store brand cues were consistently used by researchers in the past three decades.
4. The length of the two scales (i.e., total 9 items) is suitable to keep interview time within limits and avoid respondent fatigue in store-intercept surveys.

Note that the COO cue scale was adopted directly from Teas and Agarwal’s (2000) study for the measurement instrument in this study, even though the items were framed in the context of ‘products made in (country of origin)’ rather than in the foreign grocery retailer context,

because this construct was operationalised to measure the Beijing consumers' general perception of 'foreignness' (e.g., European products and retailers) as compared to product- or retailer-specific perceptions. Furthermore, Beijing consumers who shop in foreign grocery retail stores were likely to provide socially desirable response bias for the COO cue items if the items were framed in the context of foreign grocery retailers, given that these consumers were approached within foreign grocery retail stores in this study. In order to minimise the social desirability bias effect, the COO cue items were framed in the context of foreign products rather than foreign grocery retailers.

Conversely, the 3-item store brand cue scale in Teas and Agarwal's (2000) study was slightly modified to improve the data quality. Details of the amendments were as follows:

1. Removal of the phrase "Likelihood that" from each item.
2. Anchor points were changed from "extremely unlikely" and "extremely likely" into "strongly disagree" and "strongly agree".

Reasons for amending the scale:

1. As the store-intercept surveys were conducted inside the domestic and foreign hypermarkets, the intercepted respondents would most likely have experiences shopping in the respective hypermarkets. Therefore, a "strongly disagree" to "strongly agree" statement was expected to be a better reflection of the consumers' perceptions of the respective hypermarkets.
2. The data from Teas and Agarwal's (2000) study was not collected physically within the stores and hence, the "likelihood" type of statements was more appropriate in their study. In contrast, the respondents in this study were intercepted inside the hypermarkets and thus, the "agree" type of statements was deemed to be more appropriate.
3. The store image items can be randomised more thoroughly with the other scales proposed in the latter sections in order to improve the quality of the collected data.

4.2.2 Items for measuring consumers' ethnocentric tendencies - CETSCALE

Shimp and Sharma (1987) originally developed the 17-item CETSCALE to measure consumers' orientation towards products of foreign origins. The authors reported high reliabilities (Cronbach's alpha ranging from 0.94 to 0.96) in the four-area study that they conducted. Additionally, a test-retest reliability was examined and the correlation between the two tests (which were separated by 5 weeks) was 0.77. Convergent validity was established, with a correlation of 0.54, in the two tests that were conducted 2 years apart of each other. Discriminant validity of the scale was also established, i.e., the analysis of the Patriotism, Politico-Economic Conservatism and Dogmatism constructs correlated with the CETSCALE (ranging from $r = 0.39$ to $r = 0.65$). Lastly, nomological validity was established, i.e., the CETSCALE correlated with consumers' attitudes toward foreign-made products, ownership of foreign-made products and purchase intentions in the results obtained in the four-areas study (Shimp and Sharma, 1987).

The CETSCALE has also been extensively tested and validated in a number of countries (e.g., Netemeyer, Durvasula and Lichtenstein, 1991; Durvasula, Andrews and Netemeyer, 1997; Nielsen and Spence, 1997; Steenkamp and Baumgartner, 1998). Netemeyer, Durvasula and Lichtenstein's (1991) study reaffirmed the CETSCALE's reliability and validity in their study of consumers from France, Germany, Japan and America. Their empirical findings showed strong support for the psychometric properties, nomological validity, uni-dimensionality and consistency of the CETSCALE across the four countries, with Cronbach's alpha ranging from 0.91 to 0.95 (Netemeyer, Durvasula and Lichtenstein, 1991). In a later study, Netemeyer and colleagues assessed the cross-cultural suitability of the CETSCALE in the United States and Russia using the CETSCALE from their 1991 study (Durvasula, Andrews and Netemeyer, 1997). Durvasula, Andrews and Netemeyer (1997) found that (1) the CETSCALE demonstrated high reliability for the U.S. (0.97) and Russian (0.88) samples, (2) support was established for the discriminant validity of the CETSCALE, and (3) nomological validity of the scale was established from the significant correlation between the CETSCALE and the various constructs (i.e, importance of buying domestic, general attitude toward buying foreign products in the U.S. and Russia, general

attitude toward buying a foreign car in the U.S. and Russia, and general attitude toward buying U.S. products in Russia).

Strong reliability of the CETSCALE has also been reported in Belgium, Great Britain and Greece (Steenkamp and Baumgartner, 1998), Turkey and the Czech Republic (Balabanis et al., 2001), Poland and Russia (Good and Huddleston, 1995), Korea (Sharma, Shimp and Shin, 1995), New Zealand (Watson and Wright, 2000), Canada (Herche, 1994), Spain (Luque-Martinez, Ibanez-Zapata and Barrio-Garcia, 2000), Australia (Zarkada-Fraser and Fraser, 2002), and Turkey (Kaynak and Kara, 2002). Results in these studies suggest that the CETSCALE is a reliable and valid measure of consumers' ethnocentric tendencies suitable for use in cross-cultural or cross-national research.

Likewise, the reliability of the 10-item shortened version of the CETSCALE (refer to Table 4.3) has shown to demonstrate strong reliability in previous studies. Netemeyer, Durvasula and Lichtenstein (1991) assessed the cross-national reliability and validity of the 10-item CETSCALE, and found that (1) the coefficient alpha of the 10-item CETSCALE ranged from 0.87 to 0.92, (2) an unidimensional (and invariant) factor pattern was observed across the four samples, and (3) discriminant and nomological validity of the 10-item CETSCALE across countries were established. Likewise, the reliability (coefficient alpha) of the 10-item CETSCALE reported in Balabanis et al.'s (2001) study was 0.901 for the Turkish sample and 0.906 for the Czech Republic sample. Similarly, the composite reliabilities reported in Steenkamp and Baumgartner's (1998) study were 0.939, 0.952 and 0.937 for Belgium, Great Britain and Greece respectively. The 10-item CETSCALE was also found to be applicable in cross-national research (Steenkamp and Baumgartner, 1998). In the PRC context, the composite reliability for the 10-item CETSCALE administered in Nanjing was 0.83 (Klein, Ettenson and Morris, 1998), and the Cronbach's alpha value for the full 17-item CETSCALE administered in Beijing, Shanghai, Gaungzhou and Chengdu was 0.90 (Wang and Chen, 2004).

Table 4.3

10-item shortened version of the CETSCALE

	Items ^a	Reliability ^b
1.	Only those products that are unavailable in the U.S. should be imported.	0.63
2.	American products, first, last, and foremost.	0.65
3.	Purchasing foreign-made products is un-American.	0.64
4.	It is not right to purchase foreign products, because it puts Americans out of jobs.	0.72
5.	A real American should always buy American-made products.	0.70
6.	We should purchase products manufactured in American instead of letting other countries get rich off us.	0.67
7.	Americans should not buy foreign products, because this hurts American business and causes unemployment.	0.67
8.	It may cost me in the long-run but I prefer to support American products.	0.55
9.	We should buy from foreign countries only those products that we cannot obtain within our own country.	0.60
10.	American consumers who purchase products made in other countries are responsible for putting their fellow Americans out of work.	0.65
^a Response format is 7-point Likert-type scale (strongly agree = 7, strongly disagree = 1). Range of scores is from 10 to 70. ^b Calculated from confirmatory factor analysis of data from four-areas study.		

Source: Shimp and Sharma (1987, pp.282)

4.2.3 Items for measuring consumers' utilitarian and hedonic shopping orientation – Personal Shopping Value (PSV) scale

This study adopted the 9-item Personal Shopping Value (PSV) scale by Babin and Attaway (2000), which was a modified version of the original 15-item PSV scale developed by Babin, Darden and Griffin (1994). The PSV scale is a parsimonious, two-dimension scale that measures consumers' shopping value (i.e., utilitarian and hedonic values) (Babin, Darden and Griffin, 1994). Results from a confirmatory factor analysis of 440 samples indicated a reasonable fit to the data, as well as confirmed the PSV scale's reliability

(hedonic = 0.93 and utilitarian = 0.8), convergent validity, discriminant validity and nomological validity (Babin, Darden and Griffin, 1994).

The PSV scale has been administered in a number of studies (e.g., Babin and Darden, 1995; Babin and Attaway, 2000; Griffin, Babin and Modianos, 2000) and has shown to be an appropriate measure of consumers' hedonic and utilitarian shopping values. For instance, the reliability of the 15-item PSV scale was 0.91 for the hedonic dimension and 0.76 for the utilitarian dimension in Babin and Darden's (1995) study, and 0.86 for the hedonic dimension and 0.80 for the utilitarian dimension in Griffin, Babin and Modianos's (2000) study. Nevertheless, 4 items in the PSV scale did not converge well in Griffin, Babin and Modianos's (2000) sample of Russian consumers. Removing the 4 items resulted in a significant improvement in the scale's reliability (coefficient α for hedonic = 0.86, utilitarian = 0.91) (Griffin, Babin and Modianos, 2000).

Other researchers have been selective in their choice of items from the PSV scale. For instance, Babin and Attaway (2000) administered a 9-item version of the PSV scale (refer to Table 4.4), Babin and Babin (2001) administered a 6-item version of the PSV scale (coefficient α for hedonic value was 0.83 and utilitarian value was 0.73), Campo, Gijbrecchts and Nisol (2004) employed 3 items from the hedonic dimension of the PSV scale to measure the degree to which consumers find grocery shopping an enjoyable task, and Michon and Chebat (2004) used 4 items from the PSV scale's hedonic dimension and 3 items from the PSV scale's utilitarian dimension to measure cross-cultural mall shopping values between English- and French-speaking Canadians.

Table 4.4

9-item PSV scale in Babin and Attaway's (2000) study

Shopping Value

Responses recorded with a five-point disagree-agree scale based on how well they describe the typical shopping experience and typical outcome of shopping at the store as described by the consumer.

Hedonic Value

1. I only shop at [store X] when I need to buy something.
2. A shopping trip to [store X] is truly a joy.
3. I enjoy the shopping trip for its own sake, not just for items I may have purchased.
4. While shopping at [store X], I was able to forget my problems.
5. Compared to other things I could have done, the time spent at [store X] was truly enjoyable.

Utilitarian Value

1. While shopping at [store X], I found just the items that I was looking for.
2. I couldn't buy what I really needed in [store X].
3. I was disappointed because I had to go to another store to complete my shopping.
4. It was a good shopping trip because it was over very quickly.

Source: Babin and Attaway (2000, pp.99)

The 9-item PSV scale (Table 4.4) by Babin and Attaway (2000) is highly significant in this study because these items were adapted to specifically measure consumers' shopping values toward specific retail stores rather than as a measure of general shopping orientation. Furthermore, the 9-item shortened PSV scale has shown to be relatively reliable (i.e., 5-item hedonic value scale = 0.83; 3-item utilitarian value scale = 0.74) (Babin and Attaway, 2000). As Babin and Attaway (2000, pp.94) concluded, the shortened 9-item PSV scale was appropriate as the two dimensions "contrast the value derived from being in an atmosphere for its own sake and for carrying out a consumer task". Although Babin and Attaway (2000) did not argue their case for removing 6 items from the original PSV scale, a possible rationale was that, based on the phrasing of the 6 items and the underlying dimensions that

the 6 items were meant to measure, it was not possible to modify the 6 items in such a way that the items were able to reflect store-specific dimensions. Hence, this study adopted the 9-item PSV scale administered by Babin and Attaway (2000) for the following reasons:

1. The scale is store-specific and thus, is appropriate for use in this study since this study attempts to measure consumers' shopping values toward specific retail stores (i.e., foreign hypermarkets belonging to European Hypermarket and domestic hypermarkets belonging to Domestic Hypermarket).
2. The scale demonstrated adequate reliability (Babin and Attaway, 2000)
3. Other shortened PSV scales have demonstrated discriminant validity (Campo, Gijsbrechts and Nisol, 2004), and a minimum level of invariance between two cross-cultural groups (Michon and Chebat, 2004).
4. Limited number of scales that explicitly measured hedonic and utilitarian shopping values (e.g., Babin, Darden and Griffin, 1994; Arnold and Reynolds, 2003). Scales developed in past studies measured different aspects of utilitarianism and/or hedonism, such as Rook and Fisher's (1995) impulse buying scale, Zaichkowsky's (1990) personal involvement inventory (PII) scale, Kapferer and Laurent's (1993) five-dimension consumer involvement profile scale, and product-specific scales (e.g., Mano and Oliver, 1993; Voss, Spangenberg and Grohmann, 2003).

4.2.4 Items for measuring consumers' willingness to shop in foreign hypermarkets

This study adopted the 'willingness to buy' scale in Klein, Ettenson and Morris's (1998) study. A review of the country-of-origin (COO), consumer ethnocentrism (CET) and shopping orientation literature indicate that this construct was generally operationalised as 'willingness to buy' or 'consumer purchase intention' in the three research streams. The main difference was the number of items used to measure this construct.

A review of the COO literature showed that most of the studies used single-item scales to measure 'consumer purchase intention' (e.g., Wang and Lamb, 1983; Thorelli, Lim and Ye,

1989; Han, 1990; Wall, Liefeld and Heslop, 1991; Ettenson, 1993; Zhang, 1996; Parameswaran and Pisharodi, 2002). For instance, respondents' intention to purchase a given brand in Han's (1990, pp.27) study was measured on a 5-point scale anchored by "would definitely intend to buy" and "would definitely not intend to buy". In Thorelli, Lim and Ye's (1989, pp.39) study, purchase intention ("the likelihood of purchasing the product") was measured on a 7-point scale anchored by "extremely unlikely" to "extremely likely". In contrast, some COO studies examined the 'willingness to buy' construct based on more than one item. For instance, Ulgado and Lee (1998, pp.610) requested that their subjects respond to the following two items: "Your willingness to buy this (product) is ... [Very Low-Very High]" and "The probability that you would consider buying this product is ... [Very Low-Very High]". The 2-item Cronbach's alpha for the U.S. sample was 0.98, the Korean sample was 0.97 and overall reliability was 0.97. Correspondingly, Kim and Pysarchik (2000, pp.286) assessed a subject's purchase intention using two items based on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree": "It is likely that I would buy the camera/TV/sweater described above" and "I believe that it would be wise for me to buy the Nikon camera/Gold Star TV/Polo sweater described above". The Cronbach's alphas for the three product items (i.e., camera, TV and sweater) were 0.67, 0.89 and 0.78.

In the shopping orientation literature, the 5-item 'willingness to buy' scale developed by Dodds, Monroe and Grewal (1991, pp.318) was one of the more popular scales adopted in past studies. Scale reliability generally ranged from 0.90 to 0.97 (e.g., Dodds, Monroe and Grewal, 1991; Smith and Wortzel, 1997; Grewal et al., 1998).

1. The likelihood of purchasing this product is: (very high to very low).
2. If I were going to buy this product, I would consider buying this model at the price shown (strongly agree to strongly disagree).
3. At the price shown, I would consider buying the product (strongly agree to strongly disagree).
4. The probability that I would consider buying this product is: (very high to very low).
5. My willingness to buy the product is: (very high to very low).

In the consumer ethnocentrism literature, limited studies have attempted to measure the ‘willingness to buy’ construct (e.g., Shimp and Sharma, 1987; Pullman, Granzin and Olsen, 1997; Klein, Ettenson and Morris, 1998; Watson and Wright, 2000). A review of the literature showed that research in this field were mostly interested in examining consumer perceptions and preferences (e.g., McLain and Sternquist, 1991; Huddleston, Good and Stoel, 2001; Balabanis and Diamantopoulos, 2004), antecedents to consumer ethnocentrism (e.g., Sharma, Shimp and Shin, 1995; Balabanis et al., 2001), validation of the CETSCALE (e.g., Netemeyer, Durvasula and Lichtenstein, 1991; Steenkamp and Baumgartner, 1998; Lindquist et al., 2001), lifestyle (e.g., Kucukemiroglu, 1999; Kaynak and Kara, 2002), or demographics (e.g., McLain and Sternquist, 1991; Good and Huddleston, 1995; Nielsen and Spence, 1997).

In the few studies that did examine this ‘willingness to buy’ construct, two studies were identified to be significant in their contribution towards an understanding of consumers’ foreign product purchase intentions. The first study was by Pullman, Granzin and Olsen (1997, pp.221), where this construct was conceptualised as “purchase action”. The second study, which is more significant in the CET literature due to its wider appeal, is the ‘willingness to buy’ scale in Klein, Ettenson and Morris’s (1998) study. The 6-item ‘willingness to buy’ scale developed by Klein, Ettenson and Morris (1998) was modified from the work of Darling and Arnold (1988), Darling and Wood (1990), and Wood and Darling (1993), and is detailed as follows:

1. I would feel guilty if I bought a Japanese product.
2. I would never buy a Japanese car.
3. Whenever possible, I avoid buying Japanese products.
4. Whenever available, I would prefer to buy products made in Japan.
5. I do not like the idea of owning Japanese products.
6. If two products were equal in quality, but one was from Japan and one was from China, I would pay 10% more for the product from China.

The composite reliability of the ‘willingness to buy’ construct was 0.79, and the inter-correlation between the *CETSCALE* and the ‘willingness to buy’ scale was not excessively high (i.e., -0.63) (Klein, Ettenson and Morris, 1998). Other researchers that adopted Klein, Ettenson and Morris’s (1998) ‘willingness to buy’ scale reported adequate reliability levels of 0.75 (Douglas and Nijssen, 2003) and 0.73 (Wang and Chen, 2004). Conversely, Suh and Kwon (2002, pp.671) operationalised Klein, Ettenson and Morris’s (1998) ‘willingness to buy’ scale in two dimensions, namely ‘reluctance to buy foreign products’ and ‘willingness to buy foreign products’. A comparison between the two scales reflected great similarities, with the only exception that there were two additional items in Klein, Ettenson and Morris’s (1998) study as compare to the scale in Suh and Kwon’s (2002) study.

Reluctance to buy foreign products (Suh and Kwon, 2002):

1. Whenever possible, I avoid buying German products.
2. I would feel guilty if I bought a German product.

Willingness to buy foreign products (Suh and Kwon, 2002):

3. Whenever possible, I would prefer to buy German products.
4. I like the idea of owning German products.

The reported alpha coefficients in Suh and Kwon’s (2002) study for the ‘reluctance to buy foreign products’ construct were 0.72 for the U.S. sample and 0.85 for the Korean sample, and the alpha coefficients for the ‘willingness to buy foreign products’ construct were 0.78 for the US sample and 0.80 for the Korean sample. Although Suh and Kwon (2002) did not provide an explanation for omitting the additional two items in Klein, Ettenson and Morris’s (1998) ‘willingness to buy’ scale, one possible rationale was that the first item (‘I would never buy a Japanese car’) might be removed due to its strong emphasis, whilst the second item (‘If two products were equal in quality, but one was from Japan and one was from China, I would pay 10% more for the product from China’) might be excluded due to its long wordings. These two items might also be removed to adapt the scale to the Korean culture (i.e., high context society).

Nevertheless, the ‘willingness to buy’ scale in Klein, Ettenson and Morris’s (1998) study was more relevant to this research because this scale was administered in the PRC whereas Suh and Kwon’s (2002) scale was administered in Korea. As such, the ‘Japanese products’ in Klein, Ettenson and Morris’s (1998) ‘willingness to buy’ scale were modified to ‘foreign hypermarkets’ in order to reflect the scale’s relevancy to the ‘willingness to shop’ construct.

4.2.5 Items for measuring customer share (i.e., behavioural loyalty) and store loyalty intention (i.e., attitudinal loyalty)

This study adopted the 3-item ‘store loyalty intention’ scale in Sirohi, Mclaughlin and Wittink’s (1998) study to represent attitudinal loyalty and the 4-item ‘customer share’ scale in Babin and Attaway’s (2000) study to represent behavioural loyalty. Sirohi, Mclaughlin and Wittink (1998) conducted a study for a multi-store grocery retailer with the objective of assessing the store loyalty intentions of that particular retailer’s customers. Three items were used to measure the ‘store loyalty intention’ (i.e., attitudinal loyalty) construct, namely “likelihood to continue shopping”, “likelihood to use the store for more of your grocery needs in the next twelve months”, and “likelihood to recommend supermarket to a friend” (Sirohi, Mclaughlin and Wittink, 1998, pp.241). The ‘store loyalty intention’ measure has been shown to produce good reliability ($\alpha = 0.87$), to be unidimensional, and to support the validity of both the measure and the construct (average variance extracted = 0.70) (Sirohi, Mclaughlin and Wittink, 1998).

In terms of behavioural loyalty, Babin and Attaway (2000) developed a 4-item ‘customer share’ scale (refer to Table 4.5) to measure repeated purchasing behaviour. The purpose of the ‘customer share’ measure was “to capture the extent of temporal and economic resources proportionally spent at the assigned store compared with the competition” (Babin and Attaway, 2000, pp.94). The reported reliability of the ‘customer share’ scale was 0.80 (Babin and Attaway, 2000). In addition to the four items, respondents were required to complete an additional question with respect to the percentage of their total monthly expenditure spent on a particular product category in a particular retail store (Table 4.5)

(Babin and Attaway, 2000). Note that the objective of categorising consumer expenditure in relation to every \$100 spent in items 2 and 3 of Table 4.5 was to provide researchers with the means to tabulate the participants’ responses in a 5-point Likert scale format for data analysis purposes (i.e., \$0-20 = ‘1’; \$21-40 = ‘2’; \$41-60 = ‘3’; \$61-80 = ‘4’; \$81-100 = ‘5’) (Babin and Attaway, 2000).

Table 4.5

4+1 ‘Customer Share’ scale in Babin and Attaway’s (2000) study

Customer Share				
Instructions: Please fill in the blanks below so that the statements describe you accurately.				
1) _____ out of every five times I shop for clothing, I shop at [store X].				
2) Out of every \$100 I spend in a store like [store X], I spend _____ at [store X].				
3) Out of every \$100 I spend on clothing, I spend _____ at [store X].				
4) My usual shopping trip to [store X] lasts about _____ minutes.				
5) How much of the money you spend on clothing each month do you spend in [store X]:				
0-20%	21-40%	41-60%	61-80%	81-100%

Source: Babin and Attaway (2000, pp.99)

A review of the patronage and loyalty literature suggests that there are two streams of research that examined consumer patronage behaviour, namely ‘store patronage intentions’ or ‘store loyalty’, which represents more of the attitudinal loyalty concept, and ‘resource expenditure’, which represents more of the behavioural loyalty concept. In the ‘store patronage intentions’ or ‘store loyalty’ research stream, some researchers adopted their scales from the work of Oliver and Swan (1989) and Dodds, Monroe and Grewal (1991). For instance, Baker et al. (2002) measured ‘store patronage intentions’ from the scale developed by Dodds, Monroe and Grewal (1991) with three items, namely “willing to recommend”, “willing to buy”, “shopping likelihood”, using 7-point Likert scale anchored by “strongly agree” and “strongly disagree”. High reliability was reported in Baker et al.’s (2002) work (Study 1 = 0.88; Study 2 = 0.84). Likewise, the three patronage intention items

in Babin and Babin's (2001) work were found to be highly similar to those in Baker et al.'s (2002) study. Babin and Babin (2001, pp.93) assessed patronage intention by measuring three items on the expected likelihood (given an opportunity) that a subject would: (1) go into the store, (2) buy something at the store, and (3) bring a friend to the store ($\alpha = 0.90$).

In contrast, Wakefield and Baker (1998) and Wakefield and Blodgett (1999) adopted their scales from the 'frequent future patronage' scale developed by Oliver and Swan (1989). Wakefield and Baker (1998, pp.524) adopted four items from Oliver and Swan's (1989) scale, namely "In the future, my shopping at this mall will be: V29 not at all-very frequent; V30 unlikely-likely; V31 not probable-very probable; V32 impossible-very possible". The four items were measured using a 7-point semantic differential scale, and excellent reliability was reported (V29 and V30 = 0.98; V31 and V32 = 0.953) (Wakefield and Baker, 1998). Conversely, Wakefield and Blodgett (1999, pp.60) only adopted two items from Oliver and Swan's (1989) scale, using anchor points that ranged from "very unlikely-very likely" and "very improbable-very probable". High reliability was also supported for the two items (coefficient $\alpha > 0.90$) (Wakefield and Blodgett, 1999).

The store loyalty intention construct has also been shown to be operationalised differently from the aforementioned studies. The loyalty items in Reynolds and Beatty's (1999) study were drawn from the loyalty literature in marketing and from the work of Beatty et al. (1996). Their loyalty scale consisted of four items (coefficient $\alpha = 0.83$) measured on 7-point 'agree to disagree' statements, namely "I am very loyal to (store name)", "I am very committed to (store name)", "I don't consider myself a loyal (store name) customer", and "I don't plan to shop at (store name) in the future" (Reynolds and Beatty, 1999, pp.521). Likewise, the 4-item store loyalty construct in Reynolds, Darden and Martin's (1974-75, pp.79) study was similar in concept as those in Reynolds and Beatty's (1999) study, namely "I do most of my shopping in the same stores I have always shopped in", "Once I get used to where things are in a supermarket, I hate to change stores", "I like things the old, established way", "Once I have made a choice on which store to buy clothes in, I am likely to shop there without trying other stores". In short, the 'store patronage intention' research stream focused on consumer store preference, regular patronage intentions, and store loyalty intentions.

Conversely, the 'resource expenditure' (i.e., behavioural loyalty) research stream focuses on consumers' spending power in their preferred store(s) as a measure of store patronage. In Shim and Eastlick's (1998) study, respondents were asked to indicate the frequency of their shopping trips and the amount spent per trip in order to compute the respondents' average monthly expenditure in shopping malls. Likewise, Babin and Darden (1996, pp.203) used four items ($\alpha = 0.77$) to assess consumer spending, namely "how much money did the respondents spent while shopping in a particular store", "the number of items purchased in that particular store", "how much more or less than planned did the respondents spent in that particular store", and a 6-point Likert statement assessing significant expenditures in that particular store.

Another study by Babin and Darden (1995) adopted their resource expenditure scale from the approach-avoidance scales commonly used in environmental psychology (e.g., Mehrabian and Russell, 1974; Donovan and Rossiter, 1982). Babin and Darden (1995) reasoned that the resource expenditure scale was appropriate for use in measuring consumer behaviour because retailers are interested and can relate to the amount of resources that their customers spend in the store. Five items ($\alpha = 0.73$) were used to measure consumers' approach or avoidance towards a particular retail store, namely "I talked to several sales clerks while shopping" (Likert), "I spent more time than I expected to in this store" (Likert), "while shopping, I spent more money than I expected" (Likert), "the number of minutes the customer had been in the store", and "how much money the customer spent in the store" (Babin and Darden, 1995, pp.62).

To summarise, the 'resource expenditure' approach assesses the total amount of time and money spent by consumers in retail stores or shopping malls (i.e., behavioural loyalty), whereas the 'store patronage intention' approach examines consumers' degree of preference and loyalty for retail stores, and the likelihood that the consumers will revisit the same stores and/or recommend the stores to fellow friends (i.e., attitudinal loyalty). A recent study by Magi (2003) analysed both the 'store patronage intention' and 'resource expenditure' constructs in one study, where the 'store patronage intention' construct was operationalised as 'share-of-visits' (SOV) and the 'resource expenditure' construct was operationalised as

‘share-of-purchase’ (SOP). Data for the SOV variable was obtained from the subjects’ record of what store they shopped in and which store was the subjects’ primary store, whilst data for the SOP variable was derived from the diary of records detailing the subjects’ total amount spent on grocery for a single shopping visit (Magi, 2003). Nevertheless, the method that Magi (2003) used to collect data for the SOV and SOP constructs was not suitable for use in store-intercept surveys (which is the data collection method used in this study).

As such, it was more feasible to find suitable measures of attitudinal and behavioural loyalty rather than adopt from any particular study that incorporated both constructs. As such, this study adopted Sirohi, McLaughlin and Wittink’s (1998) ‘store loyalty intention’ scale to represent the attitudinal loyalty construct because this scale had shown to be reliable in the grocery retailing context (Sirohi, McLaughlin and Wittink, 1998), and the items reflected the main attributes of attitudinal loyalty (i.e., likelihood to continue shopping, to use the store in the next twelve months, and to recommend the store to a friend). Conversely, this study adopted Babin and Attaway’s (2000) ‘customer share’ scale to represent the behavioural loyalty construct because this scale had shown to be reliable and was able to capture the respondents’ information on the behavioural aspects of customer loyalty (i.e., how frequently Beijing consumers shop in foreign hypermarkets, the amount and time spent by Beijing consumers in foreign hypermarkets, and the average percentage that Beijing consumers spend in foreign hypermarkets in relation to their monthly expenditure).

4.2.6 Items for measuring social desirability bias

This study adopted the 13-item shortened Marlowe-Crowne Social Desirability (MCSD) scale by Reynolds (1982). Although there was a considerable number of social desirability scales available in the psychology literature (e.g., Edwards, 1957; Wiggins, 1959), the original 33-item MCSD scale (Crowne and Marlowe, 1960, 1964) and its short forms (e.g., Strahan and Gerbasi, 1972; Reynolds, 1982; Ballard, 1992) have been widely accepted and used in the psychology and social science literature (c.f. King and Bruner, 2000; Harkness, Van de Vijver and Mohler, 2003). For instance, more than 90% of the available academic

papers in six journals (i.e., *Academy of Management Journal*, *Administrative Science Quarterly*, *Journal of Applied Psychology*, *Journal of Vocational Behaviour*, *Organisational Behaviour and Human Decision Processes*, *Personnel Psychology*) that employed a social desirability measure used the MCSD scale (Moorman and Podsakoff, 1992).

Similarly, King and Bruner (2000) reviewed six top marketing research journals spanning from 1980 to 1997 (i.e., *Journal of Marketing Research*, *Journal of Marketing*, *Journal of Consumer Research*, *Journal of the Academy of Marketing Science*, *Journal of Advertising*, and *Journal of Advertising Research*), and found that there were only 13 marketing-related studies that reported testing for social desirability bias. Out of the 13 studies, 6 studies employed the social desirability measure as part of scale construction to confirm discriminant validity of the overall scale, 2 studies used it for situational analysis in order to highlight and evaluate broad methodological and conceptual applications of the social desirability bias construct, and the remaining 5 studies employed the social desirability measure to examine behavioural tendencies of their subjects that might contaminate the research findings (see King and Bruner, 2000).

In accordance with King and Bruner's (2000) findings, a review of past studies in the marketing literature from 1999 to 2004 indicated that there were few studies that incorporated a social desirability bias measure (e.g., Hult, Keillor and Lafferty, 1999; Steenkamp, Hofstede and Wedel, 1999; Fisher and Katz, 2000; Keillor, D'Amico and Horton, 2001; Burroughs and Rindfleisch, 2002). As Supphellen and Rittenburg (2001) have noted, Hult, Keillor and Lafferty's (1999) work was probably the only known study that investigated the relationship between social desirability bias (in terms of the MCSD scale) and consumer ethnocentrism (CETSCALE), although a later study by Keillor, D'Amico and Horton (2001) was found to examine the same two constructs. Furthermore, the short-form MCSD scale, instead of the original MCSD scale, was mostly administered in these studies. The short versions of the MCSD scale were particularly appealing because most studies generally have measures of more than one construct and it was thus not feasible to administer the original 33-item MCSD scale as a result of methodological limitations imposed on questionnaire length (Loo and Thorpe, 2000).

Previous research that examined the appropriateness of the short versions of the MCSD scale (as compared to the original 33-item scale) has generally found that (1) the short forms of the MCSD scale provided a significant improvement in fit over the original 33-items, (2) had adequate reliabilities that were comparable to the original 33-items, (3) possessed greater sensitivity than the full 33-items, (4) were appropriately keyed for current measurement of consumer behavioural bias, and (5) demonstrated a high degree of robustness in the scale's psychometric properties (c.f. Strahan and Gerbasi, 1972; Reynolds, 1982; Ballard, Crino and Rubinfeld, 1988; Ballard, 1992; Loo and Thorpe, 2000). In addition, the short versions of the MCSD scale have been shown to correlate highly with the original MCSD scale ($r = 0.93$) (e.g., Kerr et al., 1994; Kassing and Prieto, 2003), and lowly with other constructs (e.g., Richins and Dawson, 1992; Kerr et al., 1994; Steenkamp, Hofstede and Wedel, 1999).

Loo and Thorpe (2000) evaluated the adequacy of the short versions developed by Strahan and Gerbasi (1972), Ramanaiah and Martin (1977), Reynolds (1982), and Ballard (1992) in relation to the original MCSD scale. The authors found that the short versions demonstrated a significant improvement in fit over the original 33-item scale, and Reynolds's (1982) Form A (11 items) and Form B (12 items) were the best fitting short versions (Loo and Thorpe, 2000). In spite of this, Reynolds's (1982) 13-item Form C MCSD scale was more often used than the Forms A and B versions by researchers in the psychology and social science literature (e.g., Fisher, 1993; Kerr et al., 1994; Malone and Roberts, 1996; Fisher and Katz, 2000; Kassing and Prieto, 2003). Furthermore, previous studies that administered Reynolds's (1982) 13-item MCSD scale have generally reported acceptable reliability. For instance, Ballard (1992) reported a reliability of 0.68, Loo and Thorpe (2000) reported a reliability of 0.62, Fisher (1993) reported a reliability of 0.69, Kerr et al. (1994) reported a reliability of 0.76, and Kassing and Prieto (2003) reported a reliability of 0.77 for Reynolds's (1982) 13-item MCSD scale.

Hence, this study adopted Reynolds's (1982) 13-item MCSD scale administered in its original true/false format. Higher scores on the scale reflect greater social desirability bias

and thus, reflect the subject's tendency to present him or herself in a favourable manner (Fisher, 1993; Fisher and Katz, 2000).

4.2.7 Items for measuring Beijing consumers' familiarity with foreign hypermarkets

This study adopted the familiarity scale developed by Rao and Monroe (1988) to measure the Beijing consumers' level of familiarity with foreign hypermarkets. Although this construct (i.e., familiarity with foreign hypermarkets) had no relevancy to this study's conceptual model, it was nonetheless important to examine the Beijing consumers' level of familiarity with foreign hypermarkets because consumers who are familiar with foreign hypermarkets are likely to be more knowledgeable about foreign hypermarkets and thus, better able to provide in-depth information about foreign hypermarkets. Since the focus of this research was Beijing consumers and their perceptions, attitudes and values toward foreign hypermarkets, the reliability and validity of the findings in this study would be enhanced if the respondents were familiar with foreign hypermarkets. As such, most of the store-intercept survey samples of consumers who shop in foreign hypermarkets are expected to be familiar with foreign hypermarkets, and less number of respondents who shop in domestic hypermarkets are expected to be familiar with foreign hypermarkets.

In terms of scale reliability, the standardised alpha for this scale was 0.78 (i.e., acceptable reliability level). However, the main objective of Rao and Monroe's (1988) work was to examine the impact of prior knowledge on the use of price cues and intrinsic product cues for the assessment of product quality. Hence, not all the items in the familiarity scale were applicable in this study. Moreover, the study by Rao and Monroe (1988) was product-specific (i.e., wool), whereas this study was firm-specific (i.e., hypermarket retailers). Thus, an amendment of wordings and omission of items not relevant to this study in the familiarity scale was necessary (Rao and Monroe, 1988, pp.262-3).

1. In Beijing, please name all the domestic and foreign hypermarkets that you can think of.
2. Have you ever purchased products from a foreign hypermarket?
3. Do you presently shop in foreign hypermarkets?
4. Please list, in their order of importance, the attributes you think are important when evaluating foreign hypermarkets.
5. Are domestic hypermarkets better than foreign hypermarkets?
6. European Hypermarket is a retail brand for which country?
7. Regarding foreign hypermarkets, would you consider yourself to be a) completely unfamiliar, b) unfamiliar, c) neither familiar nor unfamiliar, d) familiar, or e) extremely familiar.

A number of researchers have developed their scales based on Rao and Monroe's (1988) scale. For instance, Rao and Sieben (1992) constructed a 17-item scale with an adequate reliability ($\alpha = 0.70$) to measure prior knowledge. Yi (1993) developed a knowledge scale ($\alpha = 0.73$) consisting of 16 multiple-choice questions to measure respondents' knowledge of automobiles. Smith and Wortzel's (1997) prior-knowledge scale consisted of 9 items, producing a coefficient alpha of 0.75.

In contrast, some researchers preferred to use single-item scale to evaluate respondents' prior knowledge on a particular subject. Mangleburg et al. (1998, pp.109) measured respondents' prior experience by asking respondents, "Have you ever visited _____ (name of a mountain-lake hotel)?" Responses were recorded as either a "yes" or "no" answer and the respondents who provided a "yes" answer were considered to have prior experience with the hotel, and vice versa. Likewise, the subjects in Park and Lessig's (1981) study were required to respond to a familiarity question at the beginning of the interview. The respondents indicated, through a five-point scale ranging from "very familiar" to "unfamiliar", on their opinions about which microwave oven features would be important in making a choice (Park and Lessig, 1981, pp.226). Other researchers have used more than one item to measure product familiarity (Han, 1988; Ulgado and Lee, 1998). For instance, the product familiarity scale in Ulgado and Lee's (1998, pp.610) were, " "For (the product

category), compared to most people, you consider yourself to be ... [Not At All Familiar – Very Familiar; Not at all Knowledgeable – Very Knowledgeable; Little Experience of Purchasing (the product) – Considerable Experience of Purchasing (the product)].

Nevertheless, the familiarity scale developed by Rao and Monroe (1988) was the most appropriate for this study (despite modifications to the wordings and elimination of certain items were needed to reflect its relevancy to this study) because a significant number of researchers have employed Rao and Monroe's (1988) scale, and adequate reliability between 0.70 and 0.75 was found in these studies (e.g., Rao and Sieben, 1992; Yi, 1993; Smith and Wortzel, 1997).

4.2.8 Back-translation of Chinese measurement instrument

All the scales used in this study were translated into Chinese using the translation and back-translation procedures recommended by Brislin (1987). University students who are fluent in both English and Chinese translated the finalised English questionnaire into Chinese (refer to Appendix 3, 4 and 7 for the English questionnaire items, the actual scale formats in English and its Chinese equivalent). In order to increase the reliability of the Chinese translated questionnaire, two sets of the Chinese translated questionnaire were obtained. These two sets of Chinese translated questionnaire were then translated back into English. The purpose of the back-translation was to identify possible translation errors and to minimise translation bias (Craig and Douglas, 2000). The processes undertaken to translate the questionnaire from English into Chinese and back into English again are detailed below.

Two Loughborough University doctoral students (i.e., Singapore and China nationals) prepared the first Chinese translated questionnaire, whilst two Chinese final-year undergraduate students completed the second Chinese translated questionnaire (note that both undergraduate students obtained grade 'A' in their UK 'A' level English examination and have recently graduated from the University of Nottingham). Following from this, one of the Chinese translated questionnaires was back-translated by a bank manager who

obtained her bachelor degree in business administration from Lancaster University and her Masters (MSc) degree in international business from the University of Manchester Institute of Science and Technology (UMIST). The other Chinese translated questionnaire was back-translated by a Singaporean who is fluent in both languages and who has worked in a senior management position in a FMCG (i.e., fast moving consumer goods) foreign enterprise in Beijing for more than 10 years.

Concurrently, the two sets of Chinese translated questionnaire were reviewed by two Chinese academics working at Loughborough University. One of the academics is from Beijing and the other is from Hong Kong. The purpose of the review by the two Chinese academics was to determine (1) which Chinese translated questionnaire was more appropriate in the Beijing context, and (2) the suitability of individual items in both sets of Chinese translated questionnaires to be administered in Beijing (i.e., the final version of the Chinese translated questionnaire contained a mixture of items from both sets depending on item suitability).

The Chinese measurement instrument was finalised following (1) amendments to the word or phrases found to be incongruent between the original English questionnaire and the two back-translated English questionnaires, and (2) feedbacks from the two Chinese academics with respect to the suitability of items to be administered in the Beijing context. The final Chinese measurement instrument was subjected to two pilot tests in order to establish the effectiveness of the measurement instrument.

4.2.9 Pilot tests

The finalised Chinese translated measurement instrument was tested at Loughborough University due to time and cost constraints. In the first pilot test, a total sample of 37 PRC students (ranging from undergraduate to PhD levels) was obtained in a street-intercept survey within Loughborough University. During the pilot test, respondents were encouraged to raise any issues with regards to the questionnaire, particularly (1) ambiguities or

awkwardness in terms of how the questions were phrased and worded, and (2) the possibility of cultural incompatibility. Any questions that were ambiguous and/or contained words or phrases that might be culturally incompatible were refined or deleted (Craig and Douglas, 2000). In addition, the interviewer observed the time taken for the respondents to complete the questionnaire, as well as conducted a short interview with the respondents after they had completed the questionnaires. Each interview lasted between 30 and 45 minutes, including time taken to complete the questionnaire. A sample of the completed Chinese questionnaire from the pilot test is presented in Appendix 5. Findings from the street-intercept pilot test are detailed as follows:

1. 15 male and 22 female students, ranging from 1st year undergraduates to PhD students from various faculties, participated in the pilot test.
2. 3 male and 6 female students originated from Beijing (i.e., approximately 25% of the sample).
3. The longest time taken to complete the Chinese translated questionnaire was 15 minutes and the average time taken for the 37 students to complete the Chinese translated questionnaire was 9.81 minutes.
4. Most of the 37 students commented that the Chinese translated questionnaire was slightly long but acceptable overall. Out of the 9 Beijing students, only 5 female students commented that the Chinese translated questionnaire was slightly long. Nevertheless, most of the students commented that they were willing to undertake the Chinese translated questionnaire if there was a financial incentive (i.e., as a token of appreciation).
5. All the students were not able to guess the real objective of this research.
6. Non-response bias was low based on low missing values analysed via SPSS.
7. The mid-point of the 5- or 7-point Likert scale items was not the dominant answer in all the Chinese translated questionnaires.
8. All the students were able to understand each item in the Chinese translated questionnaire.

Since the respondents in the first pilot test did not find any questions that were ambiguous and/or contained words or phrases that might be culturally incompatible, the Chinese translated questionnaire administered in the first pilot test was used in the second pilot test. The second pilot test was a web survey administered to a class of Masters students from the Business School in Loughborough University. The aim of this second pilot test was to observe non-response bias and the respondents' tendency to use the mid-point of the 5- or 7-point Likert scale items. A lucky draw was held after the specified web survey deadline, where two winners each received a 10 pounds Sainsbury's voucher, in order to encourage more respondents to participate in the web survey. Both the English and Chinese versions were created online and the students were provided with the web link to access both versions. The context within the English version was modified from 'China' to 'United Kingdom' to suit the UK students, whilst the online Chinese version was the finalised Chinese translated questionnaire to be administered in Beijing. A sample of the results from the English version web survey is presented in Appendix 6. Results from this second pilot test indicated that there was no significant effect of non-response bias and the respondents' tendencies to use the mid-point of Likert scale items based on the summary report from the web survey (see Appendix 6).

In conclusion, results from the two pilot tests indicated that there was no particular issues relating to the Chinese translated questionnaire that required amendments. Therefore, the Chinese translated questionnaire was deemed suitable for use in Beijing. A sample of the Chinese translated questionnaire completed by a Beijing customer who shopped in a European hypermarket is presented in Appendix 7.

4.3 Choice of Sampling Population, Sampling Units and Sample Size

4.3.1 Sampling population

The survey in this study was conducted in Beijing, capital of the People's Republic of China (PRC). The PRC was selected as the country of analysis in this research because, from a retail internationalisation perspective, the PRC is an emerging market that has attracted strong interest from academics keen to enhance theoretical knowledge about the internationalisation process and outcomes of foreign retailers in the PRC as well as to provide insights about the PRC consumers' attitudes, behaviours and values toward foreign retailers. In this respect, the PRC retail sector is still at the growth stage, where international retailers are relatively newcomers to the PRC and the consumers are in the initial stage of forming their perceptions and evaluations about foreign retailers. Nonetheless, the number of retail stores in the PRC has grown from 2 million in 1980 to 13.3 million in 1995 and the retail sector is growing at an average of 20% per annum in the top three cities, i.e., Beijing, Shanghai and Guangzhou (Leary, Cheng and Jameson, 1999). Coupled with the PRC's full entry into the World Trade Organisation and the upcoming 2008 Olympic Games, the international retailers' entry and store coverage in the PRC are likely to accelerate in the next few years (Chain Store Age, 2003).

From the viewpoint of this study's contribution to knowledge in the country-of-origin, consumer ethnocentrism, shopping orientation and customer loyalty literature, there are

1. No known multiple-cue country-of-origin studies that simultaneously examined the country-of-origin and store brand cues in the context of consumer store patronage intention towards foreign grocery stores in the PRC.
2. No known consumer ethnocentrism studies conducted in the PRC that assessed the impact of consumer ethnocentrism on consumers' willingness to shop in foreign grocery stores.
3. No known studies that investigated the relationship between shopping orientation and customer loyalty towards foreign grocery retailers in the PRC context.

In other words, the results in this study may help to provide substantive conclusions concerning the antecedents of the PRC consumers' foreign grocery store patronage intentions, and further our understanding of the interaction between cognitive (i.e., country-of-origin and store brand cues), affective (i.e., hedonic and utilitarian shopping values) and normative (i.e., consumer ethnocentrism) attitudes in the PRC consumers' foreign grocery retail store evaluative criteria. The research on international grocery retailers is particularly important in the PRC context because hypermarkets (i.e., large-scale grocery-related retail stores) are the leading retail format in the PRC today, especially those owned by international retailers such as Walmart and Carrefour (The Economist, 2001, 2004). Given the importance of international grocery retailers in the PRC's retail sector development, relatively little is known about the consumers' attitudes, values and shopping orientation toward international grocery retailers in the PRC. Hence, the empirical results in this study will be able to provide insights into which factor(s) is/are important to the PRC consumers' foreign grocery retail store patronage decisions.

Beijing was selected as the sampling ground in this study because there are currently a relatively large number of foreign retailers in Beijing, such as Carrefour from France, Parkson from Malaysia, Makro from The Netherlands, Ikea from Sweden, Price Smart from the U.S.A., and Ito-Yokado and Seiyu from Japan (Wang, 2003). Beijing consumers are thus likely to be aware of the foreign retailers' presence and are able to make a judgement on their perceptions and evaluations of foreign retailers. Likewise, past studies have shown that there was a significant effect of consumer ethnocentrism on Beijing consumers' attitudes (e.g., Wang and Chen, 2004). Beijing is also a suitable sampling ground for examining the shopping orientation concept. Although Kim et al. (2002), Tsang et al. (2003) and Li et al. (2004) found that PRC consumers were more utilitarian-oriented than hedonic-oriented, none of these studies were conducted in the context of Beijing consumers and grocery-related retailers.

Consumption structure of Beijing residents has seen significant changes during recent years with the ever-reducing basic living expenses for survival and increasing expenditures devoted to leisure and development among the gross expenditures (Beijing Official Website

Portal, 2004). With the recent economic take-off, Beijing residents are generally well off in terms of living standard and are marching towards a more affluent lifestyle (Beijing Official Website Portal, 2004). Beijing consumers now pay more attention to nutritional value and quality than adequacy in food consumption; and to style and quality than the mere functional needs that clothing provide. According to the Foreign Affairs Office of Beijing Municipality (2004), Beijing residents' need for intellectual and cultural activities is constantly on the rise with the advancement in economy and improvement in material living standards. In recent years, there has been a great increase in per capita expenses on education and entertainment. Domestic tours have been the Beijing people's favourite leisure activity but overseas tours are becoming popular (Foreign Affairs Office of Beijing Municipality, 2004). Furthermore, Schutte and Ciarlante (1998, pp.182) noted that there is a growing tendency for PRC consumers to 'window shop' at expensive joint-venture department stores. This suggests that a segment of the Beijing consumers may be hedonic-oriented, which provides a suitable comparative analysis between utilitarian-oriented and hedonic-oriented Beijing consumers' attitudes and behaviours.

In terms of consumer demographics, as of end-2002, Beijing has a total of 14.23 million residents, among which 11.363 million citizens were registered as permanent residents (Beijing Official Website Portal, 2004). The population segregated by age is as follows: 0-4 is 3.21%; 5-9 is 5.39%; 10-14 is 7.13%; 15-19 is 7.24%; 20-49 is 53.82%; 50-69 is 17.62%; and above 70 is 5.08%. The ratio of men to women is 103.84:100 (Foreign Affairs Office of Beijing Municipality, 2004). The average per capita disposable income of Beijing's urban residents in 2002 was RMB 12,463.90 (approximately 1,501.67 U.S. dollars) and the average living expenses was RMB 10,286 (approximately 1,239.28 U.S. dollars) per person for urban residents. In contrast, the average per capita disposable income of Beijing's rural residents was RMB 5,880 (approximately 708.43 U.S. dollars) (Beijing Official Website Portal, 2004).

As for educational level, Beijing has 62 institutions of higher learning such as the prestigious Peking University, Tsinghua University, People's University and the Beijing Normal University. These universities have a combined enrolment of 399,000

undergraduate students and 98,000 postgraduates. Around 40% of the Beijing residents aged between 18 and 22 years old received a college or university education (Beijing Official Website Portal, 2004). In basic education, there are 754 high schools with over 630,000 students and 2,352 primary schools with nearly 840,000 students. The enrolment rate for school-age children reached 99.6% (Foreign Affairs Office of Beijing Municipality, 2004). The well-distributed demographic profile of the Beijing consumers (i.e, age, gender, income, and education) provided a suitable sampling ground for gaining insights into their consumer ethnocentric tendencies and shopping orientations, i.e., high ethnocentric consumers tend to be older female, without much education, and are from the lower income group (Shimp and Sharma, 1987), whilst consumers who shop frequently for grocery products tend to be female, married, and belong to the middle to high-income social groups (Mai and Zhao, 2004).

4.3.2 Sampling units

Customers who shop in two hypermarkets (i.e. a grocery-related retail format) belonging to a European retailer and two hypermarkets belonging to a PRC retailer were selected to be the sampling units in this research. Due to the respective retailers' request to remain anonymous, they are termed respectively as 'European Hypermarket' and 'Domestic Hypermarket' in this study. The reason for selecting [European Hypermarket] and [Domestic Hypermarket] was to compare the attitudes and values of Beijing consumers who shop in domestic hypermarkets versus those who shop in foreign hypermarkets. European Hypermarket is one of the largest foreign hypermarket chain retailers in the PRC today. It has more than 40 hypermarkets in various regions of the PRC, and has a strong record of adapting its operations to foreign markets and sourcing many of its products locally. As for Domestic Hypermarket, it is one of the largest domestic-owned retail enterprises in the PRC. It has more than 50 hypermarkets located in different geographic regions in the PRC and the hypermarkets provide consumers with more than 50 thousand types of products.

4.3.3 Sample size and the concept of incentives for participants

Five hundred questionnaires (i.e., 250 questionnaires per retailer; 125 questionnaires per hypermarket) were collected in Beijing because structural equation modelling was the chosen method for analysing data in this study. Specifically, structural equation modelling is a large-sample technique and sample sizes that exceed 200 cases are the preferred minimum depending on model complexity (c.f., Hair et al., 1998; Kline, 1998a). Likewise, Hinkin (1995) recommended that the item-to-response rate should range from at least 1:4 to 1:10 for a sample size to be statistically significant. In this respect, a total of 42 items in this study's questionnaire (which was detailed in Section 4.2) were submitted for analysis via structural equation modelling. Coupled with a total number of 250 samples per retailer, this amounted to an item-to-response rate of approximately 1:6, which was within the guidelines recommended by the aforementioned authors.

In order to obtain the required 500 questionnaires, the participants in this study were presented with RMB10.00 gift vouchers for their cooperation when the questionnaires were completed. Gates and Solomon (1982) suggested that incentives, either cash or merchandise, are likely to increase response rates. In a study of consumers in Beijing, Zhang (1996) rewarded the participants with RMB10.00 (equivalent to approximately 70 sterling pence) for their cooperation in his mall-intercept study. This suggests that Beijing consumers respond favourably to mall-intercept surveys when financial incentives are provided. Therefore, this study adopted Zhang's (1996) approach of presenting the participants with RMB10.00 after they have completed the surveys.

4.4 Summary

This chapter provided a description of the methodology employed in this study. Specifically, the store-intercept survey method was the most feasible quantitative data collection method in this study (i.e., international marketing research) because of its superior cost, control, time, and data quality as compared to other types of data collection methods. Although the store-intercept data might not be representative of the population in Beijing, the data was expected to be homogeneous in terms of demographic characteristics between the sampled population and the actual Beijing population, and was thus considered appropriate for theory testing (Craig and Douglas, 2000).

Next, a measurement instrument was designed based on scales that have consistently demonstrated good reliability and validity in past studies. The English instrument was translated into Chinese and then, translated back into English by personnel fluent in both languages. The purpose of the back-translation was to identify possible translation errors and to minimise translation bias (Craig and Douglas, 2000). Following from this, two rigorous pilot tests were performed. Results from both pilot tests indicated that the items in the Chinese measurement instrument were suitable for use in the PRC, the length of the questionnaire was appropriate, and non-response bias was not a problem.

Lastly, the finalised Chinese measurement instrument was administered to 500 Beijing consumers who shop in two hypermarkets owned by a European retailer and two hypermarkets owned by a domestic retailer (i.e., 125 questionnaires per hypermarket) using probability sampling on two ‘popular’ (Saturday and Sunday) and two ‘unpopular’ shopping days (Monday and Tuesday) during the hypermarkets’ opening hours for a period of two weeks. Personal interviews were conducted by university students recruited in Beijing and all interviewers completed a training program in interviewing skills before they began work. Results obtained from these 500 questionnaires are presented in the next three chapters.

5.0 DATA PREPARATION AND SCREENING

This chapter describes the processes involved in preparing the raw data for use in AMOS 5.0, i.e., the structural equation modelling program used in this study to assess the model-to-data fit. A raw data file created in SPSS was the preferred approach because AMOS accepts SPSS-created raw data files as input data files as well as the ability to examine various tests of data normality via SPSS.

This chapter begins with a short discussion of how the accuracy of raw data entry was assessed in this study (Section 5.1). Following from this, Section 5.2.1 provides a review of the different available methods that address missing data in consumer surveys, as well as the reasons for employing the multiple imputation method in this study to solve this missing data issue. The processes involved in ascertaining that the characteristics (i.e., means and variances) of the multiple imputed datasets are similar to their original raw data characteristics are detailed in Sections 5.2.2 and 5.2.3. Next, the data is screened for outliers (Section 5.3.1) and normality (Section 5.3.2). This chapter concludes with a discussion of the reasons for not using data transformation to solve non-normality in the two datasets (Section 5.3.3), and a summary of key findings and justifications from the aforementioned steps undertaken to ensure that the data in this study is appropriate for in-depth analysis using the structural equation modelling technique (Section 5.4).

5.1 Accuracy of Data Entry

Screening for data entry accuracy was conducted in a two-stage process. In the first stage, the store-intercept questionnaires obtained from Beijing consumers who shop in European Hypermarket (i.e. hypermarkets belonging to a European retailer) and Domestic Hypermarket (i.e., hypermarkets belonging to a PRC retailer) were created in SPSS and the resulting data files were checked against the original questionnaires following a 2-week interval. The second stage of the screening process was conducted through an examination

The approach recommended by Hair et al. (1998, pp.50-51) was used to assess the two datasets (i.e., MAR or MCAR), where dichotomised correlations were utilised to examine the correlation of missing data for any pair of variables. For each variable, valid values were represented by the value of one, and the missing data were replaced by the value of zero. The missing value indicators for each variable were then correlated. The correlations would indicate the degree of association between the missing data on each variable pair. Due to the large number of variables pairs to be correlated (i.e., 7 constructs x 6 variable pairs correlation matrix), it was not feasible to detail the entire 42 sets of correlations in this thesis. Hence, an example of variable pair correlation matrix between store brand cue and country-of-origin cue in European Hypermarket's dataset is provided in Appendix 8. The resulting correlation matrix showed that there was significant correlation amongst variable pairs. Therefore, the missing data could only be assumed to be MAR (Hair et al., 1998). According to Hair et al. (1998), there are no strict guidelines that exist to identify the level of correlation needed to indicate a non-random missing data process, but statistical significance tests of correlations provide a conservative estimate of the degree of randomness. All the correlations of variable pairs in European Hypermarket's dataset were found to be significant ($p < 0.001$). With respect to the Domestic Hypermarket's dataset, the results indicated that significant correlations existed between some pairs of variables and thus, missing data was also assumed to be MAR (refer to Appendix 9).

Although specific remedies were not required for missing data that was considered ignorable (Little and Rubin, 1987), missing data in both datasets (i.e., European Hypermarket and Domestic Hypermarket) had to be addressed because AMOS does not provide estimates of absolute indexes of fit (e.g., goodness-of-fit index (GFI) and adjusted goodness-of-fit (AGFI) index) and modification indices when the data files contain missing values. Likewise, these absolute fit indices and modification indices will not be estimated in AMOS even though the AMOS software has a unique function for treating missing values via Full Information Maximum Likelihood (FIML). Since the GFI and AGFI indexes provide indication of absolute model fit for structural equation models (e.g., Bentler and Bonett, 1980; Gerbing and Anderson, 1993; Bollen, 1995; Hu and Bentler, 1995), it will be valuable to have these absolute fit indices as well as the modification indices for post-hoc analyses.

of the means, standard deviations and ranges because values that are out of range or improperly coded may be easily detected through such a method (Kline, 1998a).

5.2 General Issues Relating to Missing Data

5.2.1 Multiple imputation as a superior method to solve missing data

A significant number of missing data was found in the administered questionnaires. For instance, analysis of missing data using SPSS for the European Hypermarket dataset revealed that

- The maximum number of missing values per indicator from the four main constructs (i.e., the shopping orientation (i.e., utilitarian and hedonic values), consumer ethnocentrism, store brand cue and country-of-origin cue) was 19 (i.e., roughly 7.6%) in the indicator *UTI_Q2* (i.e., item 2 of utilitarian value construct); and
- Maximum number of missing values within the demographics data was 37 (i.e., roughly 14.8%) for the variable *Income*.

Likewise, findings from the Domestic Hypermarket dataset showed that

- Maximum number of missing values per indicator from the four main constructs was 13 (i.e., roughly 5.2%) in the indicator *SB_Q2* (i.e., item 2 of store brand cue construct); and
- Maximum number of missing values within the demographics data was 11 (i.e., roughly 4.4%) for the variable *Income*.

As the probability sampling approach was used in this study's data collection, the missing data can be considered ignorable and thus, specific remedies for missing data are not needed because probability sampling provides allowances for missing data (Little and Rubin, 1987; Hair et al., 1998). Nevertheless, it was still useful to determine whether the data was *missing at random (MAR)* or *missing completely at random (MCAR)*.

By eliminating the use of FIML in AMOS as a possible treatment of missing data, the remaining methods were to (1) convert the raw data into covariance matrix through listwise or pairwise deletion, (2) to use expectation maximisation method, (3) to use mean substitution method, (4) to use regression imputation method, or (5) to use multiple imputation. The disadvantages of using listwise or pairwise deletion has been comprehensively reviewed in books and articles such as those by Muthen, Kaplan and Hollis (1987), Little and Rubin (1989), Arbuckle (1996), Schafer (1997), Graham and Hofer (2000), and Schafer and Graham (2002). Both listwise and pairwise estimates can be biased if the remaining cases are not representative of the entire sample and when the missing values are MAR (Arbuckle, 1996; Hair et al., 1998). In addition, the approach of only including observations with complete data for analysis can potentially reduce the resulting sample to an inappropriate size. For instance, the covariance matrix created through listwise deletion in this study reduced the number of usable responses to only 199 out of the 250 respondents collected from European Hypermarket, which essentially reduced the number of respondents by 20.40%. Given that structural equation modelling (SEM) is a large-sample technique, sample sizes that exceed 200 cases is the preferred minimum depending on model complexity (Kline, 1998a).

As for the other four aforementioned methods commonly used to solve missing data, the multiple imputation approach has been postulated to be the most effective method (Olinsky, Chen and Harlow, 2003). Empirical evidence in Olinsky, Chen and Harlow's (2003) study showed that, out of the five missing data solution methods (i.e., FIML, expectation maximisation method, mean substitution, regression imputation and multiple imputation), the multiple imputation method was the most promising because it was superior in estimating standard error (i.e., an important determinant of t-values in structural equation modelling) and was an excellent estimator of missing values. Despite the FIML method being superior in terms of its ability to estimate most different types of parameters in a structural equation modelling format, the multiple imputation method is more efficient than the FIML method because the multiple imputation method allows researchers to analyse a complete set of data whereas this was unattainable via the FIML method. As Olinsky, Chen and Harlow (2003) concluded in their studies, the multiple imputation method was

exceptional and was probably the most promising method for solving the missing data issue in future research due to its theoretical and distributional strengths.

The multiple imputation concept was first proposed by Rubin (1977) and details of this concept and its applications are provided by Rubin (1987) and Schafer (1997). In short, missing values of any variable are predicted using existing values from other variables in the multiple imputation method. The predicted values (i.e., imputes) replace the missing values and result in a complete set of data termed as an imputed dataset. This process is repeated multiple times, which consequently produces multiple imputed datasets. Each imputed dataset is then subjected to standard statistical analysis and subsequently, produces multiple analysis results. Finally, these analysis results are combined to form one overall analysis (Schafer, 1997, 1999; Wayman, 2003). A significant advantage of multiple imputation over other methods of treating missing data is that multiple imputation accounts for the missing data by maintaining the original variability of the missing data, whilst incorporating the uncertainty caused by estimating the missing data. Hence, the multiple imputed dataset is able to preserve the important characteristics of the overall dataset (e.g., means, variances, regression parameters) (Rubin, 1987; Schafer, 1997; Olinsky, Chen and Harlow, 2003). Other advantages of multiple imputation include the ability to produce unbiased parameter estimates, to be robust to departures from normality assumptions, and to provide adequate results in cases of low sample size or high rates of missing data (e.g., Graham et al., 1997; Graham and Schafer, 1999; Schafer and Graham, 2002). Additionally, multiple imputation is computationally simpler than maximum likelihood estimation and is easy to understand (Wayman, 2003). Nevertheless, the superiority of the multiple imputation method may be limited to datasets with less than 24% missing values (Olinsky, Chen and Harlow, 2003).

Given the superiority of the multiple imputation method as compared to other methods that deal with missing data, this study adopted this method to solve the missing data problem. Furthermore, the multiple imputation method would be an excellent estimator in this study because the total percentage of missing values in the datasets was less than 24%, i.e. 20.40% of missing values in European Hypermarket's dataset and 22.8% of missing values in Domestic Hypermarket's dataset (Olinsky, Chen and Harlow, 2003). Joe Schafer from

Pennsylvania State University developed four S-Plus libraries for multiple imputing normal, categorical, mixed and panel data. The library for normal data is available as a free stand-alone package called NORM, and is downloadable at <http://www.stat.psu.edu/%7Ejls/misoftwa.html>. The guidelines for using NORM are available at <http://www.codes2000forum.com/notes/dn009.htm>.

Following multiple imputation of the raw datasets from European Hypermarket and Domestic Hypermarket using NORM, examination of the characteristics (i.e., means and variances) between the raw datasets and multiple imputed datasets was undertaken to ensure that the characteristics were not vastly dissimilar.

