

**THE RELATIONSHIPS AMONG EXTRINSIC CUES,  
PERCEIVED QUALITY, PERCEIVED SACRIFICE AND  
PERCEIVED VALUE: A CROSS NATIONAL STUDY**

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## ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.

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## ABSTRACT

Consumer perceived value is an important concept in marketing and plays a significant role in purchase decision-making. Consumer perceived value can be markedly influenced by product cues. The current research investigates the impact of extrinsic cues (country-of-origin, brand name, store name and price) on consumer perception of product quality, sacrifice and value developed by Teas and Agarwal (2000). Since little research has examined the generalisability of Teas and Agarwal's (2000) work in less economically developed countries, this research is conducted in a Chinese population.

The relationships among four manipulated extrinsic cues, perceived sacrifice, quality and value are tested. Since Teas and Agarwal (2000) did not investigate the mediation affects of perceived sacrifice in the relationship between perceived quality and perceived value, this will be also explored as an additional study for this paper. Thus, the current research expands on previous work on perceived customer value by examining the mediation affects.

After the conceptual model of Teas and Agarwal (2000) has been examined, the findings support hypothesized linkages between each of the four extrinsic cues and perceived quality, price and perceived quality, perceived quality and perceived value, perceived sacrifice and perceived value. The results show that perceived sacrifice mediates the relationship between perceived quality and value. The results also indicate that the linkages between the extrinsic cues and perceived value are mediated by perceived quality but are not mediated by perceived sacrifice. Although the results show that one hypothesized mediation affect is not supported, the overall structure of the model is supported across countries.

The findings are similar to the study of Teas and Agarwal (2000) which suggests that Chinese and Western consumer behaviours are alike in most situations. For example, brand building is a critical cue to the desired success because it can promote perceptions from both quality and value perspectives. However, this research found that Chinese consumers use product evaluation cues in a different way from Western consumers. The major difference is that, if the price is lower than the reasonable

average price-level, Chinese consumers may consider the product to be a big bargain with perceived high quality. This may suggest that marketing managers can use discount and price promotions in China. Therefore, discussions and managerial implications of this research provide advice for managers to formulate appropriate strategies.

# **1 CHAPTER I INTRODUCTION AND BACKGROUND**

## **1.1 PROBLEM ORIENTATION**

Delivering superior value to the consumer is regarded as a fundamental marketing concept among marketing managers and academia (Ulaga & Chacour, 2001). Consumer perception of superior value can be affected by both intrinsic and extrinsic product cues. An intrinsic cue is the physical attributes of a product, such as the style of a wristwatch (Olson & Jacoby, 1972), whereas an extrinsic cue includes the non-physical characteristics of a product, including price, brand name, store name and warranties or guarantees (Shimp & Bearden, 1982). Many researchers have developed conceptual models of how extrinsic cues affect the consumer evaluation process and have concluded that consumers' perceptions of quality and value are significantly influenced by extrinsic cues (Dawar & Parker, 1994; Dodds & Monroe, 1985; Teas & Agarwal, 2000). Recent research indicates that perception of quality and sacrifice also affect on a consumer's perceived value (e.g. Dodds, Monroe, & Dhruv, 1991; Teas & Agarwal, 2000). One of the least studied concepts of perceived sacrifice by the marketing literature, is risk (Snoj, Pisnik, & Damijan, 2004). Moreover, studies have proved that greater quality perceptions lead to improved consumer perceived value, and higher sacrifice leads to reduced consumer value perceptions (e.g. Snoj et al., 2004; Sweeney, Soutar, & Johnson, 1999).

Researchers have found that the impact on product evaluations and purchase intentions may differ, not only because product categories vary, but also because of individual consumer differences (Dodds et al., 1991). From a cultural perspective, Dawar and Parker (1994) comment that although extrinsic cues are important in the product evaluation process, there is little in the literature about whether the cues are used to the same degree by individual consumers in different countries and cultures. Further research into cross-national studies on product evaluation preferences needs to be conducted, particularly in transitional economies and newly industrialising countries, such as China (Ahmed & d'Astous 1999).

Bond (1991) states that Chinese consumers are more likely to perceive in a way that relates to the collectivist nature of the Chinese culture; in contrast, American

consumers tend to perceive in a way that is linked to their individualistic culture. Therefore, the forces that are reflected in an individualistic culture may not be characteristic of a collectivist culture (Malhotra & McCort, 2001). Chinese and Western consumers exhibit several different aspects of their consumer behaviours. These include: information search, product evaluation, purchase behaviour and post-purchase evaluations (Quester & Chong, 2001). Sunil, Abhik and Leslie (2001) found that one difference between Chinese consumers and Western consumers was the way they used the price cue in their evaluation processes. There is insufficient evidence to show that Chinese consumers evaluate a product on the sole basis of using the relationship between price and quality. However, the price level appears to play an important role which influences risk perception and purchase intention (Sunil, Abhik, & Leslie, 2001). Overall, these are the obvious differences in the way that Chinese and Western consumers evaluate products and they need to be investigated.

## **1.2 RESEARCH PROBLEMS**

Teas and Agarwal's (2000) conceptual model of product-value evaluation was investigated with U.S. consumers. The findings of the conceptual model contribute useful marketing implications and those strategies that may be widely used in targeting Western consumers, but cannot be easily transferred to Chinese consumers. The authors suggest that further research is needed to validate the results across cultures and countries, especially in less economically developed countries. This thesis investigates whether the Teas and Agarwal (2000) conceptual model of extrinsic cue effects on perceived quality, perceived sacrifice and perceived value can be generalised to the Chinese population. This research will clarify whether the same marketing strategies can be generalized across other countries, especially in some undeveloped Asian markets. This study also attempts to identify the gaps between Western and Chinese consumers by using Teas and Agarwal's (2000) model as far as overall product evaluation is concerned. In particular, this study examines how Chinese consumers use extrinsic product cues to evaluate and form their purchase perceptions for a particular product-a wristwatch.

### **1.3 NATURE AND EXTENT OF THE STUDY**

This study is a comparative research investigation based on Teas and Agarwal's (2000) model. The conceptual model of "Extrinsic-Cue Effects on Perceived Quality, Perceived Sacrifice and Perceived Value" (Teas & Agarwal, 2000) has been tested in the U.S., which is classified as an economically well developed country. Their study, which was conducted in a Western population, sought to explain the linkages between extrinsic cues and perceived value and the way in which these linkages are mediated by perceived quality and sacrifice.

Little research has been done to test the generalisability of Teas and Agarwal's (2000) work in less economically developed countries. Jain (1989) comments that models tested in the well-developed U.S. are more likely to be generalisable in countries which are economically similarly developed. In other words, Teas and Agarwal's (2000) model may not be easily applied in economically less developed countries. Thus, research based on this conceptual model needs to be validated with participants from developing countries. Nowadays, increasing numbers of firms are entering developing countries. Understanding whether or not consumers from less economically developed countries have similar evaluation perceptions to Western consumers is necessary in order to allow marketers to adjust their marketing strategies.

This research is conducted with Chinese consumers for four primary reasons. Firstly, the Chinese market represents a rapidly growing potential market for multinational marketers. Secondly, because of China's cultural and socio-economic environment, consumers are quite different from Western consumers as far as product evaluation is concerned. Thirdly, little research has been carried out on Chinese consumers' perception of product evaluation. As a result, little is known of their perceptions, such as their attitudes towards foreign products. Finally, compared with the U.S., China is still a developing country, and this may result in different perceptions of products. Findings about how Chinese consumers evaluate products can also help marketers to adjust their strategies to effectively target Chinese consumers in today's increasingly crowded markets. The benefit of this comparative research is that it also assists in establishing the robustness and generalization of the experimental results of

Teas and Agarwal's (2000) model. Therefore, the comparative research of product evaluations, by using extrinsic-cues, has value in being conducted and validated with a Chinese population.