5.2.2 Comparison of raw data means and multiple imputed data means

Once the analyses had been completed for each imputed dataset, the next step was to combine these analyses to produce one overall set of estimates. According to Rubin (1987), the rule for combining means is accomplished by averaging the individual estimates produced by the analysis of each imputed dataset. That is, in mathematical terms, it is written as:

$$\bar{\theta} = \frac{1}{K} \sum_{k=1}^K \hat{\theta}_k$$

for K imputed datasets and point estimates $\hat{\theta}_k$ of some parameter of interest θ . In this study, $K = 10$ and the values of $\hat{\theta}_k$ are the means from each imputed dataset (refer to Table 5.1 for details of how this analysis was undertaken using the European Hypermarket dataset). Sufficiently accurate results can often be obtained with 10 or less completed multiple imputed datasets (Demirtaş, 2004). From the resulting analyses, insignificant differences were found between the raw data means and the multiple imputed data means for both the European Hypermarket and Domestic Hypermarket datasets.

Table 5.1
Comparison of means between European Hypermarket’s raw and multiple imputed datasets

Variable	Mean 1	Mean 2	Mean 3	Mean 4	Mean 5	Mean 6	Mean 7	Mean 8	Mean 9	Mean 10	Average Mean	Raw Mean (n=199)	Difference
SLI_Q1	4.13	4.11	4.12	4.12	4.14	4.12	4.14	4.13	4.14	4.13	4.13	4.13	-0.01
SLI_Q2	3.53	3.50	3.51	3.54	3.52	3.52	3.53	3.54	3.54	3.52	3.52	3.52	0.01
SLI_Q3	3.41	3.40	3.42	3.42	3.42	3.41	3.41	3.42	3.42	3.41	3.41	3.42	-0.01
COO_Q1	3.28	3.30	3.30	3.34	3.32	3.31	3.31	3.32	3.32	3.33	3.31	3.31	0.01
HED_Q2	3.19	3.16	3.16	3.14	3.16	3.18	3.18	3.17	3.16	3.16	3.16	3.16	0.00
COO_Q2	3.24	3.22	3.22	3.21	3.22	3.20	3.22	3.23	3.24	3.22	3.22	3.21	0.01
HED_Q3	3.18	3.19	3.16	3.18	3.20	3.18	3.16	3.19	3.18	3.18	3.18	3.20	-0.01
COO_Q3	3.24	3.25	3.22	3.26	3.26	3.23	3.23	3.24	3.24	3.26	3.24	3.24	0.00
HED_Q4	2.93	2.88	2.88	2.89	2.94	2.88	2.88	2.91	2.87	2.90	2.89	2.89	0.01
COO_Q4	3.24	3.22	3.20	3.24	3.21	3.22	3.21	3.21	3.20	3.20	3.22	3.22	0.00
HED_Q5	2.90	2.90	2.89	2.91	2.94	2.92	2.91	2.93	2.89	2.88	2.91	2.91	0.00
UTI_Q1	3.28	3.32	3.31	3.30	3.32	3.31	3.29	3.32	3.32	3.30	3.31	3.32	-0.01
COO_Q5	3.52	3.53	3.49	3.51	3.50	3.53	3.49	3.52	3.52	3.52	3.51	3.50	0.01
COO_Q6	3.44	3.44	3.42	3.47	3.45	3.47	3.42	3.43	3.44	3.45	3.44	3.45	0.00
UTI_Q4	3.43	3.44	3.42	3.43	3.47	3.43	3.42	3.42	3.45	3.48	3.44	3.44	0.00
SB_Q1	4.09	4.08	4.05	4.08	4.05	4.07	4.02	4.02	4.08	4.10	4.07	4.08	-0.02
WTS_Q1	2.32	2.30	2.24	2.30	2.30	2.27	2.26	2.24	2.28	2.25	2.27	2.27	0.01
CET_Q1	3.34	3.37	3.38	3.36	3.35	3.43	3.29	3.30	3.31	3.34	3.35	3.32	0.02
WTS_Q2	2.27	2.28	2.31	2.28	2.32	2.27	2.29	2.27	2.26	2.29	2.28	2.28	0.01
WTS_Q3	2.69	2.67	2.64	2.66	2.72	2.64	2.62	2.63	2.63	2.66	2.66	2.64	0.02
CET_Q2	4.64	4.70	4.70	4.69	4.60	4.69	4.60	4.63	4.74	4.70	4.67	4.65	0.02
CET_Q3	2.39	2.46	2.45	2.40	2.42	2.47	2.44	2.39	2.42	2.39	2.42	2.42	0.00
WTS_Q5	2.75	2.76	2.72	2.79	2.72	2.76	2.69	2.68	2.70	2.72	2.73	2.71	0.02
CET_Q4	2.53	2.51	2.53	2.49	2.52	2.52	2.47	2.43	2.50	2.46	2.49	2.49	0.00
SB_Q2	3.61	3.61	3.60	3.54	3.66	3.62	3.60	3.57	3.64	3.56	3.60	3.58	0.02
WTS_Q6	3.00	3.00	2.94	2.99	2.99	2.97	2.98	2.98	2.95	2.97	2.98	2.98	-0.01
CET_Q5	2.92	2.93	2.86	2.93	2.88	2.86	2.88	2.87	2.92	2.91	2.90	2.92	-0.02
CET_Q6	2.78	2.81	2.79	2.80	2.78	2.74	2.74	2.71	2.76	2.74	2.76	2.79	-0.02
CET_Q7	2.54	2.54	2.48	2.51	2.51	2.49	2.48	2.46	2.50	2.49	2.50	2.51	-0.01
SB_Q3	3.91	3.88	3.84	3.83	3.93	3.89	3.80	3.82	3.88	3.83	3.86	3.84	0.02
CET_Q8	4.14	4.13	4.12	4.17	4.15	4.12	4.10	4.09	4.15	4.12	4.13	4.10	0.03
CET_Q9	3.14	3.19	3.26	3.16	3.24	3.22	3.15	3.10	3.16	3.14	3.18	3.15	0.02
CET_Q10	2.32	2.32	2.28	2.28	2.30	2.30	2.27	2.25	2.28	2.29	2.29	2.31	-0.02
ReHED_Q1	3.12	3.14	3.14	3.14	3.14	3.15	3.14	3.15	3.12	3.13	3.14	3.15	-0.01
ReUTI_Q2	3.41	3.41	3.42	3.40	3.39	3.38	3.40	3.42	3.40	3.39	3.40	3.42	-0.02
ReUTI_Q3	3.30	3.30	3.32	3.26	3.28	3.30	3.30	3.33	3.30	3.30	3.30	3.31	-0.01
ReWTS_Q4	4.41	4.40	4.38	4.44	4.29	4.39	4.40	4.41	4.34	4.42	4.39	4.38	0.00

5.2.3 Comparison of raw data variances and multiple imputed data variances

For K imputed datasets, the formulae for calculating total variance of $\bar{\theta}$ is

$$T = \bar{W} + (1 + K^{-1})B$$

whereby

$$\bar{W} = K^{-1} \sum_{k=1}^K W_k$$

and the average of K imputed variances is

$$B = (K - 1)^{-1} \sum_{k=1}^K (\hat{\theta}_k - \bar{\theta})^2$$

The total variance consists of two components, the component that preserves the natural variability and another component that estimates uncertainty caused by missing data. The part of T that measures the natural variability in the data is \bar{W} , termed as the ‘within-imputation’ component. Conversely, the part of T that measures uncertainty introduced by missing data is B , termed as the ‘between-imputation’ component, which measures how the point estimates vary from one dataset to another. For instance, if the estimates vary greatly from one dataset to another, the uncertainty due to imputation will be high and B will be large. Taking the square root of the overall variance T will produce values equivalent to the standard error of means. Lastly, variances estimated from the multiple imputation calculation are compared against the variances from the raw dataset in order to assess any differences in variance between these two datasets (refer to Demirtas (2004) and Table 5.2 for details of how these procedures were analysed using the European Hypermarket dataset).

From the resulting analyses, insignificant differences were found between the raw data variances and the multiple imputed data variances for both the European Hypermarket and Domestic Hypermarket datasets. To sum, the above empirical test results showed that the multiple imputation approach was a reliable method of treating missing data, particularly for its ability to preserve important characteristics of the overall dataset.

Table 5.2

Comparison of variances between European Hypermarket’s raw and multiple imputed datasets

Variable / Variance	Var 1	Var 2	Var 3	Var 4	Var 5	Var 6	Var 7	Var 8	Var 9	Var 10	Within-imputation	Between-imputation	T (Var)	Standard Error of Mean	Variance (n=199)	Difference
SLI_Q1	1.22	1.29	1.23	1.25	1.22	1.25	1.22	1.22	1.22	1.22	1.23	0.00	1.23	1.11	1.23	0.01
SLI_Q2	1.45	1.50	1.50	1.45	1.46	1.47	1.46	1.45	1.46	1.47	1.47	0.00	1.47	1.21	1.46	0.01
SLI_Q3	1.85	1.89	1.88	1.89	1.86	1.87	1.86	1.86	1.86	1.87	1.87	0.00	1.87	1.37	1.87	0.00
COO_Q1	1.63	1.59	1.63	1.61	1.60	1.62	1.61	1.58	1.57	1.59	1.60	0.00	1.60	1.27	1.60	0.00
HED_Q2	1.57	1.60	1.57	1.59	1.60	1.56	1.55	1.54	1.56	1.56	1.57	0.00	1.57	1.25	1.56	0.01
COO_Q2	1.55	1.58	1.56	1.60	1.56	1.56	1.58	1.57	1.56	1.54	1.56	0.00	1.56	1.25	1.56	0.01
HED_Q3	1.67	1.71	1.72	1.66	1.67	1.68	1.67	1.72	1.67	1.73	1.69	0.00	1.69	1.30	1.69	0.00
COO_Q3	1.35	1.37	1.39	1.37	1.39	1.38	1.34	1.39	1.38	1.33	1.37	0.00	1.37	1.17	1.36	0.01
HED_Q4	1.87	1.85	1.88	1.88	1.90	1.89	1.85	1.86	1.83	1.90	1.87	0.00	1.87	1.37	1.88	-0.01
COO_Q4	1.21	1.24	1.25	1.22	1.27	1.25	1.24	1.20	1.24	1.21	1.23	0.00	1.23	1.11	1.23	0.00
HED_Q5	1.60	1.65	1.65	1.67	1.66	1.60	1.59	1.63	1.65	1.65	1.63	0.00	1.64	1.28	1.64	0.00
UTI_Q1	1.61	1.61	1.52	1.58	1.57	1.57	1.53	1.56	1.56	1.56	1.57	0.00	1.57	1.25	1.56	0.01
COO_Q5	1.26	1.28	1.27	1.29	1.30	1.28	1.30	1.31	1.30	1.29	1.29	0.00	1.29	1.14	1.29	0.00
COO_Q6	1.18	1.20	1.18	1.19	1.20	1.16	1.21	1.19	1.19	1.16	1.19	0.00	1.19	1.09	1.17	0.01
UTI_Q4	1.39	1.40	1.40	1.47	1.42	1.49	1.42	1.40	1.44	1.42	1.42	0.00	1.43	1.19	1.42	0.00
SB_Q1	3.69	3.74	3.64	3.74	3.72	3.83	3.76	3.68	3.75	3.76	3.73	0.00	3.73	1.93	3.70	0.03
WTS_Q1	3.02	2.92	2.83	2.84	2.95	2.89	2.84	2.86	2.89	2.85	2.89	0.00	2.89	1.70	2.91	-0.02
CET_Q1	4.71	4.68	4.70	4.64	4.65	4.83	4.63	4.72	4.58	4.63	4.68	0.00	4.68	2.16	4.72	-0.04
WTS_Q2	2.84	2.89	2.99	2.84	2.95	2.85	2.87	2.90	2.83	2.93	2.89	0.00	2.89	1.70	2.90	-0.01
WTS_Q3	3.43	3.36	3.36	3.33	3.51	3.52	3.47	3.33	3.31	3.49	3.41	0.00	3.41	1.85	3.38	0.04
CET_Q2	3.76	3.70	3.73	3.69	3.78	3.76	3.86	3.75	3.72	3.69	3.74	0.00	3.75	1.94	3.70	0.05
CET_Q3	3.33	3.40	3.42	3.32	3.36	3.46	3.47	3.35	3.36	3.36	3.38	0.00	3.38	1.84	3.43	-0.05
WTS_Q5	3.02	3.11	3.01	3.09	2.98	3.03	2.95	2.97	2.92	3.04	3.01	0.00	3.01	1.74	3.00	0.02
CET_Q4	3.45	3.34	3.45	3.26	3.42	3.40	3.34	3.30	3.37	3.33	3.36	0.00	3.37	1.83	3.40	-0.03
SB_Q2	3.67	3.52	3.71	3.52	3.64	3.62	3.55	3.60	3.70	3.67	3.62	0.00	3.62	1.90	3.59	0.03
WTS_Q6	4.38	4.29	4.31	4.24	4.35	4.30	4.47	4.37	4.38	4.38	4.34	0.00	4.35	2.08	4.40	-0.06
CET_Q5	4.22	4.16	4.10	4.08	4.09	4.14	4.11	4.10	4.04	4.08	4.11	0.00	4.11	2.03	4.19	-0.07
CET_Q6	3.77	3.75	3.74	3.72	3.89	3.76	3.72	3.69	3.66	3.77	3.75	0.00	3.75	1.94	3.84	-0.09
CET_Q7	3.30	3.37	3.25	3.30	3.36	3.32	3.27	3.25	3.26	3.25	3.29	0.00	3.29	1.81	3.36	-0.06
SB_Q3	3.07	3.09	2.96	3.09	3.12	3.07	2.98	3.02	3.19	3.01	3.06	0.00	3.06	1.75	3.04	0.02
CET_Q8	3.71	3.69	3.72	3.74	3.77	3.82	3.74	3.71	3.58	3.80	3.73	0.00	3.73	1.93	3.70	0.03
CET_Q9	3.51	3.55	3.75	3.50	3.60	3.68	3.49	3.45	3.54	3.48	3.56	0.00	3.56	1.89	3.51	0.05
CET_Q10	2.89	2.87	2.84	2.82	2.90	2.90	2.87	2.85	2.84	2.88	2.87	0.00	2.87	1.69	2.94	-0.08
ReHED_Q1	1.72	1.70	1.68	1.69	1.69	1.67	1.66	1.66	1.70	1.71	1.69	0.00	1.69	1.30	1.68	0.01
ReUTI_Q2	1.42	1.42	1.38	1.38	1.41	1.45	1.39	1.44	1.38	1.42	1.41	0.00	1.41	1.19	1.40	0.01
ReUTI_Q3	1.55	1.61	1.59	1.65	1.63	1.57	1.60	1.55	1.57	1.58	1.59	0.00	1.59	1.26	1.57	0.02
ReWTS_Q4	3.21	3.24	3.32	3.25	3.33	3.23	3.23	3.26	3.39	3.27	3.27	0.00	3.28	1.81	3.23	0.05

5.3 Tests of Outliers and Normality in Multiple Imputed Datasets

5.3.1 Outliers

Univariate outliers are cases that have unusual values for single variables, whilst multivariate outliers are cases that have unusual combination of values for a number of variables (Kline, 1998a). The following steps were undertaken to detect any univariate and/or multivariate outliers that may exist within the two datasets. To identify univariate outliers, all the scores were converted into standard scores. According to Kline (1998a), a case is a univariate outlier if its standard score is more than three standard deviations away from the mean. As for multivariate outliers, a case is a multivariate outlier if the probability associated with its D^2 (Mahalanobis distance) is $p < 0.001$ (Kline, 1998a).

The results of univariate and multivariate outliers in this study are reported in Table 5.3. Although multivariate outliers were found in five out of the seven constructs, the outliers were retained because they were believed to represent a segment of the sampled population and would thus ensure generalisability to the sampled population (Hair et al., 1998). Specifically, a review of the multivariate outliers in the multiple imputed datasets showed that these outliers were caused by the participants' extreme responses (i.e., the answers were mostly at extreme ends) of the 5- and 7-point Likert scale questionnaire items. Therefore, these outliers are believed to represent a segment of consumers who have firm beliefs about their attitudes and perceptions about foreign grocery retail stores.

Table 5.3
Results of univariate and multivariate outliers

Scale / Outliers	European Hypermarket		Domestic Hypermarket	
	Univariate	Multivariate	Univariate	Multivariate
Country-of-Origin (COO) Cue	none	8 cases	none	4 cases
CETSCALE (i.e., consumer ethnocentrism)	none	5 cases	none	7 cases
Store Brand Cue	none	none	none	none
Personal Shopping Value (PSV)	none	1 case	none	1 case
Willingness to Shop	none	2 cases	none	5 cases
Store Loyalty Intention	none	1 case	none	1 case
Customer Share	none	none	none	none

5.3.2 Normality

Non-normality can occur on two levels, univariate and multivariate. Univariate normality is concerned with the distribution of individual variables, and can be inspected from the variable's skew and kurtosis values. The results of univariate normality for the European Hypermarket dataset is presented in Table 5.4 and those for the Domestic Hypermarket dataset is presented in Table 5.5. From the Kolmogorov-Smirnov test results shown in Tables 5.4 and 5.5, the probability associated with the test of normality were less than 0.001 (at $p = 0.01$) for all the variables in the European Hypermarket and Domestic Hypermarket datasets, which was less than the level of significance required to support data normality. However, the range of skewness and kurtosis values in Table 5.4 and 5.5 suggested that the European Hypermarket and Domestic Hypermarket datasets were only slightly non-normal if the general rule of skewness and kurtosis values within ± 1.0 was used. In contrast, the range of skewness and kurtosis values would suggest that the data was normal if Kline's (1998a) recommendations were used, i.e., skewness $< \pm 3.0$ and kurtosis $< \pm 10.0$.

The second level of non-normality is multivariate. According to Kline (1998a, pp.62), multivariate normality requires that (1) all the univariate distributions are normal, (2) the joint distribution of any combination of the variables are normal, and (3) all bivariate scatterplots are linear and homoscedastic. Multivariate normality may also be assessed via Mardia's (1970) coefficient using the AMOS software. Mardia's (1970) coefficient for the European Hypermarket dataset was 193.655 (critical ratio = 30.083) and for the Domestic Hypermarket dataset was 198.450 (critical ratio = 30.828). These results suggested that both the European Hypermarket and Domestic Hypermarket datasets were multivariate non-normal. Note that tests of homoscedasticity and linearity for both the European Hypermarket and Domestic Hypermarket datasets were also examined. The results for test of homoscedasticity revealed that the null hypothesis for a significant number of variables was rejected and the variances were concluded to be not homogeneous (refer to Table 5.6). With respect to the test of linearity, the results showed that the null hypothesis for a significant number of variables was rejected and the assumption of linearity was not supported (refer to Table 5.7 and 5.8). Hence, results from these two tests provided further empirical support for multivariate non-normality in the two datasets.

Table 5.4
Normality test results for European Hypermarket dataset

	Item Number	Skewness ^a	Kurtosis ^b	Kolmogorov-Smirnov Test ^c	Shapiro-Wilk Test ^c
CETSCALE	Q1	0.511	-1.130	< 0.001	< 0.001
	Q2	-0.251	-1.036	< 0.001	< 0.001
	Q3	1.217	0.396	< 0.001	< 0.001
	Q4	1.012	-0.147	< 0.001	< 0.001
	Q5	0.773	-0.616	< 0.001	< 0.001
	Q6	0.870	-0.416	< 0.001	< 0.001
	Q7	1.058	0.079	< 0.001	< 0.001
	Q8	0.091	-1.034	< 0.001	< 0.001
	Q9	0.629	0.154	< 0.001	< 0.001
	Q10	1.182	0.508	< 0.001	< 0.001
Store Loyalty Intention Scale	Q1	-1.092	0.169	< 0.001	< 0.001
	Q2	-0.310	-0.909	< 0.001	< 0.001
	Q3	-0.388	-0.975	< 0.001	< 0.001
Country-of-Origin Cue Scale	Q1	-0.112	-1.045	< 0.001	< 0.001
	Q2	-0.241	-0.763	< 0.001	< 0.001
	Q3	-0.077	-0.762	< 0.001	< 0.001
	Q4	-0.092	-0.511	< 0.001	< 0.001
	Q5	-0.339	-0.594	< 0.001	< 0.001
	Q6	-0.160	-0.600	< 0.001	< 0.001
Store Brand Cue Scale	Q1	0.044	-1.080	< 0.001	< 0.001
	Q2	0.263	-0.958	< 0.001	< 0.001
	Q3	0.152	-0.832	< 0.001	< 0.001
Personal Shopping Value Scale Note that Q1-5 are Hedonic Value and Q6-9 are Utilitarian Value	Q1	-0.102	-0.949	< 0.001	< 0.001
	Q2	-0.207	-0.850	< 0.001	< 0.001
	Q3	-0.110	-1.064	< 0.001	< 0.001
	Q4	0.185	-1.146	< 0.001	< 0.001
	Q5	0.111	-1.008	< 0.001	< 0.001
	Q6	-0.131	-0.989	< 0.001	< 0.001
	Q7	-0.385	-0.687	< 0.001	< 0.001
	Q8	-0.325	-0.858	< 0.001	< 0.001
	Q9	-0.244	-0.918	< 0.001	< 0.001
Willingness to Shop Scale	Q1	-1.361	1.061	< 0.001	< 0.001
	Q2	-1.189	0.381	< 0.001	< 0.001
	Q3	-1.022	0.016	< 0.001	< 0.001
	Q4	0.243	-0.671	< 0.001	< 0.001
	Q5	-0.850	-0.086	< 0.001	< 0.001
	Q6	-0.639	-0.893	< 0.001	< 0.001

^askewness greater than 3.0 indicates "extremely skewed" (Kline, 1998, pp.82)
^bkurtosis greater than 10.0 suggests a problem (Kline, 1998, pp.82)
^csignificant at p = 0.01

Table 5.5

Normality test results for Domestic Hypermarket dataset

	Item Number	Skewness ^a	Kurtosis ^b	Kolmogorov-Smirnov Test ^c	Shapiro-Wilk Test ^c
CETSCALE	Q1	0.363	-1.459	< 0.001	< 0.001
	Q2	-0.574	-1.047	< 0.001	< 0.001
	Q3	0.826	-0.708	< 0.001	< 0.001
	Q4	1.065	-0.229	< 0.001	< 0.001
	Q5	0.596	-1.074	< 0.001	< 0.001
	Q6	0.550	-1.237	< 0.001	< 0.001
	Q7	0.873	-0.720	< 0.001	< 0.001
	Q8	-0.227	-1.226	< 0.001	< 0.001
	Q9	0.377	-1.275	< 0.001	< 0.001
	Q10	0.956	-0.378	< 0.001	< 0.001
Store Loyalty Intention Scale	Q1	-1.204	0.131	< 0.001	< 0.001
	Q2	-0.883	-0.478	< 0.001	< 0.001
	Q3	-0.764	-0.737	< 0.001	< 0.001
Country-of-Origin Cue Scale	Q1	-0.065	-1.231	< 0.001	< 0.001
	Q2	-0.273	-1.149	< 0.001	< 0.001
	Q3	-0.212	-1.141	< 0.001	< 0.001
	Q4	-0.057	-1.260	< 0.001	< 0.001
	Q5	-0.251	-1.068	< 0.001	< 0.001
	Q6	-0.169	-1.188	< 0.001	< 0.001
Store Brand Cue Scale	Q1	0.012	-1.204	< 0.001	< 0.001
	Q2	0.336	-1.269	< 0.001	< 0.001
	Q3	0.154	-1.028	< 0.001	< 0.001
Personal Shopping Value Scale Note that Q1-5 are Hedonic Value and Q6-9 are Utilitarian Value	Q1	0.092	-1.354	< 0.001	< 0.001
	Q2	-0.203	-1.250	< 0.001	< 0.001
	Q3	-0.313	-1.359	< 0.001	< 0.001
	Q4	0.061	-1.297	< 0.001	< 0.001
	Q5	0.166	-1.183	< 0.001	< 0.001
	Q6	-0.122	-1.244	< 0.001	< 0.001
	Q7	-0.527	-0.878	< 0.001	< 0.001
	Q8	-0.053	-1.145	< 0.001	< 0.001
	Q9	-0.314	-1.166	< 0.001	< 0.001
Willingness to Shop Scale	Q1	-1.104	0.137	< 0.001	< 0.001
	Q2	-1.319	0.636	< 0.001	< 0.001
	Q3	-0.444	-1.228	< 0.001	< 0.001
	Q4	0.538	-0.983	< 0.001	< 0.001
	Q5	-0.831	-0.471	< 0.001	< 0.001
	Q6	-0.095	-1.556	< 0.001	< 0.001

^askewness greater than 3.0 indicates "extremely skewed" (Kline, 1998, pp.82)
^bkurtosis greater than 10.0 suggests a problem (Kline, 1998, pp.82)
^csignificant at p = 0.01

Table 5.6

Homogeneity of variance test results for European Hypermarket and Domestic Hypermarket datasets

	European Hypermarket	Domestic Hypermarket
PSV Scale		
Q1	TRUE	Only true for Will2Shop Q6
Q2	False for Will2Shop Q2 and Q3	False for Will2Shop Q5
Q3	False for Will2Shop Q6	False for ALL
Q4	False for ALL	False for Will2Shop Q1, Q2, Q3, Q4
Q5	False for Will2Shop Q1, Q2, Q4, Q6	Only true for Will2Shop Q5
Q6	False for ALL	Only true for Will2Shop Q6
Q7	False for ALL	False for ALL
Q8	False for ALL	Only true for Will2Shop Q5, Q6
Q9	False for ALL	Only True for Will2Shop Q6
Country of Origin Cue scale		
Q1	False for ALL	Only true for Will2Shop Q3, Q4, Q5
Q2	False for Will2Shop Q1, Q2	Only true for Will2Shop Q1 and Q4
Q3	False for Will2Shop Q3	False for Will2Shop Q1, Q2, Q3, Q4
Q4	False for ALL	False for ALL
Q5	Only true for Will2Shop Q6	Only true for Will2Shop Q6
Q6	False for Will2Shop Q2,Q3	False for Will2Shop Q1, Q2, Q3, Q4
CETSCALE		
Q1	False for ALL	False for Will2Shop Q1, Q2, Q3
Q2	False for ALL	False for Will2Shop Q1, Q2, Q3, Q4
Q3	False for ALL	False for Will2Shop Q1, Q2, Q3, Q4
Q4	False for ALL	False for ALL
Q5	False for ALL	Only true for Will2Shop Q1 and Q4
Q6	False for ALL	Only true for Will2Shop Q1, Q2, Q3, Q4
Q7	Only true for Will2Shop Q5, Q6	False for ALL
Q8	False for ALL	Only true for Will2Shop Q2 and Q3
Q9	False for ALL	False for ALL
Q10	Only true for Will2Shop Q6	Only true for Will2Shop Q2 and Q4
Store Brand Cue scale		
Q1	Only true for Will2Shop Q5, Q6	Only true for Will2Shop Q1, Q4, Q6
Q2	False for ALL	False for ALL
Q3	False for ALL	Only true for Will2Shop Q2 and Q4

Table 5.7

**Example of correlation matrix used in test of linearity for
European Hypermarket dataset**

		CET Q1	CET Q2	CET Q3	WTS Q1	WTS Q2	WTS Q3
CET_Q1	Pearson Correlation	1	.161(*)	.261(**)	.380(**)	.267(**)	.185(**)
	Sig. (2-tailed)	.	.011	.000	.000	.000	.003
	N	250	250	250	250	250	250
CET_Q2	Pearson Correlation	.161(*)	1	.185(**)	.170(**)	.183(**)	.125(*)
	Sig. (2-tailed)	.011	.	.003	.007	.004	.049
	N	250	250	250	250	250	250
CET_Q3	Pearson Correlation	.261(**)	.185(**)	1	.468(**)	.496(**)	.500(**)
	Sig. (2-tailed)	.000	.003	.	.000	.000	.000
	N	250	250	250	250	250	250
WTS_Q1	Pearson Correlation	.380(**)	.170(**)	.468(**)	1	.448(**)	.435(**)
	Sig. (2-tailed)	.000	.007	.000	.	.000	.000
	N	250	250	250	250	250	250
WTS_Q2	Pearson Correlation	.267(**)	.183(**)	.496(**)	.448(**)	1	.614(**)
	Sig. (2-tailed)	.000	.004	.000	.000	.	.000
	N	250	250	250	250	250	250
WTS_Q3	Pearson Correlation	.185(**)	.125(*)	.500(**)	.435(**)	.614(**)	1
	Sig. (2-tailed)	.003	.049	.000	.000	.000	.
	N	250	250	250	250	250	250

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.8

**Results of linearity test for European Hypermarket and
Domestic Hypermarket datasets**

	European Hypermarket	Domestic Hypermarket
Consumer Ethnocentrism scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Hedonic Value scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Country-Of-Origin Cue scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Store Brand Cue scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Utilitarian Value scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Willingness to Shop scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Store Loyalty Intention scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators
Customer Share scale	Linearity not supported for a number of indicators	Linearity not supported for a number of indicators

5.3.3 Data transformations

Bentler (1989) and Bollen (1989) noted that lack of normality in the data would inflate the chi-square statistics in structural equation analysis, thereby causing model fit to be understated. Bollen (1989), Hair et al. (1998) and Kline (1998a) suggested that transformations is one approach of treating non-normal distribution, i.e., the original scores are converted with a mathematical operation to new ones that may be more normally distributed. Nevertheless, transformations may change the interpretation of the variables (West, Finch and Curran, 1995; Hair et al., 1998). Furthermore, linear transformations have no effect on the distributions of variables or the results of simple structural equation models if equality constraints are not imposed on these models (Cudeck, 1989). Likewise, nonlinear transformations can potentially modify the distribution of the measured variables and the relationships between measured variables, i.e., eliminate some form of curvilinear effects and interactions between variables (West, Finch and Curran, 1995). More importantly, the ease of communication of statistics such as means and standard deviations becomes more difficult (Innes, 2005). That is, the loss of metric associated with transformations is often a major problem for researchers who attempt to compare results across variables or across studies (West, Finch and Curran, 1995).

Survey data is usually non-normal and rating scales such as Likert scales produce ordinal data that is formally non-normal (Ping, 2004). In order to justify the decision not to use data transformation in this study, data transformation was applied to the sample sets and the results revealed that transformations of the Likert scale datasets did not improve data normality significantly. That is, the two datasets were still non-normal even though data transformations were administered. A possible rationale was that the frequency distribution of responses was limited within a specified range (e.g., 5-point and 7-point Likert scale items). Given these circumstances, transformations for normality, homogeneity of variance and linearity were not imposed on the European Hypermarket and Domestic Hypermarket datasets.

5.4 Summary

The purpose of this chapter was to prepare the data collected from the store-intercept surveys in European Hypermarket (i.e., an European international grocery retailer) and Domestic Hypermarket (i.e., a PRC grocery retailer) for use in structural equation modelling. The two datasets were doubly checked for accuracy in data entry, missing values in the datasets were resolved via the multiple imputation method, and finally, the datasets were screened for outliers and non-normality. The results in this study revealed that multiple imputation was an efficient method for imputing missing values in the two datasets because no significant difference in means and variances was found between the raw datasets and the multiple imputed datasets. In addition, the results indicated that multivariate outliers were inherent in the two datasets. Nevertheless, these outliers were believed to represent a segment of the sampled population and hence, these outliers were retained in order to ensure generalisability of the results in this study to the sampled population. Finally, the data in this study was slightly non-normal but non-normality is not unusual in rating scales (Ping, 2004). Transformations were not applied to the two datasets because of their limitations (e.g., loss of metric associated with transformations prevent comparison of results across variables or across studies), as well as no significant improvement was found when transformations were applied to the two datasets.

The next chapter provides details of the steps undertaken to ensure that the parameters in the structural equation models are robust. Specifically, the reliability (i.e., composite reliability and average variance extracted values) and validity (i.e., convergent validity and discriminant validity) of the measures in this study were first examined at the measurement level prior to an analysis of the models at the structural level.

6.0 MEASUREMENT AND STRUCTURAL MODELS

This chapter focuses on determining the adequacy of the measures (i.e., reliability and construct validity) in this study through conventional procedures from the structural equation modelling (SEM) literature (Nunnally, 1978; Fornell and Larcker, 1981; Gerbing and Anderson, 1988; Hair et al., 1998; Kline, 1998a; Byrne, 2001). This chapter begins with a discussion of general issues relating to structural equation modelling, which includes a summary of goodness-of-fit indexes that are used in this study (Section 6.1). This chapter proceeds with a discussion of the analysis strategy undertaken in this study as a guiding principle towards achieving the aim of attaining robust results (Section 6.2). Note that the European Hypermarket dataset is used as the baseline dataset in the analysis of latent variable structural equation modelling, and the reasons are detailed in Section 6.2.

Next, measures in both the European Hypermarket and Domestic Hypermarket datasets are inspected for social desirability bias in Section 6.3. Following from this, the measures are examined at the individual construct/latent variable level, where the reliability and convergent validity of the indicators representing the respective latent variables are discussed in Section 6.4.1. These latent variables are subsequently analysed together as a full measurement model for discriminant validity in Section 6.4.2. Section 6.4.3 describes the adequacy of model fit in relation to the European Hypermarket dataset vis-à-vis the latent variables in a path model analysis (i.e., structural equation model).

Having analysed the European Hypermarket dataset in Section 6.4, Section 6.5 provides a discussion of three methods that may be used to analyse the Domestic Hypermarket dataset. Results in this study indicated that these three methods were all unsuitable for analysing the Domestic Hypermarket dataset. Hence, the multiple group analysis approach, which is a commonly used method for analysing two or more groups of data simultaneously in structural equation modelling (Byrne, 2001), is used in this study. Details of the steps undertaken to compare the Domestic Hypermarket and European Hypermarket datasets via nested model comparison (i.e., multiple group analysis) are described in Section 6.6. Lastly, a chapter summary is provided in Section 6.7.

6.1 General Issues Relating to Structural Equation Modelling

Structural Equation Modelling (SEM) is an advanced quantitative statistical analysis technique that is superior to other multivariate statistical analysis methods (e.g., multiple regression, factor analysis, multivariate analysis of variance) because SEM provides researchers with the means to investigate multiple relationships between dependent and independent variables, whereas traditional multivariate methods are limited to the analysis of single relationships (Hair et al., 1998). In addition, SEM (1) takes a confirmatory, rather than exploratory, approach to data analysis and hypotheses testing, (2) provides explicit estimates of error variance coefficients that traditional multivariate methods are incapable of either assessing or correcting for measurement error (i.e., takes into account measurement error and thus, increases the reliability of path estimate coefficients), and (3) enables researchers to evaluate both observed and unobserved (i.e., latent) variables in which traditional multivariate methods are incapable of achieving since data analyses using these methods are based on observed measurements only (c.f., Hair et al., 1998; Kline, 1998a; Byrne, 2001).

Several procedures were undertaken to test the measurement properties of the model using latent variable structural equation modelling (Joreskog and Sorbom, 1993). All structural equation models were estimated via AMOS 5.0 and the Maximum Likelihood (ML) extraction method was preferred due to the ML's robustness against non-normal data (c.f., Chou and Bentler, 1995; Hair et al., 1998; Kline, 1998a; Byrne, 2001). Note that the exact-fit test (i.e., probability value associated with chi-square, χ^2), which determines whether the model fits perfectly in a population (Bollen, 1989), is sensitive to sample size and central χ^2 distribution (Joreskog and Sorbom, 1993; MacCallum, Browne and Sugawara, 1996). Therefore, researchers have recognised the χ^2 limitations (i.e., real world data can only fit approximately but not exactly) and recommended using close-fit test (i.e., goodness-of-fit indexes) as a measure of adequate/satisfactory model-to-data fit (c.f., Marsh, Balla and McDonald, 1988; Gerbing and Anderson, 1993; Hu and Bentler, 1995; Bryne, 2001). As such, the adequacy of model fit at the measurement and structural levels in this study were

determined by the following absolute fit (i.e., GFI and AGFI), incremental fit (i.e., CFI and TLI), parsimonious fit (i.e., normed chi-square value), and RMSEA statistics:

1. The goodness-of-fit index (GFI) and adjusted goodness-of-fit index (AGFI) compare the hypothesised model with no model at all, and GFI and AGFI values close to 1.00 (where the recommended level is 0.90) are indicative of good fit (e.g., Hu and Bentler, 1995; Hair et al., 1998; Bryne, 2001).
2. The comparative fit index (CFI) originated from the normed fit index (NFI), which was first proposed by Bentler and Bonett (1980) to examine the incremental fit of the model compared to the null model. However, the NFI value tends to be underestimated in small samples and thus, the comparative fit index (CFI) was an adjustment from the NFI to take sample size into account (Bentler, 1990). CFI values greater than 0.90 indicate good fit (Bentler, 1992), although Hu and Bentler (1999) recommended a revision of the CFI cut-off values to be closer to 0.95. The Tucker-Lewis index (TLI; Tucker and Lewis, 1973) performs the same function as CFI, and TLI values close to 0.95 are indicative of good fit (Hu and Bentler, 1999).
3. Normed chi-square value ($\chi^2/\text{degrees of freedom ratio}$) assesses “the parsimony of the model by evaluating the fit of the model versus the number of estimated coefficients ... needed to achieve that level of fit” (Hair et al., 1998, pp.623); Acceptable values should range between 1.00 and 2.00 (Hair et al., 1998).
4. Root mean square error of approximation (RMSEA) evaluates “the level of fit between a model, with unknown but optimally chosen parameter values, and the population covariance matrix if it were available” (Browne and Cudeck, 1993, pp.137-138); RMSEA values less than 0.05 indicate good fit, values from 0.08 to 0.10 indicate mediocre fit, and values above 0.10 indicate poor fit (MacCallum, Browne and Sugawara, 1996).

The above goodness-of-fit indexes were specifically selected amongst the 21 available goodness-of-fit indexes to be reported in this study because they are the most commonly used fit statistics used by researchers to evaluate adequacy of model fit (c.f., Hair et al., 1998; Byrne, 2001). These indexes are reported throughout this study in the following order:

χ^2 (degrees of freedom), χ^2/df , probability value, RMSEA, GFI, AGFI, CFI, and TLI.

Note that adequacy of model-to-data fit in this study adhered strictly to the respective index cut-off values as described above (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI $>$ 0.90).

6.2 Analysis Strategy

6.2.1 Stage one

The analysis commenced with an investigation of items in the measurement instrument that might be affected by social desirability bias because these items were likely to be less reliable in terms of representing the constructs or latent variables in the model. Specifically, the purpose of compiling the social desirability bias scores in both the European Hypermarket and Domestic Hypermarket datasets at this stage was twofold. First, the scores were used to determine which indicators in the measures were influenced by social desirability bias. That is, removing indicators found to be inconsistent due to socially desirable response bias might enhance the reliability of the latent variables. Second, the social desirability bias scores were used to examine the hypothesised relationship between the CETSCALE and its susceptibility to socially desirable response bias (to be elaborated in Chapter 7). Results of this analysis are detailed in Section 6.3.

6.2.2 Stage two

The second stage of the analysis was to perform confirmatory factor analysis (CFA) through structural equation modelling using AMOS 5.0 (i.e., model-fitting software for analysing structural equation models), where the questionnaire items that were subjected to CFA are detailed in Appendix 10. Since two sets of data were compiled in this study (i.e., one dataset from the store-intercept survey in European Hypermarket and the other store-intercept

dataset was obtained from Domestic Hypermarket), the decision was made not to combine both sets of data into one large dataset because

1. The two sets of data were used strictly as a holdout sample in order to strengthen the reliability and validity of the structural equation model by simulating as separate sample sets within the same population.
2. The two sets of data provided separate theoretical support and increased generalisability for the consumer ethnocentrism model of foreign retail store patronage with respect to Beijing consumers who shop in foreign hypermarkets and those who shop in domestic hypermarkets.
3. The two sets of data were believed to represent different segment of consumers within the same population, i.e., different attitudinal and behavioural characteristics between consumers who shop in foreign hypermarkets and those who shop in domestic hypermarkets. For instance, Beijing consumers who shop in foreign hypermarkets are expected to be less ethnocentric than those who shop in domestic hypermarkets.

As such, the European Hypermarket dataset was used as the baseline dataset for analysis of latent variable structural equation modelling procedures in this study because it was in line with the main objective of this study, which was to understand the motivational factors behind ethnocentric Beijing consumers who are willing to shop in foreign hypermarkets. In other words, information gathered from ethnocentric Beijing consumers who shop in domestic hypermarkets (i.e., the Domestic Hypermarket dataset) was likely to provide fewer insights than those who shop in foreign hypermarkets (i.e., the European Hypermarket dataset), since ethnocentric consumers tend to prefer domestic hypermarkets to foreign ones. Note that the Maximum Likelihood (ML) extraction method was preferred because ML estimates have been found to perform well in generating reliable statistical results. In particular, ML estimates have been shown to be robust and produce good estimates even when the data is not normally distributed (cf., Chou and Bentler, 1995).

The CFA for the European Hypermarket dataset was first examined at the single-construct measurement level followed by the full measurement model. The objective of conducting the CFA as a two-step process was to (step 1) analyse the goodness-of-fit between the indicators and their respective latent variables, as well as the representativeness (i.e., reliability and convergent validity) of the indicators with respect to their latent variables, at the single-construct measurement level, and (step 2) analyse the goodness-of-fit and discriminant validity of the latent variables when all the latent variables are combined into a full measurement model (Nunnally, 1978; Fornell and Larcker, 1981; Gerbing and Anderson, 1988; Hair et al., 1998; Kline, 1998a; Byrne, 2001). During the CFA process at both the single-construct and full measurement model levels, indicators with residuals exhibiting t-values greater than 2.58 and corresponding high modification index values (i.e., > 3.84) were removed from each latent variable (Byrne, 2001). In other words, indicators that did not strongly represent their respective latent variables were removed. Note that indicators influenced by social desirability bias (to be reported in Section 6.3) were not used as a guide towards establishing a more representative set of indicators for the latent variables (i.e., removing indicators affected by socially desirable response bias) because these indicators may have low residuals, high t-values and/or high squared multiple correlation values. That is, the indicators affected by socially desirable response bias may be highly representative of the respective latent variables and hence, removing these indicators may inadvertently reduce the reliability of the latent variables. Results from the single-construct and full measurement CFA are detailed in Section 6.4.1 and 6.4.2 respectively.

Following the identification of reliable indicators that best represent the latent variables through the two-step CFA process, these indicators and latent variables were modelled as a path diagram identical to the conceptual model (refer to Figure 3.1 in Chapter 3). This is also known as structural model analyses or model analyses at the structural level (c.f., Hair et al., 1998; Kline, 1998a; Byrne, 2001). At the structural level, the robustness of the paths in the model was verified through the adequacy of the goodness-of-fit indices. In addition, correlations between the latent variables were examined to ensure that multicollinearity (i.e., high correlations between latent variables that may reduce the robustness of the path coefficients and t-values) was not a problem in the structural equation models (Hair et al.,

1998). Results of this structural equation model analysis for the European Hypermarket dataset are discussed in Section 6.4.3.

6.2.3 Stage three

Following the conclusion of analysis for the European Hypermarket dataset, the third stage of the analysis was to examine the Domestic Hypermarket dataset. As aforementioned, the Domestic Hypermarket dataset was meant to be used as a test-retest reliability for the structural equation model that fitted well for the European Hypermarket dataset. Therefore, the Domestic Hypermarket dataset was subjected to Maximum Likelihood estimation in this structural equation model (that fitted well for the European Hypermarket dataset). The results indicated that the model fit between the Domestic Hypermarket dataset and the structural equation model (that fitted well for the European Hypermarket dataset) was not satisfactory. In other words, the results suggested that the data characteristics (i.e., means and variances of the indicators) for the Domestic Hypermarket and the European Hypermarket datasets did not converge on the same set of indicators. These results are reported in Section 6.5.1. Two other methods were then proposed with respect to analysing the Domestic Hypermarket dataset, which are detailed in Section 6.5.2 and Section 6.5.3. Nonetheless, these two methods were also found to be inappropriate for use in this study. Limitations of these three methods are discussed in Section 6.5.4.

6.2.4 Stage four

Since the Domestic Hypermarket dataset was not suitable for use in a test-retest reliability scenario (as detailed in Section 6.5), the next best approach was to use multiple group analysis, a method that is commonly used in the structural equation modelling literature for examining two sets of data simultaneously (Byrne, 2001). As such, the final stage of the analysis was to perform a nested model comparison (i.e., multiple group analysis) between the European Hypermarket and Domestic Hypermarket datasets. Before conducting the

nested model comparison, the full measurement model had to be re-evaluated in order to obtain the best fitting indicators that represent the latent variables for both the European Hypermarket and Domestic Hypermarket datasets. Results from this CFA are detailed in Section 6.6.1.

Next, a test of invariance, where the regression weights were constrained to be equal across the European Hypermarket and Domestic Hypermarket datasets, was assessed so as to verify that the indicators derived from the full measurement model analysis were representative of both the European Hypermarket and Domestic Hypermarket samples (Bollen, 1989; Byrne, 2001). Note that tests for inequality of error variances and covariances across groups were not conducted because “the testing of equality constraints bearing on error variances and covariances is now considered to be excessively stringent ...” (Byrne, 2001, pp.202). Results of this test of invariance are discussed in Section 6.6.2.

Following the identification of reliable indicators that best represent the latent variables through the CFA process for both the European Hypermarket and Domestic Hypermarket datasets, these indicators and latent variables were modelled in a structural equation model identical to the conceptual model. Results of this structural equation model for both the European Hypermarket and Domestic Hypermarket datasets are detailed in Section 6.6.3. Next, bootstrapping was performed to ensure that the path coefficients and t-values for the structural equation models were reliable, i.e., the path estimates were not affected by data non-normality (c.f., Hair et al, 1998; Kline, 1998a; Byrne, 2001). The bootstrap results are discussed in Section 6.6.4.

Finally, the multiple group analysis (i.e., nested model comparison) between the European Hypermarket and Domestic Hypermarket datasets is discussed in Section 6.6.5. The objective of multiple group analysis was to identify whether there was invariance between the European Hypermarket and Domestic Hypermarket datasets in the structural equations model. If a lack of invariance between both sets of data was established, the path(s) in the model that caused the discrepancy might be efficiently identified via this method (c.f., Bollen, 1989; Byrne, 2001). Specifically, the two models were first subjected to a test of

invariance for the European Hypermarket and Domestic Hypermarket datasets. The aim of this test was to identify whether there was a moderating effect(s) on the causal relationships in the model, and if so, whether this moderating effect(s) varied by group. If a lack of invariance between both sets of data was established, the next step was to identify which path(s) in the model caused this variance, i.e., which path(s) in the model was/were statistically different amongst the two groups/datasets via a 1-degree of freedom chi-square difference test (c.f., Bollen, 1989; Byrne, 2001). These multiple group analysis procedures and results are detailed in Section 6.6.5.

6.3 Social Desirability Bias – Stage One

The social desirability bias scores were tabulated based on Reynolds's (1982) 13-item MCSD scale administered in its original true/false format, where the items keyed in the right direction were coded as '1' and those in the wrong direction were coded as '0' (see Appendix 11 and 12 for tabulated scores for the European Hypermarket and Domestic Hypermarket datasets). Higher scores on the scale reflected greater social desirability bias and thus, reflected the subject's tendency to present him or herself in a favourable manner (Fisher, 1993; Fisher and Katz, 2000).

In order to determine which indicators were affected by social desirability bias, a t-test between the social desirability bias scores and the individual indicators was performed. Results from the t-test revealed that only item Q3 of the 'store brand cue' latent variable in the European Hypermarket dataset was affected by social desirability bias (refer to Table 6.1). In contrast, six indicators in the Domestic Hypermarket dataset, namely items Q4 and Q7 of the 'consumer ethnocentrism' latent variable, items Q1 and Q2 of the 'willingness to shop in foreign grocery stores' latent variable, and items Q1 and Q2 of the 'store loyalty intention' latent variable, were affected by social desirability bias (refer to Table 6.2).

Note that **CET** represents the 'consumer ethnocentrism' latent variable, **HED** represents the 'hedonic value' latent variable, **UTI** represents the 'utilitarian value' latent variable, **COO**

represents the ‘country-of-origin cue’ latent variable, **SB** represents the ‘store brand cue’ latent variable, **WTS** represents the ‘willingness to shop in foreign grocery stores’ latent variable, **SLI** represents the ‘foreign grocery store loyalty intention’ latent variable, and **CS** represents the ‘customer share in foreign grocery stores’ latent variable, whilst ‘Q’ represents the item number (e.g., CET_Q1 represents item 1 of the consumer ethnocentrism latent variable). These abbreviations are consistently used throughout this chapter.

As mentioned in Section 6.2, the above indicators that were influenced by socially desirable response bias were not removed from further analysis of the measurement model because these indicators may be highly representative of their respective latent variables (i.e., low residuals, high t-values and/or high squared multiple correlation values). Specifically, removing these indicators solely on the basis of socially desirable response bias may weaken the overall conceptual significance of the latent variables and may also cause Heywood cases in structural equation modelling. Empirical support for not removing the above indicators is detailed in Section 6.4.2. As such, the objective of identifying indicators affected by social desirability bias in this study was twofold: (1) to be aware that socially desirable response bias existed in a limited number of indicators and, (2) to investigate the robustness of the measures in relation to socially desirable response bias.

Table 6.1

Results of t-test for social desirability bias for European Hypermarket dataset

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
CET_Q1	Equal variances assumed	0.471	0.493	-0.697	221	0.486	-0.247	0.354	-0.943	0.450
	Equal variances not assumed			-0.713	77.190	0.478	-0.247	0.346	-0.935	0.442
CET_Q2	Equal variances assumed	0.321	0.571	1.605	221	0.110	0.496	0.309	-0.113	1.106
	Equal variances not assumed			1.614	75.372	0.111	0.496	0.307	-0.116	1.109
CET_Q3	Equal variances assumed	0.099	0.754	-0.252	221	0.802	-0.077	0.307	-0.681	0.527
	Equal variances not assumed			-0.248	73.193	0.805	-0.077	0.312	-0.698	0.544
CET_Q4	Equal variances assumed	1.432	0.233	0.243	221	0.808	0.073	0.300	-0.519	0.665
	Equal variances not assumed			0.259	82.018	0.796	0.073	0.282	-0.488	0.634
CET_Q5	Equal variances assumed	1.213	0.272	0.533	221	0.594	0.174	0.326	-0.468	0.815
	Equal variances not assumed			0.565	81.412	0.574	0.174	0.307	-0.438	0.785
CET_Q6	Equal variances assumed	3.904	0.049	1.011	221	0.313	0.321	0.318	-0.305	0.947
	Equal variances not assumed			1.107	85.876	0.271	0.321	0.290	-0.256	0.898
CET_Q7	Equal variances assumed	1.742	0.188	0.016	221	0.987	0.005	0.300	-0.586	0.595
	Equal variances not assumed			0.018	89.584	0.985	0.005	0.267	-0.526	0.536
CET_Q8	Equal variances assumed	7.846	0.006	1.337	221	0.183	0.414	0.309	-0.196	1.023
	Equal variances not assumed			1.534	93.284	0.128	0.414	0.270	-0.122	0.949
CET_Q9	Equal variances assumed	4.749	0.030	0.903	221	0.368	0.280	0.310	-0.331	0.891
	Equal variances not assumed			1.013	89.654	0.314	0.280	0.276	-0.269	0.829
CET_Q10	Equal variances assumed	0.782	0.377	0.181	221	0.856	0.051	0.283	-0.506	0.608
	Equal variances not assumed			0.199	86.437	0.843	0.051	0.257	-0.460	0.562
HED_Q1	Equal variances assumed	0.479	0.489	0.843	221	0.400	0.177	0.210	-0.237	0.591
	Equal variances not assumed			0.852	75.854	0.397	0.177	0.208	-0.237	0.591
HED_Q2	Equal variances assumed	3.172	0.076	-0.488	221	0.626	-0.098	0.200	-0.493	0.297
	Equal variances not assumed			-0.535	86.228	0.594	-0.098	0.183	-0.461	0.265
HED_Q3	Equal variances assumed	0.000	0.984	0.341	221	0.733	0.071	0.209	-0.341	0.483
	Equal variances not assumed			0.337	73.582	0.737	0.071	0.212	-0.350	0.493
HED_Q4	Equal variances assumed	0.658	0.418	0.760	221	0.448	0.168	0.222	-0.268	0.605
	Equal variances not assumed			0.790	79.095	0.432	0.168	0.213	-0.256	0.592
HED_Q5	Equal variances assumed	0.313	0.577	-0.056	221	0.955	-0.012	0.209	-0.423	0.400
	Equal variances not assumed			-0.057	75.968	0.955	-0.012	0.206	-0.423	0.399
UTI_Q1	Equal variances assumed	0.303	0.583	-0.817	221	0.415	-0.165	0.202	-0.564	0.233
	Equal variances not assumed			-0.865	81.314	0.390	-0.165	0.191	-0.545	0.215

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		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
UTI_Q2	Equal variances assumed	0.006	0.937	0.307	221	0.759	0.059	0.193	-0.321	0.440	
	Equal variances not assumed			0.308	75.214	0.759	0.059	0.192	-0.324	0.442	
UTI_Q3	Equal variances assumed	0.024	0.878	0.347	221	0.729	0.070	0.202	-0.328	0.468	
	Equal variances not assumed			0.345	74.348	0.731	0.070	0.203	-0.334	0.474	
UTI_Q4	Equal variances assumed	0.096	0.757	0.752	221	0.453	0.145	0.192	-0.234	0.524	
	Equal variances not assumed			0.749	74.315	0.456	0.145	0.193	-0.240	0.530	
COO_Q1	Equal variances assumed	0.719	0.397	-1.275	221	0.203	-0.260	0.204	-0.662	0.142	
	Equal variances not assumed			-1.340	80.372	0.184	-0.260	0.194	-0.646	0.126	
COO_Q2	Equal variances assumed	0.014	0.905	-0.482	221	0.630	-0.097	0.202	-0.495	0.300	
	Equal variances not assumed			-0.483	74.925	0.631	-0.097	0.202	-0.499	0.304	
COO_Q3	Equal variances assumed	1.029	0.311	-1.869	221	0.063	-0.349	0.187	-0.718	0.019	
	Equal variances not assumed			-1.826	72.483	0.072	-0.349	0.191	-0.731	0.032	
COO_Q4	Equal variances assumed	0.141	0.707	-0.120	221	0.904	-0.021	0.178	-0.372	0.329	
	Equal variances not assumed			-0.117	71.835	0.907	-0.021	0.184	-0.387	0.345	
COO_Q5	Equal variances assumed	0.282	0.596	-0.887	221	0.376	-0.160	0.181	-0.517	0.196	
	Equal variances not assumed			-0.867	72.553	0.389	-0.160	0.185	-0.529	0.208	
COO_Q6	Equal variances assumed	0.392	0.532	-0.115	221	0.908	-0.020	0.177	-0.369	0.328	
	Equal variances not assumed			-0.118	77.353	0.906	-0.020	0.173	-0.364	0.323	
SB_Q1	Equal variances assumed	0.415	0.520	-0.765	221	0.445	-0.237	0.309	-0.846	0.373	
	Equal variances not assumed			-0.804	80.272	0.424	-0.237	0.294	-0.822	0.349	
SB_Q2	Equal variances assumed	0.398	0.529	-1.182	221	0.238	-0.361	0.305	-0.962	0.241	
	Equal variances not assumed			-1.142	71.444	0.257	-0.361	0.316	-0.991	0.269	
SB_Q3	Equal variances assumed	1.905	0.169	-2.420	221	0.016	-0.673	0.278	-1.220	-0.125	
	Equal variances not assumed			-2.292	69.752	0.025	-0.673	0.293	-1.258	-0.087	
WTS_Q1	Equal variances assumed	0.950	0.331	-0.129	221	0.898	-0.036	0.277	-0.582	0.511	
	Equal variances not assumed			-0.138	82.483	0.891	-0.036	0.260	-0.552	0.481	
WTS_Q2	Equal variances assumed	0.084	0.772	-0.061	221	0.951	-0.017	0.271	-0.550	0.517	
	Equal variances not assumed			-0.062	75.810	0.951	-0.017	0.268	-0.551	0.518	
WTS_Q3	Equal variances assumed	0.641	0.424	-0.425	221	0.671	-0.127	0.298	-0.715	0.461	
	Equal variances not assumed			-0.448	80.727	0.655	-0.127	0.283	-0.690	0.436	
WTS_Q4	Equal variances assumed	0.511	0.476	-1.437	221	0.152	-0.419	0.292	-0.994	0.156	
	Equal variances not assumed			-1.457	76.237	0.149	-0.419	0.288	-0.992	0.154	
WTS_Q5	Equal variances assumed	0.171	0.680	-0.391	221	0.696	-0.110	0.283	-0.667	0.447	
	Equal variances not assumed			-0.409	79.807	0.684	-0.110	0.270	-0.648	0.427	
WTS_Q6	Equal variances assumed	4.437	0.036	-0.533	221	0.595	-0.182	0.342	-0.856	0.492	
	Equal variances not assumed			-0.589	87.235	0.557	-0.182	0.309	-0.797	0.433	
SLI_Q1	Equal variances assumed	0.146	0.702	-0.616	221	0.539	-0.111	0.181	-0.467	0.245	
	Equal variances not assumed			-0.608	73.421	0.545	-0.111	0.183	-0.476	0.254	
SLI_Q2	Equal variances assumed	0.119	0.731	-0.854	221	0.394	-0.164	0.192	-0.542	0.214	
	Equal variances not assumed			-0.829	71.918	0.410	-0.164	0.198	-0.558	0.230	
SLI_Q3	Equal variances assumed	0.091	0.763	-1.225	221	0.222	-0.267	0.218	-0.696	0.162	
	Equal variances not assumed			-1.254	77.289	0.214	-0.267	0.213	-0.690	0.157	
CS_Q1	Equal variances assumed	0.001	0.971	-0.198	221	0.843	-0.039	0.195	-0.423	0.346	
	Equal variances not assumed			-0.190	70.975	0.850	-0.039	0.203	-0.443	0.366	

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
CS_Q2	Equal variances assumed	0.545	0.461	-0.644	221	0.520	-0.134	0.208	-0.543	0.276
	Equal variances not assumed			-0.612	70.069	0.542	-0.134	0.219	-0.570	0.302
CS_Q3	Equal variances assumed	0.732	0.393	-0.439	221	0.661	-0.092	0.210	-0.505	0.321
	Equal variances not assumed			-0.447	76.840	0.656	-0.092	0.206	-0.501	0.317
CS_Q4	Equal variances assumed	1.877	0.172	0.352	221	0.725	0.074	0.210	-0.339	0.487
	Equal variances not assumed			0.327	68.262	0.745	0.074	0.225	-0.376	0.523
CS_Q5	Equal variances assumed	1.166	0.281	-1.386	221	0.167	-0.274	0.198	-0.663	0.116
	Equal variances not assumed			-1.327	70.741	0.189	-0.274	0.206	-0.685	0.138

Table 6.2

Results of t-test for social desirability bias for Domestic Hypermarket dataset

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
CET_Q1	Equal variances assumed	0.165	0.685	0.071	225	0.943	0.026	0.366	-0.694	0.746
	Equal variances not assumed			0.072	98.350	0.943	0.026	0.361	-0.691	0.743
CET_Q2	Equal variances assumed	0.107	0.743	0.054	225	0.957	0.017	0.321	-0.614	0.649
	Equal variances not assumed			0.055	99.018	0.956	0.017	0.315	-0.608	0.643
CET_Q3	Equal variances assumed	0.157	0.693	0.067	225	0.946	0.023	0.336	-0.639	0.684
	Equal variances not assumed			0.068	98.742	0.946	0.023	0.331	-0.634	0.679
CET_Q4	Equal variances assumed	0.219	0.641	-2.154	225	0.032	-0.682	0.316	-1.305	-0.058
	Equal variances not assumed			-2.144	95.428	0.035	-0.682	0.318	-1.313	-0.050
CET_Q5	Equal variances assumed	0.041	0.839	-0.919	225	0.359	-0.315	0.343	-0.991	0.361
	Equal variances not assumed			-0.931	98.465	0.354	-0.315	0.338	-0.986	0.357
CET_Q6	Equal variances assumed	0.000	0.986	-1.637	225	0.103	-0.578	0.353	-1.274	0.118
	Equal variances not assumed			-1.642	96.834	0.104	-0.578	0.352	-1.277	0.120
CET_Q7	Equal variances assumed	0.040	0.841	-2.271	225	0.024	-0.774	0.341	-1.445	-0.102
	Equal variances not assumed			-2.269	96.137	0.025	-0.774	0.341	-1.451	-0.097
CET_Q8	Equal variances assumed	0.086	0.769	1.075	225	0.283	0.348	0.323	-0.289	0.985
	Equal variances not assumed			1.075	96.233	0.285	0.348	0.323	-0.294	0.990

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		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
CET_Q9	Equal variances assumed	0.154	0.695	-0.611	225	0.542	-0.208	0.340	-0.879	0.463
	Equal variances not assumed			-0.605	94.773	0.547	-0.208	0.344	-0.890	0.474
CET_Q10	Equal variances assumed	1.588	0.209	-0.954	225	0.341	-0.306	0.320	-0.937	0.326
	Equal variances not assumed			-0.988	102.337	0.326	-0.306	0.310	-0.920	0.308
HED_Q1	Equal variances assumed	0.259	0.612	-1.504	225	0.134	-0.335	0.223	-0.774	0.104
	Equal variances not assumed			-1.448	90.416	0.151	-0.335	0.231	-0.794	0.125
HED_Q2	Equal variances assumed	0.265	0.607	0.805	225	0.422	0.177	0.220	-0.257	0.611
	Equal variances not assumed			0.778	91.009	0.439	0.177	0.228	-0.275	0.630
HED_Q3	Equal variances assumed	0.661	0.417	-0.144	225	0.886	-0.033	0.227	-0.479	0.414
	Equal variances not assumed			-0.140	92.388	0.889	-0.033	0.232	-0.494	0.429
HED_Q4	Equal variances assumed	0.103	0.749	-1.535	225	0.126	-0.340	0.221	-0.776	0.096
	Equal variances not assumed			-1.567	99.853	0.120	-0.340	0.217	-0.770	0.090
HED_Q5	Equal variances assumed	0.403	0.526	-0.438	225	0.662	-0.095	0.216	-0.521	0.331
	Equal variances not assumed			-0.429	92.691	0.669	-0.095	0.221	-0.534	0.344
UTI_Q1	Equal variances assumed	1.512	0.220	-1.380	225	0.169	-0.298	0.216	-0.722	0.127
	Equal variances not assumed			-1.338	91.366	0.184	-0.298	0.222	-0.739	0.144
UTI_Q2	Equal variances assumed	0.330	0.566	0.781	225	0.436	0.161	0.206	-0.245	0.566
	Equal variances not assumed			0.764	92.762	0.447	0.161	0.210	-0.257	0.578
UTI_Q3	Equal variances assumed	1.282	0.259	0.335	225	0.738	0.070	0.210	-0.343	0.483
	Equal variances not assumed			0.322	90.282	0.748	0.070	0.218	-0.363	0.503
UTI_Q4	Equal variances assumed	0.013	0.910	0.284	225	0.777	0.061	0.215	-0.362	0.484
	Equal variances not assumed			0.281	94.830	0.779	0.061	0.216	-0.369	0.491
COO_Q1	Equal variances assumed	0.003	0.958	-0.515	225	0.607	-0.111	0.215	-0.535	0.313
	Equal variances not assumed			-0.522	98.542	0.603	-0.111	0.212	-0.532	0.310
COO_Q2	Equal variances assumed	2.644	0.105	0.485	225	0.628	0.102	0.210	-0.312	0.516
	Equal variances not assumed			0.458	87.887	0.648	0.102	0.222	-0.340	0.543
COO_Q3	Equal variances assumed	0.120	0.729	-0.326	225	0.745	-0.069	0.211	-0.484	0.346
	Equal variances not assumed			-0.327	96.947	0.744	-0.069	0.210	-0.485	0.348
COO_Q4	Equal variances assumed	0.001	0.975	-0.107	225	0.915	-0.023	0.216	-0.449	0.403
	Equal variances not assumed			-0.106	95.349	0.916	-0.023	0.218	-0.455	0.409
COO_Q5	Equal variances assumed	0.885	0.348	0.150	225	0.881	0.031	0.207	-0.376	0.438
	Equal variances not assumed			0.155	101.287	0.877	0.031	0.201	-0.367	0.429
COO_Q6	Equal variances assumed	0.112	0.738	-1.004	225	0.316	-0.216	0.215	-0.639	0.208
	Equal variances not assumed			-1.027	100.138	0.307	-0.216	0.210	-0.632	0.201
SB_Q1	Equal variances assumed	0.081	0.776	-0.741	225	0.460	-0.233	0.315	-0.854	0.387
	Equal variances not assumed			-0.758	100.280	0.450	-0.233	0.308	-0.844	0.377
SB_Q2	Equal variances assumed	0.253	0.616	-0.465	225	0.643	-0.155	0.333	-0.811	0.501
	Equal variances not assumed			-0.471	98.629	0.638	-0.155	0.328	-0.806	0.497
SB_Q3	Equal variances assumed	0.905	0.342	0.547	225	0.585	0.168	0.308	-0.438	0.775
	Equal variances not assumed			0.533	92.064	0.596	0.168	0.316	-0.460	0.796

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
WTS_Q1	Equal variances assumed	2.539	0.112	2.320	225	0.021	0.653	0.282	0.098	1.208
	Equal variances not assumed			2.146	85.097	0.035	0.653	0.304	0.048	1.259
WTS_Q2	Equal variances assumed	8.893	0.003	2.266	225	0.024	0.654	0.289	0.085	1.222
	Equal variances not assumed			2.027	81.250	0.046	0.654	0.323	0.012	1.296
WTS_Q3	Equal variances assumed	0.263	0.609	1.821	225	0.070	0.619	0.340	-0.051	1.289
	Equal variances not assumed			1.792	93.723	0.076	0.619	0.345	-0.067	1.305
WTS_Q4	Equal variances assumed	0.091	0.763	-1.378	225	0.170	-0.443	0.321	-1.076	0.191
	Equal variances not assumed			-1.384	96.964	0.170	-0.443	0.320	-1.078	0.192
WTS_Q5	Equal variances assumed	0.014	0.908	-0.056	225	0.955	-0.017	0.310	-0.629	0.594
	Equal variances not assumed			-0.055	94.699	0.956	-0.017	0.313	-0.639	0.605
WTS_Q6	Equal variances assumed	0.591	0.443	0.488	225	0.626	0.176	0.361	-0.535	0.887
	Equal variances not assumed			0.502	101.148	0.617	0.176	0.351	-0.520	0.872
SLI_Q1	Equal variances assumed	21.662	0.000	2.178	225	0.030	0.417	0.191	0.040	0.794
	Equal variances not assumed			1.840	75.597	0.070	0.417	0.226	-0.034	0.868
SLI_Q2	Equal variances assumed	13.770	0.000	2.948	225	0.004	0.551	0.187	0.183	0.919
	Equal variances not assumed			2.612	80.210	0.011	0.551	0.211	0.131	0.970
SLI_Q3	Equal variances assumed	7.618	0.006	1.753	225	0.081	0.334	0.190	-0.041	0.709
	Equal variances not assumed			1.586	82.483	0.117	0.334	0.210	-0.085	0.752
CS_Q1	Equal variances assumed	0.033	0.856	-1.848	225	0.066	-0.335	0.181	-0.692	0.022
	Equal variances not assumed			-1.808	92.730	0.074	-0.335	0.185	-0.703	0.033
CS_Q2	Equal variances assumed	1.179	0.279	0.767	225	0.444	0.152	0.199	-0.239	0.544
	Equal variances not assumed			0.739	90.480	0.462	0.152	0.206	-0.257	0.562
CS_Q3	Equal variances assumed	0.908	0.342	0.313	225	0.755	0.063	0.202	-0.335	0.462
	Equal variances not assumed			0.303	91.095	0.763	0.063	0.209	-0.352	0.479
CS_Q4	Equal variances assumed	0.362	0.548	-0.175	225	0.861	-0.030	0.173	-0.371	0.310
	Equal variances not assumed			-0.168	89.805	0.867	-0.030	0.180	-0.388	0.328
CS_Q5	Equal variances assumed	0.229	0.632	1.051	225	0.294	0.184	0.175	-0.161	0.530
	Equal variances not assumed			1.065	98.434	0.289	0.184	0.173	-0.159	0.528

6.4 Procedures for Modelling the European Hypermarket Dataset – Stage Two

6.4.1 Single-construct measurement models for European Hypermarket dataset only

Indicators with residuals greater than 2.58 and corresponding high modification index values (i.e., greater than 3.84) were removed from each latent variable (Byrne, 2001). Residuals represent the discrepancy in model fit between the restricted covariance matrix, implied by the hypothesised model, and the sample covariance matrix, whilst modification index values provide an indication of the improvement in overall model fit that is possible if a parameter(s) was to be freely estimated in subsequent estimations (Hair et al., 1998; Byrne, 2001). In total, one indicator was removed from the ‘country-of-origin cue’ (i.e., COO_Q2), ‘hedonic value’ (i.e., HED_Q1), ‘utilitarian value’ (i.e., UTI_Q1), and ‘customer share’ (i.e., CS_Q5) latent variables, whilst two indicators each were removed from the ‘consumer ethnocentrism’ (i.e., CET_Q1 and CET_Q2) and ‘willingness to shop in foreign grocery stores’ (i.e., WTS_Q1 and WTS_Q6) latent variables at this stage. The resulting fit of the indicators to the model, as well as construct validity, is tabulated in Table 6.3.

Results in Table 6.3 indicated that the root mean square error of approximation (RMSEA), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), and Tucker-Lewis index (TLI) all suggested satisfactory model fit for most of the latent variables (i.e., $RMSEA \leq 0.10$, GFI and AGFI close to or above 0.90, CFI and TLI > 0.90), except for the RMSEA values of the ‘country-of-origin cue’ (i.e., 0.09) and ‘hedonic value’ (i.e., 0.10) latent variables which suggested that the ‘country-of-origin cue’ and ‘hedonic value’ latent variables have mediocre model-to-data fit (c.f., MacCallum, Browne and Sugawara, 1996). High correlations among observed variables tend to produce values for null model-based fit indices (e.g., CFI and NFI) that look relatively good and RMSEA values that look relatively bad (Rigdon, 1996). Therefore, the five indicators measuring the ‘country-of-origin cue’ latent variable and the four indicators measuring the ‘hedonic value’ latent variable were retained because the GFI, AGFI, CFI and TLI values all suggested good model fit.

Table 6.3

Results of single construct measurement model for European Hypermarket dataset

Construct	χ^2	df	p-level	RMSEA	GFI	AGFI	CFI	TLI	CR ^b	VE ^c	n ^d
Country-of-Origin Cue	15.16	5	0.01	0.09	0.98	0.93	0.98	0.96	0.84	0.51	5
Store Brand Cue ^a	-	-	-	-	-	-	-	-	0.62	0.42	3
Consumer Ethnocentrism	33.53	20	0.03	0.05	0.97	0.94	0.99	0.98	0.89	0.51	8
Hedonic Value	7.36	2	0.03	0.10	0.99	0.93	0.97	0.91	0.72	0.39	4
Utilitarian Value ^a	-	-	-	-	-	-	-	-	0.66	0.41	3
Willingness to Shop	1.51	2	0.47	0.00	1.00	0.99	1.00	1.01	0.67	0.38	4
Customer Share	3.38	2	0.18	0.05	0.99	0.97	1.00	0.99	0.84	0.59	4
Store Loyalty Intention ^a	-	-	-	-	-	-	-	-	0.74	0.48	3

^aBecause there were three indicators for the constructs of store brand cue, utilitarian value and store loyalty intention, the measurement model was identified completely and fit statistics were not computed.

^bComposite Reliability = (sum of standardized loadings)²/[(sum of standardized loadings)² + sum of indicator measurement error]

^cVariance Extracted = (sum of squared standardized loadings)/(sum of squared standardized loadings + sum of indicator measurement error)

^dNumber of items retained in each construct after items with residuals > 2.58 and corresponding modification index value > 3.84 were removed.

Next, convergent validity of the latent variables was examined (Gerbing and Anderson, 1988). Nunnally (1978) recommended that reliability of the indicators should be above 0.70 to demonstrate convergent validity, whilst Fornell and Larcker (1981) suggested adequately convergent valid measures should have average variance extracted (VE) values of 0.50 or above. The results in Table 6.3 indicated that the composite reliability (CR) for three of the latent variables and average variance extracted (VE) values for five of the latent variables were below the commonly used threshold values of 0.70 and 0.50 respectively. Since this study was an initial test of a newly conceptualised model where the measures had not been tested (frequently) in the PRC context, it may be considered to be exploratory and CR values below 0.70 are deemed to be acceptable (Hair et al., 1998). More importantly, the CR and VE values for the ‘country-of-origin cue’ (COO), ‘consumer ethnocentrism’ (CET), and

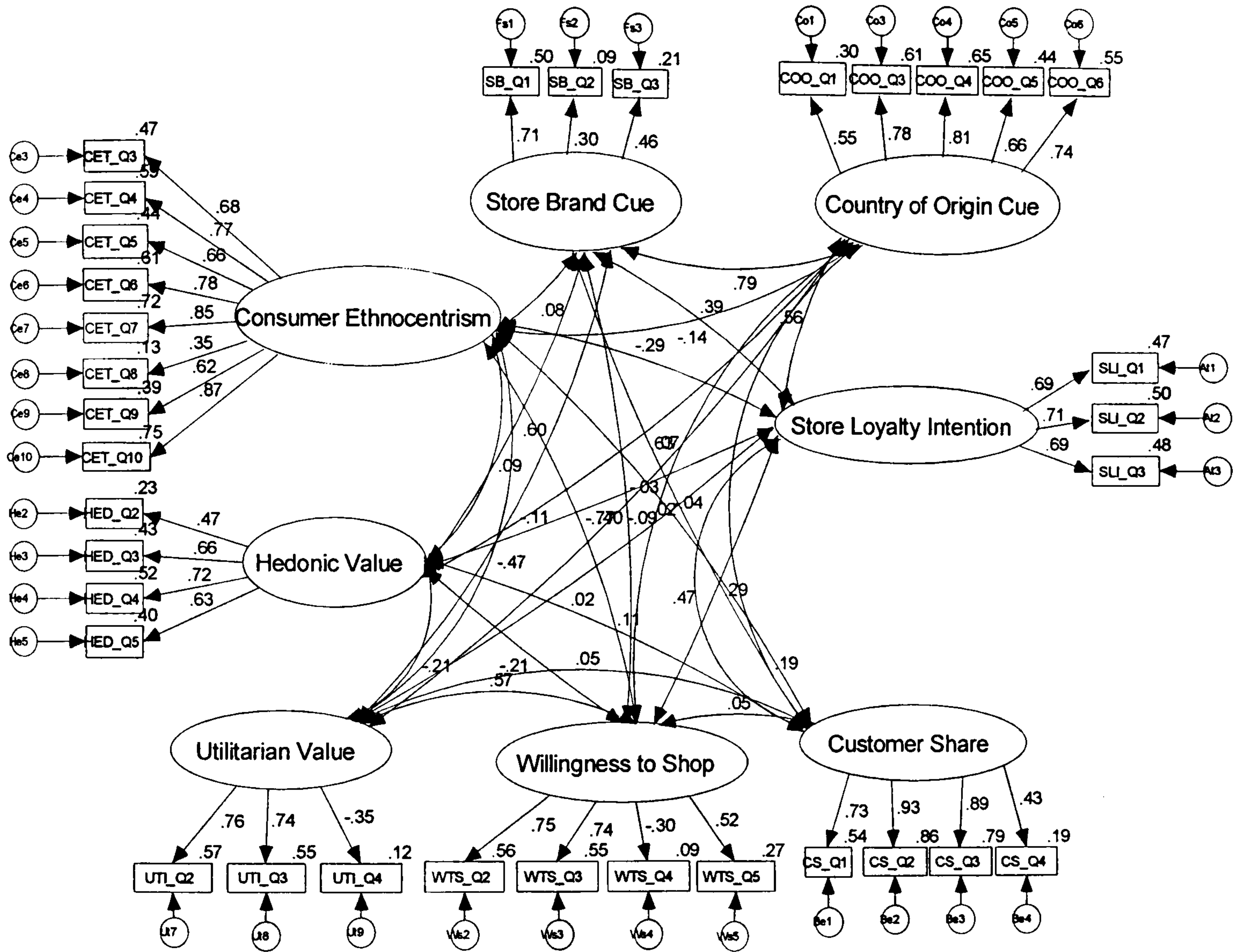
‘willingness to shop in foreign grocery stores’ (WTS) latent variables in this study showed equivalent or better results when compared to similar measures used in past studies conducted in the PRC. For instance, Klein, Ettenson and Morris (1998) reported CR and VE values of 0.73 and 0.32 for COO (0.84 and 0.51 in this study), 0.83 and 0.46 for CETSCALE (0.89 and 0.51 in this study), and 0.79 and 0.39 for willingness to buy (0.67 and 0.38 for WTS in this study). Therefore, the indicators representing the respective latent variables were sufficiently reliable and valid for use in the structural model.

6.4.2 Full measurement model for European Hypermarket dataset only

The full measurement model (Figure 6.1) was estimated and resulted in a poor level of model fit: $\chi^2(499) = 1112.323$, $\chi^2/df = 2.229$, $p < .001$, RMSEA = .070, GFI = .797, AGFI = .758, CFI = .830, and TLI = .809. Specifically, most of the fit statistics values were below the commonly used threshold levels, i.e., the normed chi-square value (i.e., χ^2/df) was greater than 2.00, the GFI and AGFI values were significantly distant from the recommended level of 0.90, and the CFI and TLI values were less than 0.90 despite having an acceptable RMSEA value of 0.70.

Figure 6.1

Full measurement model (standardised estimates) for European Hypermarket dataset



Indicators with residuals greater than 2.58 and corresponding high modification index values (i.e., > 3.84) were further removed until the model achieved an adequate fit but not overfitted (Byrne, 2001). In total, eight indicators (i.e., CET_Q3, CET_Q4, CET_Q8, UTI_Q4, WTS_Q4, CS_Q4, COO_Q1, SB_Q2) were removed from the model (refer to Figure 6.2). Although item Q3 of the ‘store brand cue’ latent variable was influenced by social desirability bias (refer to Section 6.2), this indicator could not be removed because it caused a Heywood case for item SB_Q2 if item SB_Q3 was retained. Heywood case is a common type of offending estimate in structural equation modelling, which occurs when the estimated error term for an indicator becomes negative (i.e., nonsensical value) (Hair et al., 1998). Note that both items SB_Q2 and SB_Q3 have residuals greater than 2.58 but it was not feasible to remove both indicators as it would lead to only one indicator for the ‘store brand cue’ latent variable, which was strongly advised against (c.f., MacCallum, 1995; Byrne, 2001). The final set of indicators is shown in Table 6.4.

Estimation of the respecified model (Figure 6.2) produced an adequate level of fit: $\chi^2(271) = 494.708$, $\chi^2/df = 1.825$, $p < .001$, RMSEA = .058, GFI = .867, AGFI = .828, CFI = .917, and TLI = .901 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI > 0.90). Additionally, only six out of the maximum 325 correlations have statistically significant residuals, which falls within the acceptable range of one in 20 residuals exceeding 2.58 strictly by chance (Hair et al., 1998).

Figure 6.2

Respecified full measurement model (standardised estimates) for European Hypermarket dataset

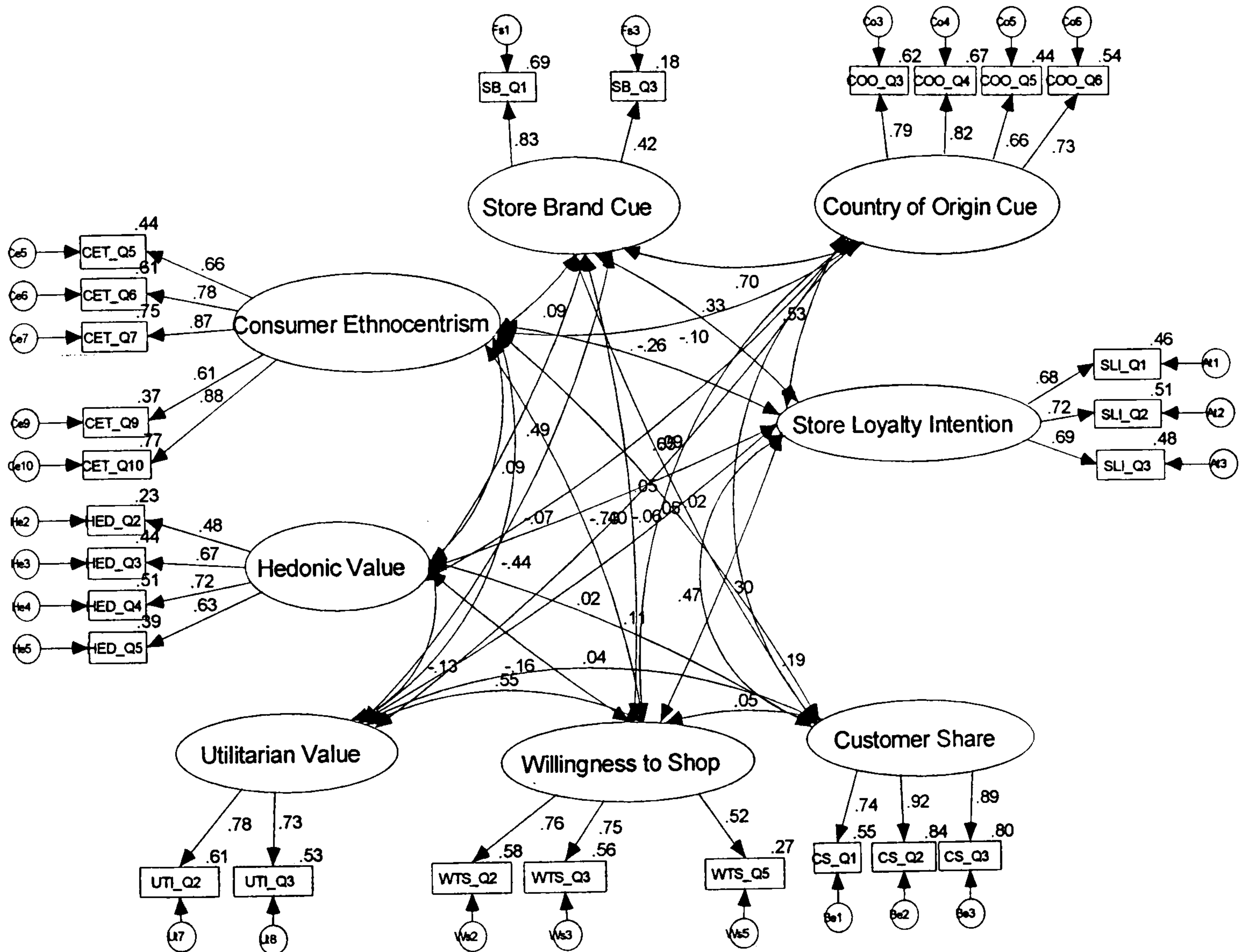


Table 6.4

Retained items used in structural model for European Hypermarket dataset

Construct	Source	Retained Items
Consumer Ethnocentrism (CET) ^d	Shimp and Sharma (1987) – 10-item CETSCALE ^a	CET_Q5: A real Chinese should always buy China-made products. CET_Q6: We should purchase products manufactured in China instead of letting other countries get rich off us. CET_Q7: Chinese should not buy foreign products, because this hurts Chinese business and causes unemployment. CET_Q9: We should buy from foreign countries only those products that we cannot obtain within our own country. CET_Q10: Chinese consumers who purchase products made in other countries are responsible for putting their fellow Chinese out of work.
Country-of-Origin (COO) Cue ^c	Teas and Agarwal (2000) – 6 items ^a	COO_Q3: In general, I would expect products made in Europe to be high in prestige. COO_Q4: In general, I would expect products made in Europe to be reliable. COO_Q5: In general, I would expect products made in Europe to be made with meticulous workmanship. COO_Q6: In general, I would expect products made in Europe to be dependable.
Store Brand Cue ^d	Teas and Agarwal (2000) – 3 items ^a	SB_Q1: Foreign hypermarkets sell high quality merchandise. SB_Q3: Foreign hypermarkets are high-quality stores.
Hedonic Value ^c	Babin and Attaway (2000) – 5 items ^a	HED_Q2: A shopping trip to foreign hypermarkets is truly a joy. HED_Q3: I enjoy the shopping trip for its own sake, not just for the items I may have purchased. HED_Q4: While shopping at foreign hypermarkets, I was able to forget my problems. HED_Q5: Compared to other things I could have done, the time spent at foreign hypermarkets was truly enjoyable.
Utilitarian Value ^c	Babin and Attaway (2000) – 4 items ^a	UTI_Q2: I couldn't buy what I really needed in foreign hypermarkets. (reverse-coded) UTI_Q3: I was disappointed because I had to go to another store to complete my shopping. (reverse-coded)
Willingness To Shop (WTS) ^d	Klein, Ettenson and Morris (1998) – 6 items ^a	WTS_Q2: I would never shop in a foreign hypermarket. (reverse-coded) WTS_Q3: Whenever possible, I avoid shopping in foreign hypermarkets. (reverse-coded) WTS_Q5: I do not like the idea of shopping in foreign hypermarkets. (reverse-coded)
Store Loyalty Intention ^b	Sirohi, McLaughlin and Wittink (1998) – 3 items ^a	SLI_Q1: Likelihood to continue shopping in European Hypermarket. SLI_Q2: Likelihood to use European Hypermarket for more of your shopping needs in the next 12 months. SLI_Q3: Likelihood to recommend European Hypermarket to a friend.
Customer Share	Babin and Attaway (2000) – 5 items ^a	CS_Q1: ___ out of every five times I shop for products, I shop at European Hypermarket. CS_Q2: Out of every RMB100 I spend in a store like European Hypermarket, I spend RMB___ at European Hypermarket. CS_Q3: Out of every RMB100 I spend on products, I spend RMB___ at European Hypermarket.

^aOriginal number of items adapted from specified article.

^bAnchors: 1 = "not at all likely" to 5 = "extremely likely"

^cAnchors: 1 = "strongly disagree" to 5 = "strongly agree"

^dAnchors: 1 = "strongly disagree" to 7 = "strongly agree"

Lastly, discriminant validity of the latent variables was examined (Hair et al., 1998). Assessment of discriminant validity may be obtained from the estimated correlations of the latent constructs. Discriminant validity is demonstrated if the correlations amongst the latent constructs are not excessively high (Kline, 1998a). According to Hair et al. (1998), there are no fixed values associated with what are considered high correlations. Nevertheless, the authors suggested that values exceeding 0.90 should be examined and values exceeding 0.80 could be indicative of problems. The construct intercorrelations for the full measurement model are presented in Table 6.5. All the estimated construct intercorrelation values were at 0.70 or lower. Therefore, discriminant validity was established.

Table 6.5

Construct intercorrelations for European Hypermarket dataset

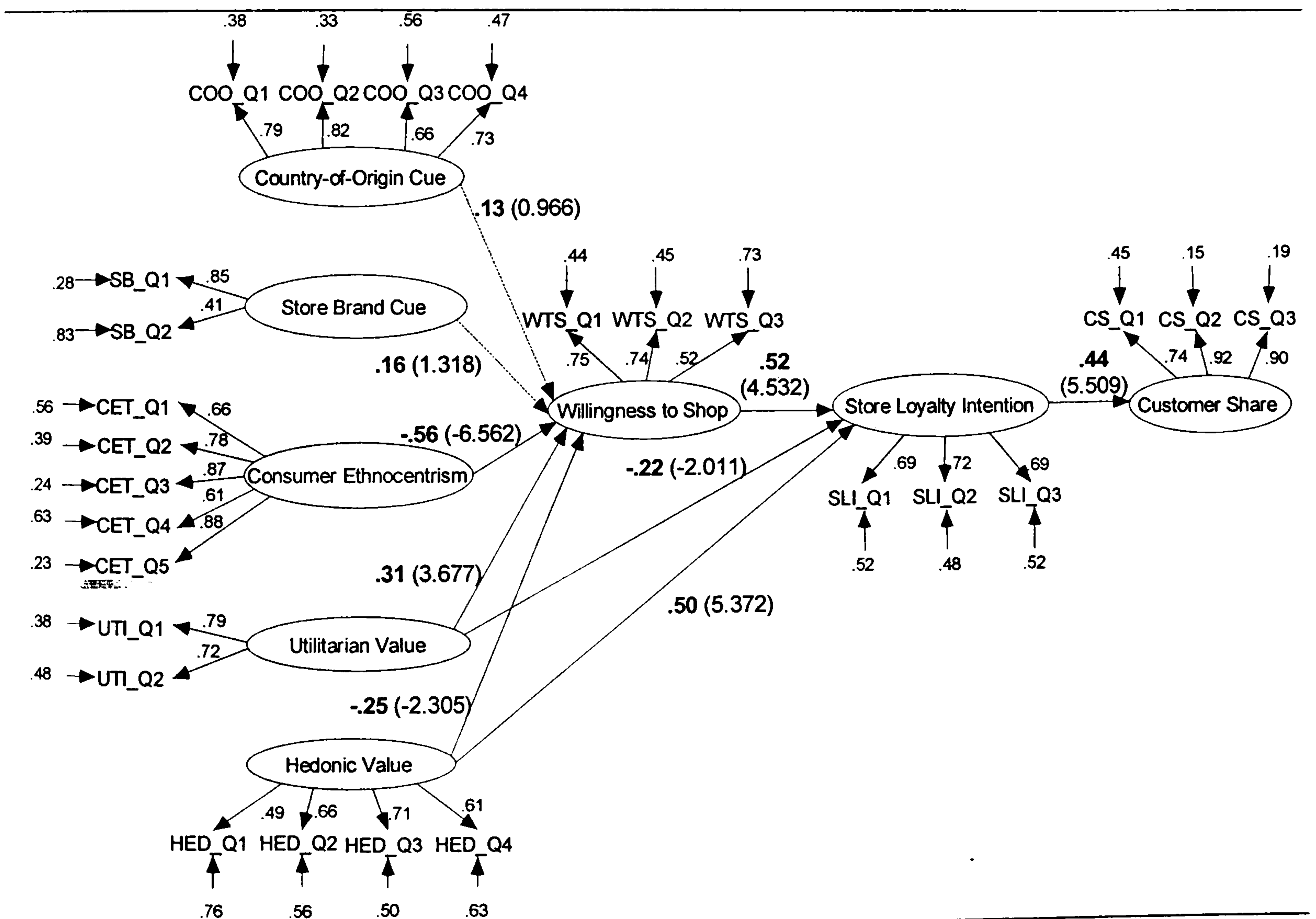
	Country of Origin	Store Brand	Consumer Ethnocentrism	Hedonic Value	Utilitarian Value	Willingness to Shop	Customer Share	Store Loyalty Intention
Country of Origin	1.000							
Store Brand	0.696	1.000						
Consumer Ethnocentrism	-0.104	0.088	1.000					
Hedonic Value	0.645	0.487	0.091	1.000				
Utilitarian Value	-0.056	-0.073	-0.439	-0.135	1.000			
Willingness to Shop	0.086	0.049	-0.704	-0.157	0.553	1.000		
Customer Share	0.189	0.050	-0.017	0.107	0.043	0.048	1.000	
Store Loyalty Intention	0.535	0.334	-0.259	0.401	0.017	0.298	0.468	1.000

6.4.3 Structural equation model for European Hypermarket dataset only

The structural equation model in Figure 6.3 was estimated and resulted in an adequate level of fit: $\chi^2(280) = 512.099$, $\chi^2/df = 1.829$, $p < .001$, RMSEA = 0.058, GFI = .863, AGFI = .828, CFI = .914, and TLI = .900 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI $>$ 0.90).

Figure 6.3

Structural equation model results for European Hypermarket dataset



Note: All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (the dotted line coefficient is nonsignificant). All t-statistics are in parentheses next to the coefficient estimates. All endogenous latent variables refer to foreign grocery retail stores.

6.5 Methods for Analysing Domestic Hypermarket Dataset – Stage Three

Domestic Hypermarket's multiple imputed dataset may be analysed via four approaches, namely

1. Estimate the Domestic Hypermarket dataset with the measurement and structural model that fitted well for the European Hypermarket dataset, which is discussed in Section 6.5.1.
2. Conduct a separate structural equation modelling analysis for the Domestic Hypermarket dataset, which is discussed in Section 6.5.2.
3. Estimate the Domestic Hypermarket dataset that consists of only consumers who are familiar with foreign hypermarkets in the measurement and structural model that fitted well for the European Hypermarket dataset, i.e., results between consumers who shop in European Hypermarket and those who shop in Domestic Hypermarket would be directly comparable since both sets of consumers were familiar with foreign hypermarkets. This is discussed in Section 6.5.3.
4. Analyse the Domestic Hypermarket dataset together with the European Hypermarket dataset via nested model comparison (i.e., multiple group analysis), a common technique used in structural equation modelling to simultaneously compare two sets of data (Byrne, 2001).

A review of the first three approaches is presented in Section 6.5.4. Limitations in the first three approaches indicated that the fourth approach (i.e., multiple group analysis) was the most feasible method, which is detailed in Section 6.6.

6.5.1 Domestic Hypermarket dataset in measurement and structural models that fitted well for European Hypermarket dataset

The solution was not admissible and the implied covariance matrix was not positive definite when the Domestic Hypermarket dataset was estimated in the measurement model that fitted well for the European Hypermarket dataset. This implied that the Domestic Hypermarket multiple imputed dataset did not converge on the indicators that fitted well for the European Hypermarket multiple imputed dataset. Nevertheless, the structural model may be assumed to be applicable for both the European Hypermarket and Domestic Hypermarket datasets because both sets of data were sampled within the same population. Therefore, the Domestic Hypermarket dataset was estimated using the structural equation model that fitted well for the European Hypermarket dataset. Estimation of the model resulted in negative error variance for the ‘willingness to shop in foreign grocery stores’ latent variable (error = -0.043). Further analysis led to two possible conclusions: (1) the validity (and reliability) of the ‘utilitarian value’ latent variable was not robust, i.e., caused the ‘willingness to shop in foreign grocery stores’ latent variable to produce negative error variance, and/or (2) high correlation between the ‘consumer ethnocentrism’ and ‘willingness to shop in foreign grocery stores’ latent variables (i.e., multicollinearity). Therefore, this approach was not a suitable method to analyse the Domestic Hypermarket dataset.

Two other approaches may be used to analyse the Domestic Hypermarket dataset. First, the Domestic Hypermarket dataset can be analysed separately through CFA followed by structural model analysis, which is detailed in the next section (Section 6.5.2). Second, the Domestic Hypermarket dataset can be split into two groups consisting of consumers who are familiar with foreign hypermarkets (174 consumers or 69.6% of the sample) versus those who are unfamiliar with foreign hypermarkets (76 consumers or 30.4% of the sample) based on their scores from the ‘Familiarity’ scale in the measurement instrument. The main weakness of this approach is that the statistical stability of the results will be doubtful for the 76 consumers who are unfamiliar with foreign hypermarkets. This second approach to analysing the Domestic Hypermarket dataset is discussed in Section 6.5.3.

6.5.2 Separate analysis of the Domestic Hypermarket dataset

The steps undertaken here were similar to those from Sections 6.4.1 to 6.4.3, where the single-construct measurement models were first assessed, followed by the full measurement model and lastly, the structural model. Results for the single-construct measurement models of the Domestic Hypermarket dataset are presented in Table 6.6.

Table 6.6

Results of single construct measurement model for Domestic Hypermarket dataset

Construct	χ^2	df	p-level	RMSEA	GFI	AGFI	CFI	TLI	CR ^b	VE ^c	n ^d
Country of Origin Cue	7.97	5	0.16	0.05	0.99	0.96	1.00	0.99	0.87	0.57	5
Store Brand Cue ^a	-	-	-	-	-	-	-	-	0.64	0.39	3
Consumer Ethnocentrism	44.49	20	0.00	0.07	0.96	0.92	0.97	0.96	0.86	0.46	8
Hedonic Value	3.47	2	0.18	0.05	0.99	0.97	0.99	0.97	0.66	0.36	4
Utilitarian Value	5.37	2	0.07	0.08	0.99	0.94	0.95	0.86	0.56	0.24	4
Willingness to Shop	4.25	5	0.51	0.00	0.99	0.98	1.00	1.01	0.76	0.40	5
Customer Share	2.84	2	0.24	0.04	0.99	0.97	1.00	0.99	0.85	0.59	4
Store Loyalty Intention ^a	-	-	-	-	-	-	-	-	0.81	0.58	3

^aBecause there were three indicators for the constructs of store brand cue and store loyalty intention, the measurement model was identified completely and fit statistics were not computed.

^bComposite Reliability = (sum of standardised loadings)²/[(sum of standardised loadings)² + sum of indicator measurement error] whereby indicator measurement error is calculated as 1-(standardised loading)²

^cVariance Extracted = (sum of squared standardised loadings)/(sum of squared standardised loadings + sum of indicator measurement error) whereby indicator measurement error is calculated as 1-(standardised loading)²

^dNumber of items retained in each construct after items with residuals > 2.58 and corresponding modification index values > 3.84 were removed.

As for the full measurement model, the estimated model did not produce adequate model-to-data fit and therefore, an additional 12 indicators were removed from the model based on high residuals (i.e., > 2.58) and corresponding high modification index values (i.e., > 3.84) (Byrne, 2001). Estimation of the respecified full measurement model resulted in an adequate level of fit: $\chi^2(224) = 415.198$, $\chi^2/df = 1.854$, $p < .001$, $RMSEA = 0.059$, $GFI = .881$, $AGFI = .841$, $CFI = .915$, and $TLI = .895$ (i.e., χ^2/df value between 1.00 and 2.00, $RMSEA \leq$

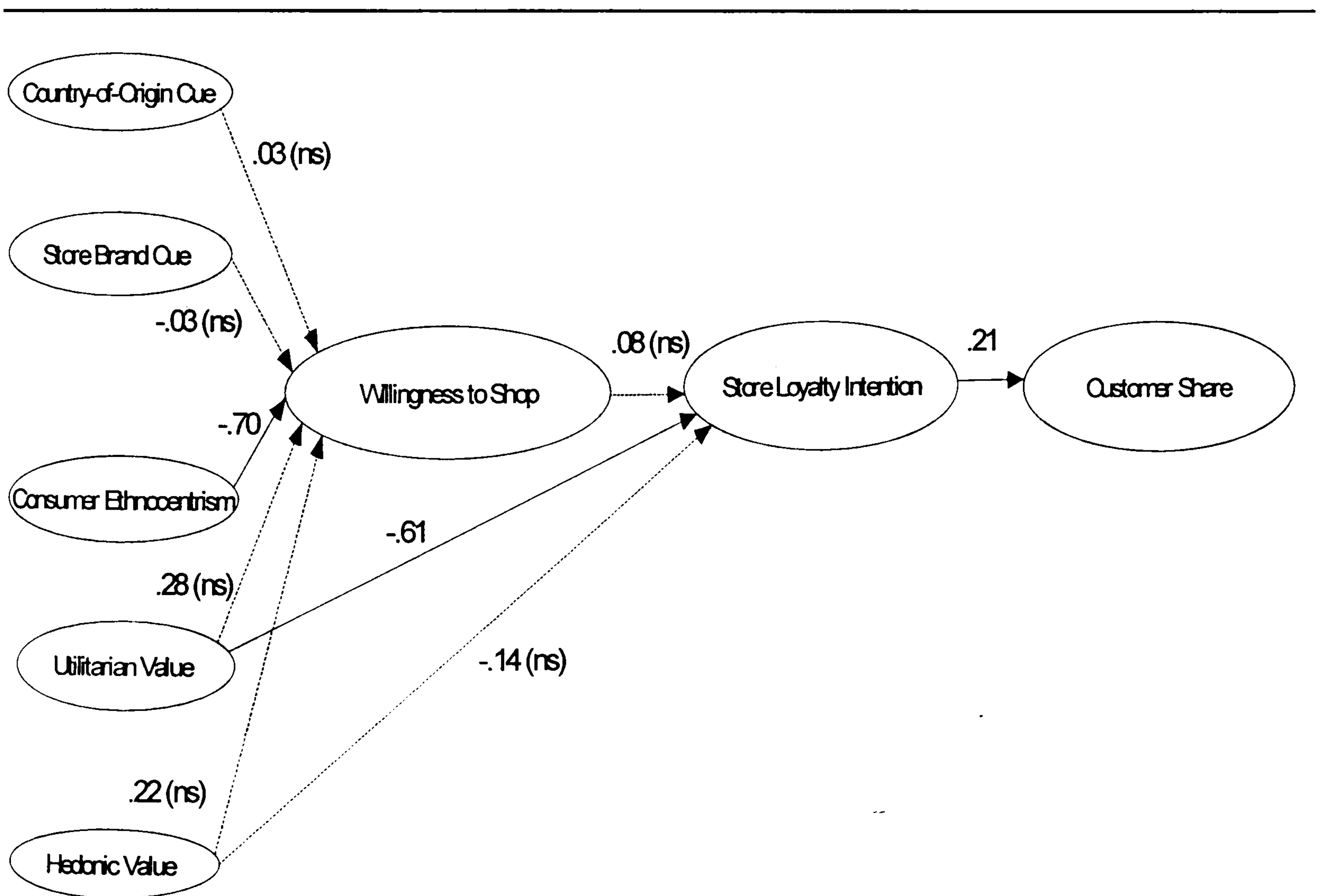
0.10, GFI and AGFI close to or above 0.90, CFI and TLI > 0.90). Note that three indicators (i.e., CET_Q3, CET_Q7 and WTS_Q5) were removed to reduce the correlation between the ‘consumer ethnocentrism’ latent variable and the ‘willingness to shop in foreign grocery stores’ latent variable to its current value of – 0.782. The rest of the construct intercorrelations were below 0.70.

Finally, estimation of the structural model (Figure 6.4) resulted in an adequate model fit:

$\chi^2(233) = 419.937$, $\chi^2/df = 1.802$, $p < .001$, RMSEA = 0.057, GFI = .880, AGFI = .846, CFI = .917, and TLI = .901 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI > 0.90).

Figure 6.4

Structural equation model results for Domestic Hypermarket dataset



Note: All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (the dotted line coefficient is nonsignificant). All endogenous latent variables refer to foreign grocery stores.

6.5.3 Analyse Domestic Hypermarket dataset consisting of only consumers who are familiar with foreign hypermarkets

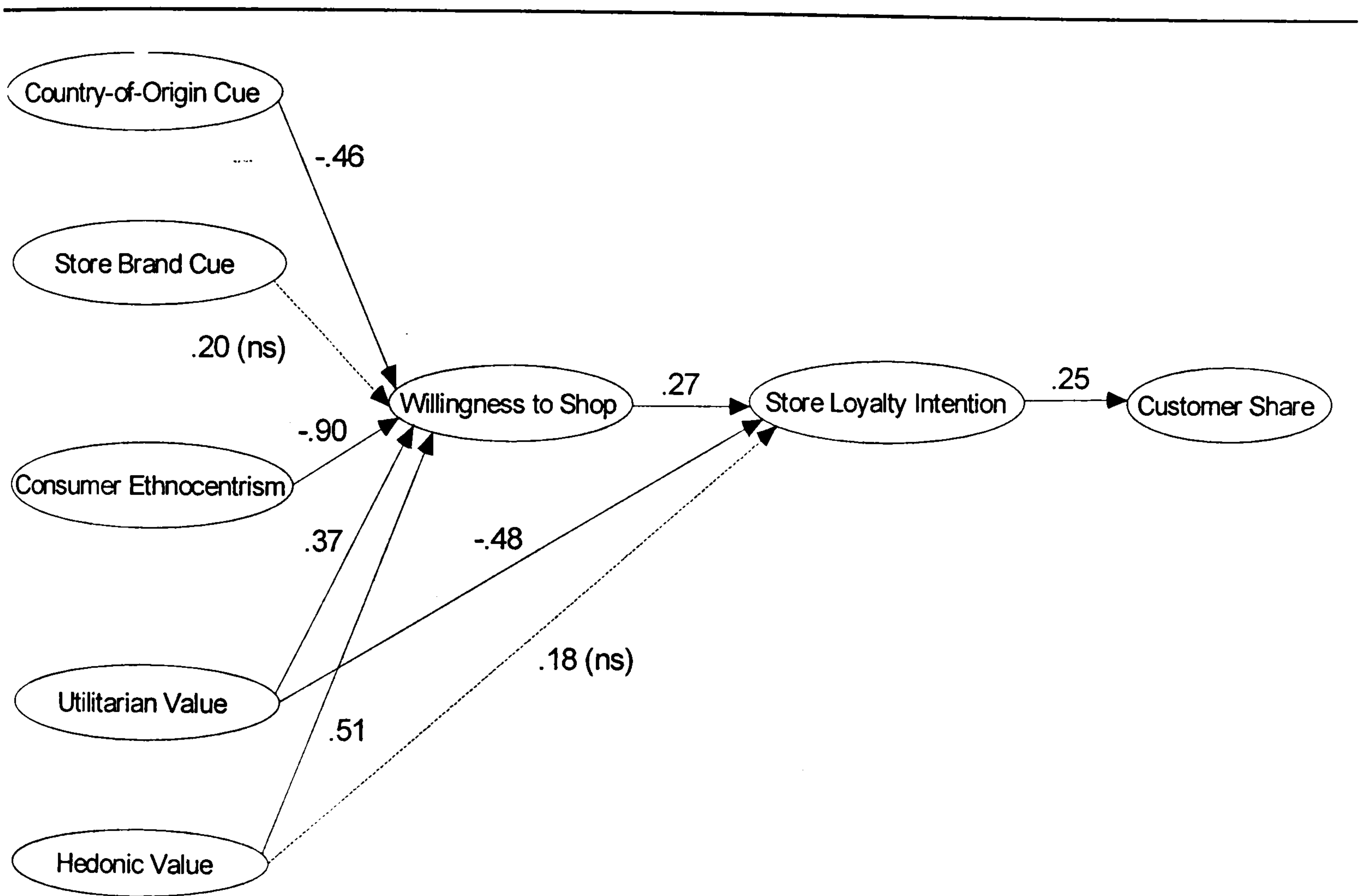
Based on the scores tabulated from the ‘familiarity’ scale administered in the measurement instrument, the Domestic Hypermarket dataset could be split into two groups consisting of consumers who were familiar with foreign hypermarkets (174 consumers or 69.6% of the sample) versus those who were unfamiliar with foreign hypermarkets (76 consumers or 30.4% of the sample) (refer to Appendix 13 for the actual scores of Domestic Hypermarket’s customers’ familiarity with foreign hypermarkets). The main weakness of this approach was that the statistical stability of the results would be doubtful for the 76 consumers who were unfamiliar with foreign hypermarkets, since structural equation modelling is a large-sample technique and sample sizes exceeding 200 cases are the preferred minimum depending on model complexity (c.f., MacCallum, 1995; Hair et al., 1998; Kline, 1998a).

Nevertheless, the Domestic Hypermarket dataset consisting of only consumers who were familiar with foreign hypermarkets (i.e., 174 consumers) was estimated in the measurement model that fitted well for the European Hypermarket dataset. This measurement model achieved an adequate level of model fit: $\chi^2(271) = 449.639$, $\chi^2/df = 1.659$, $p < .001$, RMSEA = 0.062, GFI = .836, AGFI = .788, CFI = .906, and TLI = .888 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI $>$ 0.90). Note that the correlation was high between (1) ‘country-of-origin cue’ latent variable and ‘hedonic value’ latent variable (i.e., 0.741), (2) ‘consumer ethnocentrism’ latent variable and ‘willingness to shop in foreign grocery stores’ latent variable (i.e., -0.898), and (3) ‘country-of-origin cue’ latent variable and ‘store brand cue’ latent variable (i.e., 0.768). This implied that there was potentially a lack of discriminant validity between the aforementioned latent variables.

Next, the Domestic Hypermarket dataset consisting of only consumers who were familiar with foreign hypermarkets (i.e., 174 consumers) was estimated in the structural equation model that fitted well for the European Hypermarket dataset. This structural equation model

(Figure 6.5) achieved an adequate level of fit: χ^2 (280) = 458.848, χ^2/df = 1.639, $p < .001$, RMSEA = 0.061, GFI = .834, AGFI = .791, CFI = .906, and TLI = .891.

Figure 6.5
Structural equation model results for Domestic Hypermarket dataset
(Consumers Familiar with Foreign Hypermarkets)



Note: N = 179. All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (dotted line coefficient is nonsignificant). All endogenous latent variables refer to foreign grocery stores.

6.5.4 Review of the aforementioned three approaches

There were different types of problems associated with each of the aforementioned three approaches. The first approach was to estimate the Domestic Hypermarket dataset with the structural equations model that fitted well for the European Hypermarket dataset. This resulted in negative variance that might be due to low validity of the ‘utilitarian value’ latent variable and/or multicollinearity caused by high correlation between the ‘consumer ethnocentrism’ and ‘willingness to shop in foreign grocery stores’ latent variables. Therefore, this approach was not suitable and was eliminated from consideration.

The second approach was to re-evaluate the Domestic Hypermarket dataset separately from the European Hypermarket dataset in order to obtain the best model-to-data fit indicators per latent variable, followed by an analysis of the structural model. The limitation of this approach was that the results might not be directly comparable between the European Hypermarket and Domestic Hypermarket datasets due to differences at the indicator level (not at the latent level). That is, separate CFA of the two datasets produced different sets of indicators that best represent the latent variables.

The last approach was to separate the consumers in the Domestic Hypermarket dataset between consumers who were familiar and those who were unfamiliar with foreign hypermarkets. Based on the scores derived from the ‘familiarity’ scale, 76 (30.4%) Domestic Hypermarket customers were unfamiliar with foreign hypermarkets, whilst 174 (69.6%) Domestic Hypermarket customers were familiar with foreign hypermarkets. Using the data of only Domestic Hypermarket customers who were familiar with foreign hypermarkets, the goodness-of-fit indices for this dataset produced measurement and structural model results that were as adequate as those for the European Hypermarket dataset. Nevertheless, the main weakness of this approach was that statistical results derived from the 76 consumers who were unfamiliar with foreign hypermarkets would be debatable since SEM is a large-sample technique with sample sizes exceeding 200 cases the preferred minimum (c.f., MacCullum, 1995; Hair et al., 1998; Kline, 1998a). In addition, the high correlations in three covariances between latent variables at the full measurement model

level indicated a lack of discriminant validity, and high correlations may potentially distort parameter estimates at the structural model level (i.e., multicollinearity) (Hair et al., 1998).

In view of the aforementioned limitations, a more suitable approach was to conduct multiple group analysis by evaluating both the European Hypermarket and Domestic Hypermarket datasets simultaneously (Byrne, 2001). The multiple group analysis approach is detailed in the following section.

6.6 Multiple Group Analysis – Stage Four

The initial procedures undertaken to simultaneously analyse both the Domestic Hypermarket and European Hypermarket datasets in this section were identical to those in Sections 6.4.2 and 6.4.3, where the full measurement model was first assessed followed by the structural model. This section begins with a discussion of the confirmatory factor analysis results obtained from analysing both the European Hypermarket and Domestic Hypermarket datasets concurrently (Section 6.6.1). The objective of re-analysing the measurement model was to obtain the best fitting indicators that represent the latent variables for both the European Hypermarket and Domestic Hypermarket datasets. Following from this, a test of invariance by constraining the regression weights across the European Hypermarket and Domestic Hypermarket datasets is discussed in Section 6.6.2. This test of invariance was to ensure that the indicators derived from the full measurement model analysis in Section 6.6.1 were representative of both the European Hypermarket and Domestic Hypermarket datasets. Next, the results of the structural equation models at the individual sample level are detailed in Section 6.6.3. Section 6.6.4 provides a discussion of the bootstrapping technique and its usefulness in examining whether data non-normality affected the t-values in the structural equation models. Finally, the results from a nested model comparison (i.e., multiple group analysis) between the European Hypermarket and Domestic Hypermarket datasets are discussed in Section 6.6.5.

6.6.1 Measurement model

In total, 12 indicators with residuals larger than 2.58 and corresponding high modification index values (i.e., > 3.84) were removed from the measurement model (Byrne, 2001). The final set of indicators for each construct is shown in Table 6.7. Estimation of both the European Hypermarket and Domestic Hypermarket datasets produced adequate model-to-data fit: χ^2 (362) = 648.189, χ^2/df = 1.791, $p < .001$, RMSEA = .040, GFI = .899, AGFI = .859, CFI = .929, and TLI = .910 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI > 0.90).

In addition, the goodness-of-fit indices for each individual sample were tabulated as follows:

Goodness-of-fit indices for European Hypermarket dataset: χ^2 (181) = 316.156, χ^2/df = 1.747, $p < .001$, RMSEA = .055, GFI = .901, AGFI = .862, CFI = .937, and TLI = .919. Only one out of the maximum 231 correlations had statistically significant residuals, which falls within the acceptable range of one in 20 residuals exceeding 2.58 strictly by chance (Hair et al., 1998).

Goodness-of-fit indices for Domestic Hypermarket dataset: χ^2 (181) = 332.033, χ^2/df = 1.834, $p < .001$, RMSEA = .058, GFI = .897, AGFI = .856, CFI = .921, and TLI = .899. Only one out of the maximum 231 correlations had statistically significant residuals, which falls within the acceptable range of one in 20 residuals exceeding 2.58 strictly by chance (Hair et al., 1998).

Table 6.7

Retained items used in multiple group structural equation model

Construct	Source	Retained Items
Consumer Ethnocentrism (CET) ^d	Shimp and Sharma (1987) – 10-item CETSCALE ^a	CET_Q5: A real Chinese should always buy China-made products. CET_Q6: We should purchase products manufactured in China instead of letting other countries get rich off us. CET_Q9: We should buy from foreign countries only those products that we cannot obtain within our own country. CET_Q10: Chinese consumers who purchase products made in other countries are responsible for putting their fellow Chinese out of work.
Country-of-Origin (COO) Cue ^c	Teas and Agarwal (2000) – 6 items ^a	COO_Q3: In general, I would expect products made in Europe to be high in prestige. COO_Q4: In general, I would expect products made in Europe to be reliable. COO_Q6: In general, I would expect products made in Europe to be dependable.
Store Brand Cue ^d	Teas and Agarwal (2000) – 3 items ^a	SB_Q1: Foreign hypermarkets sell high quality merchandise. SB_Q3: Foreign hypermarkets are high-quality stores.
Hedonic Value ^c	Babin and Attaway (2000) – 5 items ^a	HED_Q3: I enjoy the shopping trip for its own sake, not just for the items I may have purchased. HED_Q4: While shopping at foreign hypermarkets, I was able to forget my problems. HED_Q5: Compared to other things I could have done, the time spent at foreign hypermarkets was truly enjoyable.
Utilitarian Value ^c	Babin and Attaway (2000) – 4 items ^a	UTI_Q2: I couldn't buy what I really needed in foreign hypermarkets. (reverse-coded) UTI_Q3: I was disappointed because I had to go to another store to complete my shopping. (reverse-coded)
Willingness To Shop (WTS) ^d	Klein, Ettenson and Morris (1998) – 6 items ^a	WTS_Q2: I would never shop in a foreign hypermarket. (reverse-coded) WTS_Q3: Whenever possible, I avoid shopping in foreign hypermarkets. (reverse-coded)
Store Loyalty Intention ^b	Sirohi, McLaughlin and Wittink (1998) – 3 items ^a	SLI_Q1: Likelihood to continue shopping in European Hypermarket. SLI_Q2: Likelihood to use European Hypermarket for more of your shopping needs in the next 12 months. SLI_Q3: Likelihood to recommend European Hypermarket to a friend.
Customer Share	Babin and Attaway (2000) – 5 items ^a	CS_Q1: ___ out of every five times I shop for products, I shop at European Hypermarket. CS_Q2: Out of every RMB100 I spend in a store like European Hypermarket, I spend RMB___ at European Hypermarket. CS_Q3: Out of every RMB100 I spend on products, I spend RMB___ at European Hypermarket.

^aOriginal number of items adapted from specified article.

^bAnchors: 1 = "not at all likely" to 5 = "extremely likely"

^cAnchors: 1 = "strongly disagree" to 5 = "strongly agree"

^dAnchors: 1 = "strongly disagree" to 7 = "strongly agree"

Furthermore, the construct intercorrelations for both the European Hypermarket and Domestic Hypermarket datasets were equivalent to or below .80 (Tables 6.8 and 6.9), which indicated adequate discriminant validity (Hair et al., 1998; Kline, 1998a).

Table 6.8
Construct intercorrelations based on European Hypermarket dataset
(multiple group analysis)

	Country of Origin	Store Brand	Consumer Ethnocentrism	Hedonic Value	Utilitarian Value	Willingness to Shop	Customer Share	Store Loyalty Intention
Country of Origin	1.000							
Store Brand	0.641	1.000						
Consumer Ethnocentrism	-0.130	0.082	1.000					
Hedonic Value	0.635	0.446	0.082	1.000				
Utilitarian Value	-0.057	-0.075	-0.475	-0.204	1.000			
Willingness to Shop	0.101	0.046	-0.689	-0.173	0.525	1.000		
Customer Share	0.204	0.054	-0.027	0.107	0.046	0.058	1.000	
Store Loyalty Intention	0.536	0.317	-0.288	0.366	0.021	0.251	0.466	1.000

Table 6.9
Construct intercorrelations based on Domestic Hypermarket dataset
(multiple group analysis)

	Country of Origin	Store Brand	Consumer Ethnocentrism	Hedonic Value	Utilitarian Value	Willingness to Shop	Customer Share	Store Loyalty Intention
Country of Origin	1.000							
Store Brand	0.797	1.000						
Consumer Ethnocentrism	-0.012	0.094	1.000					
Hedonic Value	0.693	0.678	0.223	1.000				
Utilitarian Value	-0.291	-0.372	-0.479	-0.526	1.000			
Willingness to Shop	0.103	-0.083	-0.806	-0.109	0.713	1.000		
Customer Share	-0.098	-0.001	0.052	0.043	-0.096	0.001	1.000	
Store Loyalty Intention	0.060	0.245	0.199	0.263	-0.422	-0.194	0.189	1.000

Lastly, the indicators that were influenced by social desirability bias were re-evaluated. To recap, t-test results in Section 6.3 revealed that only item Q3 of the ‘store brand cue’ latent variable in the European Hypermarket dataset was affected by social desirability bias, whereas six indicators in the Domestic Hypermarket dataset, namely items Q4 and Q7 of the ‘consumer ethnocentrism’ latent variable, items Q1 and Q2 of the ‘willingness to shop in foreign grocery stores’ latent variable, and items Q1 and Q2 of the ‘store loyalty intention’ latent variable, were affected by social desirability bias. Following the results of the confirmatory factor analysis (CFA) for the two samples in this section, the remaining indicators that were influenced by social desirability bias were

1. Item Q3 of the ‘store brand cue’ latent variable (SB_Q3) for the European Hypermarket dataset, and
2. Items Q1 and Q2 of the ‘store loyalty intention’ latent variable (SLI_Q1 and SLI_Q2), and item Q2 of the ‘willingness to shop in foreign grocery stores’ latent variable (WTS_Q2) for the Domestic Hypermarket dataset.

These four indicators could not be removed because it would essentially result in only one indicator for the respective three latent variables (i.e., store brand cue, store loyalty intention, and willingness to shop in foreign grocery stores). Single-indicator latent variables are highly undesirable in structural equation modelling in part, due to the lack of sufficient information (i.e., standardised loading values) to establish the reliability of the latent variables with single-indicator latent variables since the model will be under-identified or unable to reach a feasible solution (Hair et al., 1998) and in part, due to the need to specify a desired reliability value in order to calculate the error term (i.e., 1.00 minus the desired reliability value) (c.f., Hayduk, 1996), which can be subjective and may not be truly representative of the actual error value.

As such, the results in this study should be interpreted with care in relation to the Domestic Hypermarket dataset because three indicators in this dataset were influenced by social desirability bias. Note that item SB_Q3 could not be removed because it caused a Heywood case in item SB_Q2 if item SB_Q3 was retained. This scenario applied to the European

Hypermarket dataset only. As for the other three indicators (items SLI_Q1, SLI_Q2 and WTS_Q2), these indicators were not eliminated in the first instance during CFA because these indicators exhibited low residuals (i.e., less than 2.58) and more importantly, these indicators reflected high squared multiple correlation values (i.e., these indicators are highly representative of the latent variables).

6.6.2 Test of invariance between European Hypermarket and Domestic Hypermarket datasets

A test of invariance by constraining the regression weights across the European Hypermarket and Domestic Hypermarket datasets was examined in order to verify that the indicators derived from the full measurement model analysis in Section 6.6.1 were representative of both the European Hypermarket and Domestic Hypermarket samples (Bollen, 1989; Byrne, 2001). The goodness-of-fit indices derived from the AMOS output (refer to Table 6.10) showed that both models, namely unrestricted loadings and equal loadings models, fitted the data well. Interestingly, the more restricted equal loadings model fitted the data better than the original model in which the factor loadings were allowed to vary across the European Hypermarket and Domestic Hypermarket datasets. The results from this model comparison ($\chi^2 = 11.738$ with 14 degrees of freedom, p-value = 0.627) indicated that imposing the additional restrictions of 22 equal factor loadings across the European Hypermarket and Domestic Hypermarket datasets did not result in a statistically worsening of overall model fit. Note that tests for inequality of error variances and covariances across groups were not conducted because “the testing of equality constraints bearing on error variances and covariances is now considered to be excessively stringent ...” (Byrne, 2001, pp.202).

Table 6.10

Fit statistics for unrestricted and equal loadings from actual AMOS output

Fit Measure	Unrestricted loadings	Equal loadings	Saturated	Independence	Macro
Discrepancy	648.189	659.927	0.000	4507.308	CMIN
Degrees of freedom	362	376	0	462	DF
P	0.000	0.000		0.000	P
Discrepancy / df	1.791	1.755		9.756	CMINDF
GFI	0.899	0.897	1.000	0.453	GFI
Adjusted GFI	0.859	0.862		0.401	AGFI
Tucker-Lewis index	0.910	0.914		0.000	TLI
Comparative fit index	0.929	0.930	1.000	0.000	CFI
RMSEA	0.040	0.039		0.133	RMSEA

Nested Model Comparisons

Assuming model Unrestricted loadings to be correct:

	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho-2
Equal loadings	14	11.738	0.627	0.003	0.003	-0.004	-0.004

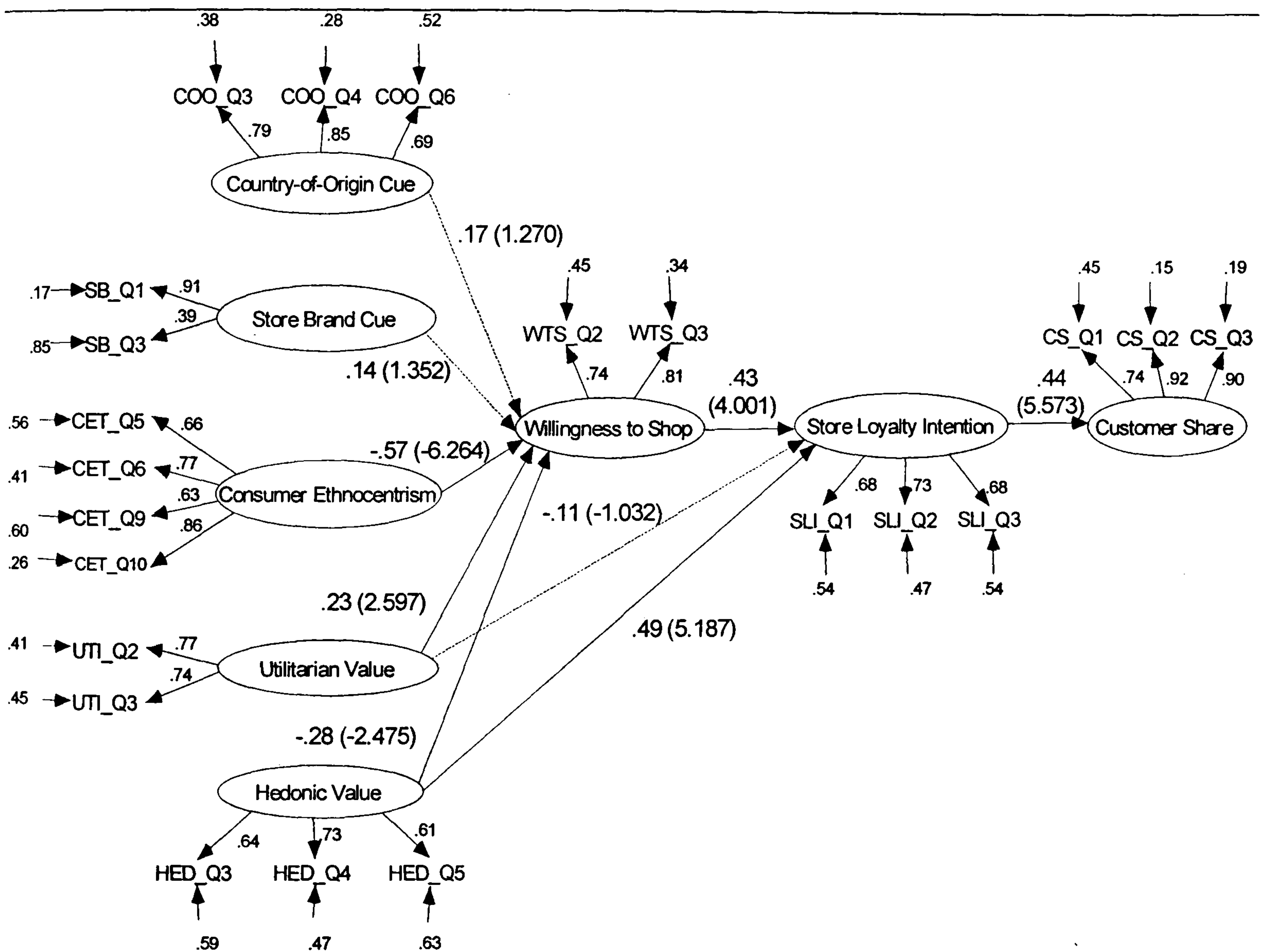
6.6.3 Structural equation model at individual sample level

Estimation of the structural equation model at the individual sample level for the European Hypermarket and Domestic Hypermarket datasets resulted in adequate model-to-data fit (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI $>$ 0.90). The goodness-of-fit indices for each individual sample were detailed as follows, and the significance of path coefficients in Figure 6.6 and 6.7 is discussed in the next chapter.

Goodness-of-fit indices for European Hypermarket dataset (Figure 6.6):

$\chi^2 (190) = 336.717$, $\chi^2/df = 1.772$, $p < .001$, RMSEA = .056, GFI = .893, AGFI = .858, CFI = .931, and TLI = .917.