#### **1.4 RESEARCH QUESTIONS AND OBJECTIVE**

The purpose of this research is to find if the cues on product evaluation, based on Teas and Agarwal's model, are used to the same extent by Chinese consumers as Western consumers.

This research aims to answer two questions. First, do Chinese consumers use brand name, store name, price level and the reputation of the country as extrinsic cues to evaluate product perceived quality, sacrifice, and value? Second, is there any difference between Chinese and Western consumers in cues usage, and if there is, what are the differences and what is the cause of the differences?

The findings of this study will provide some useful insights for marketers to gain a better understanding of the overall evaluations of product by Chinese consumers, using extrinsic cues.

#### **1.5 DEFINITION OF TERMS**

*Country-of-origin:* Country of origin is defined as (Roth & Romeo, 1992) : the consumers' overall perception of products from a particular country, based on their previous perceptions of the country's product image, marketing strengths and weaknesses.

*Brand:* Brand is a name, term, sign, symbol, design or a combination of these, that intends to identify the goods or services of sellers and which is also used to distinguish them from their competitors (American Marketing Association, 2000).

*Store Image:* Baker, Grewal et al (1994) summarize the definition of store image as a set of cognitions, which are inferred either from ongoing perceptions or memory inputs and attached to a phenomenon that represents the phenomenon specified to an

individual. Store environment, merchandise quality and service quality are treated as antecedents of store image.

*Price:* Price is defined as what is given up or sacrificed in order to gain a product (Monroe & Krishman, 1985).

*Perceived Quality:* The popular definition of perceived quality is a form of an overall judgement of a product's excellence or superiority (Jacoby & Olson, 1985; Parasuraman, Zeithaml, & Berry, 1985; Zeithaml, 1988).

*Perceived Sacrifice:* The most recent marketing literature views perceived sacrifice as risk. Risk is seen as a subjective anticipation of loss in some degree (Sweeney et al., 1999). A simple explanation is that risk is a subjective estimation by consumers linked with possible wrong decisions (Roselius, 1971).

*Perceived Value:* Perceived value is defined as the consumer's overall evaluation of the utility of different products, based on perceptions of what is received and what is given up (Sweeney et al., 1999; Zeithaml, 1988) .

## **1.6 METHODOLOGY**

In keeping with the original research (Teas & Agarwal, 2000), this study employed a full-factorial experimental design. The stimulus design involved four pieces of attribute information of product extrinsic cues (country-of-origin, brand name, store name and price). Each extrinsic cue enclosed two levels (high and low). A total of sixteen different treatments were designed. Pre-testing determined the influences of high and low level brand names, store names, country names and two price levels, and involved Chinese students enrolled in business studies. In the original research (Teas & Agarwal, 2000) two products were investigated: calculators and wristwatches. However, to time and cost limitations, only one product, the wristwatch, was tested in this current research. The final questionnaire was adapted from the original research, with some adjustments, and administrated in English. A total of 312 completed questionnaires were collected from Chinese students who were enrolled in business studies at several tertiary institutions, to be used for the

final data analysis. Factor analysis and MANOVA were used to check the validity of measurements. ANOVA, ANCOVA and multiple regressions were used to test eight hypotheses twice. The final results were compared with the original research (Teas & Agarwal, 2000) to analyse the different perceptions between Chinese consumers and Western consumers about how product evaluation is influenced by extrinsic cues.

## **1.7 OUTLINE OF THE RESEARCH**

This research report consists of five chapters; each discusses a particular stage of the research procedure.

Chapter One introduces the research topic, the background, and the theoretical considerations of the study. The research questions, objectives, outlines and methodology used are also discussed for a better understanding of where this research is situated within existing marketing research.

Chapter Two reviews the literature that is relevant to this study and for an understanding of the conceptual model, specified by Teas and Agarwal (2000). The product cue literature is reviewed, as well as existing theory and the theoretical considerations that focus on the degree of extrinsic cues usage by Chinese consumers in a different market environment. The gaps within the literature between Western consumers and Chinese consumers are identified and linked to the research problems of this study. However, as this research is a comparative study of Teas & Agarwal (2000), the current research is basically an examination of the validity of the hypotheses for a Chinese population.

Chapter Three details the overall research design and methodology used to examine the contribution of the inter-relationships of different variables on Chinese perceptions of quality, sacrifice and rating of value. Pre-test, sample framing and sample size of data collection procedures are covered. The discussion of the stimuli and measurements of the final questionnaire are also discussed. The research then moves to discussion of the validation study process, which includes the constructs

developed and Likert-type scales adopted in this study. Ethical issues considered in the research are also discussed, followed by the conclusion.

Chapter Four represents the results and analysis of this study. The main objective of this chapter is to examine the questionnaire results by using descriptive statistics, reliability test, factor analysis, ANOVA and MANOVA. The focus then moves to the hypotheses testing, which employs mainly ANOVA and ANCOVA, based on the Teas & Agarwal's (2000) research.

Chapter Five describes the hypothesis evaluation, the research findings and the implications of the research results. The conclusion of the research is provided, from which the significance of the study is assessed. Finally, the limitations of the study and the possibilities for future study directions of this research are also discussed.

## **1.8 RESEARCH LIMITATIONS AND DELIMITATION OF THE SCOPE**

There may be some difficulties relating to the understanding of the questionnaire, which was administrated in English by Chinese participants. Since the participants are Chinese students who are studying in New Zealand, the findings of this research may not present the perceptions of Chinese consumers living in China, who may have less knowledge of foreign products.

The study focuses on product evaluation, using extrinsic cues, by a Chinese population in New Zealand. The main purpose of this study is to examine the validity and generalisability of Teas and Agarwal's (2000) model across countries, especially in an economically less developed country.

## **1.9 CONCLUSION**

This opening chapter provided the fundamental rationale for this thesis. It introduced the research problems, objectives and research questions. The justification of these issues is provided in order, with definitions of terms relating to the research. The methodology of this research was briefly explained and justified. The outline of the

thesis was represented and research limitations and delimitation of the scope were also provided. Based on the foundations of this chapter, a literature review will be discussed in the next section.

## **2 CHAPTER II LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This chapter reviews the literature relevant to the study and provides an understanding of the conceptual Teas & Agarwal's (2000) model in Appendix 7.1. The research background of purchasing behaviour is described briefly, to provide a basic insight of understanding of the concept of this study. Particularly in the evaluation alternatives stage, product cues play a very important role in product evaluations. Then, the product cues literature is discussed and compared, based on the existing theory, which includes intrinsic cues, extrinsic cues, signal cues and multiple cues. The differences in culture, society and economic conditions between Western and Chinese consumers are identified within the literature and linked to the research problems of this study. Finally, the critique concludes with a discussion of consumer perceptions of product evaluation based on Teas & Agarwal's model (2000). The related hypotheses are also formulated, and presented at the end of this chapter.

### **2.2 BACKGROUND**

Decision making is an important sequential process of purchasing behaviour (Assael, 1992; Kotler, Ang, Leong, & Tan, 1999; Wikie, 1994). The decision-making process itself is represented as a logical sequential flow of activities, working from problem acknowledgment, to purchase, to post-purchase evaluation. The stage model of the consumer decision-making process involves five sequential steps which are: problem recognition, information search, evaluation of alternatives and selection, purchase decision, and post purchase behaviour (Kotler et al., 1999). Wikie (1994) comments from both the combinative and physical point of view, that much of the effort of the purchase occurs before the actual buying behaviour. Thus, it is important for marketers to know how to favourably influence customers in the pre-purchase stage, particularly in evaluation alternatives and the selection stage. Product cues have been widely used on evaluations of perceived value (Snoj et al., 2004; Sweeney et al., 1999; Teas & Agarwal, 2000). Dodds and Monroe (1985) and Gale (1994) conclude that perceived value plays a very important role in predicting purchase intentions.

Therefore, identifying and understanding the different factors that influence perceived value and the inter-relationships between them are necessary to obtain new customers and to retain existing customers in today's competitive market.