Figure 6.6
Structural equation model results (European Hypermarket dataset)



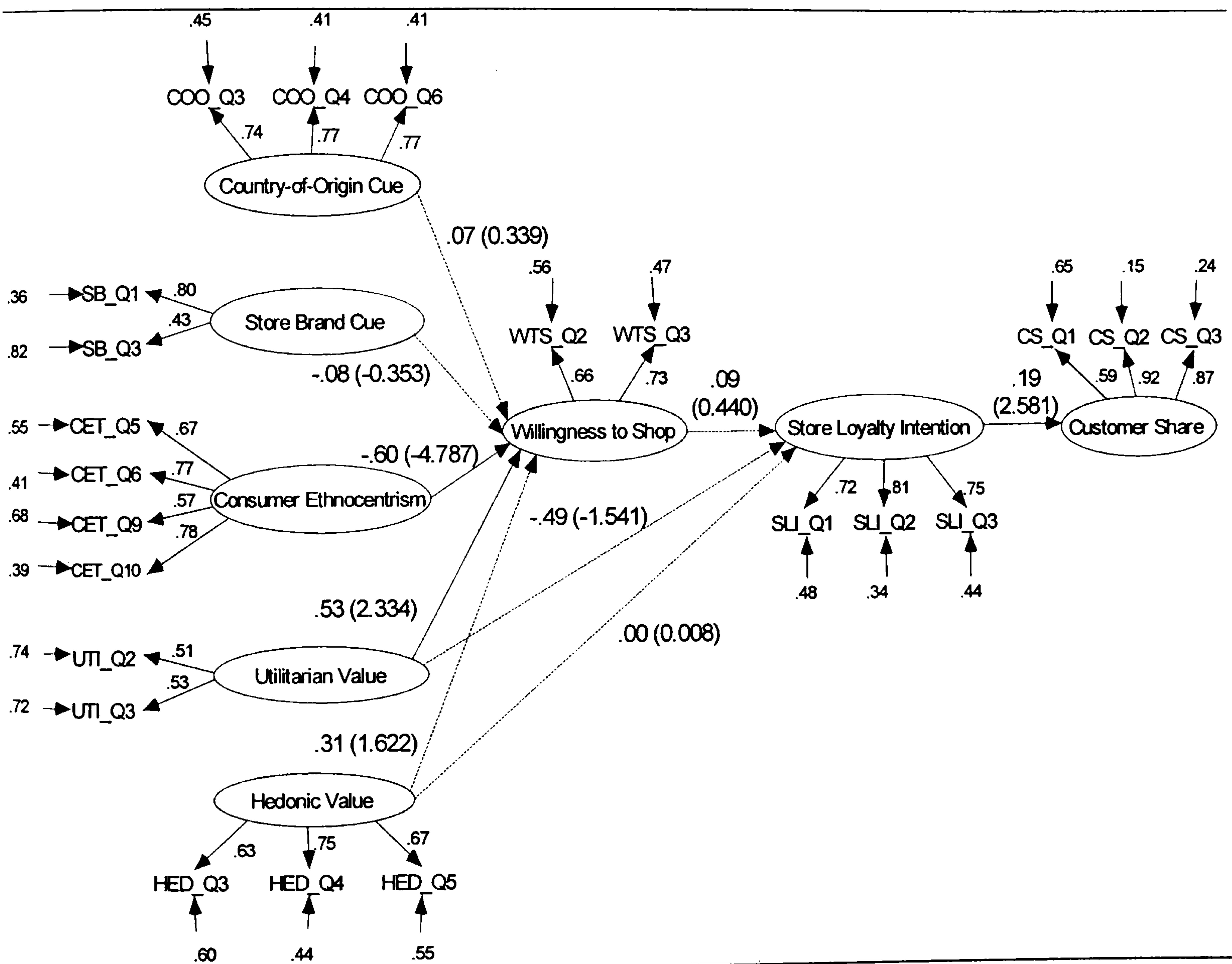
Note: All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (The dotted line coefficient is nonsignificant). All t-statistics are in parentheses next to the coefficient estimates. All endogenous latent variables refer to foreign grocery retail stores.

Goodness-of-fit indices for Domestic Hypermarket dataset (Figure 6.7):

$\chi^2(190) = 342.803$, $\chi^2/df = 1.804$, $p < .001$, $RMSEA = .057$, $GFI = .893$, $AGFI = .858$, $CFI = .920$, and $TLI = .903$.

Figure 6.7

Structural equation model result (Domestic Hypermarket dataset)



Note: All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (The dotted line coefficient is nonsignificant). All t-statistics are in parentheses next to the coefficient estimates. All endogenous latent variables refer to foreign grocery retail stores.

Finally, all the construct intercorrelations were below 0.80, except for the correlation between the ‘country-of-origin cue’ and ‘store brand cue’ latent variables that was 0.804 (Table 6.11). That is, the risk of multicollinearity is not likely to be high (Hair et al., 1998).

Table 6.11

Construct intercorrelations (structural model at the individual sample level)

	Correlation (European Hypermarket)	Correlation (Domestic Hypermarket)
Consumer Ethnocentrism <--> Country of Origin Cue	-0.131	-0.011
Consumer Ethnocentrism <--> Hedonic Value	0.074	0.223
Country of Origin Cue <--> Hedonic Value	0.676	0.694
Hedonic Value <--> Store Brand Cue	0.450	0.682
Country of Origin Cue <--> Store Brand Cue	0.621	0.804
Hedonic Value <--> Utilitarian Value	-0.204	-0.535
Consumer Ethnocentrism <--> Utilitarian Value	-0.473	-0.499
Store Brand Cue <--> Utilitarian Value	-0.076	-0.408
Country of Origin Cue <--> Utilitarian Value	-0.063	-0.250
Consumer Ethnocentrism <--> Store Brand Cue	0.079	0.097

6.6.4 Bootstrap test for European Hypermarket and Domestic Hypermarket datasets

Assessment of normality for the European Hypermarket dataset was obtained from the AMOS output (refer to Table 6.12). The univariate skew and kurtosis values for the European Hypermarket dataset were within acceptable limits (i.e., skewness < 3.0 and kurtosis < 10.0) although the critical ratio values suggested that a number of indicators were non-normal (i.e., greater than 1.96). The high critical ratio value (i.e., 17.089) for Mardia’s (1970) coefficient indicated that the European Hypermarket dataset was multivariate non-normal. Under such situations, bootstrapping is useful in validating the extent of data non-normality on parameter estimates and standard error because bootstrapping does not require the assumption that the data is multivariate normal (Hair et al., 1998; Kline, 1998a; Byrne, 2001).

Table 6.12

Assessment of data normality for European Hypermarket dataset

	min	max	skew	c.r.	kurtosis	c.r.
UTI_Q3	1	5	-0.323	-2.087	-0.865	-2.791
UTI_Q2	1	5	-0.382	-2.468	-0.698	-2.251
SB_Q3	1	7	0.151	0.973	-0.839	-2.708
SB_Q1	1	7	0.044	0.285	-1.082	-3.493
CS_Q3	1	5	0.536	3.463	-0.697	-2.250
CS_Q2	1	5	0.195	1.258	-1.004	-3.240
CS_Q1	1	5	0.728	4.701	-0.463	-1.496
SLI_Q3	1	5	-0.386	-2.490	-0.979	-3.161
SLI_Q2	1	5	-0.308	-1.987	-0.915	-2.953
SLI_Q1	1	5	-1.085	-7.004	0.142	0.459
WTS_Q3	1	7	-1.016	-6.559	-0.008	-0.025
CET_Q10	1	7	1.175	7.584	0.474	1.530
CET_Q9	1	7	0.625	4.034	-0.552	-1.783
CET_Q6	1	7	0.864	5.580	-0.432	-1.394
CET_Q5	1	7	0.768	4.958	-0.627	-2.025
HED_Q3	1	5	-0.109	-0.706	-1.066	-3.441
HED_Q4	1	5	0.183	1.184	-1.147	-3.701
HED_Q5	1	5	0.111	0.715	-1.012	-3.267
WTS_Q2	1	7	-1.182	-7.630	0.349	1.127
COO_Q6	1	5	-0.159	-1.029	-0.612	-1.975
COO_Q4	1	5	-0.092	-0.591	-0.525	-1.694
COO_Q3	1	5	-0.076	-0.493	-0.771	-2.488
Multivariate					70.244	17.089

Bollen-Stine bootstrap was first employed to evaluate whether the null hypothesis chi-square model fit test differed from those obtained from the Maximum Likelihood (ML) extraction method (Bollen and Stine, 1993). Note that the number of bootstrap was 1000 and the percentile confidence (PC) and bias-corrected confidence (BC) levels were set at 90%. Results of the Bollen-Stine Bootstrap test revealed that the null hypothesis was rejected, i.e., the model was not correct ($p = 0.002997$). Next, parameter estimate and standard error values between those obtained through ML extraction method and those obtained from bootstrapping were assessed (refer to Table 6.13). According to Nevitt and Hancock (1998), the number of bootstrap samples above 250 will not result in significant improvement in the

quality of bootstrap estimates. The results supported Nevitt and Hancock's (1998) findings, i.e., no significant differences in parameter estimate and standard error values were found for bootstrap samples of 500, 1000, 2000, 3000, 4000 and 5000 (see Appendix 14).

Table 6.13
ML versus bootstrap values for European Hypermarket dataset

	Maximum Likelihood			Bootstrap			PC Confidence			BC Confidence			% Diff in S.E.
	Estimate	S.E.	C.R.	Estimate	S.E.	C.R.	Lower	Upper	P	Lower	Upper	P	
WTS <-- CETSCALE	-0.566	0.090	-6.264	-0.582	0.157	-3.707	-0.855	-0.366	0.003	-0.848	-0.361	0.003	42.675
WTS <-- Hedonic Value	-0.420	0.170	-2.475	-0.425	0.245	-1.735	-0.848	-0.102	0.043	-0.893	-0.127	0.032	30.612
WTS <-- Utilitarian Value	0.363	0.140	2.597	0.363	0.253	1.435	0.021	0.687	0.049	0.043	0.700	0.037	44.664
WTS <-- Store Brand Cue	0.119	0.088	1.352	0.135	0.162	0.833	-0.022	0.407	0.162	0.003	0.499	0.091	45.679
WTS <-- COO Cue	0.263	0.207	1.270	0.246	0.309	0.796	-0.244	0.707	0.328	-0.238	0.709	0.323	33.010
SLI <-- Hedonic Value	0.450	0.087	5.187	0.458	0.143	3.203	0.307	0.645	0.005	0.303	0.639	0.006	39.161
SLI <-- Utilitarian Value	-0.109	0.105	-1.032	-0.155	0.644	-0.241	-0.379	0.179	0.395	-0.350	0.213	0.472	83.696
SLI <-- WTS	0.270	0.068	4.001	0.305	0.316	0.965	0.150	0.465	0.004	0.146	0.453	0.004	78.481
CS <-- SLI	0.562	0.101	5.573	0.559	0.090	6.211	0.410	0.715	0.002	0.426	0.732	0.001	-12.222
CET_Q5 <-- CETSCALE	0.899	0.089	10.121	0.902	0.098	9.204	0.754	1.077	0.002	0.761	1.087	0.001	9.184
HED_Q3 <-- Hedonic Value	0.818	0.100	8.182	0.822	0.118	6.966	0.642	1.020	0.002	0.645	1.029	0.002	15.254
WTS_Q2 <-- WTS	0.860	0.086	10.028	0.862	0.083	10.386	0.737	0.998	0.002	0.741	1.004	0.002	-3.614
SLI_Q1 <-- SLI	0.823	0.100	8.261	0.833	0.117	7.120	0.654	1.035	0.002	0.651	1.026	0.002	14.530
SLI_Q3 <-- SLI	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
SLI_Q2 <-- SLI	0.953	0.112	8.513	0.966	0.105	9.200	0.804	1.143	0.002	0.799	1.133	0.003	-6.667
CS_Q1 <-- CS	0.755	0.054	14.040	0.753	0.057	13.211	0.657	0.850	0.002	0.661	0.855	0.002	5.263
CS_Q2 <-- CS	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
CS_Q3 <-- CS	0.976	0.054	18.127	0.975	0.052	18.750	0.891	1.060	0.002	0.895	1.062	0.002	-3.846
SB_Q1 <-- Store Brand Cue	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
SB_Q3 <-- Store Brand Cue	0.386	0.099	3.907	0.391	0.141	2.773	0.154	0.616	0.002	0.146	0.607	0.003	29.787
UTI_Q2 <-- Utilitarian Value	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
UTI_Q3 <-- Utilitarian Value	0.995	0.148	6.742	1.025	0.238	4.307	0.726	1.448	0.002	0.749	1.482	0.001	37.815
WTS_Q3 <-- WTS	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
CET_Q9 <-- CETSCALE	0.798	0.083	9.646	0.805	0.107	7.523	0.635	0.988	0.002	0.630	0.977	0.002	22.430
CET_Q6 <-- CETSCALE	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
CET_Q10 <-- CETSCALE	0.976	0.075	12.994	0.981	0.107	9.168	0.826	1.177	0.002	0.827	1.180	0.002	29.907
HED_Q4 <-- Hedonic Value	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
HED_Q5 <-- Hedonic Value	0.779	0.098	7.957	0.780	0.100	7.800	0.618	0.949	0.002	0.632	0.965	0.001	2.000
COO_Q6 <-- COO Cue	0.794	0.070	11.291	0.798	0.088	9.068	0.652	0.941	0.002	0.642	0.929	0.003	20.455
COO_Q4 <-- COO Cue	1.000			1.000	0.000		1.000	1.000	...	1.000	1.000	...	...
COO_Q3 <-- COO Cue	0.965	0.074	12.962	0.968	0.068	14.235	0.854	1.079	0.002	0.853	1.075	0.002	-8.824

A review of the critical ratio values (or t-values) between the ML estimates and the bootstrap estimates in Table 6.13 showed that the statistical significance of the path estimates was in the right direction (i.e., paths that were meant to be significant through ML extraction method were also significant in the bootstrap results), except for the following two paths: (1) from the 'utilitarian value' latent variable to the 'willingness to shop in foreign grocery stores' latent variable and (2) from the 'willingness to shop in foreign grocery stores' latent variable to the 'store loyalty intention' latent variable (refer to the shaded cells in Table 6.13). Nevertheless, the p-values from the percentile-corrected (PC Confidence) and bias-corrected (BC Confidence) confidence intervals rejected the null hypothesis that the parameter estimates for the two paths were zero (i.e., $p < 0.05$). Therefore, the results provided empirical support for the reliability of path estimates and critical ratio values estimated via the ML extraction method.

A separate test was conducted by removing outliers suspected to cause non-normality in the European Hypermarket dataset. A total of 10 outliers furthest from the centroid (Mahalabonis distance) were removed from the sample. The resulting estimates showed that the data was multivariate non-normal (critical ratio value = 11.970) and the p-value from Bollen-Stine bootstrap test was 0.000999001. Therefore, outliers were not the main cause of data non-normality. Assessments of data normality and bootstrap test were also performed for the Domestic Hypermarket dataset (refer to Appendix 15 and Appendix 16). The Domestic Hypermarket dataset was found to be multivariate non-normal but no discrepancy was found between the critical ratio values attained from ML extraction method and bootstrapping. These results provided further empirical support for the robustness of the ML extraction method.

6.6.5 Nested model comparison – multiple group analysis

Although both the European Hypermarket and Domestic Hypermarket datasets converged well on the structural equation models (i.e., adequate model-to-data fit) in Section 6.6.3, a strongly recommended method to assess whether both sets of data are invariant in the model is via the multiple group analysis approach (c.f., Bollen, 1989; Byrne, 2001). That is, if a lack of invariance between both sets of data is established, the path(s) in the model that causes the discrepancy may be efficiently identified via this method. Hence, the structural equation model in this study was subjected to a test of invariance for the European Hypermarket and Domestic Hypermarket datasets. The aim of this test was to identify whether there was a moderating effect(s) on the causal relationships in the model, and if so, whether this moderating effect(s) varied by group. If a lack of invariance between both sets of data was established, the next step was to identify which path(s) in the model caused this variance, i.e., which path(s) in the model was/were statistically different amongst the two groups/datasets via a 1-degree of freedom chi-square difference test (c.f., Bollen, 1989; Byrne, 2001).

Estimation of the European Hypermarket and Domestic Hypermarket datasets in a multiple group analysis resulted in an adequate structural model fit: $\chi^2(380) = 679.519$, $\chi^2/df = 1.788$, $p < .001$, RMSEA = .040, GFI = .893, AGFI = .858, CFI = .926, and TLI = .910 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA ≤ 0.10 , GFI and AGFI close to or above 0.90, CFI and TLI > 0.90). Results of the nested model comparison are shown in Table 6.14. Note that all the measurement regression weights were constrained to be equal followed by the test of equality on the structural paths, as recommended by Bollen (1989).

Table 6.14

Goodness-of-fit statistics for tests of invariance across the European Hypermarket and Domestic Hypermarket datasets

	Model Description	χ^2	df	$\Delta\chi^{2a}$	Δ df	Statistical Significance
1	Combined baseline models (European Hypermarket and Domestic Hypermarket datasets)	679.519	380	-	-	-
2	Combined baseline models with equal measurement regression weights	691.725	394	12.206	14	0.590
3	Baseline model with all measurement and structural path regression weights constrained equal	741.881	403	50.156	9	p < .001

Note:
 $\Delta\chi^2$: difference in χ^2 values
 Δ df: difference in degrees of freedom
^aModel number 2 is compared against model number 1, and model number 3 is compared against model number 2.
* p < .05

The results in Table 6.14 indicated that the chi-square difference between the baseline model (item 1) and the baseline model with equal measurement regression weights (item 2) was not statistically significant. In addition, the baseline model with equal measurement regression weights (item 2) had a better goodness-to-fit statistics (i.e., GFI, AGFI, CFI, TLI and RMSEA) than the baseline model (item 1). Hence, the second part of hypotheses testing was to constrain all the measurement and structural path regression weights to be equal (Bollen, 1989). Adding the baseline model with all measurement and structural paths constrained to be equal led to a p-value that was statistically significant at the 0.001 level. A comparison of the other overall fit measures for the baseline model with equal measurement regression weights (item 2) versus the baseline model with equal measurement and structural path regression weights (item 3) showed a significant deterioration in goodness-of-fit index values (i.e., GFI, AGFI, CFI, TLI and RMSEA). Therefore, one inference was that there was a moderating effect on the causal relationships in the model, and this effect varied by group.

In order to assess which structural path(s) was a moderator of the causal relationships in the model, all the paths across the European Hypermarket and Domestic Hypermarket datasets

were constrained to be equal in one model, whilst one path was freed in another model. Following that, both models were estimated together in relation to a nested model comparison across the two groups (Bollen, 1989; Byrne, 2001). The chi-square difference test was then used to evaluate whether a particular path was a moderator of the causal relationships in the model (refer to Table 6.15) (Bollen, 1989; Byrne, 2001). Note that all the measurement regression weights were constrained to be equal. The results of this nested model comparison between the Domestic Hypermarket and European Hypermarket datasets in Table 6.15 indicated that models number 6, 9 and 10 were statistically different from the baseline model 1 at $p < 0.05$.

Table 6.15

Goodness-of-fit statistics for tests of invariance across the European Hypermarket and Domestic Hypermarket datasets (fully constrained model)

	Model Description	χ^2	df	$\Delta\chi^2^a$	Δ df	Statistical Significance
1	Baseline model with all measurement and structural paths constrained equal	741.881	403	-	-	-
2	Fully constrained model with path from 'Country-of-Origin Cue' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	741.340	402	0.542	1	0.462
3	Fully constrained model with path from 'Store Brand Cue' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	741.878	402	0.004	1	0.951
4	Fully constrained model with path from 'Consumer Ethnocentrism' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	741.552	402	0.330	1	0.566
5	Fully constrained model with path from 'Utilitarian Value' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	740.188	402	1.693	1	0.193
6	Fully constrained model with path from 'Utilitarian Value' to 'Foreign Grocery Store Loyalty Intention' not constrained to be equal	730.293	402	11.588	1	0.001*
7	Fully constrained model with path from 'Hedonic Value' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	740.052	402	1.829	1	0.176
8	Fully constrained model with path from 'Hedonic Value' to 'Foreign Grocery Store Loyalty Intention' not constrained to be equal	739.933	402	1.949	1	0.163
9	Fully constrained model with path from 'Willingness to Shop in Foreign Grocery Stores' to 'Foreign Grocery Store Loyalty Intention' not constrained to be equal	720.976	402	20.906	1	p < 0.001*
10	Fully constrained model with path from 'Foreign Grocery Store Loyalty Intention' to 'Customer Share in Foreign Grocery Stores' not constrained to be equal	733.343	402	8.538	1	0.003*

Note: $\Delta\chi^2$: difference in χ^2 values Δ df: difference in degrees of freedom^aAll models compared with fully constrained model (i.e, model number 1)

* p < 0.05

6.7 Summary

The aim of this chapter was to examine the reliability and validity of the measures via structural equation modelling for the two sets of data, namely the European Hypermarket dataset and the Domestic Hypermarket dataset. The initial idea was to first analyse the European Hypermarket dataset, followed by using the Domestic Hypermarket dataset as a form of test-retest reliability of the structural equation model that fitted well for the European Hypermarket dataset. The results showed that this idea was not feasible because the Domestic Hypermarket dataset did not converge on the structural equation model that fitted well for the European Hypermarket dataset. Through a review of three other methods, the multiple group analysis approach was empirically demonstrated to be the most suitable.

Hence, the European Hypermarket and Domestic Hypermarket datasets had to be re-evaluated via confirmatory factor analysis (CFA) in order to identify a set of indicators that best represent the latent variables in the structural equation model. The CFA results revealed that all the measures were relatively reliable and demonstrated construct validity (i.e., convergent and discriminant validity). Although the European Hypermarket and Domestic Hypermarket datasets were slightly non-normal, empirical evidence from the bootstrap results showed that non-normality in the two datasets did not affect the path estimates and their respective critical ratio values (or t-values) in the structural equation models. In other words, the robustness of the results in this study was validated because bootstrapping is a reliable technique to assess the stability of parameter estimates and standard errors in the presence of non-normal data (c.f., Hair et al., 1998; Byrne, 2001).

The next chapter tests the hypotheses outlined in the conceptualisation of this study and reports the path analysis results. Specifically, the structural equation model results obtained in this chapter are simultaneously examined with the hypothesised relationships developed in Chapter 3, and the unstandardised estimates are used to calculate the total path effects (i.e., path analysis) from the exogenous constructs to the decisive endogenous construct (i.e., ‘customer share’ construct) in the model in order to identify which exogenous construct has the most significant effect on the ‘customer share’ construct.

7.0 RESULTS: HYPOTHESES TESTING

This chapter describes the analysed data with reference to the hypotheses outlined in this study. The chapter begins with an evaluation of the demographic variables for the European Hypermarket and Domestic Hypermarket datasets in Section 7.1. Next, the analysed data in Chapter 6 is examined in relation to the hypothesised relationships for the European Hypermarket dataset in Section 7.2 and the Domestic Hypermarket dataset in Section 7.3. In addition, Ping's (1996a) two-step estimation method was employed to analyse the moderating effect of utilitarian value on the relationship between consumer ethnocentrism and the Beijing consumers' willingness to shop in foreign grocery-related retail stores (Hypothesis 9 in Chapter 3). Justification for using Ping's (1996a) two-step estimation method is discussed in Section 7.2.2. The moderating effect results for the European Hypermarket and Domestic Hypermarket datasets are discussed in Section 7.2.2 and Section 7.3.2 respectively. Following from this, the testing of hypotheses with respect to socially desirable response bias (Hypothesis 4 in Chapter 3) is detailed in Section 7.4. Section 7.5 provides the results of the path analysis, where total effects for each exogenous construct to the 'customer share' endogenous construct are reported. Finally, the results from Sections 7.2 to 7.5 are summarised in Section 7.6.

7.1 Demographic Data from European Hypermarket and Domestic Hypermarket Datasets

The respondents' demographic data for the European Hypermarket and Domestic Hypermarket datasets are presented in Table 7.1.

Table 7.1

Demographic data for European Hypermarket and Domestic Hypermarket datasets

Demographic Variables	European Hypermarket		Domestic Hypermarket	
	Absolute Value	Percentage	Absolute Value	Percentage
Total Sample Size	250		250	
<u>Gender</u>				
Male	71	28.40%	74	29.60%
Female	179	71.60%	176	70.40%
Total number of responses to questionnaire item	250	100.00%	250	100.00%
<u>Age</u>				
15 to 24 years old	63	25.40%	69	27.71%
25 to 34 years old	79	31.85%	74	29.72%
35 to 44 years old	50	20.16%	51	20.48%
45 to 54 years old	37	14.92%	40	16.06%
55 years old and above	19	7.66%	15	6.02%
Total number of responses to questionnaire item	248	100.00%	249	100.00%
<u>Education Level</u>				
Primary School	16	7.77%	21	8.68%
Secondary School	34	16.50%	25	10.33%
High School	81	39.32%	138	57.02%
Degree	43	20.87%	52	21.49%
Others (i.e., above degree level)	32	15.53%	6	2.48%
Total number of responses to questionnaire item	206	100.00%	242	100.00%
<u>Income Level (RMB per month)</u>				
1000 or less	47	22.07%	69	28.87%
1000 to 1999	87	40.85%	91	38.08%
2000 to 2999	34	15.96%	48	20.08%
3000 to 3999	21	9.86%	16	6.69%
4000 and above	24	11.27%	15	6.28%
Total number of responses to questionnaire item	213	100.00%	239	100.00%
<u>Familiarity with Foreign Grocery Retailers</u> (based on scores derived from 'familiarity' scale)				
Consumers familiar with foreign grocery retailers	237	94.8%	174	69.6%
Consumers unfamiliar with foreign grocery retailers	13	5.2%	76	30.4%
Total number of responses to questionnaire item	250	100%	250	100%

A review of Table 7.1 indicated that the demographic variable, gender, was highly skewed towards female shoppers for both the European Hypermarket dataset (i.e., 71.60%) and the Domestic Hypermarket dataset (i.e., 70.40%). This finding was expected because the sampling method used in this study's data collection was probability sampling and previous studies have shown that frequent shoppers of shopping malls and grocery retail stores generally tend to be female (e.g., Chapin, 1974; Sudman, 1980; Dupont, 1987; Mai and Zhao, 2004). The demographic variable, age, was relatively well spread for both datasets, with a mean age of 34.26 years for the European Hypermarket dataset and 33.80 years for the Domestic Hypermarket dataset. With respect to the respondents' educational level, 63.59% (i.e., 131 out of 206) of the European Hypermarket sample and 67.35% (i.e., 184 out of 242) of the Domestic Hypermarket sample received at most a high school level education. Note that responses to the category, 'others', included 'Masters degree' and specialised subject courses (e.g., accounting) awarded by chartered governing bodies. As for the respondents' income, the mean income level for the European Hypermarket dataset was RMB2030.50 and for the Domestic Hypermarket dataset was RMB1765.69.

Overall, the educational and income levels in the samples reflected the current demographic characteristics of PRC consumers. That is, past studies have generally found that the majority of PRC consumers do not have high educational or income levels (e.g., Batra, 1997; Prahalad and Lieberthal, 1998; Cui and Liu, 2001). In a national survey conducted by Gallup Research Co. Ltd. (China), the study indicated that 58.1% to 67.5% of the urban PRC consumers received high school education and 80% of the consumers earned less than RMB20000 per annum, which translates to less than RMB1666.67 per month (see Cui and Liu, 2001). More significantly, the educational and income level figures reported in this study were comparable to those obtained in previous studies, i.e., (1) 63.59% (European Hypermarket dataset) and 67.35% (Domestic Hypermarket dataset) of the respondents received high school education or lower, which was within the national survey range of 58.1% to 67.5% (see Cui and Liu, 2001), and (2) 62.92% (European Hypermarket dataset) and 66.95% (Domestic Hypermarket dataset) earned less than RMB24000 per annum, which was within the range of figures reported by Mai and Zhao (2004) and Cui and Liu (2001) (i.e., 43.5% and 80%), taking into account that the national survey was conducted in 1997

and average income levels have been rising rapidly in the PRC, particularly amongst urban consumers (e.g., Tong, 1998; Lo, Lau and Lin, 2001; Mai and Zhao, 2004).

A comparison of demographic data between the European Hypermarket dataset and the Domestic Hypermarket dataset revealed that three of the demographic variables were similar for the two datasets, namely gender (i.e., 71.60% and 70.40% who are female respondents for the European Hypermarket and Domestic Hypermarket dataset respectively), age (i.e., mean age of 34.26 years and 33.80 years for the European Hypermarket dataset and Domestic Hypermarket dataset respectively), and educational level (i.e., the number of respondents with a high school education or lower was 63.59% for the European Hypermarket dataset and 67.34% for the Domestic Hypermarket dataset). Conversely, the demographic variables that differed between these two datasets were educational level for respondents with a degree and above (i.e., 36.4% for the European Hypermarket dataset and 23.97% for the Domestic Hypermarket dataset) and income level (i.e., mean income for the European Hypermarket and Domestic Hypermarket datasets was RMB2030.50 and RMB1765.69 per month respectively). These differences were expected as PRC consumers who have positive perceptions of foreign products and retail stores are generally more educated and affluent (e.g., Klein, Ettenson and Morris, 1998; Cui and Liu, 2001; Zhou and Hui, 2003; Wang and Chen, 2004). Given the strong similarities in most of the demographic characteristics between these two datasets, the results obtained for the two datasets in this study could be justified to be directly comparable.

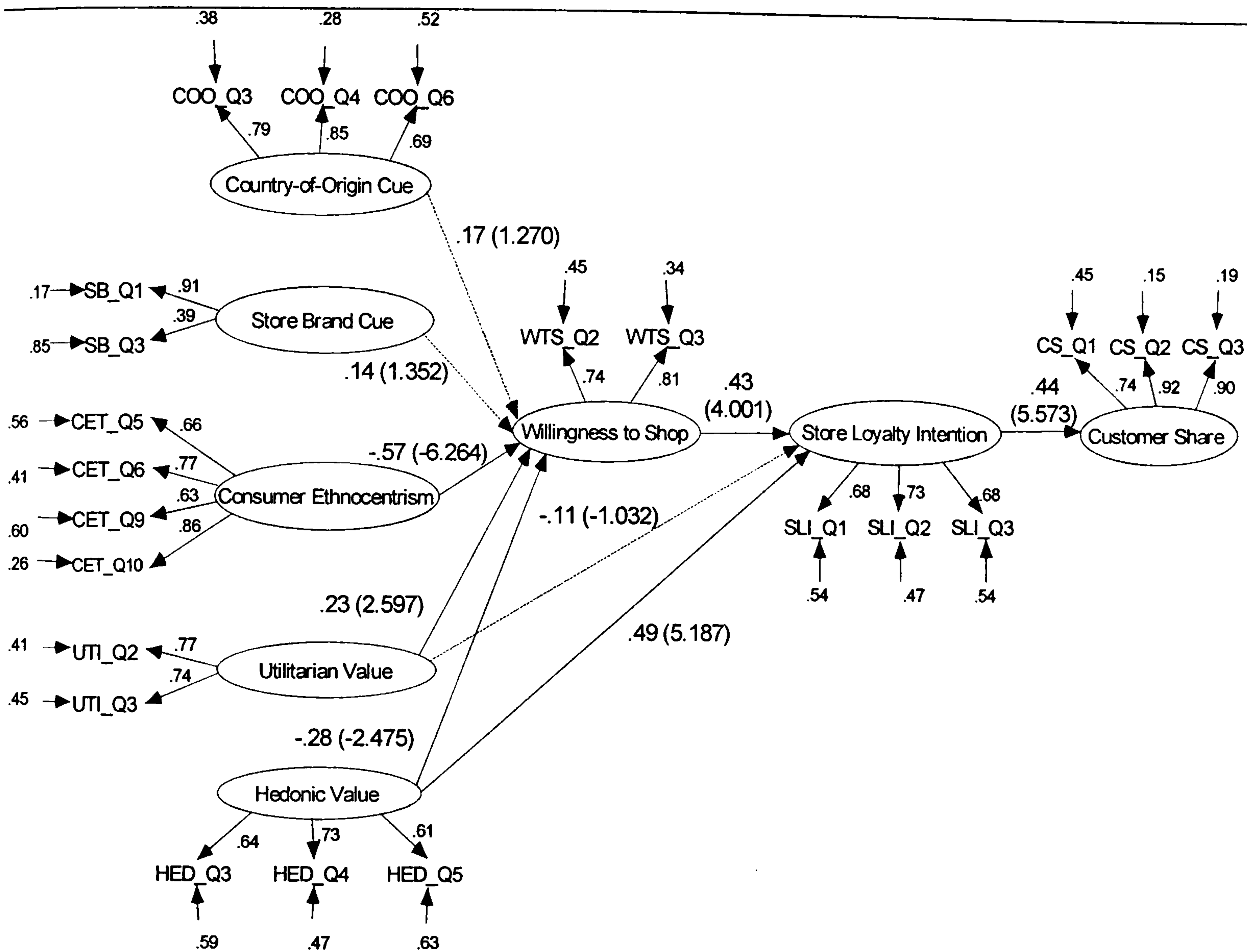
Finally, 94.8% of the respondents in the European Hypermarket dataset and 69.6% of the respondents in the Domestic Hypermarket dataset were familiar with foreign grocery retailers. The respondents' familiarity with foreign grocery retailers was computed from their responses to the 'familiarity' scale in the questionnaire using the mid-point cut-off of the total score to represent familiar/unfamiliar with foreign grocery retailers. This finding was consistent because most of the consumers who shop in foreign grocery retail stores, as compared to consumers who shop in domestic grocery retail stores, were expected to be familiar with foreign grocery retailers. The remaining 5.2% of the respondents who shopped in foreign grocery retail stores (i.e., European Hypermarket dataset) but who were

unfamiliar with foreign grocery retailers suggested that these respondents shopped in foreign grocery retail stores out of functional necessity (e.g., price and convenience) and hence, were not concerned about where they shop (i.e., domestic or foreign grocery retail stores) as long as their shopping needs were satisfied (e.g., Tsang et al., 2003; Li et al., 2004; Mai and Zhao, 2004). Another perspective of interpreting this finding was that the ‘familiarity’ scale used in this study was robust and effective with respect to segregating consumers who are familiar/unfamiliar with foreign grocery retailers, given that consumers who shop in foreign grocery retail stores are generally expected, or assumed, to be familiar with foreign grocery retailers.

7.2 Results for the European Hypermarket Dataset

The structural equation model result derived from analyses of the European Hypermarket dataset in Chapter 6 (Figure 6.6) is reiterated in this section to facilitate the comparison of the analysed result and the hypothesised relationships in this study.

Figure 6.6 obtained from Chapter 6
Structural equation model results (European Hypermarket dataset)



Note: All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (The dotted line coefficient is nonsignificant). All t-statistics are in parentheses next to the coefficient estimates. All endogenous latent variables refer to foreign grocery retail stores.

7.2.1 Hypotheses testing for the European Hypermarket dataset

The presentation format is to first recap the hypotheses developed in Chapter 3 followed by a discussion of the results for the European Hypermarket dataset in Figure 6.6 (see Table 7.2). The results in Table 7.2 supported most of the research hypotheses for the European Hypermarket dataset and an in-depth discussion of these results is provided in the next chapter. Note that (1) the paths between latent variables are statistically significant/valid only if the t-values (or critical ratio values) associated with the paths are greater than 1.645, where 1.645 represents one-tailed significance at $p < 0.05$, and (2) hypothesis number 4 (H_4) is discussed in the next section.

Table 7.2
Hypotheses testing for European Hypermarket dataset

Hypothesis	Path Direction	Regression Weight	t-value	Comment
H_1 : Country-of-origin (COO) cue will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.	COO -> WTS	0.17	1.270	Not supported
H_2 : Store brand cue will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.	SB -> WTS	0.14	1.352	Not supported
H_3 : Consumer ethnocentrism (CET) will be related negatively to the Beijing consumers' willingness to shop in foreign grocery stores.	CET -> WTS	-0.57	-6.264	Supported
H_{4a} : Hedonic value will be related negatively to the Beijing consumers' willingness to shop in foreign grocery stores.	HED -> WTS	-0.28	-2.475	Supported
H_{4b} : Utilitarian value will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.	UTI -> WTS	0.23	2.597	Supported
H_5 : Beijing consumers' willingness to shop in foreign grocery stores will be related positively to store loyalty intention towards foreign grocery retailers.	WTS -> SLI	0.43	4.001	Supported
H_6 : Store loyalty intention towards foreign grocery retailers will be related positively to customer share in foreign grocery stores.	SLI -> CS	0.44	5.573	Supported
H_7 : Hedonic value will be related positively to store loyalty intention.	HED -> SLI	0.49	5.187	Supported
H_8 : Utilitarian value will be related negatively to store loyalty intention.	UTI -> SLI	-0.11	-1.032	Not supported

7.2.2 Moderating effect of utilitarian value on the impact of consumer ethnocentrism for the European Hypermarket dataset

H₄: The relationship between CET and the Beijing consumers' willingness to shop in foreign grocery stores is moderated by the consumers' level of utilitarian value: specifically, under conditions of low utilitarian value, the relationship is negative and strong; at moderate levels of utilitarian value, the relationship becomes less negative; and under conditions of high utilitarian value, the relationship is neutralised.

A number of techniques are available for researchers to measure latent variable interaction and quadratic estimation, such as product term regression (Kenny, 1979; Cohen and Cohen, 1983; Jaccard, Turrisi and Wan, 1990; Aiken and West, 1991), errors-in-variables regression (Heise, 1986; Warren, White and Fuller, 1987), sub-group analysis (Joreskog, 1971; Sharma, Durand and Gur-Arie, 1981; Jaccard, Turrisi and Wan, 1990), dummy variable regression (Cohen, 1968), and ANOVA analysis (Hair et al., 1998). Nevertheless, the classical structural equation modelling approaches to examining latent variable interaction and quadratic estimation may be considered to originate from Kenny and Judd's (1984) seminal paper, where the authors proposed the use of product indicators to specify interaction and quadratic latent variables. Due to the limited capability in some structural equation modelling software (e.g., EQS, AMOS and LISREL 7), the Hayduk (1987) approach, which requires creation of a sequence of dummy latent variables that affect the interaction variable, is more useful than the Kenny and Judd (1984) approach because the Hayduk (1987) approach allows researchers to analyse nonlinear equations in AMOS and EQS. Nevertheless, the Hayduk (1987) approach is tedious and complicated to model because this approach requires a latent variable with numerous indicators or a model with several interaction or quadratic latent variables (Ping, 2003).

Recent proposals of latent variable interactions include Jaccard and Wan (1995), Bollen (1995), Joreskog and Yang (1996), and Ping (1996a). The Jaccard and Wan (1995) approach is a subset of the Kenny and Judd (1984) approach, except that this approach is not as tedious as the Kenny and Judd (1984) approach in specifying a full set of indicators.

Furthermore, the Jaccard and Wan (1995) approach is less likely to produce convergence and model-to-data fit problems (Ping, 2003). Conversely, the Bollen (1995) approach does not assume that the data is multivariate normal, as required in the Kenny and Judd (1984) approach, but requires a full set of Kenny and Judd (1984) product indicators that can potentially result in model-to-data fit problems. Joreskog and Yang's (1996) approach is that the data should not be mean-centered, as required in the Kenny and Judd (1984) approach, but the limitations of this approach is similar to those in the Bollen (1995) approach, which is the requirement of a full set of Kenny and Judd's (1984) product indicators that can potentially result in model-to-data fit problems. Lastly, Ping (1996a) proposed a two-step estimation approach that uses fixed loadings and error terms for the Kenny and Judd (1984) product indicator.

Although most of the aforementioned techniques will produce interpretationally equivalent results if the model has more than 3 constructs and the latent variables have more than 3 indicators (Ping, 2003), not all model-fitting programs allow the imposition of nonlinear constraints with Kenny and Judd's (1984) method (Kline, 1998a). More importantly, the only approaches suitable for use in AMOS are those by Bollen (1995) and Ping (1996a) (Kline, 1998a; Ping, 2003). Amongst these two approaches, Ping's (1996a) two-step estimation approach is strongly recommended because this approach can be viewed as an approximation of the full Kenny and Judd (1984) model for nonlinear effects of latent variables, and is a simpler procedure for estimating nonlinear effects of latent variables (Kline, 1998a). Due to the aforementioned limitations of the Bollen (1995) approach, coupled with the relatively less tedious and complicated mode of modelling latent variable interactions using Ping's (1996a) two-step estimation approach, the approach chosen in this study is Ping's (1996a) two-step estimation approach via the guidelines detailed by Kline (1998a, 1998b).

First, the model without the product indicators was estimated in the measurement model and the unstandardised loadings were used to calculate parameters for the product indicators. These parameters included the factor loadings of the product indicators, their measurement error variances, and the variances of latent product variables that represent a nonlinear effect

(refer to Table 7.3) (Kline, 1998a, pp.290). Note that a summated single indicator approach was used in place of multiple product indicators in Table 7.3. Ping (1995) proposed replacing the Kenny and Judd (1984) product indicators with a single indicator because of potential model-to-data fit problems that were inherent in the Kenny and Judd (1984) and related techniques. Furthermore, Ping (2003) demonstrated that the single indicator approach fitted the data better than the multiple indicator approach because the single indicator approach introduced fewer non-normal product indicators. Therefore, the indicators of XZ (i.e., X = ‘consumer ethnocentrism’ latent variable; Z = ‘utilitarian value’ latent variable, i.e., moderator variable) were replaced by single indicators (Ping, 2003, Chpt.4, pp.11-12). The formula for calculating a summated single indicator is presented in Appendix 17.

In addition, the constrained variance of the interaction XZ proposed by Kenny and Judd (1984) (i.e., $\text{Var}[X] \cdot \text{Var}[Z] + \text{Cov}[X,Z]^2$) can produce bad model fit with real world data because constraining the variance of XZ to $\text{Var}[X] \cdot \text{Var}[Z] + \text{Cov}[X,Z]^2$ assumes that the data is multivariate normal, which is seldom true in survey data (Ping, 2003). Thus, Ping (2003) suggested that the variance of the interaction XZ should not be constrained to the Kenny and Judd (1984) value of $\text{Var}[X] \cdot \text{Var}[Z] + \text{Cov}[X,Z]^2$. Similarly, another common error that degrades model fit is not freeing the intercorrelations between X, Z, and XZ (Ping, 2003). Although Kenny and Judd (1984) proposed that the correlation of XZ with X and Z should be zero in multivariate normal data, Ping (2003) argued that X and Z are seldom sufficiently multivariate normal in survey data and thus, XZ should be free to intercorrelate with X and Z in the structural model to avoid model fit problems. Lastly, Kenny and Judd (1984) and Joreskog and Yang (1996) suggested that all variables in the model should be mean centered except for the product latent variables.

Table 7.3

**Unstandardised parameter estimates and standard error for product factor
(European Hypermarket)**

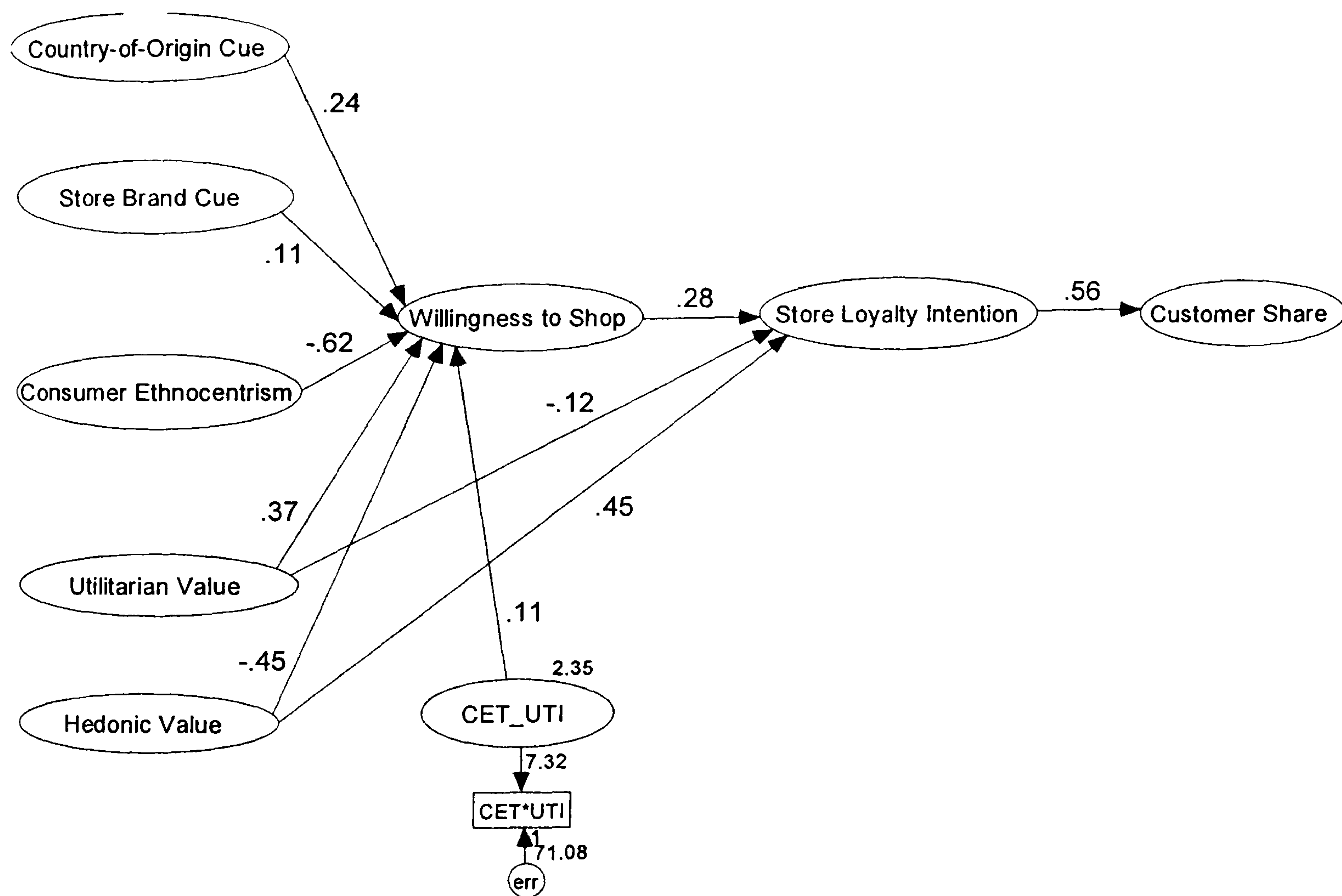
Unstandardised Parameter Estimates From Model Without Product Indicators		
	Estimates	Error
CET	2.216	
Utilitarian	0.864	
CET, Utilitarian	-0.658	
CET_Q5	0.897	2.338
CET_Q6	1.000	1.516
CET_Q9	0.790	2.172
CET_Q10	0.981	0.703
UTI_Q7	0.995	0.606
UTI_Q8	1.000	0.706
<p>Formulae for Calculating Parameters of Measurement Model of Product Indicators</p> <p>$\text{Var } XZ = \text{Var } X \text{ Var } Z + (\text{Cov } X, Z)^2$</p> <p>$\text{Cov } (X, XZ) = \text{Cov } (Z, XZ) = 0$</p> <p>Factor loading $L_{xz} = L_x L_z$</p> <p>Variance of measurement error $E_{xz} = L_x^2 \text{Var } X \text{ Var } E_z + L_z^2 \text{Var } Z \text{ Var } E_x + \text{Var } E_x \text{ Var } E_z$</p>		
Calculated Unstandardised Parameter Estimates of Measurement Model of Product Variables		
	Estimates	Error
Cet_UTI	2.348	
Single Indicator	7.318	71.084

Hence, three significant adjustments were undertaken before estimating the structural model with a product factor. First, the variance of the interaction XZ was not constrained to the Kenny and Judd (1984) value of $\text{Var}[X] \cdot \text{Var}[Z] + \text{Cov}[X, Z]^2$. Second, XZ was free to intercorrelate with X and Z in the structural model. Third, all the variables in the model were mean centered except for the product latent variables. The structural model in Figure 7.1 was submitted for estimation using AMOS and the model attained adequate model fit: $\chi^2(206) = 360.825$, $\chi^2/\text{df} = 1.752$, $p < .001$, RMSEA = .055, GFI = .892, AGFI = .856, CFI =

.929, and TLI = .913 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI $>$ 0.90). The maximum likelihood estimates for the whole structural model are reported in Table 7.4. Estimates that were fixed due to the application of Ping's (1996a) two-step estimation approach are reported in the top half of the table followed by estimates that were fixed due to general requirements for identification.

Figure 7.1

Structural model with product indicator (European Hypermarket)



Note: All coefficients are unstandardised. All endogenous latent variables refer to foreign grocery retail stores. Further details of regression weights and measurement error variances are provided in Table 7.4.

Table 7.4

Parameter estimates for the full interactive model (European Hypermarket)

Variable(s)	Parameter	Estimate ^a
Parameters Fixed as Part of Ping's (1996a) Two-Step Estimation Method		
CETxUTI	Loading of product indicator on product factor (CET_UTI)	7.318 (0.834)
	Measurement error variance of product indicator	71.084
Parameters Fixed Due to General Requirements for Identification		
CET_Q2	Loading of CET_Q2 on consumer ethnocentrism factor (CET)	1.00 (.763)
UTI_Q2	Loading of UTI_Q2 on utilitarian value factor (UTI)	1.00 (.770)
Free Parameters		
CET_UTI	Variance of product factor	3.043
CET, CET_UTI	Covariance of product factor (CET_UTI) with CET [X] factor	-0.893
UTI, CET_UTI	Covariance of product factor (CET_UTI) with Utilitarian Value [Z] factor	0.403
CET	Variance of consumer ethnocentrism factor (CET)	2.171
UTI	Variance of utilitarian value factor (UTI)	0.867
CET, UTI	Covariance of consumer ethnocentrism factor (CET) and utilitarian value factor (UTI)	-0.650
E _{CET_Q1}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	2.322
E _{CET_Q2}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	1.562
E _{CET_Q3}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	2.142
E _{CET_Q4}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	0.700
E _{UTI_Q1}	Measurement error variance of indicator of utilitarian value factor (UTI)	0.594
E _{UTI_Q2}	Measurement error variance of indicator of utilitarian value factor (UTI)	0.719
WTS	Direct effect of consumer ethnocentrism factor (CET) on willingness to shop factor (WTS)	-0.616 (-0.609)
(Willingness to	Direct effect of utilitarian value factor (UTI) on willingness to shop factor (WTS)	0.375 (0.234)
Shop in Foreign	Direct effect of product factor (CET_UTI) on willingness to shop factor (WTS)	0.112 (0.132)
Grocery Stores)	Disturbance variance	0.392
^a Unstandardised (standardised). The standardised values for the disturbance and measurement variances are proportions of unexplained variance.		

The method used in this study to examine the interaction between the ‘consumer ethnocentrism’ (CET) latent variable and ‘utilitarian value’ (UTI) latent variable was adopted from Kline (1998b). Kline’s (1998b) approach was an extension of a strategy for interpreting an interaction effect of observed variables (e.g., Cohen and Cohen, 1983; Aiken and West, 1991). The formulae for examining this interaction is:

$$\mathbf{WTS = P_{CET} (CET) + P_{UTI} (UTI) + P_{CET_UTI} (CET*UTI) + D}$$

where P represents unstandardised path coefficients; CET stands for the ‘consumer ethnocentrism’ latent variable; UTI stands for the ‘utilitarian value’ latent variable; CET*UTI is the ‘consumer ethnocentrism x utilitarian value’ interaction factor; and D is the disturbance term. Dropping the disturbance term (which represents unexplained variance) transforms the above equation to an equation that expresses predicted consumers’ willingness to shop in foreign grocery stores (WTS_{pred}) as a function of the other three product or non-product factors (CET, UTI, CET*UTI). The unstandardised path coefficients for the three factors (CET, UTI, CET*UTI) were obtained from Table 7.4. Writing this prediction formula with the actual values of the path coefficients in it yields:

$$\mathbf{WTS_{pred} = -0.616 CET + 0.375 UTI + 0.112 CET*UTI}$$

The above prediction equation can be rearranged so that the CET*UTI interaction term is eliminated such that:

$$\mathbf{WTS_{pred} = (0.375 + 0.112 CET)*UTI - 0.616 CET}$$

Multiplying CET by UTI in the above equation produces the product variable CET*UTI. The term (0.375 + 0.112 CET) in the above equation can be viewed as regression coefficient for UTI in the prediction of WTS but one that varies with the level of CET (i.e., describes an interactive effect). The second term of this equation, (-0.616 CET), is analogous to an intercept that, like UTI’s coefficient, also takes CET into account. This rearranged prediction equation thus captures the essence of the interactive effect between CET

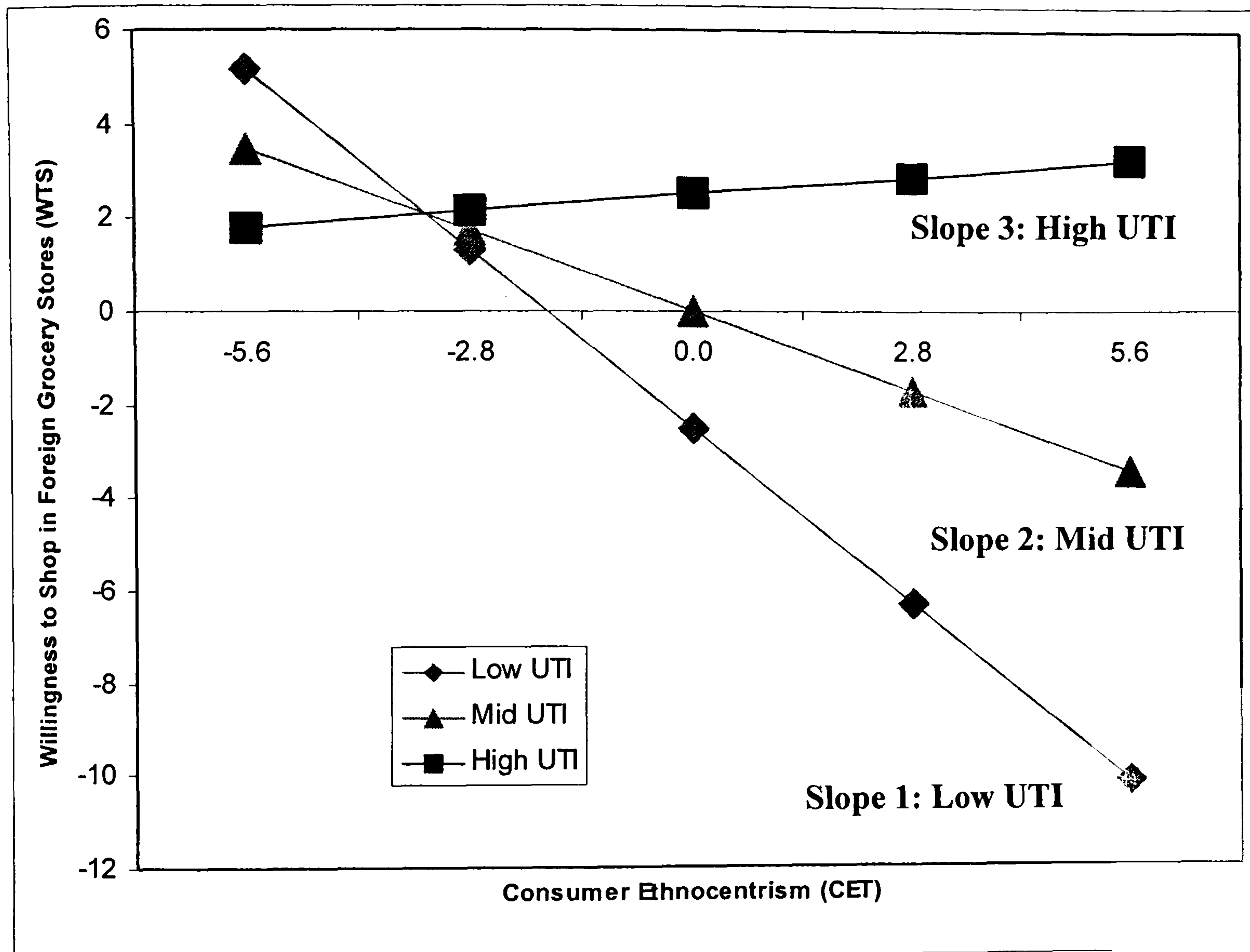
(consumer ethnocentrism) and UTI (utilitarian value) in their joint effect on WTS (willingness to shop in foreign grocery stores) (Kline, 1998b).

Five CET values, ranging from +2 to -2 standard deviations (SD) away from its mean (where $SD_{CET} = 2.800$), were substituted into the above equation. Similarly, low level for the constant variable, UTI, was set at -2 SD, mid level at 0 SD and high level at +2 SD (where $SD_{UTI} = 3.345$). Note that (1) the data was mean-centered for all the latent variables in the model except for the product indicator, and (2) values for SD_{CET} and SD_{UTI} were calculated from averaging the standard deviation of the indicators that represent the respective latent variables.

The results in Figure 7.2 showed that utilitarian value (UTI) moderated the relationship between consumer ethnocentrism (CET) and the Beijing consumers' willingness to shop in foreign grocery retail stores (WTS). That is, Figure 7.2 illustrates the interaction pattern, highlighting the relationship between CET and WTS across different UTI levels in the direction predicted by H_4 . Specifically, the relationship between CET and WTS was negative and strong under conditions of low UTI value (slope 1). This relationship became less negative at moderate levels of UTI (slope 2), and the CET effect was neutralised under conditions of high UTI value (slope 3). Note that the positive slope (i.e., slope 3) represents the positive relationship between UTI and WTS when CET is zero (i.e., CET is neutralised). Therefore, H_4 was supported.

Figure 7.2

Variance in the relationship between CET and WTS under different utilitarian value levels (European Hypermarket)

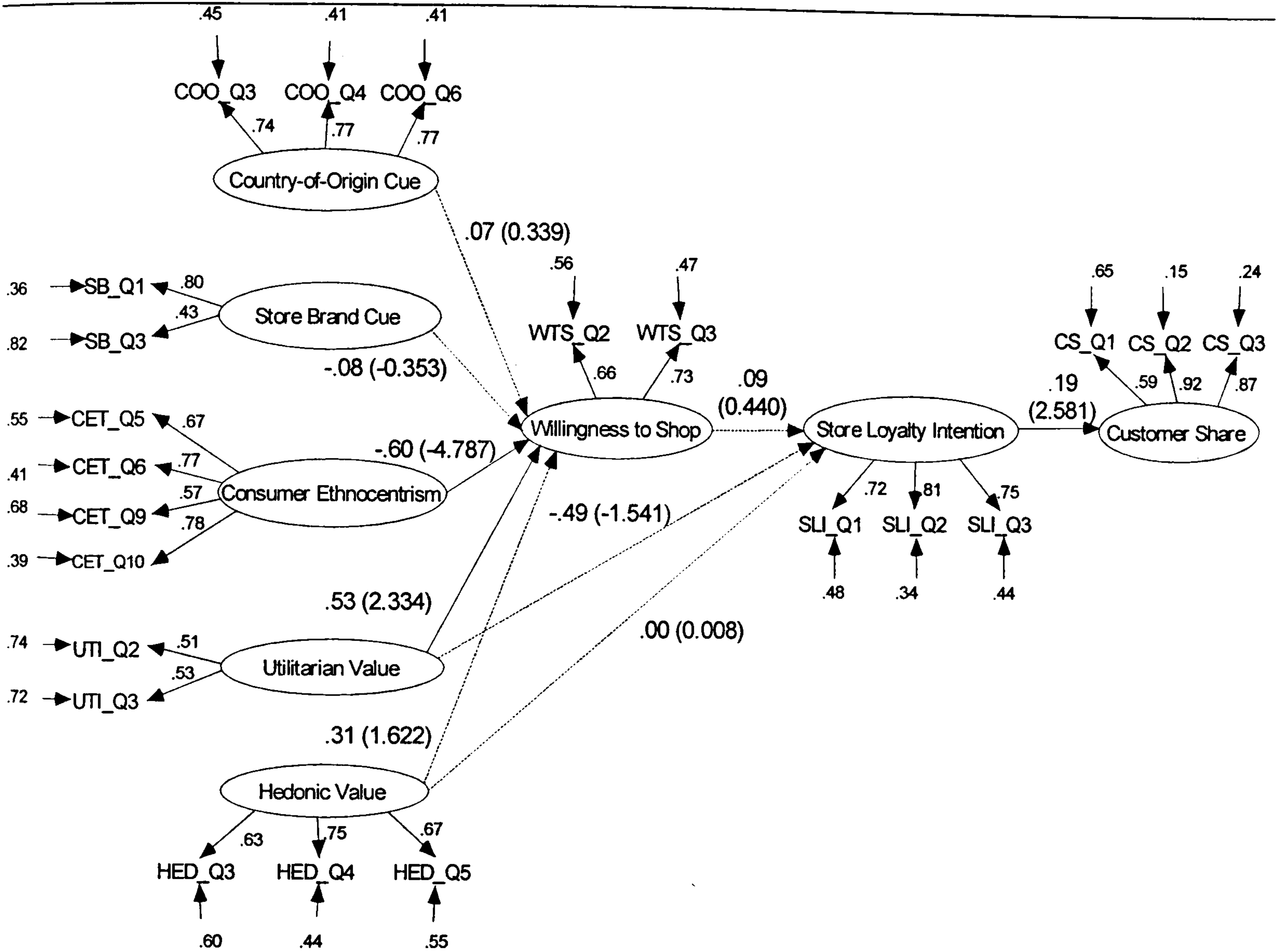


7.3 Results for the Domestic Hypermarket Dataset

The results derived from analyses of the Domestic Hypermarket dataset in Chapter 6 was reiterated in this section to facilitate the comparison of the analysed results and the hypothesised relationships in this study. The structural equation model for the Domestic Hypermarket dataset is shown in Figure 6.7 and the results from the nested model comparison (i.e., multiple group analysis) between the European Hypermarket and Domestic Hypermarket datasets are presented in Table 6.15.

Note that despite both the European Hypermarket and Domestic Hypermarket datasets converging well on the structural equation models (i.e., adequate model-to-data fit), multiple group analysis was undertaken to assess invariance between both sets of data in the model. The results in Chapter 6 revealed that there was a lack of invariance between both sets of data in the structural equations model and therefore, a need to identify which paths in the model caused this variance (refer to Table 6.15). The multiple group analysis is a better measure of comparing both datasets as compared to reviewing the t-values of the structural equation model results separately (e.g., Bollen, 1989; Scott-Lennox and Lennox, 1995; Byrne, 2001). Therefore, the results obtained from multiple group analysis in this study take precedence over results tabulated from individual sample structural equation model results.

Figure 6.7 obtained from Chapter 6
Structural equation model result (Domestic Hypermarket dataset)



Note: All coefficients are standardised. All solid line path coefficients are one-tailed significant at $p < .05$ (The dotted line coefficient is nonsignificant). All t-statistics are in parentheses next to the coefficient estimates. All endogenous latent variables refer to foreign grocery retail stores.