## **2.3 PRODUCT CUES**

Consumers rely on various cues or characteristics to evaluate products (Olson & Jacoby, 1972). In the following section, types of product cues, which include intrinsic and extrinsic cues, single cues and multiple cues, and the different effects of these cues on product evaluations, are discussed in detail.

### **2.3.1 Extrinsic and intrinsic**

Product cues are distinguished as either intrinsic or extrinsic by Olson and Jacoby (1972). Intrinsic cues are identified as product physical attributes; by contrast, extrinsic product cues are identified as product non-physical characteristics (Olson, 1977; Olson & Jacoby, 1972). With the growth of international trade and globalisation since the 1980s, research has focused on the assessment of the effects of country-of-origin information on product evaluations and behavioural outcomes. The relative roles of impacts of extrinsic cues (country-of-origin, price, brand, store, warranty or guarantee, etc.) against intrinsic cues (materials, design, style, workmanship, etc.), have been generally agreed as having important considerations on consumer evaluation of product quality and perceived value (Chang & Wildt, 1994; Dawar & Parker, 1994; Dodds et al. 1991).

Many previous studies have proved that there are significant effects of extrinsic cues on product evaluation (Dodds et al., 1991; Han & Terpstra, 1988). Chang and Wildt (1994) comment that a price effect on perceived quality diminishes as the number of intrinsic cues increase influence on product evaluation. Moreover, the study showed that the same cue may be applied differently in product evaluation, depending on the type of product being evaluated. Thus, intrinsic and extrinsic cues seem to interact with each other on the product's evaluation (Forsythe, Kim, & Petee, 1999). In most cases, consumers compare products from both intrinsic and extrinsic properties on product evaluation and purchase decision-making in the marketplace. Kim (1999), posited that low income consumers with lower educational attainment generally

consider the physical attributes of the product (intrinsic as well as extrinsic). In contrast, consumers with high income and high educational attainment place more importance on the enhancing parts of the product. To the latter group of consumers, support services and packaging components are very important.

Many consumers often rely on extrinsic cues to infer product quality, because extrinsic cues usage is more general and appropriate to a wider range of products compared with intrinsic cues (Lee & Lou, 1995; Shimp & Bearden, 1982). Intrinsic cues are particularly relevant for affective products, such as perfume and fashion apparel (Arnthorsson, Berry, & Urbany, 1991). Extrinsic cues are relatively important to reduce perceived risk, especially when consumers are unsure about the intrinsic cues of the product (Lim & Darley, 1997; Thorelli, Lim, & Ye, 1988). For example, a consumer who purchases a computer is more familiar with extrinsic cues (e.g. brand name, store name and price, etc) than intrinsic cues (e.g. models, memory size and speed of CPU processing etc). Therefore, consumers tend to rely more greatly on extrinsic than intrinsic cues when evaluating and making purchase decisions on computers. However, Lee and Lou (1995) argue that the extrinsic cue influences on product evaluation are not universal and they are more likely to be restrained by individual consumer differences.

The simultaneous examination of both extrinsic and intrinsic product cues is frequently used in the evaluation process. This simultaneous examination provides a more accurate description of the evaluation process and offers a more in-depth understanding of cues usages on the consumer evaluation process. These cues may also be used as substitute indicators of a product's quality and value in a consumer's purchase decision-making.

### **2.3.2 Single and multiple cues**

Different studies have examined the effects of various combinations of product cues. A number of studies have been tested with a single cue model, such as: country-of-origin (Ahmed & d'Astous, 1999). price (Lichtenstein & Burton, 1999), and store environment (Baker, Grewal, & Parasuraman, 1994). Other studies have adopted multiple-cue models. These include Bearden and Shimp (1982) who studied product

price, warranty, manufacturer reputation; brand name, price, physical appearance, and retail reputation (Dawar & Parker, 1994); price, store name, and product characteristics (Wheatley & Chiu, 1977); country-of-origin, warranty, and retail store image (Thorelli et al., 1988); and price, brand, and store image (Dodds et al., 1991; Rao & Monroe, 1989). In surveys, participants find it difficult to make judgments about products using one cue at a time, and in a realistic marketplace, consumers are more likely to evaluate products with multiple properties, such as, the linkages between knowledge, attributes, intentions and choices (Darley & Lim, 1993).