Table 6.15 obtained from Chapter 6

Goodness-of-fit statistics for tests of invariance across the European Hypermarket and Domestic Hypermarket datasets (Fully Constrained Model)

	Model Description	χ^2	df	$\Delta\chi^2^a$	Δdf	Statistical Significance
1	Baseline model with all measurement and structural paths constrained equal	741.881	403	-	-	-
2	Fully constrained model with path from 'Country-of-Origin Cue' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	741.340	402	0.542	1	0.462
3	Fully constrained model with path from 'Store Brand Cue' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	741.878	402	0.004	1	0.951
4	Fully constrained model with path from 'Consumer Ethnocentrism' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	741.552	402	0.330	1	0.566
5	Fully constrained model with path from 'Utilitarian Value' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	740.188	402	1.693	1	0.193
6	Fully constrained model with path from 'Utilitarian Value' to 'Foreign Grocery Store Loyalty Intention' not constrained to be equal	730.293	402	11.588	1	0.001*
7	Fully constrained model with path from 'Hedonic Value' to 'Willingness to Shop in Foreign Grocery Stores' not constrained to be equal	740.052	402	1.829	1	0.176
8	Fully constrained model with path from 'Hedonic Value' to 'Foreign Grocery Store Loyalty Intention' not constrained to be equal	739.933	402	1.949	1	0.163
9	Fully constrained model with path from 'Willingness to Shop in Foreign Grocery Stores' to 'Foreign Grocery Store Loyalty Intention' not constrained to be equal	720.976	402	20.906	1	$p < 0.001^*$
10	Fully constrained model with path from 'Foreign Grocery Store Loyalty Intention' to 'Customer Share in Foreign Grocery Stores' not constrained to be equal	733.343	402	8.538	1	0.003*

Note: $\Delta\chi^2$: difference in χ^2 values Δdf : difference in degrees of freedom^aAll models compared with fully constrained model (i.e, model number 1)* $p < 0.05$

7.3.1 Hypotheses testing for the Domestic Hypermarket dataset

The presentation format is to first recap the hypotheses developed in Chapter 3 followed by a discussion of the structural equation model results for the Domestic Hypermarket dataset in Figure 6.7 and the nested model comparison results (i.e., multiple group analysis) in Table 6.15. This section begins with a discussion of the hypotheses testing based on t-values derived in Figure 6.7 (i.e., paths between latent variables are statistically significant/valid only if the paths' t-values > 1.645 , where 1.645 represents one-tailed significance at $p < 0.05$), which is tabulated in Table 7.5. Next, results from the multiple group analysis (i.e., nested model comparison between the European Hypermarket dataset and Domestic Hypermarket dataset) are detailed.

Table 7.5

Hypotheses testing for Domestic Hypermarket dataset

Hypothesis	Path Direction	Regression Weight	t-value	Comment
H ₁ : Country-of-origin (COO) cue will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.	COO -> WTS	0.07	0.339	Not supported
H ₂ : Store brand cue will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.	SB -> WTS	-0.08	-0.353	Not supported
H ₃ : Consumer ethnocentrism (CET) will be related negatively to the Beijing consumers' willingness to shop in foreign grocery stores.	CET -> WTS	-0.60	-4.787	Supported
H _{4a} : Hedonic value will be related negatively to the Beijing consumers' willingness to shop in foreign grocery stores.	HED -> WTS	0.31	1.622	Not supported
H _{4b} : Utilitarian value will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores.	UTI -> WTS	0.53	2.334	Supported
H ₅ : Beijing consumers' willingness to shop in foreign grocery stores will be related positively to store loyalty intention towards foreign grocery retailers.	WTS -> SLI	0.09	0.440	Not supported
H ₆ : Store loyalty intention towards foreign grocery retailers will be related positively to customer share in foreign grocery stores.	SLI -> CS	0.19	2.581	Supported
H ₇ : Hedonic value will be related positively to store loyalty intention.	HED -> SLI	0.00	0.008	Not supported
H ₈ : Utilitarian value will be related negatively to store loyalty intention.	UTI -> SLI	-0.49	-1.541	Not supported

Although a number of the above hypotheses (i.e., H_1 , H_2 , H_{4a} , H_5 , H_7 and H_8) were not supported for the Domestic Hypermarket dataset based on the paths' t-values (refer to Table 7.5), only three hypotheses (i.e., H_5 , H_6 and H_8) were found to be significantly different statistically based on the nested model comparison (i.e., between the European Hypermarket and Domestic Hypermarket datasets) results. Specifically, the results in Table 6.15 indicated that all the paths, except for three paths (models number 6, 9 and 10), were not significantly different statistically between the two datasets. Given that multiple group analysis is a robust method in structural equation modelling for predicting outcomes that may vary by population subgroups (e.g., Bollen, 1989; Scott-Lennox and Lennox, 1995; Byrne, 2001), the subsequent discussion of the results for the Domestic Hypermarket dataset (i.e., in this chapter and the next chapter) is based on the multiple group analysis results detailed in Table 6.15.

A review of hypotheses H_5 , H_6 and H_8 (i.e., paths that were significantly different statistically between the two datasets as tabulated in Table 6.15) vis-à-vis the structural equation model paths for the European Hypermarket dataset (Table 7.2) and the Domestic Hypermarket dataset (Table 7.5) is presented as follows:

1. The path from 'willingness to shop in foreign grocery store' latent variable to 'foreign grocery store loyalty intention' latent variable was positive and significant for the European Hypermarket dataset but was positive and insignificant for the Domestic Hypermarket dataset. Hence, H_5 was supported for the European Hypermarket dataset but H_5 was not supported for the Domestic Hypermarket dataset.
2. The path from 'foreign grocery store loyalty intention' latent variable to 'customer share in foreign grocery stores' latent variable was positive and significant for both the European Hypermarket and Domestic Hypermarket datasets, except that the path coefficients for the European Hypermarket dataset (i.e., standardised estimate was 0.44) and the Domestic Hypermarket dataset (i.e., standardised estimate was 0.19) were significantly different. Therefore, H_6 was supported for both the European Hypermarket and Domestic Hypermarket datasets, i.e. store loyalty intention towards

foreign grocery retailers was related positively to customer share in foreign grocery stores.

3. The path from ‘utilitarian value’ latent variable to ‘foreign grocery store loyalty intention’ latent variable was negative and insignificant for both the European Hypermarket and Domestic Hypermarket datasets, except that the path coefficients for the European Hypermarket dataset (i.e., standardised estimate was -0.11) and the Domestic Hypermarket dataset (i.e., standardised estimate was -0.49) were significantly different. Thus, H_8 was not supported for both the European Hypermarket and Domestic Hypermarket datasets because this path was insignificant (i.e., t -value < 1.645), although it was negative, as reflected in the structural equation models for the two datasets.

7.3.2 Moderating effect of utilitarian value on the impact of consumer ethnocentrism for the Domestic Hypermarket dataset

H_4 : The relationship between CET and the Beijing consumers’ willingness to shop in foreign grocery stores is moderated by the consumers’ level of utilitarian value: specifically, under conditions of low utilitarian value, the relationship is negative and strong; at moderate levels of utilitarian value, the relationship becomes less negative; and under conditions of high utilitarian value, the relationship is neutralised.

The procedures undertaken to analyse the moderating effect of utilitarian value (UTI) on the relationship between consumer ethnocentrism (CET) and the consumers’ willingness to shop in foreign grocery stores (WTS) for the Domestic Hypermarket dataset was identical to those for the European Hypermarket dataset (refer to Section 7.2.2). First, the model without the product indicators was estimated in the measurement model and the unstandardised loadings were used to calculate parameters for the product indicators. These parameters included the factor loadings of the product indicators, their measurement error variances, and the variances of latent product variables that represent a nonlinear effect (refer to Table 7.6) (Kline, 1998a, pp.290).

Table 7.6

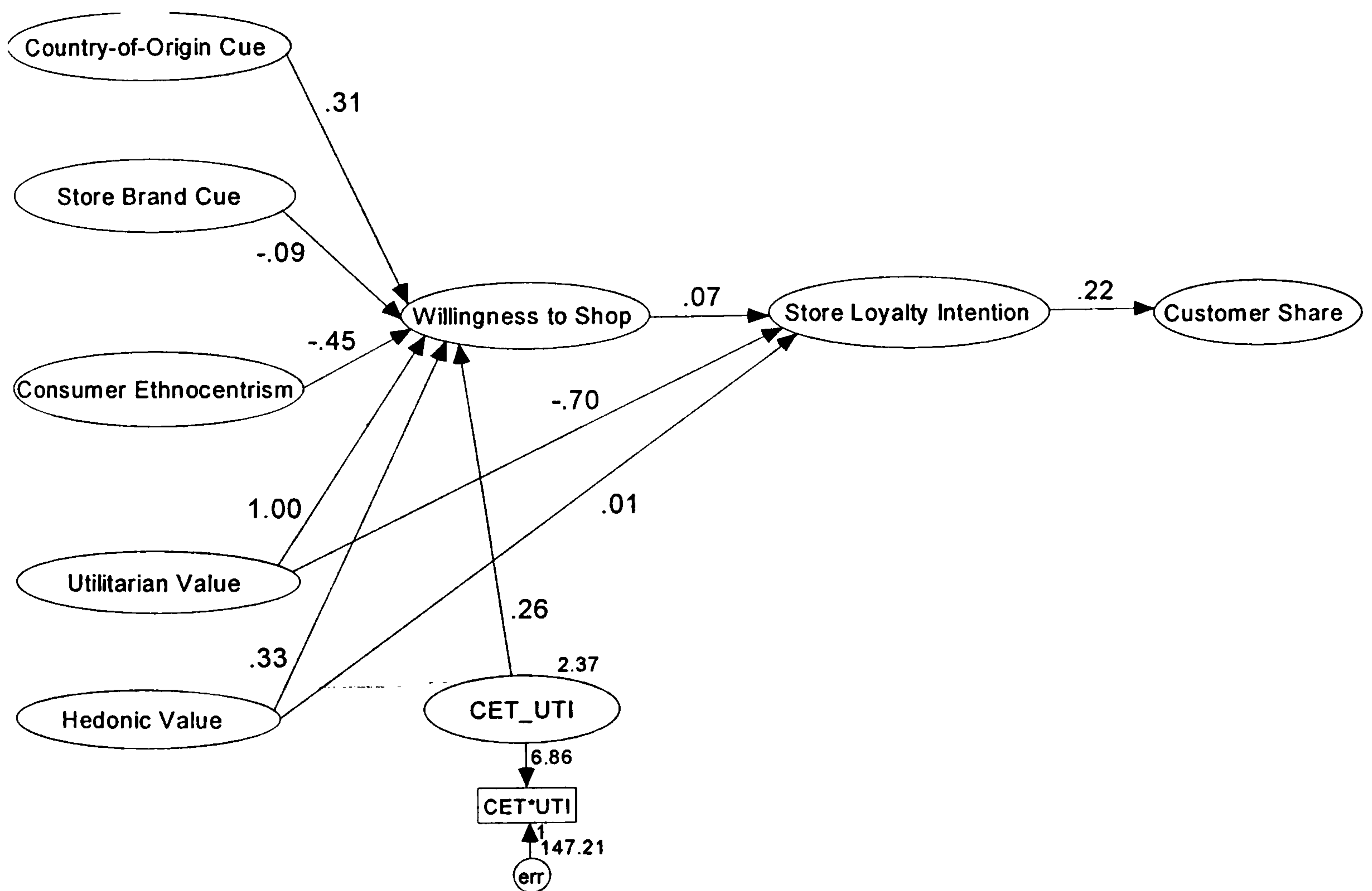
**Unstandardised parameter estimates and standard error for product factor
(Domestic Hypermarket)**

Unstandardised Parameter Estimates From Model Without Product Indicators		
	Estimates	Error
CET	3.163	
Utilitarian	0.505	
CET, Utilitarian	-0.605	
CET_Q5	0.843	2.749
CET_Q6	1.000	2.202
CET_Q9	0.709	3.307
CET_Q10	0.907	1.733
UTI_Q7	0.982	1.330
UTI_Q8	1.000	1.333
<p>Formulae for Calculating Parameters of Measurement Model of Product Indicators</p> <p>$\text{Var } XZ = \text{Var } X \text{ Var } Z + (\text{Cov } X, Z)^2$</p> <p>$\text{Cov } (X, XZ) = \text{Cov } (Z, XZ) = 0$</p> <p>Factor loading $L_{xz} = L_x L_z$</p> <p>Variance of measurement error $E_{xz} = L_x^2 \text{Var } X \text{ Var } E_z + L_z^2 \text{Var } Z \text{ Var } E_x + \text{Var } E_x \text{ Var } E_z$</p>		
Calculated Unstandardised Parameter Estimates of Measurement Model of Product Variables		
	Estimates	Error
Cet_UTI	1.963	
Single Indicator	6.856	147.206

Next, three significant adjustments were undertaken before estimating the structural model with a product factor. First, the variance of the interaction XZ was not constrained to the Kenny and Judd (1984) value of $\text{Var}[X] \cdot \text{Var}[Z] + \text{Cov}[X, Z]^2$. Second, XZ was free to intercorrelate with X and Z in the structural model. Third, all the variables in the model were mean centered except for the product latent variables. The structural model in Figure 7.3 was submitted to estimation using AMOS and the model attained adequate model fit: $\chi^2(206) = 370.112$, $\chi^2/\text{df} = 1.797$, $p < .001$, RMSEA = .057, GFI = .889, AGFI = .852, CFI =

.916, and TLI = .896 (i.e., χ^2/df value between 1.00 and 2.00, RMSEA \leq 0.10, GFI and AGFI close to or above 0.90, CFI and TLI $>$ 0.90). The maximum likelihood estimates for the whole structural model is reported in Table 7.7. Estimates that were fixed due to the application of Ping's (1996a) two-step estimation approach are reported in the top half of the table followed by estimates that were fixed due to general requirements for identification.

Figure 7.3
Structural model with product indicator (Domestic Hypermarket)



Note: All coefficients are unstandardised. All endogenous latent variables refer to foreign grocery retail stores. Further details of regression weights and measurement error variances are provided in Table 7.5.

Table 7.7

Parameter estimates for the full interactive model (Domestic Hypermarket)

Variable(s)	Parameter	Estimate ^a
Parameters Fixed as Part of Ping's (1996a) Two-Step Estimation Method		
CETxUTI	Loading of product indicator on product factor (CET_UTI)	6.856 (0.656)
	Measurement error variance of product indicator	147.206
Parameters Fixed Due to General Requirements for Identification		
CET_Q2	Loading of CET_Q2 on consumer ethnocentrism factor (CET)	1.00 (.764)
UTI_Q2	Loading of UTI_Q2 on utilitarian value factor (UTI)	1.00 (.533)
Free Parameters		
CET_UTI	Variance of product factor	2.369
CET, CET_UTI	Covariance of product factor (CET_UTI) with CET [X] factor	-0.862
UTI, CET_UTI	Covariance of product factor (CET_UTI) with Utilitarian Value [Z] factor	0.407
CET	Variance of consumer ethnocentrism factor (CET)	3.134
UTI	Variance of utilitarian value factor (UTI)	0.522
CET, UTI	Covariance of consumer ethnocentrism factor (CET) and utilitarian value factor (UTI)	-0.642
E _{CET_Q1}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	2.738
E _{CET_Q2}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	2.231
E _{CET_Q3}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	3.299
E _{CET_Q4}	Measurement error variance of indicator of consumer ethnocentrism factor (CET)	1.726
E _{UTI_Q1}	Measurement error variance of indicator of utilitarian value factor (UTI)	1.332
E _{UTI_Q2}	Measurement error variance of indicator of utilitarian value factor (UTI)	1.316
WTS	Direct effect of consumer ethnocentrism factor (CET) on willingness to shop factor (WTS)	-0.451 (-0.520)
(Willingness to	Direct effect of utilitarian value factor (UTI) on willingness to shop factor (WTS)	0.999 (0.470)
Shop in Foreign	Direct effect of product factor (CET_UTI) on willingness to shop factor (WTS)	0.258 (0.259)
Grocery Stores)	Disturbance variance	0.493
^a Unstandardised (standardised). The standardised values for the disturbance and measurement variances are proportions of unexplained variance.		

The method to examine the interaction between the ‘consumer ethnocentrism’ (CET) latent variable and ‘utilitarian value’ (UTI) latent variable is identical to the method utilised for the European Hypermarket dataset in Section 7.2.2. From the unstandardised path coefficients for the three factors (CET, UTI, CET*UTI) in Table 7.7, the prediction formula is:

$$\mathbf{WTS_{pred} = -0.451 CET + 0.999 UTI + 0.258 CET*UTI}$$

The above prediction equation can be rearranged so that the CET*UTI interaction term is eliminated such that:

$$\mathbf{WTS_{pred} = (0.999 + 0.258 CET)*UTI - 0.451 CET}$$

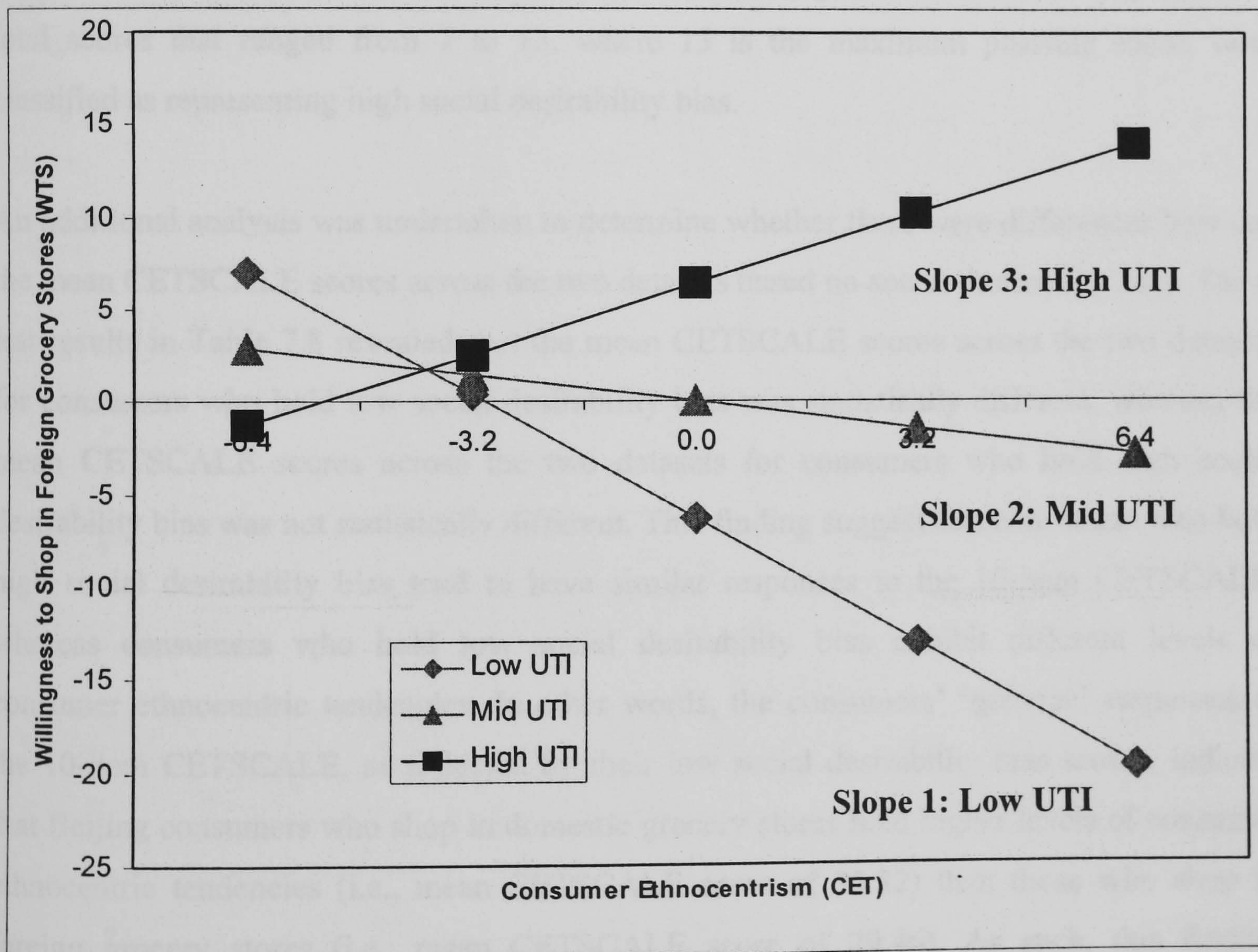
Five CET values, ranging from +2 to –2 standard deviations (SD) away from its mean (where $SD_{CET} = 3.205$), were substituted into the above equation. Similarly, low level for the constant variable, UTI, was set at –2 SD, mid level at 0 SD and high level at +2 SD (where $SD_{UTI} = 3.185$). Note that (1) the data was mean-centered for all the latent variables in the model except for the product indicator, and (2) values for SD_{CET} and SD_{UTI} were calculated from averaging the standard deviation of the indicators that represent the respective latent variables.

The results in Figure 7.4 showed that utilitarian value (UTI) moderated the relationship between consumer ethnocentrism (CET) and the Beijing consumers’ willingness to shop in foreign grocery retail stores (WTS). That is, Figure 7.4 illustrates the interaction pattern, highlighting the relationship between CET and WTS across different UTI levels in the direction predicted by H_4 . Specifically, the relationship between CET and WTS was negative and strong under conditions of low UTI value (slope 1). This relationship became less negative at moderate levels of UTI (slope 2), and the CET effect was neutralised under conditions of high UTI value (slope 3). Note that the positive slope (i.e., slope 3) represents the positive relationship between UTI and WTS when CET is zero (i.e., CET is neutralised). Therefore, H_4 was supported.

More significantly, this result (for the Domestic Hypermarket dataset) was consistent with the result for the European Hypermarket dataset (refer to Section 7.2.2) and thus, provided greater credence to the moderating role of utilitarian value on the relationship between consumer ethnocentrism and the consumers' reluctance to shop in foreign grocery retail stores.

Figure 7.4

Variance in the relationship between CET and WTS under different utilitarian value levels (Domestic Hypermarket)



7.4 Results Regarding Social Desirability Bias And Mean CETSCALE Scores Between Two Samples In The Same Sampling Population

H₉: There is no difference between an individual's CETSCALE scores based on social desirability bias.

H₉ was supported for both the European Hypermarket and Domestic Hypermarket datasets. The t-test results in Table 7.8 revealed that the difference in the 10-item CETSCALE scores between consumers who have high social desirability bias and those who have low social desirability bias was not statistically significant (refer to the light grey shaded cells). Note that total scores for the 13-item MCSD scale (i.e., instrument to measure social desirability bias) that ranged from 0 to 6 were classified as representing low social desirability bias, and total scores that ranged from 7 to 13, where 13 is the maximum possible score, were classified as representing high social desirability bias.

An additional analysis was undertaken to determine whether there were differences between the mean CETSCALE scores across the two datasets based on social desirability bias. The t-test results in Table 7.8 revealed that the mean CETSCALE scores across the two datasets for consumers who hold low social desirability bias was statistically different, whereas the mean CETSCALE scores across the two datasets for consumers who hold high social desirability bias was not statistically different. This finding suggest that consumers who hold high social desirability bias tend to have similar responses to the 10-item CETSCALE, whereas consumers who hold low social desirability bias exhibit different levels of consumer ethnocentric tendencies. In other words, the consumers' 'genuine' responses to the 10-item CETSCALE, as reflected by their low social desirability bias scores, indicate that Beijing consumers who shop in domestic grocery stores hold higher levels of consumer ethnocentric tendencies (i.e., mean CETSCALE score of 35.82) than those who shop in foreign grocery stores (i.e., mean CETSCALE score of 29.46). As such, this finding provided further empirical support for the validity of the consumer ethnocentrism construct, i.e., high ethnocentric consumers tend to prefer domestic retail stores whilst low ethnocentric consumers are receptive to foreign retailers (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002; Chain Store Age, 2003).

H_{10} : There is no difference between a sample's mean CETSCALE score based on the same sampling population.

H_{10} was not supported. The t-test result in Table 7.8 revealed that the difference in mean CETSCALE scores between the European Hypermarket and Domestic Hypermarket datasets was statistically significant at the $p < 0.01$ level (refer to the dark grey shaded cell).

Table 7.8

Results of t-tests for mean CETSCALE scores versus social desirability bias

	Levels of Social Desirability Bias		
	Low	High	Overall
European Hypermarket			
Males	29.81 (n = 21) s.d. = 12.348	28.37 (n = 43) s.d. = 14.384	28.79 (n = 71) s.d. = 13.359
Females	29.19 (n = 27) s.d. = 9.927	31.79 (n = 132) s.d. = 13.130	31.44 (n = 179) s.d. = 12.297
Overall	29.46 (n = 48) s.d. = 10.931	30.95 (n = 175) s.d. = 13.487	30.69 (n = 250) s.d. = 12.637
Domestic Hypermarket			
Males	35.89 (n = 18) s.d. = 17.105	33.04 (n = 52) s.d. = 15.549	33.80 (n = 74) s.d. = 15.559
Females	35.79 (n = 39) s.d. = 13.091	33.53 (n = 118) s.d. = 15.226	34.30 (n = 176) s.d. = 14.674
Overall	35.82 (n = 57) s.d. = 14.322	33.38 (n = 170) s.d. = 15.281	34.15 (n = 250) s.d. = 14.912
t-test			
p-values for CETSCALE Scores			
European Hypermarket low SDB vs. European Hypermarket high SDB	0.482		
Domestic Hypermarket low SDB vs. Domestic Hypermarket high SDB	0.289		
European Hypermarket low SDB vs. Domestic Hypermarket low SDB	0.013*		
European Hypermarket high SDB vs. Domestic Hypermarket high SDB	0.118		
European Hypermarket overall vs. Domestic Hypermarket overall	0.005**		
Note:			
* Significant at $p < 0.05$ level; ** Significant at $p < 0.01$ level			
SBD refers to social desirability bias and s.d. refers to standard deviation.			

7.5 Path Analysis Results

The aim of examining total effects in this section was to identify which exogenous construct had the most significant effect on the ‘customer share’ endogenous construct, since direct effects are not able to address such questions (Bollen, 1989). Note that unstandardised coefficients were used to compute the total path effects because (1) unstandardised coefficients are comparable across samples (i.e., European Hypermarket and Domestic Hypermarket datasets in this study), and (2) comparison between coefficients is relatively easy given that identical indicators were used to represent the constructs in the structural equation models (Hair et al., 1998). The unstandardised coefficients for direct and total effects are presented in Table 7.9. Further discussion of the results tabulated in Table 7.9 is provided in the next section.

Table 7.9
Path analysis results

Structural Equation Model Paths ^a	European Hypermarket		Domestic Hypermarket	
	Unstandardised Coefficient	Total Effect ^b	Unstandardised Coefficient	Total Effect ^b
'Country-of-Origin Cue' to 'Willingness to Shop' (COO -> WTS)	0.263		0.108	
'Store Brand Cue' to 'Willingness to Shop' (SB -> WTS)	0.119		-0.077	
'Consumer Ethnocentrism' to 'Willingness to Shop' (CET -> WTS)	-0.566		-0.546	
'Utilitarian Value' to 'Willingness to Shop' (UTI -> WTS)	0.363		1.233	
'Hedonic Value' to 'Willingness to Shop' (HED -> WTS)	-0.420		0.453	
'Utilitarian Value' to 'Store Loyalty Intention' (UTI -> SLI)	-0.109		-0.668	
'Hedonic Value' to 'Store Loyalty Intention' (HED -> SLI)	0.450		0.001	
'Willingness to Shop' to 'Store Loyalty Intention' (WTS -> SLI)	0.270		0.053	
'Store Loyalty Intention' to 'Customer Share' (SLI -> CS)	0.562		0.237	
'Country-of-Origin Cue' to 'Customer Share' (COO -> WTS -> SLI -> CS)		0.040		0.001
'Store Brand Cue' to 'Customer Share' (SB -> WTS -> SLI -> CS)		0.018		-0.001
'Consumer Ethnocentrism' to 'Customer Share' (CET -> WTS -> SLI -> CS)		-0.086		-0.007
'Utilitarian Value' to 'Customer Share' via 'Willingness to Shop' (UTI -> WTS -> SLI -> CS)		0.055		0.015
'Hedonic Value' to 'Customer Share' via 'Willingness to Shop' (HED -> WTS -> SLI -> CS)		-0.064		0.006
'Utilitarian Value' to 'Customer Share' via 'Store Loyalty Intention' (UTI -> SLI -> CS)		-0.061		-0.158
'Hedonic Value' to 'Customer Share' via 'Store Loyalty Intention' (HED -> SLI -> CS)		0.253		0.000

Note:

^aCOO represents 'country-of-origin cue' latent variable; SB represents 'store brand cue' latent variable; CET represents 'consumer ethnocentrism' latent variable; UTI represents 'utilitarian value' latent variable; HED represents 'hedonic value' latent variable; SLI represents 'store loyalty intention' latent variable; CS represents 'customer share' latent variable.

^bTotal effect is computed by multiplying the direct effects in each path from the exogenous construct to the concluding 'customer share' endogenous construct (Bollen, 1989)

7.6 Result Summary

The results from Section 7.2 to 7.4 supported most of the research hypotheses for both the European Hypermarket and Domestic Hypermarket datasets except for the following hypotheses:

Hypotheses not supported for the European Hypermarket dataset:

1. Country-of-origin (COO) cue will be related positively to the Beijing consumers' willingness to shop in foreign grocery stores (H_1).
2. Store brand cue will be related positive to the Beijing consumers' willingness to shop in foreign grocery stores (H_2).
3. Utilitarian value will be related negatively to store loyalty intention (H_8).
4. There is no difference between a sample's mean CETSCALE score based on the same sampling population (H_{10}). Note: H_{10} was also not supported for the Domestic Hypermarket dataset because H_{10} compares the mean CETSCALE scores between the Foreign Hypermarket and Domestic Hypermarket datasets.

With respect to the Domestic Hypermarket dataset, results from the multiple group analysis (refer to Table 6.15) revealed that three paths for the Domestic Hypermarket dataset were significantly different statistically from those for the European Hypermarket dataset. The hypotheses relating to these three paths are detailed as follows:

1. Beijing consumers' willingness to shop in foreign grocery stores will be related positively to store loyalty intention towards foreign grocery retailers (H_5).
2. Store loyalty intention towards foreign grocery retailers will be related positively to customer share in foreign grocery stores (H_6).
3. Utilitarian value will be related negatively to store loyalty intention (H_8).

Specifically, the origin of the retail store (i.e., domestic versus foreign) was a significant moderator of the causal relationship in the model across the European Hypermarket and Domestic Hypermarket datasets (refer to model number 9 in Table 6.15), as reflected in the

significant path estimate for H₅ in the European Hypermarket dataset but non-significant path estimate for H₅ in the Domestic Hypermarket dataset (path number 1 in Table 7.10).

As for the other two paths that were identified to be statistically different across the two datasets in the multiple group analysis results (paths number 2 and 3 in Table 7.10), the two paths were consistent with the hypothesised directions (refer to the above hypotheses H₆ and H₈) and statistical significance levels (i.e., $t > 1.645$ for path number 2 and $t < 1.645$ for path number 3 across the two datasets) despite large differences in the standardised estimate values. This considerable variance in standardised estimate values might have contributed to the multiple group analysis results for these two paths (i.e., paths were significantly different statistically across the two datasets).

Table 7.10

Standardised estimates and t-values (path analysis)

Structural Equation Model Paths	European Hypermarket		Domestic Hypermarket	
	Standardised Estimate	t-value	Standardised Estimate	t-value
1. Path from 'willingness to shop in foreign grocery stores' to 'foreign grocery store loyalty intention' (WTS → SLI)	0.43	4.001	0.09	0.440
2. Path from 'foreign grocery store loyalty intention' to 'customer share in foreign grocery stores' (SLI → CS)	0.44	5.573	0.19	2.581
3. Path from 'utilitarian value' to 'foreign grocery store loyalty intention' (UTI → SLI)	-0.11	-1.032	-0.49	-1.541

The largest difference in standardised estimates across the European Hypermarket and Domestic Hypermarket datasets in Table 7.10 was the path from the 'willingness to shop in foreign grocery stores' latent variable to the 'foreign grocery store loyalty intention' latent variable. Compared to the European Hypermarket shoppers, the Domestic Hypermarket shoppers did not translate their willingness to shop in foreign grocery stores into store loyalty intentions (as illustrated in path number 1 in Table 7.10). A possible rationale was that the Domestic Hypermarket shoppers held higher consumer ethnocentric attitudes than

the European Hypermarket shoppers (as mentioned in Section 7.4). That is, the mean scores computed from the 10-item CETSCALE for the European Hypermarket shoppers (i.e., 30.69) and the Domestic Hypermarket shoppers (i.e., 34.15) indicated that the European Hypermarket shoppers are less ethnocentric than the Domestic Hypermarket shoppers. Thus, the ethnocentric Domestic Hypermarket shoppers were less likely to shop in foreign grocery retail stores, and even if they were willing to shop in foreign grocery retail stores, they were not likely to exhibit store loyalty intentions toward foreign grocery retailers.

Lastly, path analysis was undertaken in Section 7.5 in order to identify which path in the structural equation models had the largest effect on the decisive ‘customer share’ endogenous construct. Tables 7.11 and 7.12 provide a summary of the total effects ranked from the most significant to the least significant for the European Hypermarket dataset and the Domestic Hypermarket dataset respectively.

Table 7.11
Total effects ranked from most significant to least significant
(European Hypermarket)

Ranking ^a	Structural Equation Model Paths	Total Effect	Significance ^b
1	'Hedonic Value' to 'Customer Share' via 'Store Loyalty Intention' (HED -> SLI -> CS)	0.253	All the paths were significant
2	'Consumer Ethnocentrism' to 'Customer Share' (CET -> WTS -> SLI -> CS)	-0.086	All the paths were significant
3	'Hedonic Value' to 'Customer Share' via 'Willingness to Shop' (HED -> WTS -> SLI -> CS)	-0.064	All the paths were significant
4	'Utilitarian Value' to 'Customer Share' via 'Store Loyalty Intention' (UTI -> SLI -> CS)	-0.061	Path from UTI to SLI was not significant
5	'Utilitarian Value' to 'Customer Share' via 'Willingness to Shop' (UTI -> WTS -> SLI -> CS)	0.055	All the paths were significant
6	'Country-of-Origin Cue' to 'Customer Share' (COO -> WTS -> SLI -> CS)	0.04	Path from COO to WTS was not significant
7	'Store Brand Cue' to 'Customer Share' (SB -> WTS -> SLI -> CS)	0.018	Path from SB to WTS was not significant

Note:
^aFrom the most significant to the least significant total effect values.
^bt-value for path estimate greater than 1.645 (i.e., one-tailed significance at $p < .05$).

Table 7.12
Total effects ranked from most significant to least significant
(Domestic Hypermarket)

Ranking ^a	Structural Equation Model Paths	Total Effect	Significance ^b
1	'Utilitarian Value' to 'Customer Share' via 'Store Loyalty Intention' (UTI -> SLI -> CS)	-0.158	Path from UTI to SLI was not significant
2	'Utilitarian Value' to 'Customer Share' via 'Willingness to Shop' (UTI -> WTS -> SLI -> CS)	0.015	Path from WTS to SLI was not significant
3	'Consumer Ethnocentrism' to 'Customer Share' (CET -> WTS -> SLI -> CS)	-0.007	Path from WTS to SLI was not significant
4	'Hedonic Value' to 'Customer Share' via 'Willingness to Shop' (HED -> WTS -> SLI -> CS)	0.006	Paths from HED to WTS and from WTS to SLI were not significant
5	'Country-of-Origin Cue' to 'Customer Share' (COO -> WTS -> SLI -> CS)	0.001	Paths from COO to WTS and from WTS to SLI were not significant
6	'Store Brand Cue' to 'Customer Share' (SB -> WTS -> SLI -> CS)	-0.001	Paths from SB to WTS and from WTS to SLI were not significant
7	'Hedonic Value' to 'Customer Share' via 'Store Loyalty Intention' (HED -> SLI -> CS)	0.000	Path from HED to SLI was not significant

Note:
^aFrom the most significant to the least significant total effect values.
^bt-value for path estimate greater than 1.645 (i.e., one-tailed significance at $p < .05$).

A review of Table 7.11 indicated that the path from the 'hedonic value' latent variable to the 'customer share' latent variable via 'store loyalty intention' latent variable had the largest total effect for the European Hypermarket dataset. In other words, this path suggested that hedonic-oriented consumers were likely to be store loyal and subsequently, were likely to spend more time and expenditure in their preferred retail stores. However, this path did not take into account consumers' willingness to shop in foreign grocery stores, which was an antecedent of store loyalty intention towards foreign grocery retailers, because consumers who were not willing to shop in foreign grocery stores were not likely to be loyal to foreign grocery retailers. Although this path was consistent with previous findings (e.g., Babin and Attaway, 2000; Stoel, Wickliffe and Lee, 2004; Carpenter, Moore and Fairhurst, 2005), this result did not answer the main research question in this study of which shopping

motivational factor had the largest impact on consumers' foreign retail store patronage intentions (i.e., willingness to shop in foreign retail stores). As such, the computed total effects for structural equation model paths that included the 'willingness to shop' latent variable to 'store loyalty intention' latent variable in Table 7.11 and 7.12 was important with respect to solving the main research question (i.e., total effects for structural equation model paths that did not include the path, 'willingness to shop' latent variable to 'store loyalty intention' latent variable (i.e., WTS -> SLI), was inappropriate for inclusion in the analysis of total effects). Therefore, the revised analysis of total effects for structural equation model paths is presented in Table 7.13 for the European Hypermarket dataset, and in Table 7.14 for the Domestic Hypermarket dataset.

The total effect results for the European Hypermarket dataset (Table 7.13) indicated that the 'consumer ethnocentrism' latent variable had the largest impact on the 'customer share' latent variable, whereas the 'consumer ethnocentrism' latent variable was ranked 2nd after the 'utilitarian value' latent variable as the most important construct for the Domestic Hypermarket dataset (Table 7.14). Note that all the paths in Table 7.14 were not significant in relation to total effects because the path from the 'willingness to shop' latent variable to the 'store loyalty intention' latent variable (i.e., WTS -> SLI) was not statistically significant in the structural equation model for the Domestic Hypermarket dataset (refer to Table 7.5). As aforementioned, the lack of statistical significance for the path, WTS -> SLI, in the structural equation model for the Domestic Hypermarket dataset was likely to be related to the consumers' mean CETSCALE scores. That is, consumers who shop in domestic grocery stores are more ethnocentric than those who shop in foreign grocery stores and thus, they are more reluctant to shop in foreign grocery and are less likely to exhibit store loyalty intentions toward foreign grocery retailers. These results are further elaborated in the next chapter.

Table 7.13

Total effects ranked from most significant to least significant for paths that included WTS (European Hypermarket)

Ranking ^a	Structural Equation Model Paths	Total Effect	Significance ^b
1	'Consumer Ethnocentrism' to 'Customer Share' (CET -> WTS -> SLI -> CS)	-0.086	All the paths were significant
2	'Hedonic Value' to 'Customer Share' via 'Willingness to Shop' (HED -> WTS -> SLI -> CS)	-0.064	All the paths were significant
3	'Utilitarian Value' to 'Customer Share' via 'Willingness to Shop' (UTI -> WTS -> SLI -> CS)	0.055	All the paths were significant
4	'Country-of-Origin Cue' to 'Customer Share' (COO -> WTS -> SLI -> CS)	0.04	Path from COO to WTS was not significant
5	'Store Brand Cue' to 'Customer Share' (SB -> WTS -> SLI -> CS)	0.018	Path from SB to WTS was not significant

Note:
^aFrom the most significant to the least significant total effect values.
^bt-value for path estimate greater than 1.645 (i.e., one-tailed significance at $p < .05$).

Table 7.14

Total effects ranked from most significant to least significant for paths that included WTS (Domestic Hypermarket)

Ranking ^a	Structural Equation Model Paths	Total Effect	Significance ^b
1	'Utilitarian Value' to 'Customer Share' via 'Willingness to Shop' (UTI -> WTS -> SLI -> CS)	0.015	Path from WTS to SLI was not significant
2	'Consumer Ethnocentrism' to 'Customer Share' (CET -> WTS -> SLI -> CS)	-0.007	Path from WTS to SLI was not significant
3	'Hedonic Value' to 'Customer Share' via 'Willingness to Shop' (HED -> WTS -> SLI -> CS)	0.006	Paths from HED to WTS and from WTS to SLI were not significant
4	'Country-of-Origin Cue' to 'Customer Share' (COO -> WTS -> SLI -> CS)	0.001	Paths from COO to WTS and from WTS to SLI were not significant
5	'Store Brand Cue' to 'Customer Share' (SB -> WTS -> SLI -> CS)	-0.001	Paths from SB to WTS and from WTS to SLI were not significant

Note:
^aFrom the most significant to the least significant total effect values.
^bt-value for path estimate greater than 1.645 (i.e., one-tailed significance at $p < .05$).

7.7 Summary

The purpose of this chapter was to test the hypotheses developed in Chapter 3 vis-à-vis the results analysed in Chapter 6 in relation to Beijing consumers who shop in foreign grocery retail stores (i.e., European Hypermarket dataset) and those who shop in domestic grocery retail stores (i.e., Domestic Hypermarket dataset). The results supported most of the hypotheses, particularly for the European Hypermarket dataset, and provided empirical support for the consumer ethnocentrism model of foreign retail store patronage in this study. The next chapter provides a discussion of the findings, the theoretical and managerial implications of this research, the limitations in this study, and directions for future research.

8.0 DISCUSSION AND CONCLUSIONS

In this chapter, the main conclusions drawn from the research findings are summarised, the study's contribution to theory is outlined, and their theoretical and managerial implications are examined. This chapter begins with a discussion of the tested hypothesised relationships and their implications in Section 8.1. Next, the theoretical implications of this study are considered in Section 8.2, highlighting this study's contribution to the investigation of the efficacy of country-of-origin cue and store brand cue on Beijing consumers' foreign grocery retail store patronage intention, and the moderating effect of shopping orientation on the impact of consumer ethnocentrism on the Beijing consumers' reluctance to shop in foreign grocery retail stores and low intentions to be loyal towards foreign grocery retailers. Following from this, the managerial implications of this research are discussed in Section 8.3, focussing on international retailing issues arising from the research findings. In this context, some recommendations are provided which may be of practical relevance for international grocery-related retailers. Finally, the limitations of this study are evaluated and a number of directions for future research are detailed in Section 8.4.

8.1 Discussion

The results in this initial study supported most of the hypotheses corresponding to existing research gaps in the literature, and provided empirical support for the consumer ethnocentrism model of foreign retail store patronage. First, the Beijing consumers who shop in domestic and foreign hypermarkets did not evaluate foreign retailers from perceptions of the retailers' home country image (COO). This finding is contrastingly different to those reported in past studies conducted in the PRC. Previous findings indicated that the COO cue had a significant positive effect on the PRC consumers' reactions to foreign products, willingness to purchase foreign products, and actual foreign product ownership (e.g., LaTour and Henthorne, 1990; Zhang, 1996; Klein, Ettenson and Morris, 1998; Ahmed and d'Astous, 2004; DeLong et al., 2004; Dickson et al., 2004), to the extent that the COO cue was a significant moderator of the relationship between consumer

ethnocentrism and the PRC consumers' willingness to purchase foreign products (Wang and Chen, 2004). In contrast, the results indicated that the COO cue did not have a significant impact on the Beijing consumers' foreign retail store patronage intentions. The low significance of the COO cue may be, in part, due to contextual differences (i.e., foreign products versus foreign retailers), and in part, due to European Hypermarket having a strong record of adapting its operations to foreign markets and sourcing many of its products locally. Specifically, these empirical differences provide important insights that PRC consumers may not perceive and evaluate foreign products and foreign retailers homogeneously.

Second, the results showed that store brand cue did not have a significant impact on the Beijing consumers' propensity to shop in foreign retail stores, and this finding applied to both datasets (i.e., Beijing consumers who shop in domestic hypermarkets and those who shop in foreign hypermarkets). The low significance of store brand cue may be due to the strong utilitarian motives behind the PRC consumers' shopping behaviour (Kim et al., 2002; Tsang et al., 2003; Li et al., 2004). That is, they are primarily motivated by purchasing needs and are thus less likely to be concerned about the retailers' store image. Babin and Attaway (2000) suggested that utilitarian approaches, such as the adoption of purchase incentives for accumulating purchases and ease of redemption, were important factors in the U.S. consumers' repeated patronage of retail stores. Nevertheless, utilitarian attributes (i.e., "closeness to home", "satisfactory product assortment", "good quality", and "reasonable price"), rather than loyalty schemes, were the main retail store patronage decisions for most of the Beijing supermarket shoppers (Mai and Zhao, 2004, pp.61).

Therefore, for the majority of PRC consumers who shop out of functional necessity (Kim et al., 2002; Tsang et al., 2003; Li et al., 2004), their perceived judgment of prestigious and high quality stores (i.e., store brand cue) may be secondary to their utilitarian needs. Additionally, the limited disposable income of the typical PRC consumer may have a significant influence on the consumer's retail store choice decision, i.e., low income diminishes the impact of store brand cue on the PRC consumers' willingness to shop in foreign stores (e.g., Goldman, Krider and Ramaswami, 1999; Cui and Liu, 2001; Mai and

Zhao, 2004). Specifically, consumers with low disposal income are more likely to patronise domestic retail stores that are more strategically located than foreign retail stores (Good and Huddleston, 1995).

Third, the Beijing consumers' level of consumer ethnocentrism (CET) was negatively related to their willingness to shop in foreign hypermarkets, and this finding applied to both datasets in this study. For the ethnocentric Beijing consumers, it was mostly their support for domestic hypermarkets that led to their reluctance to shop in foreign hypermarkets. This result is consistent with previous findings on CET in the PRC (Chain Store Age, 2003), Australia (Zarkada-Fraser and Fraser, 2002), Poland and Russia (Good and Huddleston, 1995). More importantly, 69.6% of the sample that shops in domestic hypermarkets are familiar with foreign grocery retailers but are reluctant to shop in foreign hypermarkets due to their high consumer ethnocentric tendencies, which is consistent with the results reported in Chain Store Age (2003).

Fourth, the results indicated that utilitarian value was positively related to the Beijing consumers' willingness to shop in foreign grocery stores (WTS), hedonic value was negatively related to WTS, and utilitarian value moderated the relationship between CET and WTS. Specifically, Beijing consumers relate grocery shopping as utilitarian-oriented and high utilitarian value was a stronger factor/stimulus than consumer ethnocentric attitudes in the Beijing consumers' foreign grocery store patronage intention, and these findings applied to both datasets in this study. Conversely, the relationship between hedonic value and WTS was negative for Beijing consumers who shop in foreign hypermarkets and was insignificant for Beijing consumers who shop in domestic hypermarkets. These results suggest that Beijing consumers do not relate grocery retail stores as hedonic-oriented, i.e., Beijing consumers do not associate grocery retail stores as an environment where they can gain emotional gratification through the shopping process.

A recent study by Li et al. (2004) identified a number of central factors associated with the PRC consumers' shopping behaviour: PRC consumers generally perceive shopping as task-related, are primarily motivated by their purchasing needs, and are willing to travel to distant

locations so as to obtain value-for-money products. For instance, Philips Electronics (i.e., foreign brand) successfully launched a combination video/compact disc player in the PRC market because the PRC consumers perceived the product to offer good monetary value for its functionality and practical features, i.e., attributes associated with utilitarian value (Pralhad and Lieberthal, 1998), even though CET was found to have an influential effect on the PRC consumers' reluctance to purchase foreign products (e.g., Klein, Ettenson and Morris, 1998; Cui and Liu, 2001; Wang and Chen, 2004).

Coupled with the findings from previous research that PRC consumers are mostly utilitarian-oriented (Kim et al., 2002; Tsang et al., 2003), are likely to make planned purchases when they patronise shopping malls (Tsang et al., 2003), relate utilitarian attributes (e.g., convenience, price, product range) as their main grocery shopping motives (Mai and Zhao, 2004; Business Week, 2005), the findings that utilitarian value was positively related to WTS, hedonic value was negatively related to WTS, and utilitarian value counteracted the impact of CET on WTS are not surprising since (1) Beijing consumers relate grocery retail stores as utilitarian-oriented but not an environment where they can gain hedonic gratification, and (2) foreign grocery retailers are generally perceived to be more competent than domestic grocery retailers in serving the utilitarian needs of the PRC consumers (Lo, Lau and Lin, 2001). At this point, it is important to note that this finding should be limited to the grocery-shopping context and should not be generalised across other types of retail store formats. For instance, hedonic value, commonly associated with fashion-related type of shopping activity, may be positively related to willingness to shop in foreign retail stores and may have a moderating effect on the impact of CET if the sampling unit was hedonic-oriented retail stores.

Fifth, Beijing consumers who shop in foreign hypermarkets are likely to exhibit store loyalty intentions toward foreign grocery retailers, whereas Beijing consumers who shop in domestic hypermarkets are not likely to exhibit store loyalty intention towards foreign grocery retailers even though they may be willing to shop in foreign hypermarkets. The results in the multiple group analysis suggested that the relationship between consumers' willingness to shop in foreign grocery stores and store loyalty intentions toward foreign

grocery retailers was moderated by differences in store origin, i.e., domestic hypermarkets versus foreign hypermarkets (refer to Table 6.15). One possible rationale may be that the CET effect influences the Beijing consumers who shop in domestic hypermarkets to be less loyal towards foreign grocery retailers. That is, the results indicated that the Beijing consumers who shop in domestic hypermarkets had higher mean CETSCALE scores than those who shop in foreign hypermarkets, and this difference in mean CETSCALE scores was significant at the $p < 0.01$ level (refer to Hypothesis 10 with reference to Table 7.8). In other words, Beijing consumers who shop in domestic hypermarkets are ethnocentric and hence, are reluctant to shop in foreign hypermarkets and are also less likely to exhibit store loyalty intentions toward foreign grocery retailers.

Sixth, customer share was predicted by store loyalty intention, which in turn was predicted by willingness to shop in foreign grocery stores. Previous findings on CET have generally been limited to the evaluation of customers' intentions to buy/shop or willingness to buy/shop (e.g., Good and Huddleston, 1995; Sharma, Shimp and Shin, 1995; Zarkada-Fraser and Fraser, 2002; Wang and Chen, 2004). In this respect, this study is the first in the CET literature to extend the conceptual framework beyond the 'willingness to shop' decision to customer loyalty. The findings indicated that Beijing consumers who shop in foreign hypermarkets were likely to exhibit store loyalty intentions toward these foreign grocery retailers and subsequently, were likely to increase their expenditure in these foreign grocery retailers. Likewise, Beijing consumers who shop in domestic hypermarkets were likely to translate their store loyalty intentions toward foreign grocery retailers into increased expenditures in these foreign grocery retail stores. However, they were not likely to be store loyal even though they were willing to shop in foreign hypermarkets due to their high consumer ethnocentric attitudes (as discussed in the aforementioned fifth finding). Nevertheless, the relationship between store loyalty intention and customer share was significant and positive for Beijing consumers who shop in domestic and foreign hypermarkets. Thus, the results in this study supported and provided further empirical evidence to the findings in previous studies that customer loyalty is positively related to customer share (e.g., Enis and Paul, 1970; Fornell and Wernerfelt, 1987; Chaudhuri and Holbrook, 2001).

This result leads to the seventh significant finding: Both utilitarian- and hedonic-oriented Beijing consumers who shop in domestic hypermarkets are not loyal towards foreign grocery retailers. As mentioned previously, Beijing consumers who shop in domestic hypermarkets hold high consumer ethnocentric attitudes and thus, utilitarian- and hedonic-oriented Beijing consumers who shop in domestic hypermarkets are not likely to exhibit store loyalty intentions toward foreign grocery retailers regardless of their shopping orientation. In contrast, hedonic-oriented Beijing consumers who shop in foreign hypermarkets tend to be loyal to retail stores that cater to their emotional/non-functional needs, whereas utilitarian-oriented Beijing consumers who shop in foreign hypermarkets are not loyal towards any particular grocery retailer. These findings of Beijing consumers who shop in foreign hypermarkets are consistent with the findings of Stoel, Wickliffe and Lee (2004) but are not consistent with the findings of Babin and Attaway (2000). Stoel, Wickliffe and Lee (2004) suggested that utilitarian shopping value might differ by retail format, since Babin and Attaway (2000) measured customer share for anchor stores at a major regional mall (i.e., store-specific study but the authors did not provide details of store type in their article) whereas Stoel, Wickliffe and Lee (2004) measured repatronage intention for a shopping mall.

Although this study is similar to Babin and Attaway's (2000) research such that customer share was measured for specific retail stores, this inconsistency in findings between this study and Babin and Attaway's (2000) research may be because Babin and Attaway (2000) measured customer share for retail stores that might not be grocery stores (i.e., the authors did not provide details of exact retail store format in their study) whereas this study measured customer share exclusively for grocery-related retail stores. Specifically, the nature of utilitarian value derived from a grocery store visit may differ from that of other retail formats. This inconsistency may also arise from differences in shopping values between U.S. and PRC consumers. As Lo, Lau and Lin (2001) has highlighted, it is difficult to cultivate patronage loyalty in the PRC because consumers tend to shop around in various supermarkets for the best prices prior to making their purchase decisions. This scenario is further vindicated in previous studies where PRC consumers shop primarily for utilitarian value and will patronise retail stores that provide them with the best value-for-money

products (e.g., Kim et al., 2002; Tsang et al., 2003; Li et al., 2004; Mai and Zhao, 2004). Another perspective of interpreting this finding is that PRC consumers are still at the formative stage of brand loyalty and thus, are prone to brand switching as they experiment with different new products and retail store formats (Prahalad and Lieberthal, 1998).

Eighth, the CETSCALE is robust and is not affected by socially desirable response bias. The results in this study revealed that socially desirable response bias did not confound comparisons of consumer ethnocentric tendency levels in the within-group (i.e., consumers sampled in one dataset) and between-group (i.e., consumers who shop in foreign hypermarkets and those who shop in domestic hypermarkets) analyses. In the within-group analysis, the mean CETSCALE scores for the Beijing consumers who shop in domestic and foreign hypermarkets were found to be statistically insignificant between consumers who held high socially desirable response bias and those who held low socially desirable response bias (refer to Table 7.8). In the between-group analysis, results from the t-test showed that the relationship between the consumers' mean CETSCALE scores and high socially desirable response bias in both sets of data was statistically insignificant (refer to Table 7.8). Hence, t-test results for both the within-group and between-group analyses established the robustness of the CETSCALE against socially desirable response bias. This result is consistent with the findings of Hult, Keillor and Lafferty (1999) in their Japanese and Swedish samples.

The final results are that (1) consumer ethnocentrism has the most significant (negative) total effect on customer share for the European Hypermarket dataset (refer to Table 7.13), and (2) utilitarian value has the most significant (positive) total effect on customer share for the Domestic Hypermarket dataset (refer to Table 7.14). As aforementioned, Beijing consumers who shop in foreign hypermarkets are less ethnocentric than those who shop in domestic hypermarkets. Based on the path analysis results for the European Hypermarket dataset (refer to Table 7.13), Beijing consumers who are willing to shop in foreign grocery retail stores are likely to hold low consumer ethnocentric tendencies, are likely to be store loyal and are thus likely to contribute more time and expenditure in their preferred stores. Given that hedonic value (i.e., negative total effect) and utilitarian value (i.e., positive total

effect) were the next two most significant total path effects for the European Hypermarket dataset (refer to Table 7.13), these findings suggest that Beijing consumers relate grocery shopping as a function of utilitarian value and utilitarian value is the main grocery retail store patronage motives, which is consistent with previous findings (e.g., Goldman, 2000; Lo, Lau and Lin, 2001; Mai and Zhao, 2004). More importantly, the above results provided further empirical evidence that consumer ethnocentrism is real and strong, and is a significant negative predictor of customer share (i.e., explaining around 8% of the total variance in the ‘customer share’ latent variable).

Path analysis results for the Domestic Hypermarket dataset (refer to Table 7.14) reflected similar findings to those for the European Hypermarket dataset. That is, utilitarian value had the most significant (positive) total effect on customer share followed by consumer ethnocentrism (i.e., negative total effect). Coupled with the path analysis results from the European Hypermarket dataset as well as the finding that utilitarian value moderates the relationship between consumer ethnocentrism and the consumers’ willingness to shop in foreign grocery retail stores (as discussed in the aforementioned fourth finding), these results suggest that utilitarian value is the most important grocery shopping motive for Beijing consumers. Therefore, international grocery retailers attempting to invest or have existing retail stores in the PRC should consider positioning their store offerings toward a utilitarian orientation in order to acquire a larger share of the PRC grocery retail market.

8.2 Theoretical Implications

In terms of theoretical implications, the essence of this research’s contribution to knowledge is represented by the research gaps addressed in this study. That is, this research is:

1. The first study to explore the country-of-origin cue and store brand cue simultaneously in the context of consumer store patronage intention towards foreign grocery retailers in the PRC.

2. The first study to assess the impact of consumer ethnocentrism on consumers' willingness to shop in foreign grocery stores in the PRC context.
3. The first study to identify and empirically evaluate shopping orientation as a moderator of the relationship between consumer ethnocentrism and the consumers' willingness to shop in foreign grocery stores.
4. The first study to extend the conceptual framework beyond the 'willingness to shop' decision to customer loyalty in the consumer ethnocentrism literature.
5. The first study to investigate the relationship between shopping orientation and customer loyalty towards foreign grocery retailers in the PRC context.
6. The first study to examine the impact of socially desirable response bias on the robustness of the CETSCALE in the PRC context.

These research gaps, and several resulting issues, are discussed in greater depth in the following sections.

8.2.1 Theoretical implication for multiple-cue country-of-origin (COO) literature

The investigation of extrinsic cues, namely the country-of-origin (COO) cue and store brand cue, undertaken in this study represents another step in the understanding of the impact that these two constructs has on consumers' perceptions and evaluations of foreign grocery retail stores in the People's Republic of China (PRC). In this respect, no previous multiple-cue COO studies have evaluated these two constructs simultaneously in the context of foreign grocery retailers in the PRC. Researchers have often assumed that (1) findings from consumers' perceptions and evaluations of foreign products in a country may be generalised to those of retail stores in the same country, and/or (2) findings from consumers' perceptions and evaluations of foreign retail stores in one country may be generalised to those in another country (c.f., Steenkamp and Baumgartner, 1998; Craig and Douglas, 2001; Douglas and Nijssen, 2003). In other words, researchers tend to assume that similar results are expected when a study is replicated in another context and hence, the perceived theoretical contribution of studies replicated in another context is likely to be insignificant.

Nevertheless, the results in this study have shown to be significantly different from those in previous studies, and provided a valid empirical argument that results from one context should not automatically be generalised to another context. Specifically, previous multiple-cue COO studies have generally found that either the COO cue or the store brand cue will have a positive impact on consumers' perceptions and evaluations of foreign products (e.g., Chao, 1989a; Thorelli, Lim and Ye, 1989; Agarwal and Teas, 2001, 2004), but the results in this study indicated that both cues were statistically insignificant in the Beijing consumers' perceptions and willingness to shop in foreign grocery retail stores. This finding was particularly significant because it applied to both sets of data in this study, i.e., Beijing consumers who shop in foreign hypermarkets and those who shop in domestic hypermarkets. In other words, this finding has been validated by a second sample within the same population and thus, enhances the reliability of this finding.

The implication of this finding is threefold: (1) this finding is the first in the multiple-cue COO literature to suggest that both the COO and store brand cues are not salient, (2) consumers do not perceive or evaluate foreign products and foreign retail stores homogeneously, and (3) consumers' perceptions and evaluations of foreign retail stores are country-specific. The first implication is especially important in multiple-cue COO research because it essentially unfolds a whole new research direction to the study of COO and store brand cues. That is, this finding is against the norms in previous empirical results (i.e., either the COO cue or store brand cue is salient). The low significance of the COO cue in this study may be, in part, due to contextual differences (i.e., foreign products versus foreign retailers), and in part, due to the foreign retailer in this study having a strong record of adapting its operations to foreign markets and sourcing many of its products locally.

Conversely, the low significance of the store brand cue may be due to the strong utilitarian motives behind the PRC consumers' shopping behaviour (e.g., Kim et al., 2002; Tsang et al., 2003; Li et al., 2004; Mai and Zhao, 2004). Specifically, they are primarily motivated by purchasing needs and are thus less likely to be concerned about the retailers' store image. Therefore, researchers should take note that the COO and store brand cues may not necessarily be important in the consumers' perceptions and evaluations of foreign retail

stores. This finding leads to the next two implications. Results reported in past and future multiple-cue COO studies should be interpreted in the context that the study was undertaken and should not be generalised across other contexts (e.g., foreign products versus foreign retail stores, developed countries versus developing countries, Asian culture versus Western culture).

8.2.2 Theoretical implication for consumer ethnocentrism literature

This study contributes the most to the consumer ethnocentrism (CET) literature, where no known studies have focused on 1) the moderating effect of shopping orientation on the relationship between CET and consumers' willingness to shop in foreign grocery retail stores, 2) the relationship between CET and consumers' willingness to shop in foreign grocery retail stores in the PRC, 3) the relationship between CET, willingness to shop in foreign grocery retail stores, and customer loyalty, and 4) the robustness of the CETSCALE (i.e., instrument to measure consumers' ethnocentric tendencies) in relation to socially desirable response bias.

Whilst researchers have established the saliency of the CET effect on consumers' negative attitudes toward foreign products and foreign retailers, the variables that may moderate this relationship are still relatively unknown in the CET literature. Specifically, it is theoretically insufficient to just replicate the CETSCALE in other context, be it product-, country- or culture-specific, and conclude that CET exists (or does not exist) in these contexts and its implications on consumers' attitudes (e.g., Good and Huddleston, 1995; Klein, Ettenson and Morris, 1998; Steenkamp, Batra and Alden, 2003). Similarly, it is valuable but insufficient to understand the antecedents of the CET effect (e.g. Klein and Ettenson, 1999; Kucukemiroglu, 1999; Balabanis et al., 2001). In other words, knowledge of this construct is mostly limited to an understanding of the antecedents and consequences of this construct based on the plethora of CET articles in the marketing literature.

In this respect, the work of Sharma, Shimp and Shin (1995) may be the first in the CET literature to identify variables that may moderate the relationship between CET and its consequences. Despite the authors' call for more research in this direction, few studies have taken up the challenge. More importantly, the existing state of understanding of moderating variables in the CET literature is limited to perceived economic threat (Sharma, Shimp and Shin, 1995; Jo, 1998), perceived product necessity (Sharma, Shimp and Shin, 1995; Huddleston, Good and Stoel, 2001), COO effect and conspicuous consumption (Wang and Chen, 2004). As such, this study of utilitarian value as a moderator of the relationship between CET and its consequences contributes and enhances existing knowledge in the CET literature.

Despite these four variables being significant moderators of CET, limitations in these four moderating variables prevent the generalisability of these variables in cross-cultural and cross-national research. That is, they are limited to consumers' perceptions (i.e., perceived economic threat, perceived product necessity, COO effect) and social norm that is culture-specific (i.e., conspicuous consumption). Specifically, the first three moderating variables relating to consumer perception are transient because perceptions may change over time and perceptions may be different for consumers from different culture and nations. Likewise, the conspicuous consumption moderating variable is culture-specific and is limited to countries where consumers are likely to exhibit conspicuous consumption tendencies. In contrast, utilitarian value is an enduring trait in consumers' value system and has shown to be salient across both developed and developing nations (e.g., Babin and Attaway, 2000; Li et al., 2004; Babin et al., 2005). Consequently, the theoretical scope for generalisability is greater for the utilitarian value construct than the aforementioned four moderating variables.

Based on similar results obtained from the two datasets (i.e., Beijing consumers who shop in foreign hypermarkets and those who shop in domestic hypermarkets) in this study, the finding that utilitarian value is a significant moderator on the impact of CET was strengthened. Nevertheless, it is important to note that utilitarian value, as a moderating variable, is store-specific. In this study, Beijing consumers relate grocery shopping as a function of utilitarian value and hence, utilitarian value was a significant moderator of the

relationship between CET and the Beijing consumers' willingness to shop in foreign grocery stores. Utilitarian value may not be a moderator of CET in other retail store formats. For instance, hedonic value, commonly associated with fashion-related type of shopping activity, may have a moderating effect on the relationship between CET and willingness to shop in foreign apparel stores rather than utilitarian value. Nevertheless, the implication of this finding to the CET literature is significant: it is relatively futile to know about the antecedents and consequences of CET and yet, not proceed further to identify variables where the CET effect may be counteracted. Therefore, future researchers should endeavour to identify other variables that may moderate CET, particularly variables that can be generalised across cultures and nations such as the service quality concept.