Dodds and Monroe (1985) claim that the consumer's willingness to purchase is influenced directly by perceived value, which is determined by both perceived quality and monetary sacrifice. Wood and Scheer (1996) expand this theory and suggest that perceived value is affected by the benefits the consumer would receive through the purchase, and the cost of obtaining these benefits. The possible benefits could be product quality, features and desirability, while the costs could be both tangible and intangible. An example of a tangible cost is the monetary sacrifice, while an intangible cost is performance risk, possible further financial risk, and psychic costs such as anxiety, frustration and uncertainty.

This section discusses multiple cues usage in consumers' evaluation process. Wheatley and Chiu (1977) argue that price and store name image certainly effect on perceived product quality and the price cue is much stronger than the store name. However, this issue is not consistent with the findings of Dawar and Parker (1994). The majority of studies comment that the brand name moderates the effects of price on consumers' perceived quality. The influence of store name is still uncertain under a multiple cues model. Through a different approach, Rao and Monroe (1989) summarise previous research and conclude a similar finding, which is that price and brand name effects can be verified when there is insignificant influence of the store name. Dodds et al.(1991) suggest that the effects of price can be reduced when there are multiple cues available instead of a single cue.

Teas and Agarwal (2000) extend Dodds's (1991) research model by adding one more factor, country-of-origin, as another product cue. The brand name can be used as a product cue in most situations. However, if the store image is high, the effects of

brand name are decreased. Therefore, the influences of store image become insignificant with a high brand reputation. Furthermore, the country-of-origin is clarified as a product cue on the evaluation of products. The positive relationship between quality and value, as well as the negative linkage between sacrifice and value have been shown by Snoj et al. (2004).

The results of the research (Dawar & Parker, 1994) show that the brand name, store name, product physical features and price are used as quality indicators universally across different nations. However, the absolute importance of each cue is different among the different cultures. Brand name and physical appearance are two of the most standardised factors across the nations, but price and store name have a limited effect on perceptions of product evaluation. Dawer and Parker (1994) also note that the differences are due to individual factors rather than cultural influences.

The concept of warranty is clarified as a extrinsic-cue which positively effects on product quality (Sunil et al., 2001). A good warranty can significantly reduce consumer concern of possibility of financial loss (Shimp & Bearden, 1982). Other studies also argue that consumers mostly rely on the actual usage of experience of previous purchases, or effects by word-of-mouth recommendations, particularly with new innovative products (Herr, Kardes, & Kim, 1991).

Chao (1993) comments that the price-quality relationship is effected by country specific. This suggests that a product with careful choice on country of design can increase the quality interpretation, even if the price is quite low. Bearden and Shimp (1982) also note that positive company reputation and warranty will reduce perceived risk significantly when consumers evaluate products.

### **2.3.3 Summary of product cue literature**

This section has explained about the effects of extrinsic and extrinsic cues; single and multiple-cues on product evaluations may be ambiguous because cue pairs are different in the strength of each cue. It has been found that evaluations are enhanced when these cues represent positive quality inferences. The previous research suggests that consumers may use different cues to evaluate products for making choices in the

marketplace. However, while the explanation may differ between choices cues, the directions of the factors effects within these cues are about the same, and appear to be dependent on product category and product involvement.

## **2.4 EXTRINSIC CUES IN CONCEPTUAL FRAMEWORK OF CONSUMER EVALUATION**

If there is a lack of information to demonstrate the performance of a product, consumers may perceive a lower level of product image (Vijayasathy & Jones, 2000). In this case, utilisation of extrinsic cues should be generally accepted as having stronger effects than intrinsic cues on perceived quality (Dodds et al., 1991; Teas & Agarwal, 2000). Therefore, this section discusses in depth each of the key extrinsic cues specified by Teas and Agarwal (2000). These extrinsic cues of the model are country-of-origin, brand name, store name and price. The extrinsic-cue effects on perceived quality, sacrifice and value are also discussed in a later section.