The next significant contribution of this study to the CET literature is the evaluation of the relationship between CET, willingness to shop in foreign grocery retail stores in the PRC, and customer loyalty. Much research has focussed on the relationship between CET and willingness to buy foreign products, yet few studies have examined this construct in the context of the PRC (e.g., Klein, Ettenson and Morris, 1998; Yu and Albaum, 2002; Wang and Chen, 2004). Given the importance of this CET construct in the marketing literature, it is surprising that no studies have investigated the impact of CET on consumers' attitudes toward foreign retailers in the PRC and/or extended this relationship beyond willingness to buy/shop to customer loyalty.

A possible rationale that researchers did not advance theoretical understanding of this construct to the context of foreign retailers in the PRC could be because consumers' attitudes toward foreign products may be assumed to be similar to their attitudes toward foreign retailers. Hence, researchers are likely to infer a similar relationship between CET and reluctance to shop in foreign retail stores from previous PRC results on the relationship between CET and reluctance to buy foreign products. Whilst it is true that consumer attitude is an enduring trait and attitudes toward foreign products and retailers are not likely to differ significantly, inferring results from the product context to the retailer context are, at best, speculative. As such, the implication of inferring results may result in an inaccurate

assessment of the (PRC) consumers' attitudes toward foreign retailers, as it was for the COO cue and store brand cue detailed in Section 8.2.1.

Correspondingly, this study is the first in the CET literature to extend the consequences of the CET effect from willingness to shop to customer loyalty. In the relatively few studies that examined the CET effect from the retailer perspective (e.g., Good and Huddleston, 1995; Zarkada-Fraser and Fraser, 2002), these studies have generally limited their investigation to the relationship between CET and the consumers' willingness to shop in foreign retail stores or foreign retail store patronage intentions/decisions. Given the importance of the customer loyalty construct in the retailing literature as a consequence of retail store patronage intentions (e.g., Kunkel and Berry, 1968; Enis and Paul, 1970; Rhee and Bell, 2002), there is a gap in knowledge that needs to be filled with respect to our understanding of the impact of CET on consumers' foreign retail store patronage intentions and their intended loyalty towards foreign retailers.

In this respect, this study incorporated the customer loyalty (i.e., attitudinal loyalty and behavioural loyalty) construct into the conceptual framework, and the research findings supported the claims for including this construct in this study. Specifically, the research findings highlighted the difference in the consumers' likelihood to be loyal to foreign retailers from their level of consumer ethnocentric tendencies. The results in this study indicated that Beijing consumers who shop in domestic hypermarkets were more ethnocentric than those who shop in foreign hypermarkets, and they were not likely to be store loyal towards foreign grocery retailers even though they were willing to patronise foreign hypermarkets. Conversely, Beijing consumers who shop in foreign hypermarkets were more likely to exhibit store loyalty intentions toward foreign grocery retailers and were more likely to increase their expenditure in these foreign hypermarkets. In other words, these results imply that ethnocentric consumers do not use foreign hypermarkets for their main shopping needs. The implication here is that the customer loyalty construct should be included in the analysis of foreign retailers in future CET studies because the consumers' willingness to shop in foreign retail stores does not necessarily translate into their likelihood to be store loyal, as has commonly been postulated in the customer loyalty literature.

Finally, results on social desirability bias in this study indicated that one indicator (i.e., item Q3 of the ‘store brand cue’ latent variable) in the European Hypermarket dataset and six indicators (i.e., items Q4 and Q7 of the ‘consumer ethnocentrism’ latent variable, items Q1 and Q2 of the ‘willingness to shop in foreign grocery stores’ latent variable, and items Q1 and Q2 of the ‘store loyalty intention’ latent variable) in the Domestic Hypermarket dataset were affected by socially desirable response bias. Socially desirable response bias is a serious yet often ignored issue in international marketing research. For instance, there were only 13 marketing-related studies, although none of these studies is related to CET, which reported testing for social desirability bias in six high level marketing journals from 1980 to 1997 (King and Bruner, 2000). Likewise, there were only two studies found in the CET literature that assessed the relationship between social desirability bias and consumer ethnocentrism, namely Hult, Keillor and Lafferty (1999) and Keillor, D’Amico and Horton (2001). As King and Bruner (2000, pp.93) has highlighted, “Regardless of how the effect of SDB has been interpreted or controlled, more than half of the studies examined herein have provided evidence of response bias. Hence, it is reasonable to expect that other studies in these areas of research could be biased ...”. Despite the potential of socially desirable response bias reducing the quality of the collected data, few studies have tested for this response bias vis-à-vis other constructs. The implication here is that socially desirable response bias is a realistic and significant problem that needs to be addressed in all marketing research. Future researchers should incorporate some form of measurement for social desirability bias to enhance the reliability of the empirical findings in their studies.

8.2.3 Theoretical implication for shopping orientation and customer loyalty literature

This study also provides first insights into the relationship between hedonic and utilitarian values and customer loyalty, particularly attitudinal loyalty, in the context of grocery retailing in the PRC. The customer loyalty construct is separated into two dimensions, namely attitudinal loyalty and behavioural loyalty, and the application of attitudinal loyalty in retailing, especially grocery retailing, is still a relatively recent occurrence (Rafiq and Fulford, 2005). As such, the results provided evidence that suggest, in the grocery retailing

context, behavioural loyalty is predicted by attitudinal loyalty, which in turn, is predicted by hedonic value. Nevertheless, this relationship is only applicable to Beijing consumers who shop in foreign hypermarkets and is not applicable to Beijing consumers who shop in domestic hypermarkets. More importantly, as expected, utilitarian value was not a significant positive predictor of customer loyalty in both sets of data.

The results in this study is significant to the research of the relationship between hedonic and utilitarian values and customer loyalty because (1) hedonic-oriented consumers in the same population do not exhibit the same level of store loyalty intentions toward foreign grocery-related retailers, even though previous studies have validated that hedonic value is a significant positive predictor of customer loyalty (e.g., Babin and Attaway, 2000; Stoel, Wickliffe and Lee, 2004; Carpenter and Fairhurst, 2005), and (2) utilitarian-oriented consumers in the two datasets are not store loyal. In the former, the implication is that samples obtained from different retail stores are likely to have different sets of responses. The data collection method in past studies has generally been undertaken in one location such as shopping malls, and the results are then generalised across the sampled population or across consumers who shop in those type(s) of retail format where the data was sampled, i.e., the results are one-dimensional. These results (in past studies) might have been different if the sample was collected from more than one location of the same retail format. Future research should sample from multiple locations of the same retail format rather than just rely on the samples from one location in order to enhance the reliability of the results.

As for the latter, the implication is that utilitarian shopping value may be considered to be a macro-level sociological phenomenon, subject to being country-specific. In the PRC context, majority of the households have limited disposable income and the PRC consumers may thus be compelled to lead utilitarian-oriented lifestyles (Cui and Liu, 2001). This utilitarian orientation of the PRC consumers has also been found in various regions in the PRC (e.g., Kim et al., 2002; Tsang et al., 2003; Li et al., 2004). Specifically, limited disposable income may be considered to be antecedent to utilitarian value that translates into a macro-level consumer behaviour. The work of Williams (2002) provided further support for the proposition that utilitarian value could be a macro-level construct. Williams (2002)

found that utilitarian criteria importance ratings for socially non-significant products were related to income for U.S. consumers. In this respect, high social value products, or otherwise referred to as hedonic-oriented products, are generally perceived favourably by consumers in developing countries who are in the upper-income segment (Cui and Liu, 2001) and who exhibit conspicuous consumption tendencies (Wang and Chen, 2004).

In the PRC, this consumer segment accounts for only 20% of the population, whilst the remaining 80% earns less than RMB 20,000 per annum based on the findings from a large-scale study conducted by Gallup Research Co. Ltd. (China) (see Cui and Liu, 2001). More significantly, the income level figures reported in this study were comparable to those obtained in previous studies, i.e., 62.92% (European Hypermarket dataset) and 66.95% (Domestic Hypermarket dataset) earned less than RMB 24,000 per annum, which was within the figures reported by Mai and Zhao (2004) and Cui and Liu (2001) (i.e., 43.5% and 80%), taking into account that the national survey was conducted in 1997 and average income levels have been rising rapidly in the PRC, particularly amongst urban consumers (e.g., Tong, 1998; Lo, Lau and Lin, 2001; Mai and Zhao, 2004). In other words, the remaining 80% of the population are generally prudent and shop for utilitarian value (e.g., Cui and Liu, 2001; Kim et al., 2002; Tsang et al., 2003; Li et al., 2004), which is in line with Williams's (2002) findings of U.S. consumers. Specifically, results from these studies suggest that income dictates the consumers' utilitarian-oriented nature. Since income is generally low for consumers in the PRC as aforementioned, it may be inferred that most PRC consumers are utilitarian-oriented. This proposition may also apply to consumers from other developing countries where the low-income consumer segment is significantly large.

To recap, the implication here is that utilitarian value may not just be a micro-level marketing construct and hence, researchers might find an insignificant relationship between utilitarian value and customer loyalty of consumers in developing countries where the low-income consumer group is the dominant segment.

8.3 Managerial Implications

The accelerated pace of change in the internationalisation of retail businesses has created a wide variety of international expansion routes and retail formats for global retailers. For these international retailers, emerging or transitional nations are attractive investment sites due to the relatively immature retailing landscape in these markets, where international retailers are able to exploit with their innovative store formats, product offerings, sourcing capabilities and technological resources. In the PRC alone, more than a dozen major American retailers have opened stores in the PRC and other European retailers are rapidly joining in the scramble (Chain Store Age, 2003). This rush to invest in the PRC is the result of relaxed controls on foreign ownership in the retailing sector, particularly due to the change in PRC legislation due to the PRC gaining entry into the World Trade Organisation, and the lure of over one billion potential new customers.

Despite the attractiveness of this market, foreign retailers are at risk of failure without exercising due diligence on understanding the PRC consumers' attitudes, values and shopping behaviour. In particular, it will be a significant mistake for foreign retailers to assume that most PRC consumers are likely to embrace 'foreignness' with open arms, as has been highlighted in academic and practitioner reports (e.g., Klein, Ettenson and Morris, 1998; Cui and Liu, 2001; Chain Store Age, 2003). Hence, foreign retailers will do well to consider consumer ethnocentrism (CET) as a factor that influences consumer foreign retail store patronage in the PRC. The consumer ethnocentrism model of foreign retail store patronage proposed in this research provides several significant and practical implications for international retail managers.

First, international retailers intending to open retail stores in the PRC, where consumers have shown to be conservative and patriotic (Cui and Liu, 2001), should consider administering research surveys that measure the consumers' levels of CET, hedonic value and utilitarian value. If the levels of CET are found to be relatively high, the consumers' hedonic and utilitarian values should be identified because utilitarian/hedonic value counteracts the impact of CET depending on the type of retail store formats. In the case of

grocery retailing, utilitarian value is the dominant shopping motive for most consumers and hence, the consumers' utilitarian orientation moderates CET by prioritising their desire to successfully and efficiently complete their shopping tasks ahead of national pride. Likewise, similar results are expected for shopping malls and apparel retailers in the PRC since the consumers' motives for patronising these retail formats were mostly utilitarian-oriented (c.f., Kim et al., 2002; Tsang et al., 2003; Li et al., 2004). This presents a significant opportunity for international retailers to adapt their store and product offerings according to the hedonic/utilitarian value of the host markets' consumers so as to attract the high ethnocentric consumers.

Second, the finding that the country-of-origin (COO) and store brand cues did not affect store patronage decision is a significant departure from both conventional knowledge upheld by marketing specialists and the relatively large number of multiple-cue COO studies that have been researched for over 15 years (e.g., Thorelli, Lim and Ye, 1989; Tse and Gorn, 1993; Teas and Agarwal, 2000). Practitioners and researchers often assume a relationship between evaluations of a retailer, either through the retailers' country of origin or brand name, and store patronage intentions. This assumption is certainly valid if previous findings on product judgment in multiple-cue COO studies were generalised to retail store judgment. However, this study reveals that sociological factors at the macro level are equally influential in the consumers' store patronage decisions. If CET is sufficiently strong, its effect may be so overwhelming that the consumers' store patronage intentions are no longer dependent on any store evaluative criteria.

Third, the results indicate that foreign grocery retailers who desire to have a greater share of the market will first have to attract the consumers to their retail stores and then, proactively increase their marketing efforts to enhance loyalty of their in-store customers. Nevertheless, this relationship is only applicable to hedonic-oriented consumers who shop in foreign grocery stores. This study revealed that hedonic-oriented consumers who shop in domestic grocery stores tended not to be store loyal towards foreign grocery retailers. More significantly, utilitarian-oriented consumers in the two samples (i.e., those who shop in

domestic grocery retail stores and those who shop in foreign grocery stores) did not exhibit store loyalty intentions toward foreign grocery retailers.

With reference to the findings for the utilitarian- and hedonic-oriented consumers who shop in domestic grocery stores and their lack of loyalty towards foreign grocery retailers, the high CET levels inherent in this group of consumers may have contributed to their reluctance to be loyal to foreign grocery retailers. That is, the results showed that consumers who shop in domestic grocery stores were more ethnocentric than consumers who shop in foreign grocery stores. Therefore, these ethnocentric consumers who shop in domestic grocery stores are not likely to be loyal to foreign retailers regardless of their shopping orientation.

As for the consumers who shop in foreign grocery retail stores, grocery retailers face far greater challenges in inducing loyalty amongst the utilitarian-oriented customers than hedonic-oriented customers. In developing countries, such as the PRC where 80% of urban households are living in relative poverty, are price-sensitive, are mostly utilitarian-oriented, and tend not to be store loyal (e.g., Cui and Liu, 2001; Lo, Lau and Lin, 2001; Li et al., 2004), grocery retailers face a daunting task in converting utilitarian-oriented consumers to be hedonic-oriented. Instead, grocery retailers should focus on micro-level marketing strategies, such as convenience in location, store and product layout, competitive product pricing, and redemption programs, to entice and retain the loyalty of utilitarian-oriented consumers. Likewise, grocery retailers intending to invest in or expand to rural regions of the PRC should adopt a different marketing mix approach due to significant attitudinal disparity in product price (e.g., price consciousness), product brand names (e.g., product innovativeness, brand name consciousness, brand name recalls), product promotions (e.g., through mass media advertising), and product distribution (e.g., patronage behaviour in terms of using shopping outlets) between urban and rural PRC consumers in their perceived ideal lifestyle (Sun and Wu, 2004).

In short, the consumer ethnocentrism model of foreign retail store patronage holds considerable promise for domestic and foreign retailers. Given that path analysis results for

the two datasets indicated that consumer ethnocentrism (i.e., negative total effects) and utilitarian value (i.e., positive total effects) were the two most significant predictors of customer share (which was measured as time and expenditure spent in foreign grocery retail stores), the measurement of hedonic and utilitarian values provides international retailers with a useful strategic tool to offset the impact that consumer ethnocentrism imposes on the host country consumers' tendencies to patronise domestic-owned retail stores. Nevertheless, retailers should take note that it may be difficult to cultivate store patronage loyalty of consumers who hold high utilitarian value, and should adopt some form of marketing mix programs to encourage regular store patronage from this consumer segment. Lastly, the perceived importance of the COO cue and store brand cue in consumers' perceptions and evaluations of foreign products should not be assumed to be the same for foreign retail stores.

8.4 Study Limitations, Future Research and Conclusion

This research has a number of methodological limitations. It was carried out in only one Chinese city (i.e., Beijing), sampled customers from one foreign grocery retailer and one domestic grocery retailer, and the survey was administered in a country that is currently experiencing fast economic growth and important social changes. Furthermore, the large number of missing values in the two datasets (i.e., 20.40% of missing values in the European Hypermarket dataset and 22.8% of missing values in the Domestic Hypermarket dataset) may potentially reduce the data quality. Nevertheless, this missing data problem was resolved by using the multiple imputation method in this study, since this method is an excellent estimator of missing values with respect to preserving the datasets' important characteristics (i.e., means, variances and regression parameters) (Rubin, 1987; Schafer, 1997; Olinsky, Chen and Harlow, 2003). Lastly, the two datasets were affected by gender bias, i.e., significantly more female respondents than male respondents in which female respondents accounted for approximately 70% of the 500 collected questionnaires. In other words, the results in this research might be more generalisable to female Beijing consumers

rather than male Beijing consumers who shop in grocery-related retail stores. As such, the results in this research might have to be interpreted with some care.

Future research should examine the attitudes of consumers in rural regions of the PRC with larger probabilistic samples. Most studies on PRC consumers' attitudes and values have generally been concentrated on urban consumers (e.g., Klein, Ettenson and Morris, 1998; Cui and Liu, 2001; Li et al., 2004), whilst little is known about those residing in rural regions although consumption behaviours between urban and rural consumers are different (Sun and Wu, 2004). As the rural economy in the PRC continues to develop and retailers start to expand inwards from developed coastal cities, studies relating to the rural consumers' product purchase and/or store patronage decisions will be significant in the marketing and retailing literature as well as in practitioner reports (Cui and Liu, 2001). This scenario may also be applicable to other emerging or transitional economies where the living standard of urban and rural consumers is vastly different (e.g., Russia, India, Brazil).

Another possibility is to assess whether the same moderating effects are observed among consumers who shop in foreign retail brands of differing store formats. Since the present study investigated the relationship between consumer ethnocentrism (CET), willingness to shop in foreign retail stores and utilitarian value in the grocery context, the robustness of this relationship can only be validated by replicating it on different samples, as well as in other foreign retail formats where the consumers' motives for shopping in these retail environments are likely to be mostly utilitarian-oriented (e.g., general merchandise discount stores and bookstores).

Another interesting possibility is to examine whether hedonic value, rather than utilitarian value, is a significant moderator of the relationship between CET and reluctance to shop in foreign retail formats that are positioned to attract hedonic-oriented consumers (e.g., fashion apparel and cosmetics retail stores). If hedonic value does not have a moderating effect on the impact of CET on consumers' reluctance to shop in hedonic-oriented retail stores, utilitarian shopping value may be considered to be a macro-level sociological phenomenon (subject to being country-specific), which essentially introduces a whole new dimension in

shopping orientation research. This proposition is realistically possible because, in the PRC context, majority of the households have limited disposable income and the PRC consumers may thus be compelled to lead utilitarian-oriented lifestyles (Cui and Liu, 2001; Kim et al., 2002; Tsang et al., 2003; Li et al., 2004). In other words, limited disposable income may be considered to be an antecedent to utilitarian value that translates into a macro-level consumer behaviour (as has been discussed in Section 8.2.3).

The moderating effect of country-of-origin (COO) on the impact of CET should also be further examined in different contexts (i.e., product-specific, store-specific and country-specific). The findings indicated that the COO variable was not significant in the Beijing consumers' foreign retail store patronage intentions. However, COO was found to be a significant moderator of the relationship between CET and the consumers' willingness to purchase foreign products in Wang and Chen's (2004) study. This contrasting difference may be attributed to the context in which both studies were undertaken (i.e., foreign products versus foreign stores), which suggests that previous findings on consumer product purchase intentions may not be generalised to their store patronage intentions. Specifically, the results in this study provided indications that consumers are likely to perceive and evaluate foreign products differently from foreign retail stores. Hence, it is recommended that additional studies be carried out to validate this contextual distinction.

Closely related to this, there is a need to identify other variables that may moderate the relationship between CET and reluctance to shop in foreign retail stores. The impact that CET has on consumers' reluctance to purchase foreign products and patronise foreign retail stores has been established in numerous studies (e.g., Shimp and Sharma, 1987; Netemeyer, Durvasula and Lichtenstein, 1991; Good and Huddleston, 1995). To date, there is still a dearth of empirical studies that provide insights into how this CET effect may be counteracted, with the notable exception of the empirical work by Sharma, Shimp and Shin (1995) and Wang and Chen (2004). The findings in this study suggest that utilitarian value can play an important role in moderating the effect of CET in the grocery retail context.

Another moderating variable that has not been examined in this study but may further contribute to the CET literature is the effect of store brand cue. Although store brand cue was found to have an insignificant effect on store patronage intentions in this study, the impact that store brand image has on consumers' product and store judgments have consistently shown to be significant in previous research (e.g., Chao, 1989a; Thorelli, Lim and Ye, 1989; Davis, Kern and Sternquist, 1990). With reference to the findings in this study, it may just be that store brand cue does not have a significant effect on grocery retail stores in the PRC and/or the importance of retail branding in the PRC consumers' store evaluative criteria is still at an infant or growth stage. Future researchers may consider investigating whether store brand cue has a moderating effect on the relationship between CET and reluctance to shop in foreign retail stores in other retail context, as well as conduct longitudinal studies to evaluate whether the impact of retail branding on the PRC consumers' store patronage intentions becomes significant over a period of time.

Another possible variable that may moderate the impact of CET is the concept of service quality. In the PRC, most of the consumers shop in traditional markets for their grocery needs (e.g., Goldman, 2000; Miu and Penhirin, 2003; Mai and Zhao, 2004). As a result of improved service quality in domestic PRC supermarkets, an increasing number of PRC consumers have switched to shopping in domestic supermarkets (Lo, Lau and Lin, 2001). Despite the PRC consumers' preference for domestic retail stores due to patriotic reasons, as was reported in Chain Store Age (2003) as well as in this study, the relatively superior service quality in foreign retail stores, as compared to domestic retail stores, may be able to offset the impact of CET on consumers' store patronage intentions. Future researchers may thus consider examining this relationship between CET, willingness to shop in foreign retail stores and service quality.

The lack of a conclusive finding for the relationship between shopping orientation and customer loyalty suggests that there is a need to devote greater attention towards unravelling this relationship. Although some studies have found a significant positive relationship between utilitarian value and customer loyalty (e.g., Babin and Attaway, 2000; Carpenter and Fairhurst, 2005), other studies (e.g., Ailawadi, Neslin and Gedenk, 2001; Stoel,

Wickliffe and Lee, 2004), including the findings in this study, showed that utilitarian value was negatively related to customer loyalty. Furthermore, the application of attitudinal loyalty in retailing, particularly grocery retailing, is still a relatively recent and rare occurrence (Rafiq and Fulford, 2005). Thus, future researchers may consider providing more empirical evidence on this relationship between utilitarian value and customer loyalty, especially attitudinal loyalty in the retailing context.

Finally, research should develop measures suitable for use in the PRC. The reliability of established scales adopted in this study of Beijing consumers were mostly less robust than those reported in past studies. The risk of administering scales that have shown good reliability and validity in one culture to another has been a major concern in cross-cultural research (e.g., Steenkamp and Baumgartner, 1998; Craig and Douglas, 2000; Douglas and Nijssen, 2003). Future researchers may wish to provide further validation evidence of conceptual equivalence for some of the established measurement instruments that were developed in the U.S. or other developed countries and administer them in the PRC. Similarly, research conducted in the PRC should incorporate measures of social desirability bias since the PRC consumers have shown to exhibit socially desirable response bias in this study as well as in previous studies (e.g., Briley, Morris and Simonson, 2000; Middleton and Jones, 2000). As such, future researchers should take note that socially desirable response bias can potentially reduce the quality of their data and hence, should first establish the severity of this bias in their data before conducting more in-depth analyses.

To conclude, although the initial test of the consumer ethnocentrism model in this research focused on Beijing consumers and their views of foreign hypermarkets, this model has important implications for international retailers venturing into countries where consumer ethnocentrism has shown to be prevalent. The impact of consumer ethnocentrism confirms the belief that consumers reject foreign retailers on conservative and/or patriotic grounds, and a foreign retailer's success depends on an equation that accounts for different levels of this effect. I hope that the proposed consumer ethnocentrism model of foreign retail store patronage, as well as the findings, in this study is able to provide researchers with some useful ideas for further exploration.

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APPENDICES

Appendix 1

Review of the country-of-origin literature

Authors	Sample Size	Location	Category	Findings
O'Cass & Lim (2002)	459 respondents age 18-27. 52% under 22yrs, 57.5% male students. No male students <20 yrs (NS). 78% spent less than S\$500 mthly, 62% watched more than 7 hours of TV wkly.	Singapore	Fashion apparel from Benetton, Guess, Calvin Klein, G2000, Giordano, and U2.	Brands of a Western origin are perceived more favourably implies that culture of origin is an important factor in determining the favourability of the associations attached to brands; brands of a Western origin were seen more favourably, had a more favourable image, and were rated superior to brands of an Eastern origin; the preference for brands of a developed economy is more dominant than the preference for brands of domestic origins; consumers attach a higher perceived value to brands of an Eastern origin, whereas Western brands are perceived more favourably. This implies that economic considerations (at least in this study) are more significant in influencing purchase intention; There was no difference in ethnocentric tendencies across the genders within the sample, and there was no difference across the ages of the consumers;
Parameswaran, R. & Pisharodi, R.M. (2002)	306 completed responses - 213 (parents born outside USA), 159 (parents born in USA).	United States	Blenders (Krupps & Goldstar) and cameras (Leica & Samsung) made in Germany and Korea	The relationship between SPA and IP was strong in all sub-samples (immigrants, first-generations, rooted); relationship between GPA and SPA did not display a similar degree of consistency; US consumers tend to evaluate a product from a source country similar to their own favourably. However, immigrants gave poorer ratings when the source country of the product is similar to their birth country and first generation respondents falling somewhere in between the two.
Balabanis et al. (2001)	303 Turkish and 480 Czech consumers	Turkey and Czech Republic	Products made in Germany	Czechs perceive themselves more similar to Germans than the Turks but the Turks perceive Germany and German products more positively than the Czechs; higher marketing intensity does not necessarily lead to a more positive image of Germany and German products (probably due to economic and historical animosity as suggested by Klein et al, 1998); values perform better than demographics, language fluency, and direct contact with the country variables. However, values predictive ability varies from country to country.
Kim, S. & Pysarchik, D.T. (2000)	281 students from three Midwestern US colleges and universities; average age is 23yrs, 84% female, 71% have <\$75k and 27% <\$10k, 71% college edu.	United States	Nikon camera (Japan, China), Gold Star TV (Malaysia, Korea), Polo sweater (Mexico, USA)	Ethnocentrism has a positive impact on US consumers' evaluations of Nikon (Japan) cameras and no impact on Gold Star (Korea) TVs; no effect of COM on consumer perceptions of Nikon cameras; Polo sweaters made in Mexico received a lower rating for quality than those made in USA; no significant relationship between COM and product evaluations for Gold Star TVs; perceived attributes of products are enhanced when a consumer has a favourable attitude toward the brand; brand attitude is strongly associated with prestige-based and function-based image; product attitudes may be a good predictor of intention to buy.
Gurhan-Canli, Z. & Maheswaran, D. (2000)	168 undergrad students (86 from the US and 82 from Japan) enrolled in a US and a Japanese university	United States and Japan	Mountain bike made in the US and Japan	Country of origin effects vary across cultures on the basis of the diverse cultural patterns present in different countries; individualists evaluated the home country product more favourably only when it was superior to competition, whereas collectivists evaluated the home country product more favourably regardless of its superiority; in Japan, when the product is inferior, evaluations are guided by the cultural orientation rather than by the general perceptions of the home country products; ethnocentrism did not moderate the effect of culture on evaluations; only the vertical dimension accounted for the cultural differences in country of origin effects.
Gurhan-Canli, Z. & Maheswaran, D. (2000)	125 undergrads received partial course credit for participation	United States	VCR, stereo system and TV made in Taiwan	Country of origin evaluations are more likely to be favourable when consumers focus on the country of origin and when the information is dispersed across several of the country's products; more favourable evaluations were obtained only in response to dispersed info under the country-of-origin evaluation condition; when consumers focused on the attribute info, country-of-origin info was not highly accessible and was less likely to be related to the new info; multiple instances are needed for influencing country-of-origin evaluations (i.e., dispersed info) is required to have an impact on country-of-origin evaluations.

Verlegh & Steenkamp (1999)	41 empirical studies; 278 individual effect sizes.			COO effect is stronger for perceived quality than for attitudes and purchase likelihood; strong link between COO and perceived quality; COO effects are significantly larger when products from more developed countries are compared to LDCs; consumers may believe that products from LDCs are lower in quality, and associated with a larger risk of bad performance and dissatisfaction; COO effects are not significantly smaller for industrial goods than for consumer goods; COO effect does not change substantially when a product is designed and manufactured in different countries; consumers may often be unaware or indifferent about the actual place of manufacture, and rely on brand origin; methodology can have a substantial impact on study findings; single-cue studies yield larger effect sizes than multi-cue studies; effect sizes obtained with a between-subjects design are smaller than those obtained with a within-subjects design; effect sizes do not differ between student and non-student samples;
Knight & Calantone (1999)	310 Japanese respondents (average age 20 and mostly males) and 255 US respondents (average age 22 and gender evenly distributed) - both almost entirely full-time students	Japan	Automobile from Germany (Mercedes Benz)	Both country origin image (COI) and beliefs simultaneously influence attitudes, under both low- and high-knowledge conditions. The flexible model developed by the authors appears to be a more accurate depiction of the complex processing that occurs during thinking about imported goods; beliefs are strongly influenced by COI regardless of the respondents' degree of product knowledge; both the low-knowledge US and Jap students tend to use beliefs, with little use of COI, to infer product attitudes; buyers possessing substantial product knowledge tend to form attitudes based on both product beliefs and COI.
Chao (1998)	360 junior and senior students in their early twenties in a medium-sized Midwestern university	United States	27-inch stereo TV set made in USA and Mexico	Product quality was rated higher when the parts were shown to be assembled in US rather than in Mexico; product quality was rated higher when the parts were shown to be from the US rather than from Mexico; country-of-design main effect is not significant, as well as the fact that none of the interaction effect is significant, i.e. no interaction effect between country-of-assembly and country-of-design; a poorly perceived product quality associated with a poorly perceived assembly COO location stereotype cannot be compensated by a positive COO design location stereotype or a positive parts COO location stereotype; whereas a strong country-of-design stereotype coupled with parts from US cannot be used to overcome a weak country-of-assembly stereotype, US parts can be used to mitigate a weaker country-of-design stereotype when the product was shown to be assembled in Mexico.
Thakor and Pacheco (1997)	146 males and 120 females enrolled in biz courses at an English speaking university in the province of Quebec	Canada	COO - France, Canada, Quebec, Italy, no COO; Brand - English, French, Italian; Product - H/U	Results obtained by Leclerc et al (1994) may not be readily generalisable to other populations or other countries when they are used as stimuli; no differences across brands and countries for hedonic products; French branding caused an increase in perceived hedonism for one product but only among males; females like French brand names more than males; females are more sensitive to stimuli and have a lower threshold for elaborating on message cues and thus, tend to respond more strongly to foreign brand names than males; little evidence of stereotyping based on COO; foreign products were not perceived as more hedonic than domestic products; COO info is not as effective as foreign branding in influencing perceptions of product hedonism; COO info appeared to have a negative effect on perceived hedonism; males' attitudes toward brand names might be more easily influenced by identifying the brand's COO; females may process both types of cues in an averaging fashion; COO and brand name contributed independently to product evaluations; foreign branding is not effective when intrinsic cues are present; To sum, attitudes and perceptions of consumers can be influenced by the brand name alone.

Zhang (1997)	192 undergrad and postgraduate biz students from large metropolitan university in Northeastern part of USA	United States	PC (high performance risk) and luggage set (low performance risk) made in USA, Mexico, Japan and Taiwan	COO info played a less salient role in consumers' decision process as subjects are more likely to examine product attribute info and based their evaluation and purchase decisions on the perceived attribute merits; COO is used as a surrogate info cue, particularly by people who are not motivated to process product info and consequently, are engaging in heuristic decision making and stereotyping, esp. when amount of attribute info is large and difficult to integrate or when other info is lacking; when subjects were extrinsically motivated to form an impression of a product, specific product attributes had a stronger influence regardless of whether the COO info was known at the time when the products were evaluated. Thus, some subjects may not have engaged in active processing of product attribute info due to a lack of intrinsic motivation.
Thakor & Katsanis (1997)				A review of literature on dimensions of quality in order to gain an understanding of how brand and country image might affect these dimensions; develops a model of these effects in terms of search, experience and credence qualities.
Nebenzahl, I.D. & Jaffe, E.D. (1996)	305 students attending university located in New York; 22% Hispanic, 9% Afro-American, 18% Asian.	United States	GE and Sony VCRs and microwave ovens made in USA, Japan, Hungary, Poland and Russia	When production of Sony is shifted to USA, its brand image significantly erodes, especially in the cognitive perception of the brand. Shifting Sony production to eastern Europe results in a further deterioration of brand image. As for GE, no change when GE shifts production from USA to Japan but deteriorates in brand value when production shifts to eastern Europe but less extreme than Sony's; GE can only slightly improve its product value by sourcing in Japan, while Sony's brand value erodes on both dimensions as it is shifted to USA; US consumers can conceive of GE production in eastern European countries more than Sony, even though they still regard Sony product value to be higher if it were to be produced there; consumer perception depends on product familiarity; in sum, when no made-in country is specified, consumers impute the missing information by assuming that the made in country is the country associated with the brand; in addition to changes in brand value, consumers evaluate products along different dimensions as production is sourced across borders.
Haubl, G. (1996)	309 Germans and 313 French.	Germany and France	Subcompact automobile developed by Mercedes Benz	Both brand name and country of origin have significant impact on consumers' attitudes towards the new automobile; COO information affects beliefs about a car's product attributes, which in turn affect the attitude and behavioural intention with respect to the vehicle. Thus, foreign production is likely to have an impact not only on car buyers' overall car evaluation, but also on their perception of specific product attributes.
Zhang (1996)	300 shoppers in a large shopping centre in the Northeastern suburb of Beijing	China	Shirt and TV made in USA, Japan and South Korea	Products from Japan and USA were preferred to products from South Korea independent of cultural influences; COO effect was more salient for more technological sophisticated products although such an effect is less salient for South Korean products; single-cue attribute has stronger COO effect than multicue.
Ahmed & d'Astous (1996)	190 + 175 usable answers (all participants are males and > 18yrs) carried out in Sherbrooke.	Canada	Automobile, VCR, shoes made in Canada, Mexico, Japan, Italy, USA, South Korea	COO cues had a stronger impact than brand name and thus, COO may be a more enduring cue than brand name; consumers' perception of COO is multi-dimensional; the magnitude of brand differentiation played a strong role in the evaluation of both the quality and purchase value of automobiles and shoes and a very weak role in the evaluation of VCRs; brands associated with NICs received the lowest evaluations; the marginal mean differences btw Jap and developing country brands were significant, but that there were no significant differences btw US and Korean brands; evaluations of Italy, Japan and Canada as CODs and COAs went down considerably when other product info was provided and that of Mexico went up; the favourableness of a brand and/or a COO is considerably modified when a consumer is provided with additional product-related information. A brand's quality image may diminish if it is designed and/or assembled in a less prestigious country. Its purchase value may be affected by such factors as warranty and price. The NIC brands were less affected by the presence of other attribute info. Thus, by manufacturing in the US, NIC brands may improve their franchise in North America.

Peterson, R.A. & Jolibert, A.J.P. (1995)	52 articles or papers containing 69 independent studies and 1520 effect sizes		An analysis of 15 study characteristics	COO effect sizes are not appreciably influenced by the type of research design employed, whether a within- or between-subjects design; single-cue studies produce larger COO effect sizes than do multi-cue studies; the use of a verbal product description appears to result in larger COO effect sizes than the use of an actual product; the nationality of respondents (US versus non-US) in country-of-origin studies has no marked influence on effect sizes; sample size is positively related to effect size.
Ahmed & d'Astous (1995)	173 purchasing managers via the Quebec division of the Canadian Association of Purchasing Managers (CAPM); 190 household respondents in Sherbrooke, Canada	Canada	Organisational buyers: computer systems and fax machines; Household buyers: automobiles and VCRs; made in Canada, Mexico and Japan	Country of origin is a more important cue in organisational purchase decisions than country of assembly and brand name. For household buyers, country of design and country of assembly have about equal importance but brand name is a more important cue than country of origin. For household product purchase decisions, warranty is more important than country of origin and brand name. Newly industrialised countries were rated quite poorly as countries of assembly and even more poorly as countries of design. The differences between the perceptions of different countries of origin are substantially reduced when other info is provided. It seems that in the case of a newly industrialising country, an appropriate warranty strategy may counter the negative perception of a made-in in consumer markets. As for industrial markets, low price strategies might give better results.
Lin, L-W. & Sternquist, B. (1994)	100 shoppers in a high-prestige dept store, 100 shoppers in a moderate-prestige dept store, and 65 general shoppers.	Taiwan	Sweaters made in USA, Italy, Japan and Taiwan	Country of origin was found to influence significantly Taiwanese consumer perceptions of sweater quality; country of origin did not influence consumers' price estimates; manipulation of store image did not influence either price estimates or quality perceptions, i.e. store prestige cue not significantly related to price estimates; consumers in less-developed countries are likely to rely on national image and the country of origin for product evaluations because of unavailable info and a lack of purchasing experience.
Maheswaran, D. (1994)	Study 1 & 2: 119 students from undergrad management program (57 experts and 62 novices); Study 3: 28 experts and 32 novices	United States	Study 1: Personal computer made in Japan and Taiwan; Study 2: Stereo system from Germany and Thailand; Study 3: Japan & Korea	Study 1: experts discounted country of origin when product-related attribute info was available. They did not engage in selective processing of country of origin, as indicated by their recall. Novices recalled both consistent and inconsistent country of origin info. Study 2: experts engaged in a detailed processing of attribute info and generated more attribute-related thoughts, whereas novices elaborated more on country of origin and generated more country-of-origin-related thoughts. Study 3: product was rated more favourably for Japan than South Korea; subjects were more positive when country of origin was favourable, which indicates that both experts and novices used it to resolve ambiguity; experts recalled marginally more attributes than novices; experts recalled more country-of-origin-consistent info; only experts engaged in selective processing; country of origin would influence novices' ratings of the favourableness of the attributes; when country of origin was favourable, the attributes were rated more favourably; novices would rate weak attributes more negatively when an unfavourable country of origin was presented was not supported. In conclusion, consumers' level of expertise and the strength of attribute info determine the extent to which country of origin influences product evaluations. Negative info appeared to have a larger impact on novices' than on experts' evaluations.
Samiee, S. (1994)				It is reasonable to expect product familiarity to result from brand familiarity, which plays a greater role in purchase decisions. Thus, CO should influence entire product lines that are marketed under identical brands, including brand extensions. It is also reasonable to expect customers to pay closer attention to COM with lower levels of brand familiarity. It has been shown that the perception of product quality is affected by source country (i.e. COM) (Tse and Gorn, 1993) and brand name (Han and Terpstra, 1988).
Okechuku, C. (1994)	56 Americans, 63 Canadians, 37 Germans and 64 Dutch for TV; 54 Americans, 61 Canadians, 36 Germans and 59 Dutch for radio players	Germany, Netherlands, US, Canada	TV sets; car radio/cassette players (uni- and bi-national products)	Product country of origin is as important as brand name and price; source country effects tend to increase with technological complexity of the product; importance of country of origin relates to product attitudes rather than purchase intention or behaviour, actual effect on purchase behaviour may depend on whether or not consumers notice the country of origin; brand-country of origin is associated more to the country in which the brand was originated than where it is made; a strong brand name may not be able to overcome the liability of being made in a poor image country;

				consumers prefer domestically-made, though not necessarily domestically-branded products.
LeClerc et al (1994)	Study 1: 40 undergrads; Study 2: 184 students enrolled in marketing classes; Study 3: 42 students	United States	Study 1: fragrance, nail polish, foil wrap, gasoline, hair shampoo, deodorant; Study 2: calculator, laundry detergent, crystal glassware, stuffed animal toys, cars, sunglasses; Study 3: yoghurt	Study 1: product perceptions and evaluations change as a function of whether the brand name is pronounced in French or English. French names produce a more hedonic perception than English names. French names were preferred over English names for hedonic products, and hedonic products were more positively evaluated when they had French names as opposed to English names. In sum, French names seem to contribute more positive brand equity to hedonic products but not significantly diminish equity for utilitarian products. Study 2: country-of-origin info may be a less differentiated cue for hedonic perceptions (probably because foreign branding and country of origin trigger difference associations). In the French congruence condition, no enhancement of the perceptions of hedonism and, directionally, even a deterioration because foreign branding and country-of-origin info are not entirely congruent. Brand attitudes for hedonic products were influenced by the presence of a French brand name; attitudes toward hedonic products were significantly higher than the baseline condition for French brand names and directionally higher than the English brand names. Country of origin, however, did not affect attitudes toward the brand. Thus, effect on attitudes was more pronounced for foreign branding than for country-of-origin info. Study 3: no significant effect of foreign pronunciation or product experience was observed on brand name attitudes. When there was no taste test, a French brand name generated higher ratings on the hedonic dimension and lower ratings on the utilitarian dimension; French sounding brand names affected product perceptions and evaluations even after a taste test but only on the hedonic dimension; hedonism and utilitarianism can be perceived as two independent dimensions.
Parameswaran, R. & Pisharodi, R.M. (1994)	678 responses from an adult population of a large Midwestern metropolitan area.	United States	Cars and blenders made in Germany and Korea	The number of facets of CO image is generally stable whereas the items constituting a facet may be "country dependent". The implication is that the attributes contributing to any particular CO image facet may differ across countries. This finding also highlights a potential weakness in the use of standardised CO image scales to measure CO images of products originating in diverse countries; Desirable and undesirable attributes tend to fall into separate dimensions even when they are designed to measure the same constant. This finding implies that advertisers should not make the mistake of ignoring negative attributes.
Johansson et al (1994)	43 farmers with operations sufficiently large to require the use of a large tractor in Page County in the Shenandoah Valley of Virginia.	United States	Tractors made in Russia, US, Canada, Germany, Italy and Japan.	Familiarity has a pervasive influence throughout the evaluation process. This is reflected not only in the risk-reducing tendency on the part of the risk-averse farmers, but also in the reluctance among all farmers to consider unfamiliar makes. Although a universal factor, it nevertheless creates an obstacle for the new Russian tractor's acceptance; Tractors produced in developed countries are rated better than those in less developed markets. However, tractors made in Russia were perceived as good value for money; pro-US sentiment is more limited than expected, affecting only product ratings and the consideration set but not purchase likelihood directly. Although farmers who like to take on the challenge of a new product are more likely to visit the Belarus dealer, they do not like it as much when they recognise its origin.
Ettenson, R. (1993)	92 Russians, 95 Polishes and 128 Hungarians.	Russia, Poland and Hungary	Colour TV	Differences were found in the use of country of origin among the former Socialist consumers (important to Russian and Polish consumers, minimal to Hungarian consumers as they are more functional and focus on intrinsic attributes); brand name played less of a role in their decision making than was expected; the interaction between brand name and country of origin played a relatively minor role in each group's decision making (i.e. TVs made domestically but with global well-known brand name); none of the three groups prefer domestically-made products although Hungarian and Polish consumers have higher nationalistic attitude than Russians;

Ahmed & d'Astous (1993)	179 usable questionnaires in a mid-sized city in French-speaking province of Quebec; 197 usable questionnaires in Mons, French-speaking city southwest of Brussels	Canada and Belgium	Automobile (Toyota, Ford, Lada) made in Canada and Belgium	Price interacts significantly with COO and brand name, but not with service or consuming country. Made-in and brand name interact significantly with each other and with the consuming country variable; impact of COO on the perceptions of purchase value in a multi-cue study is felt across boundaries; perceived value of a purchase will be higher for technologically complex product made in industrialised country, good brand name, supported by good service and low price; brand name and COO are more influential cues (although brand name is more important than COO) than price and service for high-involvement and complex products; perceptions of the brands and made-ins associated with industrialised countries will be less dissimilar than those between LDCs and ICs; in comparison with brand name, COO will have a greater impact on perceived purchase value in an IC where there is greater familiarity with foreign made-ins in the product class than in a country with less familiarity.
Tse & Gorn (1993)	153 students in a basic marketing course at a public university on the West Coast	United States	Stereo systems made in Japan and Indonesia under Sony and 1 fictitious brand	Subjects perceived electronic products made in Japan to be significantly higher in quality than those made in Indonesia; findings suggest that even in the era of globalisation, COO may remain a salient factor in consumer product evaluation; Compared to the effects of a global brand (e.g., Sony), which seemed to dissipate with product experience in this study, CO seems to be a more enduring cue, exhibiting an influence even after product experience; subjects were more likely to report using the CO in their evaluation when the CO was unfavourable and the brand unknown; COO seems to sensitise consumers to use fewer cues; in sum, a strong global brand may not override the image consumers might have of the country in which the product is produced. Limitation of the Study: Consumers may have a positive bias towards products produced in their own countries because of patriotism and ethnocentrism (Han 1988; Johansson 1989)
Tse & Lee (1993)	Study 1: 123 university students in an undergrad advert. Course at a Southwestern public university; Study 2: 178 students in six different sections of another undergrad advertising course at same university.	United States	Study 1: Home stereo made in Japan and South Korea; Study 2: Sony & Goldstar home stereo made in Japan and South Korea	Study 1: for familiar products, consumers would likely use the origin info as summary constructs; when the CO is decomposed into component and assembly origins, the scope of the CO effect remains the same (I.e., the same product attributes are affected), but the magnitude of CO effect is reduced between the component and assembly origins; the findings do not suggest that component and assembly origin are attribute specific as some may expect; even when the CO is decomposed, their effects are still significant in consumer product evaluation; Study 2: Sony with components from Korea was rated as favourably as Sony with components from Japan; a good brand name does erode negative component origin effects; brand name does reduce origin effects. While there were some indications that a positive brand name does reduce the component origin effects, brand name's effect on assembly origin is much stronger and more obvious. This seems to suggest that decomposition of the country image and strong brand name may be one way of reducing negative country images; effects from brand name and product experience seemed to be able to override any effects due to component origin; after product experience, subjects changed their evaluation in such a way that the Korean-assembled products were rated higher; when a product's negative country image is decomposed, branded with a strong global name, and shown to provide reasonable performance, the consumers may perceive the product as performing well and having good purchase value. Subsequently, they would be proud to own it.
Martin & Eroglu (1993)		United States		Developed a scale to measure country image. The country image scale could be used to understand if and how different countries are likely to affect consumers' evaluations of different product classes; the scale, however, is strictly aimed at measuring one's image of a country and should not be used to assess image of or attitudes toward products from a country.

Cordell, V.V. (1992)	199 domestic households selected from telephone directory.	United States; major south western city	Timex/Tempomax for watch, Thom McAn/Pfister for shoes; Germany and Pakistan with reference to Korea.	Rank order differences and variances in perceived product quality were found to be more exaggerated among industrial countries than among less developed countries; consumers are more concerned about country of origin when the product carries an unfamiliar brand name; famous brand makers can shift production from IC to LDC with significantly less loss of market share than unfamiliar brands; downmarket brands may be particularly sensitive to country of origin; under some circumstances, the risk associated with a product may influence the consumers' willingness to tolerate the additional risk associated with the country source of production; the importance of brand in mitigating country derogation may be significantly greater at higher levels of performance risk.
Pisharodi & Parameswaran (1992)	678 completed and useable questionnaires from a large Midwestern metropolitan area	United States	Automobiles (domestic vs. foreign)	Prior weaknesses in COO studies, such as poor handling of a complex construct, single cue studies, and lack of methodological rigor, are being addressed. However, the results of their confirmatory factor analysis indicated that the theorised structure might need modification.
Wall et al (1991)	Respondents in a large, regional shopping centre in the suburbs of a major metropolitan area	Canada	Knit/polo shirt, leather wallet and telephone; diff country treatment to diff products: USA, Canada, Italy, HK, South Korea, Taiwan	Well-known brand names were favoured when the product was technically complex, while unknown brands were favoured for less complex products; the interaction between country and brand indicates that unknown brands were favoured only for high reputation countries but not low reputation countries; well-known brand names could not compensate for the negative bias against products from developing countries; older consumers and those who perceived themselves as good judges of product quality often rated products highest, felt less risk, and were most likely to buy the items. However, higher educational status frequently led to lower ratings of product quality and less likelihood of purchase which may indicate that these consumers hold generally critical and somewhat negative attitudes about product quality.
Han, C.M. (1990)	116; samples are demographically well-balanced	United States	Colour TV; compact automobiles	Country image, like brand image or seller reputation, serves as a summary construct; country image may be more important in evaluation of brands from a familiar country rather than from an unfamiliar country's brands, since consumers are more likely to have confidence in the quality of products from that country; country image may behave like a halo for an unfamiliar foreign country, but it may become a summary construct as consumers become familiar with the country's products;
LaTour & Henthorne (1990)	481 subjects from Beijing, Shanghai, Tianjin, Guang Zhou and Chong Qing	PRC	Products made in USA, Japan, West Germany and China	West German products were perceived as the most reliable (and significantly more so than their American counterpart); the comparisons within cities show West German and American products as most reliable compared to Japanese, and far out-distancing products made in the PRC; West German products are consistently the highest ranked products in all geographical regions, followed by USA, Japan and PRC; in Guang Zhou, West German products did not test as being significantly stronger than their American counterparts and the perception of American products was performance; Tianjin, Beijing, Guang Zhou and Chong Qing respondents indicated a high degree of interest concerning the availability of American produced TVs. Similarly, interest in American washing machines was found to be stronger in Tianjin, Guang Zhou and Chong Qing than in Shanghai; Chinese market should not be viewed as one homogeneous market; over all areas sampled, products produced in the PRC were perceived as being the least expensive, the least reliable, and possessing the least careful workmanship; COO plays a significant role in product perceptions; COO product perceptions were found to vary significantly across geographical regions within the PRC; Interest in American-produced products was found to be strong.

Davies et al (1990)	395 women aged 16 or older in 2 enclosed shopping malls	United States	4 identical men's shirts and women's sweaters made in USA, Korea and Hong Kong	Store prestige significantly influenced price estimates and quality perceptions. Neither COO nor "Buy American" campaign materials significantly influenced consumers' quality or price judgements; more consumers selected "domestic" shirts when the "Buy American" info was present; COO has limited influence on consumer decision making; an intercept study could add valuable info about consumers' use of COO as an info cue; store status was a significant factor in consumers' assessment of product quality. A well-reputed store can reduce purchasing risk for consumers by "standing behind" their product due to consumers' "inferred guarantee"; It would be important to select consumers who had just completed a purchase and query them about the purchase. As part of the inquiry, respondents should be asked the product's COO. An ad hoc evaluation of the purchase would determine whether the consumer had selected a product of the origin stated.
Papadopoulos & Heslop (1990)	2200 usable questionnaires; consumer samples were drawn in each city using systematic cluster sampling or quota sampling	US, Canada, GB, Netherlands, France, Germany, Greece and Hungary	Country-level analysis	Domestic products were evaluated highly overall (except in Greece and Hungary), but were rated as "best" by only two of the eight respondent groups (French, German). Domestic products were rated as equal to those from Japan by the Dutch sample, while in the remaining five samples the home country was rated lower than Japan. In addition, domestic goods were rated as equal with American products by the Canadian sample, lower than American and equal to Canadian and Swedish produced by the Greek sample, and fifth overall by the Hungarian sample; In conclusion, the findings showed that the position occupied by domestic products in most consumers' minds, while favourable, is not as strong as might have been expected - and not nearly as strong as domestic manufacturers and host governments in many countries seem to think it is. Consumers are cognizant of the weaknesses of domestic producers and hold favourable attitudes towards products from certain foreign origins, notwithstanding frequent media reports about the economic effects of imports and rising protectionism.
Obermiller & Spangenberg (1989)				The effects of price, brand name, package design, and other peripheral or extrinsic cues to quality are still poorly understood despite considerable research; the cognitive effects of COO labels result from an inference to some unknown attribute value. The constraints on any inference process are identified as individual difference variables: Consumers will use CO labels to infer other attributes if they perceive the two attributes to be associated, if they are confident in their knowledge of COO, and if there are no better indicators of the target attribute value; An affective response requires an evaluative response to the country stimulus, a stereotype, that overrides any attribute-based evaluations. Overall product evaluations may be coloured by other product related cues. Research on stereotypes, schematic processing, and halo effects indicated that such affective responses influence attitude directly, without affecting attribute beliefs; Normative processing of CO labels occurs when a country-relevant norm exists. When strong norms exist regarding country-specific purchases, CO may affect purchase intention without changing attribute beliefs or attitudes.
Han, C.M. (1989)	116; average respondents were 30-39yrs, female, married, Caucasian, 1-2 yrs college education, annual household income \$25-35k.	United States	Colour TV; compact automobiles	When consumers are not familiar with a country's products, country image may serve as a halo from which consumers infer product attributes and it may indirectly affect their brand attitude through their inferential belief. In contrast, as consumers become familiar with a country's products, country image may become a construct that summarises consumers' beliefs about product attributes and directly affects their brand attitude.
Chao, P. (1989a)	240 respondents between 21 and 70 who are not students from 2 suburban malls in a large mid-western city	United States	TVs, VCRs and Stereo component systems exported to US by Korean Gold Star Group in Hudson's	Credibility of attribute claims for products traditionally exported to the US by a company in a newly industrialised country can be significantly improved if the same company were to consider manufacturing investments in the US; a successful export strategy is sustainable if US retail distributors are carefully chosen (relates to the level of store prestige);

Hong & Wyer (1989)	128 college students enrolled in an introductory biz course	United States	PC and VCR made in West Germany, Mexico, Japan and South Korea	When subjects are extrinsically motivated to form an impression of a product, they may assess the implications of info about the product regardless of whether the COO info is known; When subjects had no particular interest in evaluating a product at the time they received info about it, conveying the product's COO before describing its specific attributes increased the influence of these attributes on product evaluations; COO itself influenced product evaluations regardless of whether it was learned before or after the attribute info and regardless of subjects' info-processing objectives; Although specific attributes had more influence on product evaluations when presented after COO info, they were recalled no better than when they were learned before the COO info; no evidence that COO is used as a surrogate variable; a product's COO appears to be used as an attribute of the product, much as are specific product attributes, and likely has an independent influence on product evaluation. This direct, informational influence appears to occur over and above the indirect effects of COO on the impact of other presented info.
Thorelli et al (1989)	82 completed questionnaires from 132 US grad students at a Mid-Western University from the university student directory using systematic sampling procedure	United States	AM/FM cassette recorders sold in K-Mart and Service Merchandise; made in Japan and Taiwan	Results showed a significant 3-way interaction effect of the warranty, store reputation and COO on perceived quality and overall attitude but not purchase intention; warranty and COO have significant main effects on perceived product quality, overall attitude and purchase intention. Store image showed non-significant effects on the criterion variables except for perceived quality; low level of influence of country-of-origin cue; the effect of COO on the perceived quality and overall attitude is significantly less when the product is sold in a prestigious retail store with an excellent warranty.
Chao (1989b)	240 subjects from 2 suburban shopping malls in a large Midwestern city	United States	Goldstar TV, VCR and stereo systems made in US and Korea and sold in Hudson	Both quality perception and purchase intent are influenced by country, price and distribution; the precise effects appear to be product-specific even for products in the same general product category; the country and distribution main effects are significant on both quality perception and purchase intent, except for TV where the country effect on quality perception and the distribution effect on purchase intent are not significant; the mean quality rating and purchase intent were significantly higher for the 3 Korean-made products if they were distributed through the Hudson's; on the other hand, the consumer appeared to be indifferent to the type of distribution of these Korean products if they were to be made in the US; the price concession necessary to compensate for a poorer perceived product quality apparently only worked for the TV. A lower price offered for a Korean-made TV set increased the likelihood of purchase.
Han, C.M. & Terpstra, V. (1988)	150 interviews; 38% btw 31-40 yrs, 51% male, 87% Caucasian, 49% white-collar, 34% college edu, 31% \$20-40k pa.	United States; Midwestern city	Colour TVs and subcompact automobiles made in USA, Japan, Germany and Korea	COO has greater effect on consumer evaluations of bi-national product quality than brand name; COO effects is product-specific; both brand-country image and seller familiarity may affect the value of brand name stimuli; distinctive characteristics of country images at the level of product dimensions appear to travel, or be generalisable reasonably well across product categories; values of stimuli can be estimated; serviceability was found to be a factor which encourages US consumers to prefer home country products, but well-known foreign brand names can help overcome the competitive disadvantage of foreign products on serviceability.
Chasin et al (1988)	84 useable questionnaires generated from participants and influencers on the purchasing of industrial goods by the firm	United States; Austria	Industrial products made in USA, Austria, Poland, Hungary and USSR	Buyer perception of goods made in Eastern Europe is stereotyped by both Austrian and American respondents. The COO is generalised and not specific to any product category; the US and Austrian respondents' bias may be more related to personal dogmatism and influenced more by their attitudes and/or social systems of the countries. The bias towards the country is primary, the product evaluation is secondary. In this case, COO may in fact be an intrinsic cue; The hypothesis that familiarity with a product reduces stereotyping is rejected. US respondents with little or no familiarity with USSR products did not employ COO as a surrogate for product knowledge any more than Austrian respondents, whose familiarity was greater; Ethnocentrism may influence country image where the strength of other cues, such a product attributes, are limited.

Wall et al (1988)	273 men and 362 female obtained from a nationally representative panel of Canadian households	Canada	A large no. of products made in 19 countries	There are important differences in how and what men and women think about product quality and about images of which countries produced quality products; men were more likely to include judgements of countries' political orientations while women considered geographic proximity when assessing countries' abilities to produce consumer goods; men grouped the highly industrialised, "hi-tech" countries very clearly apart from the medium quality and Communist countries whilst women did not differentiate these countries so distinctly; both sexes placed Canada and the US together and also grouped the developing Pacific Rim countries similarly.
Parameswaran & Yaprak (1987)	158 (US) and 202 (Turkey) useable responses form sample of 600 biz execs from the Atlanta Chamber of Commerce Directory and Istanbul Chamber of Commerce and Chamber of Industry Directories	United States; Turkey	Cars, cameras and calculators made in West Germany, Japan and Italy	The same scales (used in the questionnaire) may have different reliabilities in different cultures, and that the same scales may exhibit different reliabilities when used by the same individual in evaluating products from different cultures. That is, differing levels of awareness, knowledge, familiarity, and affect with the peoples, products in general, and specific brands from a chosen COO may result in differentials in the reliability of similar scales when used in multiple national markets. Solution: Measures to be used in cross-national comparisons may be pre-tested in each of the markets of interest until they elicit similar (and high) levels of reliability; or devise a method to develop a confidence interval (akin to statistical spreads based on sample size) around the values of the measure based on its reliability.
Morganosky, M.A. & Lazarde, M.M. (1987)	259 households; mean age 34 yrs, with 14.5 yrs schooling; 78% employed and average household income \$24,903.	Medium-sized Midwestern US city	Brand types (name, designer, store) and store types (dept, discount, national chain, off-price)	Designer brands made in the US were perceived to have the best quality; department stores were rated the highest and discount stores lowest; name brands received highest quality ratings and store brands received lowest; US-made apparel was rated considerably higher in terms of quality than imported apparel; image of quality was significantly lowered by association with imports, but not significantly enhanced by association with US-made apparel (except for discount stores); imported name brands received lower quality ratings than name brands in general; US-made association did not increase or decrease the perception of name-brand quality but store brands were perceived as significantly higher in terms of quality if they were made in USA; import status did not influence perceptions of quality of designer brands; more highly educated consumers gave higher quality ratings to imports in general, imports found in dept stores and imports found in discount stores; occupational level was also found to influence quality ratings; age appeared to influence perception of quality for only one variable - off-price store imports;
Johansson & Nebenzahl (1986)	320 completed interviews conducted in 4 shopping malls in northern New Jersey (lasted average 45 mins each)	United States	Chevrolet and Buick from US, Honda and Mazda from Japan + made in West Germany, S. Korea, Mexico and Philippines	It seems that moving production to West Germany hurts no one's brand image. Even Buick gains; For the two American cars, Buick seems to suffer least from going abroad. Chevy does better than Buick only in Japan, but both suffer from moving production to Japan; Mazda seems to be affected less negatively by a move abroad than Honda. It loses less when the move is to a low-wage country (S.Korea, Mexico or Philippines) and gains proportionately more going to either the US or W.Germany; Both Mazda and Honda stand to gain with these respondents by moving production to the US. A company can apparently improve its brand image significantly by building its cars in a high-status country; the higher-rated car-producing country confers some added benefits onto the brand by eliminating the connection of the lesser regarded home country (and, conversely, a lowly regarded host country does damage both directly to the brand and by disassociating the brand from its home country). Thus, it makes more sense to attempt improving one's status - or avoid losing it - by concentrating production locations in well-regarded countries and charging a premium price rather than attempting to locate in low-cost countries.
Sternquist and Davis (1986)	49 female studies enrolled in a course in the textile/apparel industry at a major Midwestern uni.	United States	Sweaters made in USA and Korea from high prestige and low prestige store	Consumers perceived significant differences in quality due to store prestige but did not perceive quality differences between the domestic and imported sweaters; domestic-made products are not automatically presumed to be of higher quality than imports; subjects perceived differences in sweater price due to the store prestige info cue.

Johansson & Thorelli (1985)	70 grad students at a West Coast University (US) and 82 under- and post-grad students from 6 Japanese universities	United States; Japan	Automobiles	COO of the imported product will often be a salient factor in the buyer evaluation process. The effect of country stereotype will be to shift the position of the product in the perceptual space and alter the overall evaluations of its merits. The competitive strength of the product will thus be affected by country biases; country stereotyping can at times represent quite a considerable price disadvantage in a market. As such, the multinational marketer might well consider the possibility of shifting production in such a fashion as to exploit the existence of country-specific advantages;
Johansson et al (1985)	70 U.S. graduate students from a West Coast University; 82 Jap students from 6 universities near Tokyo and Kobe.	United States and Japan	Automobiles made in the USA, Japan and Germany	The impact of familiarity or knowledge about the product is high on overall attribute ratings; popularity of a car also influenced overall ratings, with market share significantly related to overall rating; country of origin appears to only have some impact on certain attribute ratings but not overall evaluation; familiarity with car models of different national origins appears to affect evaluation; nationality affects ratings but not necessarily reflect a prejudice in favour of home-made cars; age and sex influence ratings but not income;
Erickson et al. (1984)	96 MBA students at the University of Washington	United States	Automobiles - 4 US, 2 German and 4 Japanese models	Familiarity affects attitude directly; true attribute levels influence beliefs; an image variable (COO) on the product evaluation process indicates that an image variable does not appear to be affective in nature; such variables influence belief formation rather than attitude; image variables affect beliefs through inferences made by consumers; effect of image variables on attitude is not direct; any influence appears to be a secondary one acting through beliefs.
Kaynak, E. & Cavusgil, T.S. (1983)	197 households; 132 males and 65 females.	Canada	Electronic goods, food products, fashion merchandise and household goods from 25 countries	60% respondents expressed preference for products of Canadian origins. The reasons given for preferring to 'buy Canadian' were that it is patriotic, good for the economy, and keeps money in Canada. However, respondents may be willing to 'buy Canadian' if no personal or financial sacrifices are involved, e.g., Canadians will not accept inferior-quality Canadian products when superior foreign products are available; Strong preference for American products except food products; country-of-origin effect is product-specific; similar level of perceptions of product quality from developed countries.
Wang, C-K. & Lamb, C.W.Jr. (1983)	500 residents selected from the telephone directory	United States; Bryan-College Station, Texas	National foreign environmental influences - economic, political and cultural	Consumers were most willing to buy products from highly economically developed and politically free countries with a European, Australian, or New Zealand culture; respondents were most willing to buy products from free countries, less willing to buy products from partially free countries, and least willing to buy products from countries that are not free; similarly, they are more receptive to products from developed countries, less receptive to products from developing countries, and even less receptive to products from poor countries.
Cattin et al (1982)	123 American and 97 French Director of Purchasing	United States; France	Products made in England, France, West Germany; Japan and USA	Japanese and West German made in concepts are perceived more favourably by Americans than French, while the made in England concept is more favourably perceived by French respondents.
Bilkey & Nes (1982)				All the reviewed studies found that COO did influence product evaluations. However, most of the studies involved only a single cue which is bound to yield a significant cue effect; demand effects are possible in most of the studies (i.e., respondents guess the purpose of the study which affects their responses); usually, there is no report of respondent debriefing; and validity and reliability assessments of the measurements used tend to be inadequate or non-existent.
Nagashima, A. (1977)	100 Jap businessmen	Japan	Products made in USA, Japan, England, Germany and France	Jap businessmen still feel there is a definite prestige in owning US products even though they are not as high rated as European products but overall, US image has declined considerably since the 1967 study; the Jap feel little pride of ownership of their own products, and take much more pride in possessing US and European products, esp. German and French (1967 & 1975 study); Jap feel that owning French products brings the highest prestige.

Darling, J.R. & Kraft, F.B. (1977)	303 respondents; 3/4 from managers and employees, 1/4 from university faculty personnel, students and staff	Helsinki and surrounding area of Finland	Products made in England, France, West Germany, Japan, Sweden, USA and USSR	Knowledge of country of origin positively affects consumer attitudes toward products; Finnish products received highest overall ratings; knowledge of country of origin positively affects Finnish consumers' attitudes toward other (non-product) aspects of the marketing mix, such as brand name and reputation of retailers; knowledge of country of origin positively affects actual shopping behaviour and satisfaction; Finnish consumers have strongest preference for domestic-made products; the country of origin label plays a large role in the purchase decision when a firm's brand name is completely unknown or relatively unfamiliar; Finnish consumers have intense national loyalty and pride; Finnish consumers prefer products from European countries.
Etzel, M.J. & Walker, B.J. (1974)	301 female respondents producing 293 usable responses; 92% married, median age 35, median edu high school grad, median family income \$10-\$14k	United States	All products, automobiles, cameras and mechanical toys from US, Germany and Japan	Consumers do not perceive all foreign products or all products from a particular country as being the same or very similar; relatively high congruence between all products from Germany and German automobiles - it could be that the volume of advertising and market penetration achieved by German auto manufacturers has established their products as the reference point for German products in general; consumers are capable of distinguishing among foreign products on important characteristics.
Gaedeke (1973)	200 students in undergrad marketing class (juniors and seniors) at Sacramento State College	United States	Products in general, food, electronic and textiles made in various developing countries	US products ranked noticeably higher than any of the developing countries; quality images for specific items from individual countries vary widely (product-specific); branded products that are ranked high in quality when COO info is not known may rank equally high, higher, or lower when COO info is indicated together with the brand name; COO info does not significantly affect opinions about the quality of branded products in general. Individually, there may be relatively large variations in consumer attitudes toward well-known branded products when the consumer is made aware of the informational input "made in ..." (COO). Specific branded products may be viewed more or less favourably by the consumer when he is made cognizant of the product's origin.
Nagashima, A. (1970)	1967 study - 100 prominent Tokyo businessmen's attitude towards products made in US, Japan, England, Germany and France.	United States and Japan	1965 study - 70 US businessmen's attitude towards products made in US, Japan, Italy, England and Germany. 1967 study, refer to column E	Japanese associate US products as high cost and less reliable and less meticulously made than does the Germany and England made products; Japanese see a definite prestige value in owning US products, even though they are not as highly rated overall as are European products; Japanese associated Japan-made products with careless or poor workmanship but are believed to be as reasonably priced as English and German products; US businessmen think more highly of Japanese products than does the Japanese; Japanese take little pride in owning their own products but more pride in US and European-made products; Japanese associate German products as reasonable price, exclusive and reliable; US businessmen ranked German products equal to US products in terms of technical and engineering; Japanese feel that all European products are prestigious; Japanese regarded English products as expensive and luxury items but reliable and meticulous workmanship; US businessmen rate English products as less aesthetically appealing than German.
Schooler & Wildt (1968)	236 respondents	United States	Glassware made in USA and Japan	American consumers are biased against Japanese products; the effect of bias on the selection decision between similar, alternative domestic and foreign goods can be offset with price concessions of varying amounts.
Reiersen, C.C. (1967)	1000 students of similar background and characteristics.	United States	Italian products; Japanese products	If the prejudice of consumers toward a nation's products is not too intense, consumer attitude may be made significantly more favourable by even slight exposure to communication and promotion devices; foreign product image held by American consumers exposed to specified communication media differs significantly from the foreign product image of American consumers not exposed to these media; the image of nation's products can be made more favourable by associating these products with the names of prestige retailers in the US.
Schooler, R.D. (1965)	200 part-time students at the University of San Carlos in Guatemala City	Guatemala	Coctel de fruta and beige fabric of Guatemala origin	Significant differences in the evaluations of products, identical in all respects except the name of the country appearing on the label, were found and a similar pattern of intercountry differences was found for each of the two test products. (test nations were Guatemala, El Salvador, Costa Rica and Mexico).

Appendix 2

Findings from initial investigative study in Beijing

Findings from initial investigative study in Beijing with respect to consumers' perceptions and attitudes toward foreign grocery and hypermarket retail brands.

Focus Group Studies

- i) Focus Group 1 (6 females) – all of them working for a foreign FMCG company distributing toothpaste to retailers (both domestic and foreign retailers) within the PRC.
- ii) Focus Group 2 (3 males) – all of them are senior managers working for different foreign FMCG companies (i.e., baby milk powder, batteries, toiletries).
- iii) Focus Group 3 (2 females and 2 males) – all of them are sales executives recommended by the senior managers from group interview 2.

Street Intercept (i.e., structured interviews) – total 21 respondents

- i) 11 respondents (9 females and 2 males) aged above 45 years and from low education group.
- ii) 5 respondents (3 females and 2 males) aged between 15 and 24 years who are currently studying or have already obtained degrees.
- iii) 4 respondents (3 females and 1 male) aged between 25 and 44 years who have middle- to high-level education.
- iv) 1 female respondent aged between 15 to 24 years who is currently studying in the high school.

Findings

1. Consumers in Beijing earn an average monthly income of RMB 2,000 (Group Interviews).

2. Beijing consumers place greater emphasis on product brands than retail brands (Group Interviews & Survey Respondents).
3. Beijing consumers do not totally associate retail brands with the retailers' country of origin but have positive perceptions of foreign retailers, because majority of them interviewed know that foreign retailers are required to engage in joint venture agreements with domestic retailers according to PRC regulations (Group Interviews & Survey Respondents). In this respect, foreign retail stores are perceived as domestic. However, they noted that their perceptions might be different if the foreign retail stores are 100% foreign-owned (Group Interviews & Survey Respondents).
4. Most of the Beijing consumers do not totally associate product brands with the products' country of origin but have positive perceptions of foreign products, because most of the products are made in the PRC (Group Interviews & Survey Respondents). For example, Dettol soap made in China, Coca-Cola made in China, etc. In terms of product quality, the consumers perceived foreign product brands to be superior in quality as compared to domestic-made products due to superior technology and better quality control (Group Interviews & Survey Respondents).
5. The Beijing consumers' choice of retailer is dependent on the store's retail format (Group Interviews & Survey Respondents). Auchan and Carrefour are identified to be places suitable for one-stop shopping experience whereby consumers are able to obtain all kinds of products under one roof. On the contrary, domestic hypermarkets do not stock a wide variety of products and the products on displayed are mostly domestically made and branded (Group Interviews & Survey Respondents).
6. Beijing consumers prefer to shop in speciality stores for electrical, computing and fashion products. Their main objectives of shopping in hypermarkets are mainly due to their reliable product quality and convenience of one-stop shopping (Group Interviews & Survey Respondents).

7. Auchan and Carrefour display a wide variety of merchandises that are domestically and foreign branded (Group Interviews & Survey Respondents). Observation: more than 90% of the foreign branded products displayed in the foreign-owned retail stores are made in China.

8. In terms of prices, the price of products in Auchan and Carrefour are competitive to those in domestic-owned retailers such as Beijing Hualian and Jing Ke Long (Group Interviews). An observation was that the product prices in Auchan and Carrefour may even be cheaper than those in domestic-owned retailers. In contrast, imported products are much more expensive than domestic-made products due to high import tax (Group Interviews & Survey Respondents). As such, Beijing consumers are less concerned about the prices of products that are foreign or domestic branded in hypermarkets, as they know that the products are made locally (Group Interviews). Therefore, their criteria of product choice are narrowed down to price and their perception of the products' quality based on the products' branding image (but not country of origin) (Group Interviews).

9. In terms of location, Auchan is situated in out-of-town location (i.e., large, double-storey hypermarket with large car park), whilst Carrefour and the domestic-owned retailers are located in residential and commercial areas, although the Carrefour hypermarkets are situated outside the key shopping areas in Beijing (Group Interviews). An observation was that work-in-progress residential developments have sprouted around the foreign-owned retail stores.

10. Most Beijing consumers would generally shop in domestic-owned retail outlets because the outlets are easily accessible and the consumers are able to obtain the required products although there might not be many choices. On the other hand, Beijing consumers are more willing to accumulate their shopping list for non-essential items and then visit the foreign-owned retail stores on weekends (Group Interviews & Survey Respondents). A common remark from the respondents was that the transport infrastructure in Beijing is not well developed and hence, it is not convenient to patronise the foreign-owned retail stores on a daily basis. Moreover, most Beijing consumers do not own cars and hence, it was

inconvenient for them to visit retail outlets that are highly inaccessible (Group Interviews and Survey Respondents).

11. Most Beijing consumers who purchase domestic-made products are mostly influenced by media propaganda rather than patriotism. However, the respondents mentioned that rural consumers are more likely to be patriotic than urban consumers (Group Interviews).

12. There was less campaign against foreign retail brands because the government has divested most of its retail interest to the private sector. In contrast, the government still strongly promotes domestic-made products because state-owned manufacturers make these products (Group Interviews).

13. The older generation tend to exhibit higher ethnocentric tendencies than the younger generation (Survey Respondents).

14. The rural consumers tend to exhibit higher ethnocentric tendencies than the urban consumers (Group Interviews and Survey Respondents).

15. Social group (i.e., high income, educated group vs. low income, less educated group) plays an important role in the Beijing consumers' perceptions toward foreign retail brands, product brands and level of ethnocentric tendency (Group Interviews and Survey Respondents).

16. Only foreign-made products are affected by the consumers' level of ethnocentric tendency. Currently, foreign retail brands are still perceived as 'domestic' due to joint venture agreements enforced by the government. However, the surveyed respondents noted that their perceptions might change when this ruling can no longer be enforced (i.e., when China is required to abolish this regulation by 2005-6 as required by the WTO regulations) (Group Interviews & Survey Respondents).

17. Majority of the Beijing consumers are mostly utilitarian-oriented (Survey Respondents). For the Beijing consumers, price and convenience are more important than store layout and/or atmospherics (Group Interviews & Survey Respondents).

18. Beijing consumers tend to emphasise less on hedonic shopping within the grocery sector as compared to the fashion sector (Group Interviews & Survey Respondents).

19. Most Beijing consumers (i.e., unemployed, flexible working hours, early birds) preferred to shop on a daily basis for fresh products, which they obtain from wet markets, as these fresh products are perceived to be fresher and cheaper than those sold in retail stores (Group Interviews & Survey Respondents).

20. A segment of the Beijing consumers preferred the act of bargaining (Group Interviews & Survey Respondents).

21. Beijing consumers are less likely to patronise foreign-owned retail stores that display mostly imported foreign-made products because the products are expensive. However, they do patronise this type of retail format for hedonic purposes, albeit not purchasing products within these stores (Group Interviews & Survey Respondents).

Appendix 3

A summary of measurement instrument items in the English version

7-item Familiarity scale by Rao and Monroe (1988)

1. In Beijing, please name all the domestic and foreign hypermarkets that you can think of.
2. Have you ever purchased products from a foreign hypermarket? YES NO
3. Do you presently shop in foreign hypermarkets? YES NO
4. Please list, in their order of importance, the attributes you think are important when evaluating foreign hypermarkets.
5. Are domestic hypermarkets better than foreign hypermarkets? YES NO
6. European Hypermarket is a retail brand for which country?
7. Regarding foreign hypermarkets, would you consider yourself to be (please tick one)
 - completely unfamiliar
 - unfamiliar
 - neither familiar nor unfamiliar
 - familiar
 - extremely familiar

4+1-item Behavioural Loyalty scale by Babin and Attaway (2000)

8. _____ out of every five times I shop for products, I shop at European Hypermarket.
9. Out of every RMB100 I spend in a store like European Hypermarket, I spend RMB_____ at European Hypermarket.
10. Out of every RMB100 I spend on products, I spend RMB_____ at European Hypermarket.
11. My usual shopping trip to European Hypermarket lasts about _____ minutes.
12. How much of the money you spend on products each month do you spend in European Hypermarket?

0-20%	21-40%	41-60%	61-80%	81-100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13-item Marlowe-Crowne Social Desirability scale by Reynolds (1982)

13. It is sometimes hard for me to go on with my work if I am not encouraged. True False
14. I sometimes feel resentful when I don't get my way. True False
15. On a few occasions, I have given up doing something because I thought too little of my ability. True False
16. There have been times when I felt like rebelling against people in authority even though I knew they were right. True False
17. No matter who I'm talking to, I'm always a good listener. True False
18. There have been occasions when I took advantage of someone. True False
19. I'm always willing to admit it when I make a mistake. True False
20. I sometimes try to get even, rather than forgive and forget. True False
21. I am always courteous, even to people who are disagreeable. True False
22. I have never been irked when people expressed ideas very different from my own. True False
23. There have been times when I was quite jealous of the good fortune of others. True False

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24. I am sometimes irritated by people who ask favors of me. True False

25. I have never deliberately said something that hurt someone's feelings. True False

3-item Attitudinal Loyalty scale by Sirohi, McLaughlin and Wittink (1998)

	Extremely Likely				Not at all Likely
26. Likelihood to continue shopping in European Hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
27. Likelihood to use European Hypermarket for more of your shopping needs in the next 12 months.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
28. Likelihood to recommend European Hypermarket to a friend.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

6-item Willingness To Shop scale by Klein, Ettenson and Morris (1998)

	Strongly Disagree						Strongly Agree
29. I would feel guilty if I shop in a foreign hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
30. I would never shop in a foreign hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
31. Whenever possible, I avoid shopping in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
32. Whenever available, I would prefer to shop in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
33. I do not like the idea of shopping in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
34. If products sold in two foreign hypermarkets were equal in quality, but one was foreign and one was from China, I would pay more to shop in a Chinese hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

9-item Personal Shopping Value scale by Babin and Attaway (2000)

	Strongly Disagree				Strongly Agree
35. I only shop at foreign hypermarkets when I need to buy something.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
36. A shopping trip to foreign hypermarkets is truly a joy.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
37. I enjoy the shopping trip for its own sake, not just for items I may have purchased.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
38. While shopping at foreign hypermarkets, I was able to forget my problems.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
39. Compared to other things I could have done, the time spent at foreign hypermarkets was truly enjoyable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
40. While shopping at foreign hypermarkets, I found just the items that I was looking for.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
41. I couldn't buy what I really needed in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
42. I was disappointed because I had to go to another store to complete my shopping.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
43. It was a good shopping trip because it was over very quickly.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

10-item CETSCALE by Shimp and Sharma (1987)

	Strongly Disagree						Strongly Agree
44. Only those products that are unavailable in China should be imported.	1	2	3	4	5	6	7
45. Chinese products, first, last, and foremost.	1	2	3	4	5	6	7
46. Purchasing foreign-made products is un-Chinese.	1	2	3	4	5	6	7
47. It is not right to purchase foreign products, because it puts Chinese out of jobs.	1	2	3	4	5	6	7
48. A real Chinese should always buy China-made products.	1	2	3	4	5	6	7
49. We should purchase products manufactured in China instead of letting other countries get rich off us.	1	2	3	4	5	6	7
50. Chinese should not buy foreign products, because this hurts Chinese business and causes unemployment.	1	2	3	4	5	6	7
51. It may cost me in the long-run but I prefer to support Chinese products.	1	2	3	4	5	6	7
52. We should buy from foreign countries only those products that we cannot obtain within our own country.	1	2	3	4	5	6	7
53. Chinese consumers who purchase products made in other countries are responsible for putting their fellow Chinese out of work.	1	2	3	4	5	6	7

3+3+3 item Store Image scale by Teas and Agarwal (2000)

	Strongly Disagree						Strongly Agree
54. European Hypermarket sells high quality merchandise.	1	2	3	4	5	6	7
55. European Hypermarket is a prestigious store.	1	2	3	4	5	6	7
56. European Hypermarket is a high-quality store.	1	2	3	4	5	6	7
57. Foreign hypermarkets sell high quality merchandise.	1	2	3	4	5	6	7
58. Foreign hypermarkets are prestigious stores.	1	2	3	4	5	6	7
59. Foreign hypermarkets are high-quality stores.	1	2	3	4	5	6	7
60. Domestic hypermarkets sell high quality merchandise.	1	2	3	4	5	6	7
61. Domestic hypermarkets are prestigious stores.	1	2	3	4	5	6	7
62. Domestic hypermarkets are high-quality stores.	1	2	3	4	5	6	7

6-item Country-Of-Origin scale by Teas and Agarwal (2000)

	Strongly Disagree				Strongly Agree
63. In general, I would expect products made in Europe to be high quality.	1	2	3	4	5
64. In general, I would expect products made in Europe to be durable.	1	2	3	4	5
65. In general, I would expect products made in Europe to be high in prestige.	1	2	3	4	5

66. In general, I would expect products made in Europe to be reliable. 1 2 3 4 5
67. In general, I would expect products made in Europe to be made with meticulous workmanship. 1 2 3 4 5
68. In general, I would expect products made in Europe to be dependable. 1 2 3 4 5

6-item Willingness To Buy scale by Klein, Ettenson and Morris (1998)

- | | | | | | | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Strongly Disagree | | | | | | Strongly Agree |
| 69. I would feel guilty if I bought a foreign product. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 70. I would never buy a foreign car. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 71. Whenever possible, I avoid buying foreign products. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 72. Whenever available, I would prefer to buy products made overseas. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 73. I do not like the idea of owning foreign products. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 74. If two products were equal in quality, but one was foreign and one was from China, I would pay 10% more for the product from China. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |

Demographic Variables

75. Age 15-24 25-34 35-44 45-54 >55
76. Gender Male Female
77. Education Middle High Degree Others :
78. Income per month (RMB) (please tick one)
- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> 1000 or less | <input type="checkbox"/> 5000 to 5999 |
| <input type="checkbox"/> 1000 to 1999 | <input type="checkbox"/> 6000 to 6999 |
| <input type="checkbox"/> 2000 to 2999 | <input type="checkbox"/> 7000 to 7999 |
| <input type="checkbox"/> 3000 to 3999 | <input type="checkbox"/> 8000 or more |
| <input type="checkbox"/> 4000 to 4999 | |

Miscellaneous Questions

79. Do you own a car? Yes No
80. How many years education do you have?
81. Which type of products do you buy more often in European Hypermarket? Grocery General Merchandise
82. How do you usually travel to European Hypermarket?
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Walk | Cycle | Public Transport | Taxi | Car |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Appendix 4

Actual English measurement instrument



We are conducting a study in order to help grocery retailers achieve a better understanding of consumers' expectations so that they can improve their products and services to meet your needs and wants better. We would appreciate your cooperation in this study.

Please answer all the questions as best as you can. A number of questions ask for your opinion on some issues. There are no right or wrong answers. It is your opinion that is important. If some questions appear similar, please do not worry about them.

Your answers are very important to this study and will be kept strictly confidential. This study is sponsored by Loughborough University, United Kingdom, and is not associated with any private organisation. The findings from this study will only be used for academic purposes.

Thank you for your cooperation.

Section 1

Please fill in the blanks or please tick the appropriate box.

1. In Beijing, please name all the domestic and foreign hypermarkets that you can think of.

2. Have you ever purchased products from a foreign hypermarket? YES NO
3. Do you presently shop in foreign hypermarkets? YES NO
4. Please list, in their order of importance, the attributes you think are important when evaluating foreign hypermarkets.

5. Are domestic hypermarkets better than foreign hypermarkets? YES NO
6. European Hypermarket is a retail brand for which country?
7. Regarding foreign hypermarkets, would you consider yourself to be (please tick one)
 completely unfamiliar unfamiliar neither familiar nor unfamiliar familiar extremely familiar
8. _____ out of every five times I shop for products, I shop at European Hypermarket.
9. Out of every RMB100 I spend in a store like European Hypermarket, I spend RMB_____ at European Hypermarket.
10. Out of every RMB100 I spend on products, I spend RMB_____ at European Hypermarket.
11. My usual shopping trip to European Hypermarket lasts about _____ minutes.
12. How much of the money you spend on products each month do you spend in European Hypermarket?
 0-20% 21-40% 41-60% 61-80% 81-100%
13. Which type of products do you buy more often in European Hypermarket?
 Grocery General Merchandise
14. How do you usually travel to European Hypermarket?
 Walk Cycle Public Transport Taxi Car
15. Do you own a car? YES NO

Section 2

Please tick the number that corresponds to your opinion.

1 = Not At All Likely

5 = Extremely Likely

	Not At All Likely				Extremely Likely
1. Likelihood to continue shopping in European Hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Likelihood to use European Hypermarket for more of your shopping needs in the next 12 months.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. Likelihood to recommend European Hypermarket to a friend.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Section 3

Please tick the number that corresponds to how much you agree or disagree that the following statements apply to you.

1 = Strongly Disagree

5 = Strongly Agree

	Strongly Disagree				Strongly Agree
1. In general, I would expect products made in Europe to be high quality.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. I only shop at foreign hypermarkets when I need to buy something.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. A shopping trip to foreign hypermarkets is truly a joy.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. In general, I would expect products made in Europe to be durable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. I enjoy the shopping trip for its own sake, not just for items I may have purchased.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. In general, I would expect products made in Europe to be high in prestige.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. While shopping at foreign hypermarkets, I was able to forget my problems.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. In general, I would expect products made in Europe to be reliable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. Compared to other things I could have done, the time spent at foreign hypermarkets was truly enjoyable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. While shopping at foreign hypermarkets, I found just the items that I was looking for.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. In general, I would expect products made in Europe to be made with meticulous workmanship.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

	Strongly Disagree				Strongly Agree
12. I couldn't buy what I really needed in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. I was disappointed because I had to go to another store to complete my shopping.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14. In general, I would expect products made in Europe to be dependable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. It was a good shopping trip because it was over very quickly.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Section 4

Please tick the number that corresponds to how much you agree or disagree that the following statements apply to you.

1 = Strongly Disagree

7 = Strongly Agree

	Strongly Disagree						Strongly Agree
1. Foreign hypermarkets sell high quality merchandise.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
2. I would feel guilty if I shop in a foreign hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
3. Only those products that are unavailable in China should be imported.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
4. I would never shop in a foreign hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
5. European Hypermarket sells high quality merchandise.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
6. Whenever possible, I avoid shopping in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
7. Chinese products, first, last, and foremost.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
8. Whenever available, I would prefer to shop in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
9. Purchasing foreign-made products is un-Chinese.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
10. Domestic hypermarkets sell high quality merchandise.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
11. I do not like the idea of shopping in foreign hypermarkets.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
12. It is not right to purchase foreign products, because it puts Chinese out of jobs.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
13. Foreign hypermarkets are prestigious stores.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

	Strongly Disagree						Strongly Agree
14. If products sold in two foreign hypermarkets were equal in quality, but one was foreign and one was from China, I would pay more to shop in a Chinese hypermarket.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
15. A real Chinese should always buy China-made products.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
16. European Hypermarket is a prestigious store.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
17. I would feel guilty if I bought a foreign product.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
18. We should purchase products manufactured in China instead of letting other countries get rich off us.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
19. Domestic hypermarkets are prestigious stores.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
20. I would never buy a foreign car.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
21. Chinese should not buy foreign products, because this hurts Chinese business and causes unemployment.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
22. Whenever possible, I avoid buying foreign products.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
23. Foreign hypermarkets are high-quality stores.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
24. It may cost me in the long-run but I prefer to support Chinese products.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
25. Whenever available, I would prefer to buy products made overseas.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
26. European Hypermarket is a high-quality store.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
27. We should buy from foreign countries only those products that we cannot obtain within our own country.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
28. I do not like the idea of owning foreign products.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
29. Chinese consumers who purchase products made in other countries are responsible for putting their fellow Chinese out of work.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
30. Domestic hypermarkets are high-quality stores.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
31. If two products were equal in quality, but one was foreign and one was from China, I would pay 10% more for the product from China.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

Section 5

Please tick the appropriate box.

- It is sometimes hard for me to go on with my work if I am not encouraged. True False
- I sometimes feel resentful when I don't get my way. True False

- 3. On a few occasions, I have given up doing something because I thought too little of my ability. True False
- 4. There have been times when I felt like rebelling against people in authority even though I knew they were right. True False
- 5. No matter who I'm talking to, I'm always a good listener. True False
- 6. There have been occasions when I took advantage of someone. True False
- 7. I'm always willing to admit it when I make a mistake. True False
- 8. I sometimes try to get even, rather than forgive and forget. True False
- 9. I am always courteous, even to people who are disagreeable. True False
- 10. I have never been irked when people expressed ideas very different from my own. True False
- 11. There have been times when I was quite jealous of the good fortune of others. True False
- 12. I am sometimes irritated by people who ask favors of me. True False
- 13. I have never deliberately said something that hurt someone's feelings. True False

Section 6

- 1. Age 15-24 25-34 35-44 45-54 >55
- 2. Gender Male Female
- 3. Education Middle High Degree Others : _____
- 4. Income per month (RMB) (please tick one)

<input type="checkbox"/> 1000 or less	<input type="checkbox"/> 5000 to 5999
<input type="checkbox"/> 1000 to 1999	<input type="checkbox"/> 6000 to 6999
<input type="checkbox"/> 2000 to 2999	<input type="checkbox"/> 7000 to 7999
<input type="checkbox"/> 3000 to 3999	<input type="checkbox"/> 8000 or more
<input type="checkbox"/> 4000 to 4999	
- 5. How many years of education do you have? _____

Thank you for your cooperation.

Appendix 5


Sample of completed Chinese questionnaire from 1st pilot test

Comments

1) Color paper better.

2) Support foreign products

PILOT TEST



Loughborough University

我们进行此项调研的目的是为了帮助零售业主们更好地了解消费者的期望, 以方便他们提高产品和服务水平而更能满足您的需要. 我们非常感谢您的合作.

请仔细回答所有问题. 一些问题需要您阐述观点. 答案并非对错, 您的观点才是最重要的. 如果有些问题看上去很相似, 请不要担心.

您的答案对本研究很重要, 我们将严格保密. 本研究由英国拉夫堡大学赞助, 与任何私人组织无关. 此研究的结果仅用于学术研究目的.

感谢您的合作

第一题

请在空位里填写答案或很方便的打钩

1. 请列出所有你能想到在北京的国内和外商超市:

家乐福, 亨隆, 万隆

2. 你曾经在外商超市有购买过货品吗? 有 没有

3. 你曾经在通常到外商超市购买货品吗? 是 不是

4. 请依照重要次序列出你认为评估外商超市时需要考虑的因素:

质量, 价位

5. 你认为国内超市比外商超市好吗? 是 不是

6. 家乐福是哪个国家的零售品牌? 法国

7. 你认为你对外商超市 (请选择一项)

完全不熟悉

不熟悉

不太熟悉但不陌生

熟悉

很熟悉

8. 在每5次购物里, 我有 1 次在嘉乐福购买货品.

9. 我在嘉乐福这类的超级市场购物所花费的每100元中, 50 元是花在嘉乐福.

10. 我用于购物的每100元中, 50 元是花在嘉乐福.

11. 我每次在嘉乐福购物的平均时间是 40 分钟.

12. 你每个月在嘉乐福购物所花费占总购物消费的百分比是:

- 0-10% 11-20% 21-30% 31-40% 41-100%

13. 你在嘉乐福买哪一类货品?

- 食品 百货 不去嘉乐福购物

14. 你平常如何到嘉乐福购物?

- 步行 骑自行车 公交 出租 开车 不去嘉乐福购物

15. 你拥有气车吗?

- 有 没有

第二项

请在您认为对应意见点的数字处打钩

1 = 根本不可能
5 = 非常可能

1. 我会继续在嘉乐福购物的可能性.

- 根本不可能 1 2 3 4 5 非常可能

2. 在未来12个月里, 我会比从前更常到嘉乐福购物的可能性.

- 1 2 3 4 5

3. 我会推荐嘉乐福给朋友的的可能性.

- 1 2 3 4 5

第三项

请在对陈述对所提观点同意程度的数字处打钩

1 = 非常不同意
5 = 非常同意

1. 一般来说, 我会认为欧洲制造的产品质量好.

- 非常不同意 1 2 3 4 5 非常同意

2. 我只会在需要购物时才到嘉乐福.

- 1 2 3 4 5

3. 到嘉乐福购物是一种乐趣.

- 1 2 3 4 5

- | | | | | | | | |
|--------------------------------|-----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|------|
| 4. 一般来说,我会认为欧洲制造的产品耐用. | 非常不同意 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | 非常同意 |
| 5. 我喜欢购物不是因为所购买的物品,更因为享受购物的过程. | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 6. 一般来说,我会认为欧洲制造的产品声音好. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | |
| 7. 当我在家乐福购物时,我会忘记我的烦恼. | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 8. 一般来说,我会认为欧洲制造的产品可靠. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | |
| 9. 与其它事情相比,我更享受在家乐福花的时间. | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 10. 在家乐福购物时,我总能找到所需的产品. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 11. 一般来说,我会认为欧洲制造的产品做工细. | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 12. 我不能在家乐福买到我真正想要的东西. | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 13. 我有些失望,因为我不得不到另外一家超市买全我想要的. | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 14. 一般来说,我会认为欧洲制造的产品值得价钱. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | |
| 15. 因购物时间短,购物过程很愉快. | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

第四组

请在对态度对所提观点同意程度的数字处打钩

1=非常不同意

7=非常同意

- | | | | | | | | | |
|-----------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|-----------------------|------|
| 1. 如果我到外商超市购物,我会感到内疚. | 非常不同意 | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | 非常同意 |
| 2. 只有中国没有的产品才应该进口. | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 3. 我永远都不会到外商超市购物. | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 4. 只要可能,我都会避免到外商超市购物. | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 5. 我最支持中国产品. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 6. 只要可能,我都倾向到外商超市购物. | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 7. 购买外国货不是中国人应该做的事. | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 8. 我不喜欢有到外商超市购物的想法. | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

9. 中国人不应该购买外国产品，因为这会使国人失业。
10. 如将超市产品质量一样，一家为外方经营，一家为中方经营，我愿意多付钱到中方超市购买。
11. 真正的中国人应该总买中国货。
12. 假如购买外国货会有负罪感。
13. 我们应该买中国造的产品，而不让外国人在我们身上发财。
14. 我永远都不会购买外国小汽车。
15. 中国人不该购买外国产品，因为这会伤害中国产业，让国人失业。
16. 只要可能，我都避免购买外国产品。
17. 从长远看我可能花钱更多，但我倾向支持中国产品。
18. 只要能买到，我不倾向购买外国制造的产品。
19. 我们只购买中国没有的外国产品。
20. 我不喜欢带有外国货的想法。
21. 购买外国产品的中国消费者应对导致自己的制造业失业而负责。
22. 如两产品质量一样，一家为外国造，一家为中国造，我愿意多付10%的钱购买中国货。

非常不可能	1	2	3	4	5	6	7	非常可能
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

第五项
 请在您认为对应的观点的数字处打钩
 1=非常不可能
 7=非常可能

1. 喜乐超市售高质量物品的可能性。
2. 喜乐超市是名店的可能性。
3. 喜乐超市是高质量店的可能性。

非常不可能	1	2	3	4	5	6	7	非常可能
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

第六项

请在合适的方格里打钩

- | | | |
|----------------------------|---------------------------------------|--|
| 1. 如果我有别人的鼓励, 我有时觉得很难继续工作. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 2. 有时如不能按我的意愿行事, 我会很气愤. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 3. 我有时会因没有考虑自己的能力而半途而废. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 4. 即使我认为上司是对的, 我有时会有反叛的想法. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 5. 不管我跟谁交谈, 我都能耐心倾听. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 6. 我有时会占别人的便宜. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 7. 我尽量承认错误. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 8. 我有时选择能平争斗而不是原谅或忘记. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 9. 我总是很讲礼貌, 即便是对那些不讨人喜欢的人. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 10. 当别人表述和我不同的想法时, 我从不厌烦. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 11. 我有时嫉妒别人好运. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 12. 我有时会因别人替我帮忙而感到厌烦. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 13. 我从来没有故意说一些伤害别人的话. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |

第七项

1. 年龄

15-24 25-34 35-44 45-54 55岁

2. 性别

男 女

3. 教育程度

中学 高中 大学 其它: PH.D.

4. 每月收入(元)
(请打钩)

1000元以下 5000-5999元
 1000-1999元 6000-6999元
 2000-2999元 7000-7999元
 3000-3999元 8000元以上
 4000-4999元

5. 你接受过多少年教育?

18 年

感谢你的合作!

Appendix 6

Summarised findings from English web survey in 2nd pilot test

Surveyall.com

Page 1 of 15



Powerful Reliable Affordable

My Survey | Pricing | Demo | Contact | About Us | Log off

Loughborough University Student Survey

HELP
- Work Flow
- User Guide

English Version

We are conducting a study in order to help grocery retailers achieve a better understanding of consumers' expectations so that they can improve their products and services to meet your needs and wants better. We would appreciate your cooperation in this study. Please answer all the questions as best as you can. A number of questions ask for your opinion on some issues. There are no right or wrong answers. It is your opinion that is important. If some questions appear similar, please do not worry about them. Your answers are very important to this study and will be kept strictly confidential. This study is sponsored by Loughborough University, United Kingdom, and is not associated with any private organisation. The findings from this study will only be used for academic purposes. Thank you for your cooperation.

1. In Loughborough, please name all the domestic and foreign supermarkets that you can think of.

#id#	Response
1551	Tesco, Sainsbury's, Superdrug, boots, farmfoods
1552	Tesco, Sainsbury's, Marks and Spencer, Somerfield, Morrisons Sainsbury's; Tesco; Farmfood; Iceland; Somerfield; Boots;
1553	Safeway; T.K Max; Big W; Marks&Spencers; Wilkenson; Superdrug; Savers.
1554	Tesco, Sainsburys, Safeway, Aldi,
1566	Tesco Sainsburys Safeway/Morrisons Somerfield Iceland Aldi
1578	Tesco, Sainsbury's, Somer field
1581	Tesco, Sainburys, Farm Foods, Safeway
1582	do not reside in loughborough but know that there is a sainsbury's
1585	Islamic British Supermarket Tesco Sainsbury Aldi Soomerfield Wilkinson Iceland
1586	SAINSBURYS TESCO ASDA ICELAND
1591	TESCO, SAFEWAY, SAINSBURY, ICELAND, WILKINSON, MORRISON, FARMFOOD
1593	sainsbury's, tesco, neto, iceland,
1599	Tesco. Sainsberry, and WuMei, BaiSheng, ChaoShiFa, SanLian (domestic supermarket in China) Jialefu(France)
1602	Sainsbury's, Tesco, Iceland, Farmfood

<http://www.surveyall.com/manage.php?where=results&sid=174>

04/11/2004

1605 Tesco, Somerfield, Sainsbury, Iceland, Farmland
 1607 Tesco, Sainsbury's, Somerfield, Iceland, Wilkinson,
 1608 farmfood, wilkinson, tesco, sainsbury

2. Have you ever purchased products from a foreign supermarket?

Yes	████████████████████	72.2%	(13)
No	██████	22.2%	(4)
TOTAL	████████████████████	94.4%	18

3. Do you presently shop in foreign supermarkets?

Yes	████████	33.3%	(6)
No	████████████████████	55.6%	(10)
TOTAL	████████████████████	88.9%	18

4. Please list, in their order of importance, the attributes you think are important when evaluating foreign supermarkets.

#id#	Response
1551	TESCO, SAINSBURY'S, FARMFOODS, SUPERDRUG, BOOTS When evaluating foreign supermarkets several factors should be considered, such as the price, product, place, convenience, promotion, service etc.
1552	Range of products, price, location, Range of items stocked Price of items Payment methods
1554	accepted Offers & discounts Parking facilities Other facilities Friendliness of staff
1566	Variety - particularly non-english food products Quality
1578	Position, Quality, Price
1581	The food they stock, the price of the food, the value of the food (i.e. how much in a packet), the cleanliness of the store, the size of the store, the other services that the store provides (e.g. petrol statio, lottery facilities), the proximity of the store to my residence
1582	quality ,price, thus value, car parking, service, cleanliness
1585	Availability of foreign products Availability of variety of the products constant supply of these products
1586	TYPE OF GOODS/ ITEMS THEY STOCK CLEANLINESS
1591	types of product, price, quality, location, convenience
1593	cost, quality
1599	1.Price 2.Place which is convinent for me 3.Inventory of the goods 4. Good environment
1602	1 atomosphere, 2 product, 3 quality, 4 price, 5 promotion
1605	the quantity of the product, position, price, quality, service
1607	large product range, quality, price
1608	value for money, variety offered, services provided.

5. Are domestic supermarkets better than foreign supermarkets?

Yes	██████████	44.4%	(8)
No	██████████	44.4%	(8)
TOTAL	████████████████████	88.9%	18

6. Tesco is a retail brand for which country?

#id#	Response
1551	United Kingdom
1552	UK
1553	Sorry, I don't know.
1554	England
1599	the UK
1607	USA?

7. Regarding foreign supermarkets, would you consider yourself to be:

Unfamiliar	██████	11.1%	(2)
Neither Familiar Nor Unfamiliar	██████████	27.8%	(5)
Familiar	██████████████████	55.6%	(10)
TOTAL	████████████████████	94.4%	18

8. _____ out of every 5 times I shop for products, I shop at Tesco.

0	████	5.6%	(1)
1	██████████	38.9%	(7)
2	██████████	16.7%	(3)
3	████	5.6%	(1) 17
4	██████████	16.7%	(3)
5	████	11.1%	(2)
TOTAL	████████████████████	94.4%	18

9. Out of every 100 pounds I spend in a store like Tesco, I spend _____ pounds at Tesco.

#id#	Response
1551	90
1552	100
1553	40
1554	20
1581	30
1582	80
1585	50
1593	70
1599	10







10. Out of every 100 pounds I spend on products, I spend _____ pounds at Tesco.

#id#	Response
1551	90
1552	70
1553	20
1554	2
1566	15
1581	30
1582	25
1585	50
1586	35
1599	5
1602	40
1607	10






11. My usual shopping trip to Tesco lasts about _____ minutes.

#id#	Response
1551	60
1552	20
1553	240
1554	50
1566	30
1581	40
1593	1
1602	15
1608	10

12. How much of the money you spend on products each month do you spend in Tesco?

0 to 20%	 44.4%	(8)
21 to 40%	 22.2%	(4)
41 to 60%	 11.1%	(2)
61 to 80%	 5.6%	(1)
81 to 100%	 5.6%	(1)
TOTAL	 88.9%	18

13. Which type of products do you buy more often in Tesco?

Grocery	 72.2%	(13)
General Merchandise	 11.1%	(2)
food	 5.6%	(1)
None	 5.6%	(1)
TOTAL	 94.4%	18

14. How do you usually travel to Tesco

Walk	 50.0%	(9)
------	---	-----

Cycle	█ 11.1%	(2)
Car	█ 27.8%	(5) 17
Never	█ 5.6%	(1)
TOTAL	█ 94.4%	18

15. Do you own a car?

Yes	█ 16.7%	(3)
No	█ 77.8%	(14)
TOTAL	█ 94.4%	18

16. Likelihood to continue shopping in Tesco

2	█ 11.1%	(2)
3	█ 33.3%	(6)
4	█ 27.8%	(5) 17
5 = Extremely Likely	█ 22.2%	(4) 7
TOTAL	█ 94.4%	18

17. Likelihood to use Tesco for more of your shopping needs in the next 12 months

2	█ 16.7%	(3)
3	█ 38.9%	(7)
4	█ 22.2%	(4) 7
5 = Extremely Likely	█ 16.7%	(3)
TOTAL	█ 94.4%	18

18. Likelihood to recommend Tesco to a friend

3	█ 33.3%	(6)
4	█ 44.4%	(8)
5 = Extremely Likely	█ 16.7%	(3)
TOTAL	█ 94.4%	18

19. In general, I would expect products made in China to be high quality.

1 = Strongly Disagree	█ 5.6%	(1)
2	█ 5.6%	(1)
3	█ 50.0%	(9)
4	█ 22.2%	(4)
5 = Strongly Agree	█ 11.1%	(2)
TOTAL	█ 94.4%	18

20. I only shop at Tesco when I need to buy something.

1 = Strongly Disagree	█ 11.1%	(2)
2	█ 11.1%	(2)
3	█ 11.1%	(2)
4	█ 33.3%	(6)

5 = Strongly Agree	██████████ 27.8%	(5)
TOTAL	██ 94.4%	18
21. A shopping trip to Tesco is truly a joy.		
1 = Strongly Disagree	██████ 11.1%	(2)
2	██████████ 27.8%	(5)
3	██████████████ 33.3%	(6)
4	██████ 11.1%	(2)
5 = Strongly Agree	██████ 11.1%	(2)
TOTAL	██ 94.4%	18
22. In general, I would expect products made in China to be durable.		
2	██████ 11.1%	(2)
3	██████████████████ 55.6%	(10)
4	██████████ 16.7%	(3)
5 = Strongly Agree	██████ 11.1%	(2)
TOTAL	██ 94.4%	18
23. I enjoy the shopping trip for its own sake, not just for items I may have purchased.		
1 = Strongly Disagree	██████████ 16.7%	(3)
2	██████████ 27.8%	(5)
3	██████████████ 33.3%	(6)
4	██████ 11.1%	(2)
5 = Strongly Agree	██████ 5.6%	(1)
TOTAL	██ 94.4%	18
24. In general, I would expect products made in China to be high in prestige.		
1 = Strongly Disagree	██████ 11.1%	(2)
2	██████████ 16.7%	(3)
3	██████████████████ 44.4%	(8)
4	██████ 5.6%	(1)
5 = Strongly Agree	██████████ 16.7%	(3)
TOTAL	██ 94.4%	18
25. While shopping at Tesco, I was able to forget my problems.		
1 = Strongly Disagree	██████████ 27.8%	(5)
2	██████████████ 33.3%	(6)
3	██████████ 16.7%	(3)
4	██████ 11.1%	(2)
5 = Strongly Agree	██████ 5.6%	(1)
TOTAL	██ 94.4%	18
26. In general, I would expect products made in China to be reliable.		

2	████ 11.1%	(2)
3	████████████████ 55.6%	(10)
4	████ 11.1%	(2)
5 = Strongly Agree	████ 16.7%	(3)
TOTAL	██ 94.4%	18

27. Compared to other things I could have done, the time spent at Tesco was truly enjoyable.

1 = Strongly Disagree	████ 16.7%	(3)
2	████████████ 33.3%	(6)
3	████████████ 27.8%	(5)
4	████ 11.1%	(2)
5 = Strongly Agree	██ 5.6%	(1)
TOTAL	██ 94.4%	18

28. While shopping at Tesco, I found just the items that I was looking for.

2	██ 5.6%	(1)
3	████████████ 27.8%	(5)
4	████████████████ 44.4%	(8)
5 = Strongly Agree	████ 16.7%	(3)
TOTAL	██ 94.4%	18

29. In general, I would expect products made in China to be made with excellent workmanship.

1 = Strongly Disagree	██ 5.6%	(1)
2	████████████ 22.2%	(4)
3	████████████████ 55.6%	(10)
5 = Strongly Agree	████ 11.1%	(2)
TOTAL	██ 94.4%	18

30. I couldn't buy what I really needed in Tesco.

1 = Strongly Disagree	████████████ 27.8%	(5)
2	████████████████ 50.0%	(9)
4	████ 16.7%	(3)
TOTAL	██ 94.4%	18

31. I was disappointed because I had to go to another store to complete my shopping.

1 = Strongly Disagree	████████████ 22.2%	(4)
2	████████████████ 44.4%	(8)
3	████████████ 27.8%	(5)
TOTAL	██ 94.4%	18

32. In general, I would expect products made in China to be dependable.

1 = Strongly Disagree	█ 5.6%	(1)
2	█ 11.1%	(2)
3	██████████ 61.1%	(11)
5 = Strongly Agree	█ 16.7%	(3)
TOTAL	████████████████████ 94.4%	18

33. It was a good shopping trip because it was over very quickly.

2	██████████ 33.3%	(6)
3	██████████ 22.2%	(4)
4	██████████ 27.8%	(5)
5 = Strongly Agree	█ 11.1%	(2)
TOTAL	████████████████████ 94.4%	18

34. I would feel guilty if I shop in a foreign supermarket.

1 = Strongly Disagree	██████████ 55.6%	(10)
2	██████████ 33.3%	(6)
4	█ 5.6%	(1)
TOTAL	████████████████████ 94.4%	18

✓ 35. Only those products that are unavailable in the United Kingdom should be imported.

1 = Strongly Disagree	██████████ 44.4%	(8)
2	██████████ 16.7%	(3)
3	██████████ 16.7%	(3)
4	█ 5.6%	(1)
6	█ 11.1%	(2)
TOTAL	████████████████████ 94.4%	18

36. I would never shop in a foreign supermarket.

1 = Strongly Disagree	████████████████████ 77.8%	(14)
2	██████████ 16.7%	(3)
TOTAL	████████████████████ 94.4%	18

37. Whenever possible, I avoid shopping in foreign supermarkets.

1 = Strongly Disagree	██████████ 61.1%	(11)
2	██████████ 16.7%	(3)
4	██████████ 16.7%	(3)
TOTAL	████████████████████ 94.4%	18

✓ 38. British products, first, last, and foremost.

1 = Strongly Disagree	██████████ 38.9%	(7)
2	██████████ 16.7%	(3)
3	█ 5.6%	(1)
4	██████████ 33.3%	(6)

TOTAL 94.4% 18
 ✓ 39. Whenever available, I would prefer to shop in foreign supermarkets.

- 1 = Strongly Disagree 11.1% (2)
- 2 11.1% (2)
- 3 11.1% (2)
- 4 27.8% (5)
- 5 11.1% (2)
- 6 11.1% (2)
- 7 = Strongly Agree 5.6% (1)

TOTAL 88.9% 18

✗ 40. Purchasing foreign-made products is un-British.

- 1 = Strongly Disagree 50.0% (9)
- 2 22.2% (4)
- 3 5.6% (1)
- 4 5.6% (1)
- 5 5.6% (1)
- 7 = Strongly Agree 5.6% (1)

TOTAL 94.4% 18

41. I do not like the idea of shopping in foreign supermarkets.

- 1 = Strongly Disagree 44.4% (8)
- 2 27.8% (5)
- 3 5.6% (1)
- 4 5.6% (1)
- 5 5.6% (1)
- 6 5.6% (1)

TOTAL 94.4% 18












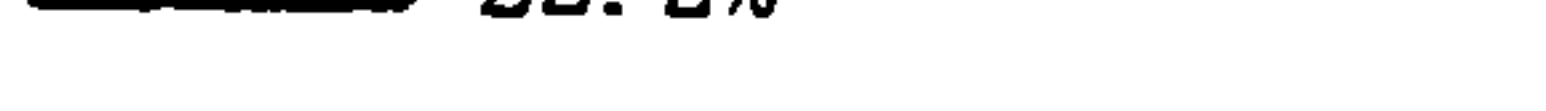

















✗ 42. It is not right to purchase foreign products, because it puts British out of jobs.







- 1 = Strongly Disagree 44.4% (8)
- 2 27.8% (5)
- 3 16.7% (3)
- 4 5.6% (1)

TOTAL 94.4% 18






43. If products sold in two foreign supermarkets were equal in quality, but one was foreign and one was from the United Kingdom, I would pay more to shop in a British supermarket.

- 1 = Strongly Disagree 50.0% (9)
- 2 5.6% (1)
- 3 5.6% (1)







4		27.8%	(5)
6		5.6%	(1)
TOTAL		94.4%	18
* 44.	A real British should always buy British-made products.		
1 = Strongly Disagree		50.0%	(9)
2		16.7%	(3)
3		11.1%	(2)
4		5.6%	(1)
5		5.6%	(1)
TOTAL		88.9%	18
45.	I would feel guilty if I bought a foreign product.		
1 = Strongly Disagree		72.2%	(13)
2		22.2%	(4)
TOTAL		94.4%	18
* 46.	We should purchase products manufactured in the United Kingdom instead of letting other countries get rich off us.		
1 = Strongly Disagree		61.1%	(11)
2		22.2%	(4)
3		5.6%	(1)
5		5.6%	(1)
TOTAL		94.4%	18
47.	I would never buy a foreign car.		
1 = Strongly Disagree		77.8%	(14)
2		5.6%	(1)
4		5.6%	(1)
TOTAL		88.9%	18
* 48.	British should not buy foreign products, because this hurts British business and causes unemployment.		
1 = Strongly Disagree		66.7%	(12)
2		16.7%	(3)
3		5.6%	(1)
4		5.6%	(1)
TOTAL		94.4%	18
49.	Whenever possible, I avoid buying foreign products.		
1 = Strongly Disagree		77.8%	(14)
2		16.7%	(3)
TOTAL		94.4%	18
* 50.	It may cost me in the long-run but I prefer to support British products.		

1 = Strongly Disagree		27.8%	(5)
2		27.8%	(5)
3		16.7%	(3)
4		16.7%	(3)
5		5.6%	(1)
TOTAL		94.4%	18





51. Whenever available, I would prefer to buy products made overseas.

1 = Strongly Disagree		27.8%	(5)
2		11.1%	(2)
3		22.2%	(4)
4		33.3%	(6)
TOTAL		94.4%	18






52. We should buy from foreign countries only those products that we cannot obtain within our own country.

1 = Strongly Disagree		22.2%	(4)
2		27.8%	(5)
3		16.7%	(3)
4		16.7%	(3)
5		11.1%	(2)
TOTAL		94.4%	18





53. I do not like the idea of owning foreign products.









1 = Strongly Disagree		55.6%	(10)
2		33.3%	(6)
3		5.6%	(1)
TOTAL		94.4%	18








54. British consumers who purchase products made in other countries are responsible for putting their fellow British out of work.








1 = Strongly Disagree		55.6%	(10)
2		27.8%	(5)
3		5.6%	(1)
4		5.6%	(1)
TOTAL		94.4%	18




55. If two products were equal in quality, but one was foreign and one was from the United Kingdom, I would pay 10% more for the product from the United Kingdom.




1 = Strongly Disagree		55.6%	(10)
2		16.7%	(3)
3		16.7%	(3)
4		5.6%	(1)



TOTAL		94.4%	18
56. The likelihood that Tesco sells high quality merchandise is			
2		11.1%	(2) } 3
3		5.6%	(1) }
4		22.2%	(4)
5		16.7%	(3) } 17
6		27.8%	(5) } 10
7 = Extremely Likely		11.1%	(2)
TOTAL		94.4%	18

57. The likelihood that Tesco is a prestigious store			
2		11.1%	(2) } 4
3		11.1%	(2) }
4		27.8%	(5)
5		5.6%	(1) } 17
6		22.2%	(4) } 8
7 = Extremely Likely		16.7%	(3)
TOTAL		94.4%	18




58. The likelihood that Tesco is a high-quality store			
2		5.6%	(1) } 4
3		16.7%	(3) }
4		16.7%	(3)
5		22.2%	(4) } 17
6		22.2%	(4) } 10
7 = Extremely Likely		11.1%	(2)
TOTAL		94.4%	18

59. It is sometimes hard for me to go on with my work if I am not encouraged.			
True		38.9%	(7)
False		55.6%	(10)
TOTAL		94.4%	18




60. I sometimes feel resentful when I don't get my way.			
True		61.1%	(11)
False		33.3%	(6)
TOTAL		94.4%	18

61. On a few occasions, I have given up doing something because I thought a little of my ability.			
True		27.8%	(5)
False		66.7%	(12)

TOTAL	████████████████████	94.4%	18
62. There have been times when I felt like rebelling against people in authority even though I knew they were right.			
True	██████████	38.9%	(7)
False	████████████████	55.6%	(10)
TOTAL	████████████████████	94.4%	18
63. No matter who I'm talking to, I'm always a good listener.			
True	████████████████	72.2%	(13)
False	██████	22.2%	(4)
TOTAL	████████████████████	94.4%	18
64. There have been occasions when I took advantage of someone.			
True	████████████████	77.8%	(14)
False	██████	16.7%	(3)
TOTAL	████████████████████	94.4%	18
65. I'm always willing to admit it when I make a mistake.			
True	████████████	61.1%	(11)
False	██████████	33.3%	(6)
TOTAL	████████████████████	94.4%	18
66. I sometimes try to get even, rather than forgive and forget.			
True	████████████	50.0%	(9)
False	██████████	44.4%	(8)
TOTAL	████████████████████	94.4%	18
67. I am always courteous, even to people who are disagreeable.			
True	████████████████	77.8%	(14)
False	██████	16.7%	(3)
TOTAL	████████████████████	94.4%	18
68. I have never been irked when people expressed ideas very different from my own.			
True	████████████	50.0%	(9)
False	██████████	44.4%	(8)
TOTAL	████████████████████	94.4%	18
69. There have been times when I was quite jealous of the good fortune of others.			
True	████████████	61.1%	(11)
False	██████████	33.3%	(6)
TOTAL	████████████████████	94.4%	18
70. I am sometimes irritated by people who ask favors of me.			

True		44.4%	(8)
False		50.0%	(9)
TOTAL		94.4%	18




71. I have never deliberately said something that hurt someone's feelings.

True		38.9%	(7)
False		55.6%	(10)
TOTAL		94.4%	18




72. Name

#id#	Response
1551	Wang Yilin
1552	Michael Tao
1553	Qi Wang
1554	Pete Willcocks
1566	Fionnuala O'Kane
1578	Joseph
1581	Martin Ely
1582	Ben sedgemore
1585	Asafa solape
1586	PUNIT PATEL
1591	YING FANG
1593	A Owusu
1599	Wei Qian
1602	Zhao Hong
1605	Menghuan Guo
1607	Wenxuan Wang
1608	Nikitakis Dimitris




73. Age

15 to 24		66.7%	(12)
25 to 34		27.8%	(5)
TOTAL		94.4%	18

74. Gender

Male		44.4%	(8)
Female		50.0%	(9)
TOTAL		94.4%	18

75. Education

Degree		72.2%	(13)
Master		11.1%	(2)
master		5.6%	(1)

Msc	■ 5.6%	(1)
TOTAL	■ 94.4%	18
76. Income per month (in Sterling Pounds)		
1000 or less	■ 72.2%	(13)
1000 to 1999	■ 11.1%	(2)
3000 to 3999	■ 5.6%	(1)
8000 or more	■ 5.6%	(1)
TOTAL	■ 94.4%	18

77. How many years of education do you have?

#id#	Response
1551	16 years
1552	17
1553	16
1566	14 up to and including A-Level, in 5th year of uni education (MSc)
1581	12 years (inc. Secondary School, Undergraduate Degree and Masters)
1582	25
1585	18 yrs
1586	10
1593	1
1602	over15

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Appendix 7

Sample of completed Chinese questionnaire from a shopper in European Hypermarket

RETAILER FOREIGN
No. 1



我们进行这项调研的目的是为了帮助零售业主们更好地理解消费者的期望,以方便他们提高产品和服务水平而更能满足您的需要.我们非常感谢您的合作.

请尽量回答所有问题.一些问题需要您阐述观点.答案并非对或错.您的观点才是重要的.如果有些问题看上去很相似,请不要担心.

您的答案对本研究很重要.我们将会严格保密.本研究由英国拉夫堡大学赞助,与任何私人组织无关.此研究的结果仅用于学术研究目的.

谢谢您的合作

第一项

请在空位里填写答案或在方格里打钩

1. 请列出所有你能想到在北京的国内和外商超市:

国内超市

1. 华普
2. 亿客隆
3. 物美

外商超市

1. 家乐福
2. 亿客隆
3. 欧尚

2. 你曾经在外商超市有购买过货品吗?

有 没有

3. 你现在还常到外商超市购买货品吗?

是 不是

4. 请依重要次序列出你认为评估外商超市时需要考虑的因素:

1. 质量
2. 价格
3. 环境

4. 售后
5. _____
6. _____

5. 你认为国内超市比外商超市好吗?

是 不是

6. 家乐福是哪个国家的零售品牌? _____

7. 你认为你对外商超市 (请选一项)

- 完全不熟悉
- 不熟悉
- 不熟悉也不陌生
- 熟悉
- 极熟悉

8. 在每5次购物里, 我有 3 次在家乐福购买货品.
9. 我在家乐福这类的超市里购物所花费的每100元中, 50 元是花在家乐福.
10. 我用于购物的每100元中, 50 元是花在家乐福.
11. 我每次在家乐福购物的平均时间是 30 分钟.
12. 你每个月在家乐福购物消费占总购物消费的百分比是: 0-20% 21-40% 41-60% 61-80% 81-100%
13. 你常在家乐福买哪一类货品? 营食产品 百货产品
14. 你平常如何到家乐福购物? 步行 骑自行车 公交 出租 开车
15. 你拥有汽车吗? 有 没有

第二项

请在您认为对应您观点的数字处打钩
 1 = 根本不可能
 5 = 非常可能

- | | | | | | |
|---------------------------------|----------------------------|----------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | 根本不可能 | | | | 非常可能 |
| 1. 我会继续在家乐福购物的可能性. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input checked="" type="checkbox"/> 5 |
| 2. 在未来12个月里, 我会比从前更常到家乐福购物的可能性. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input checked="" type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 3. 我会推荐家乐福给朋友的可能性. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

第三项

请在对应您对所述观点同意程度的数字处打钩
 1 = 非常不同意
 5 = 非常同意

- | | | | | | |
|--------------------------|----------------------------|----------------------------|---------------------------------------|---------------------------------------|----------------------------|
| | 非常不同意 | | | | 非常同意 |
| 1. 一般来说, 我会认为欧洲制造的产品质量好. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 2. 我只会在需要购物时才到外商超市. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 3. 到外商超市购物是一种乐趣. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 4. 一般来说, 我会认为欧洲制造的产品耐用. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input checked="" type="checkbox"/> 4 | <input type="checkbox"/> 5 |

	非常不同意				非常同意
5. 我喜欢购物不仅因为所购买的物品, 更因为享受购物的过程.	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
6. 一般来说, 我会认为欧洲制造的产品声誉好.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
7. 当我在外商超市购物时, 我会忘记我的烦恼.	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
8. 一般来说, 我会认为欧洲制造的产品可靠.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
9. 与其它事情相比, 我更享受在外商超市花的时间.	<input type="radio"/> 1	<input type="radio"/> 2	<input checked="" type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
10. 在外商超市购物时, 我总能找到所需的货品.	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
11. 一般来说, 我会认为欧洲制造的产品做工细.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
12. 我不能在外商超市买到我真想要的东西.	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
13. 我有些失望, 因为我不得不到另外一家超市买全我想要的.	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
14. 一般来说, 我会认为欧洲制造的产品值得信赖.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
15. 因购物时间短, 购物过程很愉快.	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

第四项

请在对应您对所述观点同意程度的数字处打钩

1 = 非常不同意

7 = 非常同意

	非常不同意						非常同意
1. 外商超市销售高质量货品.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
2. 如果我到外商超市购物, 我会感到内疚.	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
3. 只有中国没有的产品才应该进口.	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
4. 我永远都不会到外商超市购物.	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
5. 家乐福销售高质量货品.	<input type="radio"/> 1	<input type="radio"/> 2	<input checked="" type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
6. 只要可能, 我都会避免到外商超市购物.	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
7. 我最支持中国产品.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
8. 只要可能, 我都倾向到外商超市购物.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
9. 购买外国货不象中国人应该做的事.	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

	非常不同意	1	2	3	4	5	6	7	非常同意
10.国内超市销售高质量货品.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.我不喜欢有到外商超市购物的想法.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.中国人不应该购买外国产品,因为这会使国人失业.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.外商超市是名店.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.如两超市产品质量一样,一家为外方经营,一家为中方经营,我愿意多付钱到中方超市购买.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.真正的中国人应该总买中国货.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.家乐福是名店.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.我如购买外国货会有负罪感.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.我们应该买中国造的产品,而不让外国人在我们身上发财.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.国内超市是名店.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.我永远都不会购买外国小汽车.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.中国人不该购买外国产品,因为这会伤害中国产业,让国人失业.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.只要可能,我都避免购买外国产品.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.外商超市是高质量店.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.从长远看我可能花钱更多,但我倾向支持中国产品.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.只要能买到,我都倾向购买外国制造的产品.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.家乐福是高质量店.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27.我们只该买中国没有的外国产品.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.我不喜欢拥有外国货的想法.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.购买外国产品的中国消费者应对导致自己的同胞失业而负责.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.国内超市是高质量店.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31.如两产品质量一样,一家为外国造,一家为中国造,我愿意多付10%的钱购买中国货.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

第五项

请在合适的方格里打钩

- | | | |
|----------------------------|---------------------------------------|--|
| 1. 如果没有别人的鼓励, 我有时觉得很难继续工作. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 2. 有时如不能按我的意愿行事, 我会很气愤. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 3. 我有时会因没有考虑自己的能力而半途而废. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 4. 即使我认为上司是对的, 我有时会有反叛的想法. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 5. 不管我跟谁交谈, 我都能耐心倾听. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 6. 我有时会占别人的便宜. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 7. 我愿意承认错误. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 8. 我有时选择扯平争斗而不是原谅或忘记. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 9. 我总是很讲礼貌, 即使是对那些不讨人喜欢的人. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 10. 当别人表述和我不同的想法时, 我从不厌烦. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |
| 11. 我有时嫉妒别人好运. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 12. 我有时会因别人请我帮忙而感到厌烦. | <input type="checkbox"/> 对 | <input checked="" type="checkbox"/> 不对 |
| 13. 我从来没有故意说一些伤害别人的话. | <input checked="" type="checkbox"/> 对 | <input type="checkbox"/> 不对 |

第六项

- | | | | | | |
|----------------------|---------------------------------------|---|---|--------------------------------------|--------------------------------------|
| 1. 年龄: | <input type="checkbox"/> 15-24 | <input type="checkbox"/> 25-34 | <input checked="" type="checkbox"/> 35-44 | <input type="checkbox"/> 45-54 | <input type="checkbox"/> 多过 54 岁 |
| 2. 性别: | <input checked="" type="checkbox"/> 男 | <input type="checkbox"/> 女 | | | |
| 3. 教育程度: | <input type="checkbox"/> 中学 | <input checked="" type="checkbox"/> 高中 | <input type="checkbox"/> 学位 | 其它: _____ | |
| 4. 每月收入(元):
(请打钩) | <input type="checkbox"/> 1000 元以下 | <input checked="" type="checkbox"/> 1000-1999 元 | <input type="checkbox"/> 2000-2999 元 | <input type="checkbox"/> 3000-3999 元 | <input type="checkbox"/> 4000-4999 元 |
| | | | <input type="checkbox"/> 5000-5999 元 | <input type="checkbox"/> 6000-6999 元 | <input type="checkbox"/> 7000-7999 元 |
| | | | <input type="checkbox"/> 8000 元以上 | | |
| 5. 你接受过多少年教育? | _____ 12 _____ | | | | |

感谢您的合作

Appendix 8

Correlation of variable pair in European Hypermarket dataset

		Correlations								
		COO Q1	COO Q2	COO Q3	COO Q4	COO Q5	COO Q6	SB Q1	SB Q2	SB Q3
COO_Q1	Pearson Correlation	1	0.742	0.659	0.549	0.572	0.626	0.597	0.510	0.477
	Sig. (2-tailed)	.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
COO_Q2	Pearson Correlation	0.742	1	0.775	0.648	0.674	0.737	0.703	0.602	0.565
	Sig. (2-tailed)	0.000	.	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
COO_Q3	Pearson Correlation	0.659	0.775	1	0.838	0.872	0.951	0.909	0.781	0.733
	Sig. (2-tailed)	0.000	0.000	.	0.000	0.000	0.000	0.000	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
COO_Q4	Pearson Correlation	0.549	0.648	0.838	1	0.727	0.796	0.759	0.718	0.605
	Sig. (2-tailed)	0.000	0.000	0.000	.	0.000	0.000	0.000	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
COO_Q5	Pearson Correlation	0.572	0.674	0.872	0.727	1	0.916	0.874	0.748	0.701
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	.	0.000	0.000	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
COO_Q6	Pearson Correlation	0.626	0.737	0.951	0.796	0.916	1	0.864	0.741	0.695
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	.	0.000	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
SB_Q1	Pearson Correlation	0.597	0.703	0.909	0.759	0.874	0.864	1	0.782	0.734
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	.	0.000	0.000
	N	250	250	250	250	250	250	250	250	250
SB_Q2	Pearson Correlation	0.510	0.602	0.781	0.718	0.748	0.741	0.782	1	0.812
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	0.000
	N	250	250	250	250	250	250	250	250	250
SB_Q3	Pearson Correlation	0.477	0.565	0.733	0.605	0.701	0.695	0.734	0.812	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.
	N	250	250	250	250	250	250	250	250	250

Note:

COO = country-of-origin cue construct; Q = item no. (e.g., COO_Q1 represents item 1 of the country-of-origin cue construct)

SB = store brand cue construct; Q = item no. (e.g., SB_Q1 represents item 1 of the store brand cue construct)

Appendix 9
Correlation of variable pair in Domestic Hypermarket dataset

		Correlations								
		COO_Q1	COO_Q2	COO_Q3	COO_Q4	COO_Q5	COO_Q6	SB_Q1	SB_Q2	SB_Q3
COO_Q1	Pearson Correlation	1	0.221	-0.027	0.110	0.094	-0.029	-0.020	0.199	0.094
	Sig. (2-tailed)	.	0.000	0.675	0.083	0.139	0.654	0.753	0.002	0.139
	N	250	250	250	250	250	250	250	250	250
COO_Q2	Pearson Correlation	0.221	1	0.082	0.168	0.334	0.072	0.128	0.125	0.144
	Sig. (2-tailed)	0.000	.	0.197	0.008	0.000	0.258	0.043	0.048	0.023
	N	250	250	250	250	250	250	250	250	250
COO_Q3	Pearson Correlation	-0.027	0.082	1	0.618	0.555	0.658	0.751	0.179	0.082
	Sig. (2-tailed)	0.675	0.197	.	0.000	0.000	0.000	0.000	0.005	0.197
	N	250	250	250	250	250	250	250	250	250
COO_Q4	Pearson Correlation	0.110	0.168	0.618	1	0.482	0.575	0.660	0.148	0.273
	Sig. (2-tailed)	0.083	0.008	0.000	.	0.000	0.000	0.000	0.019	0.000
	N	250	250	250	250	250	250	250	250	250
COO_Q5	Pearson Correlation	0.094	0.334	0.555	0.482	1	0.626	0.594	0.125	0.049
	Sig. (2-tailed)	0.139	0.000	0.000	0.000	.	0.000	0.000	0.048	0.440
	N	250	250	250	250	250	250	250	250	250
COO_Q6	Pearson Correlation	-0.029	0.072	0.658	0.575	0.626	1	0.701	0.060	0.072
	Sig. (2-tailed)	0.654	0.258	0.000	0.000	0.000	.	0.000	0.347	0.258
	N	250	250	250	250	250	250	250	250	250
SB_Q1	Pearson Correlation	-0.020	0.128	0.751	0.660	0.594	0.701	1	0.114	0.128
	Sig. (2-tailed)	0.753	0.043	0.000	0.000	0.000	0.000	.	0.073	0.043
	N	250	250	250	250	250	250	250	250	250
SB_Q2	Pearson Correlation	0.199	0.125	0.179	0.148	0.125	0.060	0.114	1	0.213
	Sig. (2-tailed)	0.002	0.048	0.005	0.019	0.048	0.347	0.073	.	0.001
	N	250	250	250	250	250	250	250	250	250
SB_Q3	Pearson Correlation	0.094	0.144	0.082	0.273	0.049	0.072	0.128	0.213	1
	Sig. (2-tailed)	0.139	0.023	0.197	0.000	0.440	0.258	0.043	0.001	.
	N	250	250	250	250	250	250	250	250	250

Note:

COO = country-of-origin cue construct; Q = item no. (e.g., COO_Q1 represents item 1 of the country-of-origin cue construct)

SB = store brand cue construct; Q = item no. (e.g., SB_Q1 represents item 1 of the store brand cue construct)

Appendix 10

Questionnaire items used in Structural Equation Modelling

Construct	Source	Questionnaire Items
Consumer Ethnocentrism (CET) ^d	Shimp and Sharma (1987) – 10-item CETSCALE ^a	CET_Q1: Only those products that are unavailable in China should be imported. CET_Q2: Chinese products, first, last and foremost. CET_Q3: Purchasing foreign-made products is un-Chinese. CET_Q4: It is not right to purchase foreign products because it puts Chinese out of jobs. CET_Q5: A real Chinese should always buy China-made products. CET_Q6: We should purchase products manufactured in China instead of letting other countries get rich off us. CET_Q7: Chinese should not buy foreign products, because this hurts Chinese business and causes unemployment. CET_Q8: It may cost me in the long-run but I prefer to support Chinese products. CET_Q9: We should buy from foreign countries only those products that we cannot obtain within our own country. CET_Q10: Chinese consumers who purchase products made in other countries are responsible for putting their fellow Chinese out of work.
Country-of-Origin (COO) Cue ^c	Teas and Agarwal (2000) – 6 items ^a	COO_Q1: In general, I would expect products made in Europe to be high quality. COO_Q2: In general, I would expect products made in Europe to be durable. COO_Q3: In general, I would expect products made in Europe to be high in prestige. COO_Q4: In general, I would expect products made in Europe to be reliable. COO_Q5: In general, I would expect products made in Europe to be made with meticulous workmanship. COO_Q6: In general, I would expect products made in Europe to be dependable.
Store Brand Cue ^d	Teas and Agarwal (2000) – 3 items ^a	SB_Q1: Foreign hypermarkets sell high quality merchandise. SB_Q2: Foreign hypermarkets are prestigious stores. SB_Q3: Foreign hypermarkets are high-quality stores.
Hedonic Value ^c	Babin and Attaway (2000) – 5 items ^a	HED_Q1: I only shop at foreign hypermarkets when I need to buy something. (reverse-coded). HED_Q2: A shopping trip to foreign hypermarkets is truly a joy. HED_Q3: I enjoy the shopping trip for its own sake, not just for the items I may have purchased. HED_Q4: While shopping at foreign hypermarkets, I was able to forget my problems. HED_Q5: Compared to other things I could have done, the time spent at foreign hypermarkets was truly enjoyable.