Teas and Agarwal's (2000) conceptual model identified key factors that influenced perceived value on a customer's evaluation of a product. The core variable of the model is perceived customer value. Several antecedents (e.g. country-of-origin, brand name, store name and price) of perceived quality and perceived sacrifice are integrated. The authors also suggest that perceived quality and perceived sacrifice are mediating linkages between these antecedents and perceived customer value.

### **2.4.1 Country-of-origin**

Country-of-origin is a multiple construct, which involves a wide range of cognitive responses (Han & Terpstra, 1988; Lim & Darley, 1997; Nebenzahel & Jaffe, 1996). It is an extrinsic cue of consumer characteristic that can be instructed to categorise a stimulus (Thorelli et al., 1988).

Country-of-origin involves two distinct components. One provides information on quality, dependability and value for consumers (Han & Terpstra, 1988), the other is related to someone's group affiliation, such as national loyalty and national identity (Bruning, 1997). Ahmed, Johnson, Ling, Fang and Hui (2002) note that national

loyalty is associated with country-of-image and plays a very important role in explicating a consumer's product choices.

In recent years, a wide variety of choices of products from other countries has increased rapidly to meet the different needs of consumers. Therefore, the significant influences of a product's country-of-image on consumer evaluation behaviour have also increased. The country-of-image involves the country's economic, political, cultural environment and country image with the ethnical image, which refers to the cultural environment observed as dimensions of national stereotypes (Ahmed et al, 2002) Country-of-image serves as an important channel effecting on consumers' perception of product attributes, particularly when consumers are unfamiliar with the product (Ahmed et al., 2002; Bruning, 1997).

Product image associated with brand prestige effects on consumers' attitudes has been investigated. The main findings are that a brand's prestige, together with country-of-image, has significant affects on evaluating product quality ratings. For example, famous brand can overcome a negative country-of-image caused by the low country-of-image where the products were manufactured (Eroglu & Machleit, 1988; Haubl, 1996). As a result, if there is a positive country-of-image, with manufacture in economic developed countries, it is more likely that marketers will introduce their new products successfully and gain their consumers' recognition and acceptance of the product or brand (Agarwal & Sikri, 1996). Therefore, a better understanding of country-of-image from both the domestic point of view and the international origin point of view is required for marketers as a formulation to adjust their marketing strategies for imported products against domestic ones.

Individual customers who consider themselves as familiar with brands in a particular product category are more likely to use country-of-origin in their evaluation process, because they may be concerned that country-of-origin is a short cut of information processing (Maronick, 1995). Other research argues that consumer perceptions of country-of-origin influence individual beliefs, with the intention of impact on brand attitudes (Hong & Wyer, 1989). Alternative studies find that while additional cues are equally important (e.g. a famous brand), the comparative affects of country-of-origin are more likely to be reduced (Han & Terpstra, 1988).

With the increase in economic globalisation, products that are manufactured in one country and branded as being from another country have become popular in today's competitive marketplace (Tes & Gorn, 1993). Srinivan, Jian and Sikand (2004) also note that the country-of-origin can be separated into two dimensions: one is the country where the product is produced and the other is the country where the product is branded. Many companies choose less developed countries to manufacture their products, to reduce their production costs. As a result, products made in such less developed countries are negatively evaluated (Cordell, 1992). On the other hand, more and more companies in newly developing countries manufacture their products in economically developed countries to achieve better representations and profits from high-image countries manufactured in their local markets (Srinivan et al., 2004).