Construct	Source	Questionnaire items
Utilitarian Value ^c	Babin and Attaway (2000) – 4 items ^a	UTI_Q1: While shopping at foreign hypermarkets, I found just the items that I was looking for. UTI_Q2: I couldn't buy what I really needed in foreign hypermarkets. (reverse-coded) UTI_Q3: I was disappointed because I had to go to another store to complete my shopping. (reverse-coded) UTI_Q4: It was a good shopping trip because it was over very quickly.
Willingness To Shop (WTS) ^d	Klein, Ettenson and Morris (1998) – 6 items ^a	WTS_Q1: I would feel guilty if I shop in a foreign hypermarket. (reverse-coded) WTS_Q2: I would never shop in a foreign hypermarket. (reverse-coded) WTS_Q3: Whenever possible, I avoid shopping in foreign hypermarkets. (reverse-coded) WTS_Q4: Whenever available, I would prefer to shop in foreign hypermarkets. WTS_Q5: I do not like the idea of shopping in foreign hypermarkets. (reverse-coded) WTS_Q6: If products sold in two foreign hypermarkets were equal in quality, but one was foreign and one was from China, I would pay more to shop in a Chinese hypermarket. (reverse-coded)
Store Loyalty Intention ^b	Sirohi, McLaughlin and Wittink (1998) – 3 items ^a	SLI_Q1: Likelihood to continue shopping in European Hypermarket. SLI_Q2: Likelihood to use European Hypermarket for more of your shopping needs in the next 12 months. SLI_Q3: Likelihood to recommend European Hypermarket to a friend.
Customer Share	Babin and Attaway (2000) – 5 items ^a	CS_Q1: ___ out of every five times I shop for products, I shop at European Hypermarket. CS_Q2: Out of every RMB100 I spend in a store like European Hypermarket, I spend RMB___ at European Hypermarket. CS_Q3: Out of every RMB100 I spend on products, I spend RMB___ at European Hypermarket. CS_Q4: My usual shopping trip to European Hypermarket lasts about ___ minutes. CS_Q5: How much of the money you spend on products each month do you spend in European Hypermarket?

^aOriginal number of items adapted from specified article.

^bAnchors: 1 = "not at all likely" to 5 = "extremely likely"

^cAnchors: 1 = "strongly disagree" to 5 = "strongly agree"

^dAnchors: 1 = "strongly disagree" to 7 = "strongly agree"

Appendix 11

Social desirability bias scores for European Hypermarket dataset

No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q5	Q7	Q9	Q10	Q13	Q1	Q2	Q3	Q4	Q6	Q8	Q11	Q12	Total Score
1	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	0	0	1	1	1	1	10
2	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	1	1	1	0	0	1	0	0	1	0	0	0	1	6
3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	1	1	0	0	0	0	0	0	0	0	1	0	1	4
4	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
5	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
6	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
7	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
8	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
9	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
10	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	-1	1	1	1	1	1	1	1	1	13
11	No	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	Yes	1	0	1	0	1	1	0	0	1	1	1	1	1	9
12	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	1	1	1	1	0	1	0	1	0	1	1	0	0	8
13	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	1	1	0	1	1	1	1	1	1	1	1	0	1	11
14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	1	1	1	1	0	0	0	0	0	0	0	0	5
15	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	1	1	1	1	0	1	0	1	0	0	0	0	1	7
16	999	999	999	999	999	999	999	999	999	999	999	999	999	.	.	.	.	.	.	.	.	.	.	.	.	.	0
17	No	No	No	Yes	No	No	No	Yes	Yes	Yes	No	No	No	0	0	1	1	0	1	1	1	0	1	0	1	1	8
18	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	1	1	0	1	1	1	1	1	1	1	1	0	1	11
19	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	1	1	1	1	0	0	0	1	1	0	0	1	8
20	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No	No	1	0	0	1	0	0	1	0	1	0	1	0	1	6
21	No	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	No	Yes	0	1	0	0	1	1	0	0	0	1	0	1	1	6
22	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	1	1	1	0	1	1	1	0	0	1	0	1	1	9
23	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	1	0	1	0	1	1	10
24	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	1	1	0	1	1	1	1	1	1	1	1	0	1	11
25	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No	No	No	No	1	0	1	0	0	0	0	0	1	0	1	1	1	6
26	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	1	1	1	1	0	0	0	1	1	0	0	1	8
27	No	No	No	No	No	No	No	No	No	No	No	No	No	0	0	0	0	0	1	1	1	1	1	1	1	1	8
28	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	1	1	0	1	1	1	1	1	1	1	1	0	1	11
29	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
30	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
31	No	No	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes	1	0	1	0	1	1	1	1	1	1	1	1	0	10
32	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	1	1	1	1	0	1	0	1	0	0	0	0	1	7
33	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
34	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	No	0	1	1	1	0	0	0	0	0	0	1	1	0	5
35	No	No	No	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	1	0	0	1	1	1	1	1	0	0	1	1	0	8
36	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	1	0	1	1	1	1	0	0	0	1	0	1	1	8
37	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	1	1	1	0	1	0	0	0	0	1	0	1	0	6
38	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	0	0	1	0	1	1	9
39	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	1	1	1	0	1	1	0	0	1	1	0	1	1	9
40	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	1	1	1	0	1	1	0	0	1	1	0	1	1	9
41	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
42	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	1	0	1	1	0	0	0	1	0	1	0	1	1	7

90	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	1	0	1	0	1	1	10	
91	No	Yes	No	Yes	No	No	Yes	Yes	No	No	No	No	No	0	1	0	0	0	1	0	1	0	1	0	1	1	6	
92	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	1	1	1	1	0	1	0	1	0	0	0	0	1	7	
93	No	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	0	0	0	1	1	1	1	1	0	0	0	0	1	6	
94	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13	
95	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No	1	0	1	1	0	0	0	1	0	1	1	0	1	7	
96	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13	
97	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	999	No	Yes	1	1	1	1	1	0	0	0	1	1	0	.	1	8	
98	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	0	1	1	0	1	1	10	
99	No	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	1	0	1	1	1	1	1	1	0	1	1	1	1	11	
100	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	1	0	1	0	1	0	0	0	0	1	1	1	0	6	
101	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	0	0	1	1	1	1	0	0	0	1	1	0	0	6	
102	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	1	1	1	0	1	1	0	0	1	1	0	1	1	9	
103	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	1	1	0	1	1	1	1	1	1	1	1	1	0	1	11
104	No	No	No	No	Yes	No	Yes	Yes	No	No	Yes	No	Yes	1	1	0	0	1	1	1	1	1	1	1	0	0	1	9
105	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
106	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
107	No	Yes	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	1	1	1	0	1	1	0	1	0	1	1	0	1	9	
108	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	1	0	1	1	11	
109	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	0	0	0	0	1	0	1	1	8	
110	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	Yes	No	0	0	0	0	0	0	0	1	0	1	0	1	0	3	
111	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	1	0	1	1	1	1	11	
112	999	999	999	999	999	999	999	999	999	999	999	999	999	0
113	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	1	0	1	0	1	1	10	
114	No	No	No	No	Yes	No	Yes	No	Yes	No	No	Yes	Yes	1	1	1	0	1	1	1	1	1	1	1	1	1	0	11
115	999	999	999	999	999	999	999	999	999	999	999	999	999	0
116	No	Yes	999	999	999	999	999	999	999	999	999	999	999	.	.	.	.	.	1	0	.	.	.	.	.	.	1
117	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	1	1	1	1	0	1	0	1	0	1	0	0	1	8	
118	No	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	1	1	0	1	1	1	11	
119	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	1	1	1	1	1	0	1	0	1	0	0	1	9	
120	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	1	1	1	1	1	0	1	0	1	0	0	1	9	
121	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	1	1	1	1	0	1	1	1	0	1	0	0	1	9	
122	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	0	1	1	1	1	1	12	
123	Yes	No	No	Yes	No	Yes	Yes	No	Yes	No	Yes	No	Yes	0	1	1	0	1	0	1	1	0	0	1	0	1	7	
124	999	999	999	999	999	999	999	999	999	999	999	999	999	0
125	999	999	999	999	999	999	999	999	999	999	999	999	999	0
126	No	Yes	No	Yes	No	No	Yes	No	Yes	No	No	No	Yes	0	1	1	0	1	1	0	1	0	1	1	1	1	9	
127	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	1	1	1	1	1	0	0	0	1	0	0	0	7	
128	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	1	1	1	1	1	1	0	1	0	1	0	1	0	9	
129	No	No	No	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	1	1	0	0	1	1	1	1	0	1	0	1	0	8	
130	No	No	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	1	0	1	1	1	1	1	1	1	1	1	1	0	11	
131	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	1	0	1	1	1	0	0	1	0	1	1	1	1	9	
132	Yes	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes	No	1	0	0	1	0	0	0	0	1	1	0	0	0	4	
133	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	1	1	1	1	0	1	1	1	0	0	0	0	8	
134	No	Yes	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes	No	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
135	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	1	1	1	0	1	1	0	1	1	0	0	0	0	7	
136	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	1	1	1	0	0	1	1	0	0	0	0	0	1	6	

184	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	0	0	0	0	1	1	1	1	1	1	1	1	0	8	
185	Yes	No	Yes	999	999	No	Yes	Yes	Yes	No	No	999	Yes	1	1	0	1	0	1	0	1	0	1	0	1	0	6	
186	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	1	1	1	1	0	0	0	0	0	0	0	0	5	
187	No	Yes	No	Yes	Yes	No	Yes	No	No	No	No	Yes	No	1	1	0	0	0	1	0	1	0	1	1	1	0	7	
188	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	No	No	1	1	1	1	0	1	1	0	1	1	1	0	1	10	
189	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	No	Yes	0	1	1	0	1	1	1	1	0	0	0	1	1	8	
190	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	0	1	1	0	1	1	10	
191	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	1	1	1	1	1	1	0	0	1	1	0	1	0	9	
192	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	1	1	1	1	1	0	0	1	1	0	0	1	0	8	
193	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	1	1	1	1	0	1	0	1	0	0	1	0	1	8	
194	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	1	1	0	0	1	0	0	0	0	0	0	1	1	1	6
195	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	1	1	1	1	0	1	1	1	0	0	0	0	7	
196	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	0	1	1	1	1	0	1	1	11	
197	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	0	0	1	0	1	1	10	
198	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	0	0	0	0	1	0	1	1	8	
199	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	0	12	
200	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No	0	0	1	0	0	1	0	0	0	1	0	1	1	5	
201	No	No	No	No	No	No	No	No	Yes	No	No	No	No	0	0	1	0	0	1	1	1	1	1	1	1	1	9	
202	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	1	1	1	1	1	0	0	0	0	1	1	1	0	8	
203	No	No	No	No	Yes	No	No	No	Yes	No	No	No	Yes	1	0	1	0	1	1	1	1	1	1	1	1	1	11	
204	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No	No	Yes	1	1	0	0	1	1	0	0	0	1	1	1	1	8	
205	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	0	0	1	1	1	0	1	1	10	
206	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes	1	1	1	0	1	0	1	0	0	1	1	1	1	9	
207	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	1	0	1	1	1	0	0	0	1	1	0	0	0	6	
208	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	1	1	1	1	0	0	0	0	0	0	0	0	5	
209	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	1	1	0	0	1	1	1	0	0	1	0	0	0	6	
210	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	1	1	1	1	0	0	1	1	1	0	0	1	9	
211	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	1	1	0	0	1	1	1	0	1	0	0	0	0	6	
212	Yes	Yes	Yes	No	No	No	Yes	No	No	No	No	No	No	0	1	0	0	0	0	0	1	1	1	1	1	1	6	
213	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	1	1	1	1	0	0	0	0	1	0	0	0	6	
214	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	0	1	1	1	1	0	0	0	0	0	0	1	0	5	
215	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	0	0	0	1	1	0	0	0	1	0	1	0	0	4	
216	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	1	1	0	0	1	0	0	0	0	0	0	1	0	1	5
217	No	No	No	Yes	Yes	No	Yes	No	999	Yes	No	Yes	Yes	1	1	1	1	1	1	1	1	0	1	1	1	0	10	
218	No	No	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes	1	1	1	0	1	1	1	1	0	1	1	1	0	10	
219	Yes	No	999	No	Yes	No	Yes	No	Yes	No	No	No	Yes	1	1	1	0	1	0	1	1	1	1	1	1	1	10	
220	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	0	1	1	1	1	0	0	1	0	1	0	1	0	7	
221	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	1	1	1	1	1	1	1	0	1	1	1	0	1	11	
222	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	0	1	1	1	1	0	1	1	0	1	1	0	0	8	
223	No	No	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes	1	1	0	0	1	1	1	1	1	1	0	1	1	10	
224	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	1	1	1	1	0	1	0	0	0	0	0	0	0	5	
225	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	0	1	1	1	1	1	12	
226	No	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	1	1	1	1	0	1	0	1	1	0	1	0	0	8	
227	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	0	1	1	0	1	1	0	1	0	0	0	0	0	5	
228	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	0	1	1	1	1	1	0	0	0	0	1	0	1	7	
229	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	1	1	1	1	1	1	1	0	1	1	1	0	1	11	
230	No	Yes	No	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes	1	1	1	0	1	1	0	1	0	1	1	1	1	10	

231	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	1	1	1	0	0	1	1	1	1	0	0	1	1	9
232	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	0	1	0	0	1	1	0	0	0	0	0	0	0	3
233	Yes	Yes	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	0	0	0	1	1	0	0	1	1	1	0	0	0	5
234	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
235	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	1	1	1	1	0	1	1	0	0	0	0	0	1	7
236	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
237	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
238	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	0	1	1	0	1	1	1	1	11
239	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	0	1	0	0	0	1	1	9
240	No	No	Yes	Yes	999	No	Yes	No	Yes	Yes	No	No	Yes	.	1	1	1	1	1	1	1	0	0	1	1	1	10
241	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	1	1	1	1	12
242	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	1	1	1	1	12
243	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	0	1	1	0	1	0	0	0	0	0	0	0	1	4
244	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	1	1	1	1	12
245	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	1	1	1	1	12
246	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	0	1	1	1	11
247	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	0	1	0	1	1	11
248	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
249	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	1	1	1	1	1	1	1	1	1	0	1	1	0	11
250	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	1	0	1	1	1	0	1	0	0	1	0	1	1	8

Appendix 12

Social desirability bias scores for Domestic Hypermarket dataset

No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q1	Q2	Q3	Q4	Q6	Q8	Q11	Q12	Q5	Q7	Q9	Q10	Q13	Total Score
1	Yes	Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes	0	0	1	0	0	1	0	1	1	0	0	0	1	5
2	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	0	0	0	0	1	1	1	1	1	1	1	1	1	9
3	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	0	0	0	1	0	1	1	1	1	0	1	1	1	8
4	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	0	0	0	1	1	1	1	1	1	1	1	1	1	10
5	Yes	Yes	Yes	No	999	Yes	Yes	No	Yes	Yes	No	No	No	0	0	0	1	0	1	1	1	1	1	1	1	0	7
6	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	1	1	1	1	1	1	1	0	1	1	1	1	0	11
7	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	0	0	0	1	0	0	0	0	1	1	0	0	1	4
8	No	No	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	1	1	1	0	1	1	0	0	1	0	1	1	1	9
9	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	0	1	1	1	1	0	0	1	1	1	1	1	1	10
10	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	1	1	1	0	0	0	0	1	1	1	0	0	1	7
11	No	No	No	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	1	1	1	1	1	0	1	1	1	1	0	1	1	11
12	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	0	0	0	1	0	0	0	1	1	1	0	1	0	5
13	No	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	1	0	0	0	0	1	0	0	0	0	0	1	1	4
14	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	0	0	1	1	0	0	1	1	1	1	1	1	9
15	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	1	1	1	0	0	0	0	1	1	1	0	0	1	7
16	No	No	No	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes	1	1	1	0	1	1	1	1	1	1	1	0	1	11
17	No	No	Yes	Yes	No	No	No	No	Yes	No	No	No	Yes	1	1	0	0	1	1	1	1	0	0	1	0	1	8
18	No	No	No	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	1	1	1	0	0	1	1	1	1	0	1	1	1	10
19	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No	1	1	1	1	1	1	1	1	1	1	1	1	0	12
20	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	0	1	1	1	1	0	1	1	1	1	1	1	1	11
21	No	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Yes	1	0	0	0	1	1	0	1	1	1	0	1	1	8
22	No	Yes	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	1	0	1	1	1	1	0	0	1	1	1	0	1	9
23	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Yes	1	0	0	1	1	1	1	1	1	1	0	1	1	10
24	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	1	0	1	0	0	1	0	1	1	1	1	1	1	9
25	No	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	1	0	1	1	1	1	0	0	0	1	1	1	0	8
26	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	0	1	1	1	0	0	1	1	1	1	1	1	10
27	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	0	0	1	0	1	0	1	1	1	1	0	1	8	
28	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	1	0	1	0	1	1	0	0	1	1	1	1	1	9
29	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	1	0	1	0	1	1	0	1	1	1	1	1	1	10
30	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	0	0	1	0	0	0	0	1	0	0	1	0	1	4
31	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	0	1	1	12
32	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	0	1	1	1	1	1	1	1	1	1	1	12
33	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	0	1	0	1	1	1	1	1	1	1	1	1	11
34	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	1	1	0	0	0	0	0	0	1	1	1	0	0	5
35	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	No	No	Yes	1	0	1	0	1	1	1	1	1	1	0	1	1	10
36	No	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	Yes	1	1	0	0	0	0	1	0	0	0	0	1	1	5
37	Yes	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	0	1	1	1	1	1	1	1	1	1	1	1	1	12
38	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	1	0	0	1	0	0	0	1	0	1	1	1	0	6
39	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	0	0	0	1	1	1	1	1	5
40	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	1	0	1	1	0	0	0	0	1	1	1	1	0	7
41	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	Yes	1	1	0	0	1	1	1	1	1	1	0	1	1	10

134	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	0	1	0	0	0	1	1	0	1	1	1	1	1	1	8
135	No	No	No	Yes	No	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	0	1	1	1	1	0	1	1	1	1	1	11
136	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	0	0	1	0	1	1	1	1	1	1	1	1	10
137	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	0	1	0	1	1	1	1	1	1	1	1	11
138	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	1	0	1	0	0	0	0	1	1	1	1	1	1	7
139	Yes	Yes	Yes	Yes	Yes	No	999	Yes	999	No	Yes	No	No	0	0	0	0	1	0	0	1	1	.	.	0	0	3	
140	Yes	No	No	No	Yes	No	Yes	999	Yes	Yes	No	999	Yes	0	1	1	1	1	.	1	.	1	1	1	1	1	1	10
141	No	No	No	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	1	1	1	0	1	1	0	0	1	1	1	0	1	9	
142	No	No	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	1	1	1	1	0	1	0	0	1	1	1	0	1	9	
143	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	0	0	0	1	0	1	1	1	1	1	1	1	9	
144	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No	No	0	1	0	0	1	0	1	1	1	1	0	0	0	6	
145	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	0	1	0	0	1	1	0	1	1	1	1	1	0	8	
146	No	No	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	No	1	1	0	0	1	0	1	1	1	0	0	1	0	7	
147	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	1	0	0	0	1	1	1	1	1	1	1	1	0	9	
148	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	1	1	0	0	1	0	0	0	1	1	0	0	1	6	
149	Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	0	1	0	0	1	1	0	0	1	0	0	1	0	5	
150	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	1	0	0	0	1	0	0	1	1	0	1	1	1	7	
151	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	0	0	0	0	1	1	0	1	1	1	1	0	1	7	
152	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	999	0	0	1	0	1	1	0	0	1	1	1	1	.	7	
153	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	1	1	1	0	1	1	1	1	1	1	1	1	0	11	
154	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	0	0	0	1	1	1	1	1	5	
155	Yes	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	No	No	0	0	0	1	0	1	0	1	0	0	1	1	0	5	
156	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13	
157	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	0	0	1	0	0	0	1	0	1	0	0	1	0	4	
158	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	0	0	0	0	1	0	0	1	1	1	1	0	1	6	
159	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13	
160	No	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	No	1	0	0	1	0	0	1	1	0	1	0	1	0	6	
161	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	0	0	1	0	1	1	0	1	1	1	1	0	1	8	
162	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	0	0	0	0	1	0	0	1	1	1	1	1	1	7	
163	No	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	1	0	1	0	1	0	1	1	1	0	1	1	0	8	
164	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	0	1	1	1	1	1	1	1	12	
165	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	0	0	1	0	0	1	0	1	1	1	0	0	0	5	
166	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	0	1	1	1	1	1	1	1	1	1	12	
167	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	No	1	1	1	1	0	1	1	1	1	1	1	1	0	11	
168	No	Yes	No	No	Yes	No	Yes	No	No	No	No	No	Yes	1	0	1	1	1	1	1	1	1	1	0	0	1	10	
169	Yes	Yes	No	Yes	Yes	No	Yes	999	No	No	No	No	No	0	0	1	0	1	.	1	1	1	1	0	0	0	6	
170	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	0	0	0	0	0	1	0	1	0	1	1	1	0	5	
171	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	0	1	1	1	.	1	1	1	1	1	12	
172	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	0	1	0	1	1	1	0	1	1	1	1	0	1	9	
173	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	1	0	0	0	1	0	1	0	1	1	1	1	1	8	
174	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	1	0	0	1	1	1	0	1	1	1	1	0	1	9	
175	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	1	1	1	1	1	1	0	1	0	1	1	1	1	11	
176	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	1	1	0	1	0	0	1	1	1	1	1	1	10	
177	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	1	0	1	1	0	0	0	1	1	1	1	1	8	
178	No	No	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	1	1	1	1	1	1	1	0	1	1	1	0	0	10	
179	Yes	999	No	999	Yes	No	Yes	999	Yes	No	Yes	No	Yes	0	.	1	.	1	.	0	1	1	1	1	0	1	7	

180	No	No	No	No	Yes	No	No	No	No	No	No	No	No	1	1	1	1	1	1	1	1	0	0	0	0	9		
181	No	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	No	1	0	0	1	0	0	1	1	0	1	0	1	0	6	
182	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	0	0	0	1	0	0	0	1	1	1	1	1	0	6	
183	No	No	No	No	No	No	No	No	No	No	No	No	No	1	1	1	1	1	1	1	1	0	0	0	0	0	8	
184	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	1	0	1	0	0	0	0	0	0	0	0	1	1	1	5
185	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	1	0	1	1	1	0	1	1	0	1	1	1	0	9	
186	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	0	0	0	1	1	1	1	1	5	
187	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	Yes	999	1	1	0	1	1	1	1	0	1	1	0	1	1	9	
188	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Yes	No	Yes	1	0	1	0	1	0	0	1	0	1	0	1	1	7	
189	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	0	1	1	1	0	1	1	1	1	1	1	1	11	
190	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	0	1	1	1	0	1	1	1	1	1	1	1	11	
191	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	1	0	0	0	0	0	0	1	1	0	1	0	1	5	
192	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	0	1	1	1	0	0	1	0	1	1	0	1	0	7	
193	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	1	0	0	1	1	1	1	1	6	
194	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	0	1	0	1	0	1	1	1	1	1	1	1	10	
195	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	0	0	0	0	0	1	1	1	4	
196	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	1	0	0	0	1	0	1	0	1	0	1	1	1	7	
197	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	0	0	0	1	1	1	1	1	5	
198	No	Yes	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	1	0	1	1	1	1	0	0	1	1	0	1	1	9	
199	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	0	1	0	0	1	0	1	0	1	1	0	1	1	7	
200	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	0	0	0	1	1	1	1	1	1	1	1	1	1	10	
201	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	0	0	0	0	0	0	0	1	1	1	1	1	5	
202	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	0	1	1	0	0	0	1	1	1	1	1	0	0	7	
203	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	0	1	1	1	1	1	1	1	1	1	12	
204	No	Yes	No	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	1	0	1	0	1	0	0	0	1	0	1	0	1	6	
205	No	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No	1	0	1	0	1	1	0	1	1	0	1	1	0	8	
206	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	1	0	0	1	0	0	0	0	1	0	1	1	1	6	
207	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	0	0	1	1	1	0	0	1	1	1	0	1	1	8	
208	No	No	No	No	Yes	No	No	No	Yes	No	No	No	No	1	1	1	1	1	1	1	1	1	1	0	1	0	10	
209	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	No	0	1	1	0	1	1	1	1	0	1	0	1	0	8	
210	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	1	1	0	0	1	0	1	0	1	1	1	1	1	9	
211	No	No	Yes	No	No	No	Yes	No	No	No	Yes	Yes	Yes	1	1	0	1	1	1	0	0	0	1	0	0	1	7	
212	No	No	No	Yes	Yes	No	Yes	Yes	Yes	999	No	No	Yes	1	1	1	0	1	0	1	1	1	1	1	1	1	10	
213	Yes	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	No	0	1	1	0	0	1	1	0	0	0	1	1	0	6	
214	No	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	1	1	1	1	0	0	0	1	1	1	0	1	1	9	
215	No	Yes	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	0	1	1	1	1	1	1	1	1	1	1	1	12	
216	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	0	0	0	1	1	0	0	1	1	1	1	1	1	8	
217	No	Yes	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No	1	0	1	0	1	0	1	0	0	1	0	0	0	5	
218	No	Yes	No	Yes	No	No	Yes	No	Yes	No	Yes	No	Yes	1	0	1	0	1	1	0	1	0	1	1	0	1	8	
219	No	Yes	No	Yes	Yes	No	No	No	Yes	No	Yes	No	Yes	1	0	1	0	1	1	0	1	1	0	1	0	1	8	
220	Yes	No	Yes	No	999	Yes	Yes	Yes	No	No	Yes	No	Yes	0	1	0	1	0	0	0	1	1	0	0	1	1	5	
221	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	1	0	1	0	0	0	0	0	1	0	1	1	0	5	
222	Yes	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	0	1	1	0	0	0	0	1	0	0	1	0	0	4	
223	No	No	No	No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	1	1	1	1	1	1	0	1	1	1	1	1	1	12	
224	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No	No	Yes	0	0	1	1	0	1	1	1	0	1	1	1	1	9	
225	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	0	0	0	0	0	0	1	1	1	1	1	0	1	6	

226	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	1	0	1	0	1	1	0	0	1	1	0	1	1	8
227	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
228	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	1	1	0	1	0	0	0	1	1	1	0	0	1	7
229	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	0	0	0	0	0	0	1	1	1	1	1	0	1	6
230	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	0	0	1	0	0	1	0	0	1	1	0	1	0	5
231	Yes	No	No	No	Yes	Yes	No	999	Yes	Yes	No	No	Yes	0	1	1	1	0	.	1	1	1	0	1	1	1	9
232	No	Yes	No	Yes	No	No	Yes	No	No	No	No	No	No	1	0	1	0	1	1	1	1	0	1	0	0	0	7
233	No	Yes	Yes	No	Yes	No	999	No	No	Yes	Yes	No	No	1	0	0	1	1	1	0	1	1	.	0	1	0	7
234	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	0	1	0	0	0	0	0	0	1	1	0	1	1	5
235	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes	0	0	1	0	1	1	1	1	1	1	1	0	1	9
236	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	1	1	1	1	0	1	0	1	1	1	1	1	1	11
237	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	0	1	0	0	1	1	1	1	1	1	1	1	1	10
238	No	No	No	Yes	No	No	No	No	Yes	No	No	No	Yes	1	1	1	0	1	1	1	1	0	0	1	0	1	9
239	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	0	0	0	1	0	1	0	1	1	1	1	1	1	8
240	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	1	1	1	1	0	1	0	0	1	1	1	1	1	10
241	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	1	0	1	0	1	0	0	1	1	1	1	1	1	9
242	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	1	1	1	1	1	0	1	1	1	1	1	1	1	12
243	Yes	Yes	No	Yes	No	999	Yes	Yes	No	Yes	No	Yes	Yes	0	0	1	0	.	0	1	0	0	1	0	1	1	5
244	No	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	13
245	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	0	0	1	0	0	0	0	1	1	1	1	0	1	6
246	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	0	0	1	0	1	0	0	1	1	1	1	1	1	8
247	No	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	1	0	0	1	1	1	0	0	1	0	1	1	0	7
248	No	Yes	No	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	1	0	1	0	0	1	0	0	0	0	1	0	0	4
249	No	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	1	0	1	0	1	0	1	1	1	0	1	1	1	9
250	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	No	Yes	0	0	0	0	1	0	0	1	0	1	0	0	1	4

Appendix 13

Familiarity scores for Domestic Hypermarket dataset

No.	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5	Total Score
1	Yes	Yes	No	UK	Neither	4	1	1	0	2	8
2	Yes	Yes	Yes	France	Unfamiliar	4	1	0	3	1	9
3	Yes	Yes	No	USA	Neither	4	1	1	0	2	8
4	Yes	No	Yes	France	Familiar	4	0	0	3	3	10
5	Yes	Yes	999	999	Neither	4	1	0	0	2	7
6	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
7	Yes	Yes	No	France	Neither	4	1	1	3	2	11
8	Yes	No	Yes	France	Familiar	4	0	0	3	3	10
9	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
10	Yes	No	Yes	France	Unfamiliar	4	0	0	3	1	8
11	Yes	No	No	France	Familiar	4	0	1	3	3	11
12	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
13	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
14	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
15	Yes	No	Yes	France	Neither	4	0	0	3	2	9
16	Yes	Yes	Yes	Germany	Familiar	4	1	0	0	3	8
17	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
18	Yes	No	No	France	Familiar	4	0	1	3	3	11
19	Yes	Yes	Yes	Germany	Familiar	4	1	0	0	3	8
20	No	Yes	Yes	America	Neither	0	1	0	0	2	3
21	Yes	Yes	Yes	Germany	Familiar	4	1	0	0	3	8
22	Yes	No	No	France	Unfamiliar	4	0	1	3	1	9
23	Yes	Yes	Yes	Germany	Familiar	4	1	0	0	3	8
24	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
25	Yes	Yes	No	France	Neither	4	1	1	3	2	11
26	Yes	No	Yes	999	Neither	4	0	0	0	2	6
27	Yes	Yes	Yes	Germany	Familiar	4	1	0	0	3	8
28	Yes	Yes	No	Germany	Familiar	4	1	1	0	3	9
29	Yes	No	No	France	Neither	4	0	1	3	2	10
30	No	No	No	999	Completely Unfamiliar	0	0	1	0	0	1
31	Yes	Yes	No	France	Neither	4	1	1	3	2	11
32	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
33	Yes	Yes	Yes	999	Unfamiliar	4	1	0	0	1	6
34	Yes	No	No	999	Neither	4	0	1	0	2	7
35	Yes	No	No	France	Neither	4	0	1	3	2	10
36	Yes	Yes	Yes	999	Familiar	4	1	0	0	3	8
37	No	No	Yes	France	Neither	0	0	0	3	2	5
38	Yes	No	Yes	America	Neither	4	0	0	0	2	6
39	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
40	No	No	Yes	China	Unfamiliar	0	0	0	0	1	1
41	Yes	Yes	No	Germany	Neither	4	1	1	0	2	8

42	Yes	No	No	France	Unfamiliar	4	0	1	3	1	9
43	Yes	No	Yes	France	Neither	4	0	0	3	2	9
44	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
45	Yes	Yes	No	999	Neither	4	1	1	0	2	8
46	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
47	No	No	Yes	France	Unfamiliar	0	0	0	3	1	4
48	Yes	Yes	No	France	Neither	4	1	1	3	2	11
49	Yes	No	999	France	Neither	4	0	0	3	2	9
50	Yes	Yes	No	France	Neither	4	1	1	3	2	11
51	Yes	Yes	No	France	Neither	4	1	1	3	2	11
52	Yes	No	Yes	999	Neither	4	0	0	0	2	6
53	Yes	No	Yes	999	Unfamiliar	4	0	0	0	1	5
54	Yes	No	999	France	Neither	4	0	0	3	2	9
55	Yes	Yes	No	France	Neither	4	1	1	3	2	11
56	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
57	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
58	Yes	Yes	No	France	Neither	4	1	1	3	2	11
59	No	No	Yes	999	Completely Unfamiliar	0	0	0	0	0	0
60	Yes	Yes	Yes	999	Very Familiar	4	1	0	0	4	9
61	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
62	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
63	Yes	Yes	No	France	Neither	4	1	1	3	2	11
64	Yes	No	999	France	Neither	4	0	0	3	2	9
65	Yes	Yes	No	America	Neither	4	1	1	0	2	8
66	Yes	No	No	France	Familiar	4	0	1	3	3	11
67	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
68	Yes	No	No	999	Neither	4	0	1	0	2	7
69	Yes	No	No	999	Neither	4	0	1	0	2	7
70	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
71	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
72	Yes	Yes	Yes	999	Familiar	4	1	0	0	3	8
73	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
74	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
75	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
76	Yes	No	Yes	France	Neither	4	0	0	3	2	9
77	Yes	No	Yes	France	Neither	4	0	0	3	2	9
78	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
79	Yes	No	No	America	Neither	4	0	1	0	2	7
80	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
81	Yes	Yes	No	France	Neither	4	1	1	3	2	11
82	Yes	Yes	No	France	Neither	4	1	1	3	2	11
83	Yes	Yes	999	France	Familiar	4	1	0	3	3	11
84	No	No	Yes	France	Neither	0	0	0	3	2	5
85	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
86	Yes	Yes	Yes	France	Unfamiliar	4	1	0	3	1	9
87	Yes	Yes	No	France	Familiar	4	1	1	3	3	12

88	Yes	No	Yes	France	Neither	4	0	0	3	2	9
89	Yes	Yes	No	France	Neither	4	1	1	3	2	11
90	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
91	Yes	No	Yes	France	Neither	4	0	0	3	2	9
92	Yes	No	Yes	France	Unfamiliar	4	0	0	3	1	8
93	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
94	Yes	Yes	Yes	999	999	4	1	0	0	0	5
95	Yes	Yes	No	999	999	4	1	1	0	0	6
96	Yes	No	Yes	999	Neither	4	0	0	0	2	6
97	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
98	No	No	Yes	France	Unfamiliar	0	0	0	3	1	4
99	Yes	Yes	No	France	Neither	4	1	1	3	2	11
100	Yes	Yes	No	Europe	Unfamiliar	4	1	1	0	1	7
101	999	999	No	999	Unfamiliar	0	0	1	0	1	2
102	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
103	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
104	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
105	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
106	999	999	999	France	Familiar	0	0	0	3	3	6
107	No	No	Yes	999	Unfamiliar	0	0	0	0	1	1
108	Yes	Yes	No	France	Neither	4	1	1	3	2	11
109	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
110	Yes	Yes	No	France	Neither	4	1	1	3	2	11
111	Yes	No	No	France	Neither	4	0	1	3	2	10
112	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
113	Yes	Yes	No	France	Neither	4	1	1	3	2	11
114	Yes	No	Yes	France	Unfamiliar	4	0	0	3	1	8
115	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
116	No	Yes	No	999	Completely Unfamiliar	0	1	1	0	0	2
117	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
118	Yes	Yes	No	France	Neither	4	1	1	3	2	11
119	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
120	999	999	Yes	France	Neither	0	0	0	3	2	5
121	Yes	Yes	No	France	Neither	4	1	1	3	2	11
122	999	999	No	France	Neither	0	0	1	3	2	6
123	Yes	Yes	No	France	Neither	4	1	1	3	2	11
124	Yes	Yes	No	France	Neither	4	1	1	3	2	11
125	999	999	Yes	France	Familiar	0	0	0	3	3	6
126	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
127	Yes	Yes	No	999	Unfamiliar	4	1	1	0	1	7
128	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
129	Yes	Yes	No	UK	Neither	4	1	1	0	2	8
130	Yes	No	Yes	France	Neither	4	0	0	3	2	9
131	Yes	No	No	999	Familiar	4	0	1	0	3	8
132	Yes	Yes	No	UK	Familiar	4	1	1	0	3	9
133	Yes	No	No	UK	Familiar	4	0	1	0	3	8

134	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
135	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
136	Yes	Yes	No	999	Neither	4	1	1	0	2	8
137	Yes	Yes	999	999	Neither	4	1	0	0	2	7
138	Yes	Yes	Yes	America	Neither	4	1	0	0	2	7
139	Yes	Yes	Yes	America	Completely Unfamiliar	4	1	0	0	0	5
140	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
141	Yes	Yes	No	999	Unfamiliar	4	1	1	0	1	7
142	Yes	Yes	999	France	Neither	4	1	0	3	2	10
143	No	No	No	999	Completely Unfamiliar	0	0	1	0	0	1
144	Yes	Yes	No	China	Neither	4	1	1	0	2	8
145	Yes	Yes	No	France	Neither	4	1	1	3	2	11
146	Yes	No	No	France	Completely Unfamiliar	4	0	1	3	0	8
147	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
148	Yes	Yes	No	France	Neither	4	1	1	3	2	11
149	Yes	Yes	Yes	999	Unfamiliar	4	1	0	0	1	6
150	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
151	No	No	No	France	Neither	0	0	1	3	2	6
152	No	Yes	Yes	France	Neither	0	1	0	3	2	6
153	Yes	Yes	999	999	999	4	1	0	0	0	5
154	Yes	Yes	Yes	America	Neither	4	1	0	0	2	7
155	Yes	No	Yes	France	Neither	4	0	0	3	2	9
156	Yes	No	Yes	France	Neither	4	0	0	3	2	9
157	Yes	No	No	France	Unfamiliar	4	0	1	3	1	9
158	No	No	Yes	China	Unfamiliar	0	0	0	0	1	1
159	Yes	No	Yes	Taiwan	Neither	4	0	0	0	2	6
160	No	No	Yes	Germany	Neither	0	0	0	0	2	2
161	Yes	No	No	999	Unfamiliar	4	0	1	0	1	6
162	Yes	Yes	No	999	Neither	4	1	1	0	2	8
163	No	No	Yes	999	Unfamiliar	0	0	0	0	1	1
164	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
165	Yes	999	No	France	Unfamiliar	4	0	1	3	1	9
166	Yes	No	No	France	Unfamiliar	4	0	1	3	1	9
167	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
168	Yes	999	No	Japan	Familiar	4	0	1	0	3	8
169	Yes	Yes	Yes	999	Unfamiliar	4	1	0	0	1	6
170	Yes	Yes	No	France	Very Familiar	4	1	1	3	4	13
171	Yes	Yes	No	France	Neither	4	1	1	3	2	11
172	Yes	Yes	No	America	Familiar	4	1	1	0	3	9
173	Yes	No	No	France	Neither	4	0	1	3	2	10
174	Yes	No	No	999	Neither	4	0	1	0	2	7
175	No	No	Yes	999	Neither	0	0	0	0	2	2
176	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
177	Yes	Yes	Yes	France	Unfamiliar	4	1	0	3	1	9
178	No	No	Yes	999	Unfamiliar	0	0	0	0	1	1
179	Yes	999	999	China	Familiar	4	0	0	0	3	7

180	No	Yes	No	999	Neither	0	1	1	0	2	4
181	Yes	Yes	Yes	999	Familiar	4	1	0	0	3	8
182	No	No	Yes	999	Completely Unfamiliar	0	0	0	0	0	0
183	No	No	Yes	999	Completely Unfamiliar	0	0	0	0	0	0
184	Yes	No	No	France	Unfamiliar	4	0	1	3	1	9
185	No	No	No	999	Neither	0	0	1	0	2	3
186	Yes	Yes	999	999	Neither	4	1	0	0	2	7
187	No	No	No	999	Unfamiliar	0	0	1	0	1	2
188	No	No	Yes	China	Completely Unfamiliar	0	0	0	0	0	0
189	Yes	Yes	Yes	999	Familiar	4	1	0	0	3	8
190	No	No	Yes	France	Neither	0	0	0	3	2	5
191	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
192	No	No	Yes	999	Completely Unfamiliar	0	0	0	0	0	0
193	No	No	No	999	Completely Unfamiliar	0	0	1	0	0	1
194	No	No	Yes	999	Completely Unfamiliar	0	0	0	0	0	0
195	Yes	No	Yes	999	Completely Unfamiliar	4	0	0	0	0	4
196	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
197	Yes	Yes	No	America	Neither	4	1	1	0	2	8
198	No	No	Yes	999	Unfamiliar	0	0	0	0	1	1
199	No	No	Yes	999	Unfamiliar	0	0	0	0	1	1
200	Yes	Yes	Yes	America	Familiar	4	1	0	0	3	8
201	Yes	Yes	Yes	999	Familiar	4	1	0	0	3	8
202	No	No	No	999	Unfamiliar	0	0	1	0	1	2
203	No	No	No	999	Unfamiliar	0	0	1	0	1	2
204	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
205	No	No	No	France	Familiar	0	0	1	3	3	7
206	No	No	No	France	Neither	0	0	1	3	2	6
207	No	No	No	France	Unfamiliar	0	0	1	3	1	5
208	Yes	Yes	No	France	Familiar	4	1	1	3	3	12
209	Yes	Yes	Yes	America	Familiar	4	1	0	0	3	8
210	No	No	No	999	Completely Unfamiliar	0	0	1	0	0	1
211	Yes	No	No	America	Neither	4	0	1	0	2	7
212	Yes	No	Yes	America	Neither	4	0	0	0	2	6
213	Yes	No	No	America	Neither	4	0	1	0	2	7
214	No	No	Yes	France	Neither	0	0	0	3	2	5
215	Yes	Yes	No	France	Unfamiliar	4	1	1	3	1	10
216	No	No	Yes	France	Completely Unfamiliar	0	0	0	3	0	3
217	No	No	Yes	999	Unfamiliar	0	0	0	0	1	1
218	Yes	Yes	Yes	999	Unfamiliar	4	1	0	0	1	6
219	No	No	No	999	Completely Unfamiliar	0	0	1	0	0	1
220	Yes	No	Yes	999	Familiar	4	0	0	0	3	7
221	No	No	Yes	999	Familiar	0	0	0	0	3	3
222	Yes	Yes	Yes	999	Familiar	4	1	0	0	3	8
223	No	No	Yes	France	Familiar	0	0	0	3	3	6
224	No	No	No	999	Completely Unfamiliar	0	0	1	0	0	1
225	No	No	Yes	999	Completely Unfamiliar	0	0	0	0	0	0

226	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
227	Yes	Yes	No	999	Unfamiliar	4	1	1	0	1	7
228	Yes	Yes	No	France	Neither	4	1	1	3	2	11
229	Yes	Yes	Yes	999	999	4	1	0	0	0	5
230	Yes	Yes	Yes	999	Neither	4	1	0	0	2	7
231	Yes	No	Yes	999	Familiar	4	0	0	0	3	7
232	Yes	Yes	Yes	999	999	4	1	0	0	0	5
233	Yes	No	No	999	Unfamiliar	4	0	1	0	1	6
234	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
235	Yes	Yes	Yes	America	Familiar	4	1	0	0	3	8
236	Yes	Yes	Yes	France	Neither	4	1	0	3	2	10
237	No	No	Yes	999	Neither	0	0	0	0	2	2
238	Yes	Yes	No	America	Familiar	4	1	1	0	3	9
239	No	No	No	999	Unfamiliar	0	0	1	0	1	2
240	Yes	No	No	France	Neither	4	0	1	3	2	10
241	No	Yes	No	America	Familiar	0	1	1	0	3	5
242	Yes	Yes	999	999	Neither	4	1	0	0	2	7
243	Yes	No	No	999	Completely Unfamiliar	4	0	1	0	0	5
244	Yes	Yes	Yes	999	Unfamiliar	4	1	0	0	1	6
245	Yes	Yes	No	Sweden	Unfamiliar	4	1	1	0	1	7
246	Yes	Yes	No	999	Neither	4	1	1	0	2	8
247	Yes	Yes	Yes	999	999	4	1	0	0	0	5
248	Yes	Yes	Yes	France	Familiar	4	1	0	3	3	11
249	No	No	Yes	America	Unfamiliar	0	0	0	0	1	1
250	No	No	Yes	China	Unfamiliar	0	0	0	0	1	1

Appendix 14

Bootstrap estimates at various sample sizes

	Bootstrap (500)		Bootstrap (1000)		Bootstrap (2000)		Bootstrap (3000)		Bootstrap (4000)		Bootstrap (5000)	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
WTS <-- CETSCALE	-0.577	0.159	-0.582	0.157	-0.584	0.154	-0.583	0.152	-0.582	0.152	-0.582	0.151
WTS <-- Hedonic Value	-0.419	0.251	-0.425	0.245	-0.433	0.240	-0.432	0.239	-0.433	0.236	-0.433	0.235
WTS <-- Utilitarian Value	0.376	0.283	0.363	0.253	0.351	0.242	0.355	0.247	0.355	0.243	0.355	0.239
WTS <-- Store Brand Cue	0.132	0.165	0.135	0.162	0.139	0.174	0.137	0.186	0.139	0.198	0.139	0.191
WTS <-- COO Cue	0.243	0.317	0.246	0.309	0.249	0.330	0.251	0.343	0.251	0.352	0.250	0.343
SLI <-- Hedonic Value	0.448	0.160	0.458	0.143	0.458	0.128	0.456	0.121	0.454	0.117	0.455	0.116
SLI <-- Utilitarian Value	-0.173	0.756	-0.155	0.644	-0.130	0.499	-0.124	0.427	-0.126	0.400	-0.124	0.380
SLI <-- WTS	0.316	0.353	0.305	0.316	0.293	0.243	0.289	0.208	0.290	0.194	0.288	0.186
CS <-- SLI	0.558	0.091	0.559	0.090	0.557	0.089	0.558	0.088	0.559	0.089	0.560	0.088
CET_Q5 <-- CETSCALE	0.902	0.095	0.902	0.098	0.901	0.097	0.900	0.098	0.899	0.097	0.900	0.098
HED_Q3 <-- Hedonic Value	0.822	0.116	0.822	0.118	0.826	0.117	0.824	0.116	0.823	0.116	0.822	0.115
WTS_Q2 <-- WTS	0.861	0.085	0.862	0.083	0.864	0.082	0.863	0.081	0.863	0.081	0.862	0.081
SLI_Q1 <-- SLI	0.836	0.116	0.833	0.117	0.832	0.119	0.832	0.119	0.833	0.121	0.833	0.121
SLI_Q3 <-- SLI	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
SLI_Q2 <-- SLI	0.966	0.106	0.966	0.105	0.965	0.107	0.963	0.106	0.963	0.106	0.964	0.107
CS_Q1 <-- CS	0.752	0.059	0.753	0.057	0.754	0.057	0.755	0.057	0.755	0.056	0.755	0.056
CS_Q2 <-- CS	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
CS_Q3 <-- CS	0.977	0.053	0.975	0.052	0.976	0.052	0.977	0.052	0.977	0.052	0.977	0.053
SB_Q1 <-- Store Brand Cue	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
SB_Q3 <-- Store Brand Cue	0.393	0.140	0.391	0.141	0.392	0.141	0.387	0.141	0.388	0.141	0.388	0.142
UTI_Q2 <-- Utilitarian Value	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
UTI_Q3 <-- Utilitarian Value	1.026	0.226	1.025	0.238	1.028	0.243	1.028	0.247	1.027	0.255	1.031	0.277
WTS_Q3 <-- WTS	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
CET_Q9 <-- CETSCALE	0.808	0.107	0.805	0.107	0.804	0.107	0.800	0.106	0.800	0.107	0.801	0.106
CET_Q6 <-- CETSCALE	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
CET_Q10 <-- CETSCALE	0.982	0.102	0.981	0.107	0.978	0.106	0.977	0.105	0.977	0.106	0.978	0.106
HED_Q4 <-- Hedonic Value	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
HED_Q5 <-- Hedonic Value	0.779	0.094	0.780	0.100	0.781	0.097	0.779	0.097	0.779	0.097	0.780	0.097
COO_Q6 <-- COO Cue	0.796	0.088	0.798	0.088	0.799	0.084	0.797	0.084	0.795	0.083	0.796	0.083
COO_Q4 <-- COO Cue	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
COO_Q3 <-- COO Cue	0.968	0.065	0.968	0.068	0.967	0.069	0.968	0.069	0.967	0.069	0.967	0.069

Appendix 15

Assessment of normality for Domestic Hypermarket data

	min	max	skew	c.r.	kurtosis	c.r.
UTI_Q3	1	5	-0.053	-0.340	-1.146	-3.699
UTI_Q2	1	5	-0.524	-3.384	-0.884	-2.854
SB_Q3	1	7	0.153	0.990	-1.031	-3.328
SB_Q1	1	7	0.012	0.080	-1.204	-3.885
CS_Q3	1	5	0.045	0.290	-1.050	-3.390
CS_Q2	1	5	-0.169	-1.092	-0.997	-3.218
CS_Q1	1	5	0.065	0.420	-0.784	-2.531
SLI_Q3	1	5	-0.760	-4.905	-0.746	-2.408
SLI_Q2	1	5	-0.878	-5.669	-0.493	-1.590
SLI_Q1	1	5	-1.197	-7.727	0.105	0.338
WTS_Q3	1	7	-0.442	-2.851	-1.227	-3.961
CET_Q10	1	7	0.951	6.137	-0.394	-1.273
CET_Q9	1	7	0.375	2.420	-1.273	-4.109
CET_Q6	1	7	0.546	3.526	-1.236	-3.989
CET_Q5	1	7	0.593	3.826	-1.076	-3.473
HED_Q3	1	5	-0.311	-2.011	-1.355	-4.375
HED_Q4	1	5	0.061	0.393	-1.295	-4.179
HED_Q5	1	5	0.165	1.067	-1.183	-3.819
WTS_Q2	1	7	-1.311	-8.465	0.600	1.936
COO_Q6	1	5	-0.168	-1.085	-1.188	-3.834
COO_Q4	1	5	-0.057	-0.367	-1.259	-4.064
COO_Q3	1	5	-0.210	-1.358	-1.143	-3.688
Multivariate					87.187	21.211

Appendix 16

ML versus bootstrap values for Domestic Hypermarket dataset

	Maximum Likelihood			Bootstrap			PC Confidence			BC Confidence			% Diff In S.E.
	Estimate	S.E.	C.R.	Estimate	S.E.	C.R.	Lower	Upper	P	Lower	Upper	P	
WTS <- CETSCALE	-0.546	0.114	-4.787	-0.461	0.464	-0.994	-1.247	0.778	0.049	-0.952	-0.027	0.046	75.431
WTS <- Hedonic Value	0.453	0.279	1.622	0.356	0.990	0.360	-2.383	2.051	0.449	-1.577	2.108	0.355	71.818
WTS <- Utilitarian Value	1.174	0.503	2.334	1.466	2.190	0.669	-2.420	7.481	0.047	0.375	0.893	0.044	77.032
WTS <- Store Brand Cue	-0.077	0.217	-0.353	-0.292	1.292	-0.226	-3.458	2.658	0.882	-2.800	3.132	0.711	83.204
WTS <- COO Cue	0.108	0.319	0.339	0.540	1.604	0.337	-1.871	5.065	0.809	-2.173	4.206	0.941	80.112
SLI <- Hedonic Value	0.001	0.161	0.008	-0.245	0.949	-0.258	-3.406	0.448	0.666	-1.034	0.225	0.737	83.035
SLI <- Utilitarian Value	-0.698	0.453	-1.541	-1.233	2.430	-0.507	-9.354	0.840	0.362	-0.897	0.036	0.111	81.358
SLI <- WTS	0.059	0.133	0.440	0.243	0.816	0.298	-0.421	3.025	0.557	-0.272	0.479	0.775	83.701
CS <- SLI	0.216	0.084	2.581	0.201	0.090	2.233	0.051	0.358	0.067	0.065	1.382	0.030	6.667
CET_Q5 <- CETSCALE	0.848	0.086	9.801	0.834	0.097	8.598	0.674	1.007	0.067	0.674	1.007	0.067	11.340
HED_Q3 <- Hedonic Value	0.853	0.100	8.535	0.855	0.112	7.634	0.673	1.049	0.067	0.665	1.040	0.096	10.714
WTS_Q2 <- WTS	0.764	0.092	8.262	0.742	0.087	8.529	0.589	0.887	0.067	0.596	0.887	0.045	-5.747
SLI_Q1 <- SLI	0.895	0.088	10.132	0.886	0.098	9.041	0.708	1.077	0.067	0.708	1.077	0.067	10.204
SLI_Q3 <- SLI	0.911	0.088	10.349	0.911	0.111	8.207	0.744	1.171	0.067	0.775	1.217	0.045	20.721
SLI_Q2 <- SLI	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
CS_Q1 <- CS	0.591	0.061	9.721	0.589	0.068	8.662	0.460	0.698	0.067	0.488	...	0.030	10.294
CS_Q2 <- CS	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
CS_Q3 <- CS	0.960	0.071	13.546	0.973	0.096	10.135	0.787	1.164	0.067	...	1.076	0.184	26.042
SB_Q1 <- Store Brand Cue	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
SB_Q3 <- Store Brand Cue	0.524	0.097	5.403	0.543	0.101	5.376	0.326	0.718	0.067	...	0.683	0.134	3.960
UTI_Q2 <- Utilitarian Value	0.952	0.190	5.014	0.924	0.377	2.451	0.525	2.015	0.067	0.684	...	0.007	49.602
UTI_Q3 <- Utilitarian Value	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
WTS_Q3 <- WTS	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
CET_Q9 <- CETSCALE	0.713	0.086	8.330	0.704	0.102	6.902	0.530	0.958	0.067	0.571	...	0.030	15.686
CET_Q6 <- CETSCALE	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
CET_Q10 <- CETSCALE	0.911	0.082	11.105	0.908	0.059	15.390	0.798	1.011	0.067	0.781	1.005	0.096	-38.983
HED_Q4 <- Hedonic Value	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
HED_Q5 <- Hedonic Value	0.847	0.095	8.951	0.838	0.066	12.697	0.705	0.945	0.067	...	0.921	0.134	-43.939
COO_Q6 <- COO Cue	0.972	0.085	11.395	0.980	0.088	11.136	0.807	1.159	0.067	0.791	1.146	0.096	3.409
COO_Q4 <- COO Cue	1.000			1.000	0.000	...	1.000	1.000	...	1.000	1.000	...	...
COO_Q3 <- COO Cue	0.925	0.084	11.065	0.943	0.077	12.247	0.812	1.083	0.067	...	0.985	0.432	-9.091

Appendix 17

Formulae for calculating summated single indicators

Using expectation algebra, the loadings and error variances for these single indicators are:

$$\begin{aligned}
 \text{Var}(x:z) &= \text{Var}[(x_1+x_2)(z_1+z_2)] \\
 &= \text{Var}(x_1+x_2)\text{Var}(z_1+z_2) + \text{Cov}((x_1+x_2),(z_1+z_2))^2 \\
 &= [\Lambda_X^2\text{Var}(X)+\theta_X][\Lambda_Z^2\text{Var}(Z)+\theta_Z] + [\Lambda_X\Lambda_Z\text{Cov}(X,Z)]^2 \\
 &= \Lambda_X^2\Lambda_Z^2[\text{Var}(X)\text{Var}(Z)+\text{Cov}(X,Z)^2] + \Lambda_X^2\text{Var}(X)\theta_Z + \Lambda_Z^2\text{Var}(Z)\theta_X + \theta_X\theta_Z \\
 &= \Lambda_X^2\Lambda_Z^2\text{Var}(XZ) + \Lambda_X^2\text{Var}(X)\theta_Z + \Lambda_Z^2\text{Var}(Z)\theta_X + \theta_X\theta_Z \\
 &= \lambda_{x:z}^2\text{Var}(XZ) + \theta_{\varepsilon_{x:z}}
 \end{aligned}$$

where $\Lambda_X = \lambda_{x1} + \lambda_{x2}$, $\theta_X = \text{Var}(\varepsilon_{x1}) + \text{Var}(\varepsilon_{x2})$, $\Lambda_Z = \lambda_{z1} + \lambda_{z2}$, $\theta_Z = \text{Var}(\varepsilon_{z1}) + \text{Var}(\varepsilon_{z2})$, $\lambda_{x:z} = \Lambda_X\Lambda_Z$, and $\theta_{\varepsilon_{x:z}} = \Lambda_X^2\text{Var}(X)\theta_Z + \Lambda_Z^2\text{Var}(Z)\theta_X + \theta_X\theta_Z$ (Kenny and Judd (1984) showed that under the Kenny and Judd's (1984) normality assumptions $\text{Var}(a*b) = \text{Var}(a)\text{Var}(b) + \text{Cov}(a,b)^2$). In particular the loading ($\lambda_{x:z}$) and error variance ($\theta_{\varepsilon_{x:z}}$) of the indicator $x:z$ are

$$\lambda_{x:z} = \Lambda_X\Lambda_Z$$

and

$$\theta_{\varepsilon_{x:z}} = \Lambda_X^2\text{Var}(X)\theta_Z + \Lambda_Z^2\text{Var}(Z)\theta_X + \theta_X\theta_Z$$