#### **2.4.2 Brand name**

Keller (1993) notes that how a consumer thinks about a brand is significantly related to their brand knowledge. Brand awareness is an important component of brand knowledge and influences how a brand is perceived by consumers in their evaluation process and purchase decision making (Aaker, Stayman, & Hagerty, 1986; Heslop, Papadopoulos, & Bourk, 1998). Keller (1993) defines that brand image is a consumer's perceptions about a brand that is naturally reflected in their memories. Biel (1993) notes that brand image is a cluster of attributes and associations that consumers connect to the brand name. Most consumers use brand names as clues to indicate a product's performance, instead of searching for detailed information when they evaluate products between competing brands (de Chernatony & McDonald, 1992).

#### **2.4.3 Store name**

The store's name is a source of rich information cue to its image. Thus, the store's name is remembered as a vivid store image in consumers' minds (Dhruv, Krishan, Baker, & Borin, 1998). Store image, which is defined as "a set of cognitions and/or effects, which are inferred, either from a set of ongoing perceptions and/or memory inputs attaching to a phenomenon (such as: a product or a 'sale'), and which represent what that phenomenon signifies to an individual (Baker et al., 1994)." The

findings of the research also claim that product and service qualities, price, location, and store environment are key components of store image. Store image can be recognised as the functional and emotional mix of these key components (Berma & Joel R, 1995).

#### **2.4.4 Price**

Price is always treated as one of the most important extrinsic cue effects in today's competitive marketplace. Lichtenstein and Burton (1989) claim that the concept of price cue involves all purchase situations, and represents to all consumers the amount of economic expenditure which has to be sacrificed with the intention of specified purchase transaction. Many studies have noted that price is certainly a complex stimulus. The consumer's perceived price not only plays a "negative role" as expenditure of economic resources, but also plays a "positive role" to signal perceived product quality (Erickson & Johansson, 1985; Tellis & Gaeth, 1990; Zeithaml, 1988).

Lichtenstein and Ridgway (1993) summarise prior price studies, which conclude seven different price related constructs. Five are negative roles consistent with perceptions of price (e.g. value-consciousness, price-consciousness, coupon-proneness, sales-proneness and price-mavenism) and two are positive roles (e.g. price-quality schema and price-prestige sensitivity) to different individual consumers. The five negative roles are defined as: first, value-consciousness, which means that some consumers who are anxious about the price pay more than quality received (Tellis & Gaeth, 1990; Zeithaml, 1988); second, price-consciousness is defined as when some consumers focus on paying the lowest prices exclusively (Erickson & Johansson, 1985; Tellis & Gaeth, 1990); third, coupon-proneness refers to price reduction with a coupon, some customers may compare with the equivalent price in non-coupon form, thus reduce the interests of purchasing the product at its normal price (Lichtenstein, Netemeyer & Burto, 1990); fourth, sales-proneness is similar to coupon proneness in that consumers may compare the product's normal price with the discounted sale price, which effects on purchase evaluations (Monroe & Chapman, 1987); fifth, price-mavenism (expertise) relates to some consumers needing to be informed about different prices of a product in different shops,

therefore they could be the source of price information to assist choice of the lowest priced product (Feick & Price, 1987). Two positive roles identified as: first, price-quality schema means that some consumers use price as a signal to indicate product quality and second, price-prestige sensitivity is defended as when consumers use price to evaluate product, price not only indicates the product quality, but also indicates the consumers themselves. In particular, when consumers purchase expensive products to be perceived as a “big spender” by others and to achieve recognition of their social status (Calder & Burnkrant, 1977).

## **2.5 RELATIONSHIPS BETWEEN EXTRINSIC CUES AND PERCEIVED QUALITY, SACRIFICE AND VALUE**

Consumer perceived value influences behavioural and consumption decision making through attitudes (Carman, 1977). Therefore, creating desires and influencing needs to satisfy consumers’ perceived value is most important for their purchase decision making. Consumers’ purchase decision making is influenced by perceived value, which in turn is influenced by both quality and monetary sacrifice. This section begins by reviewing consumer perceptions of perceived quality, sacrifice and value when they evaluate products. Then, the relationships between each of the four antecedents (extrinsic cues) and perceived quality, the relationship between price cue and perceived sacrifice, the relationship between perceived quality and value, as well as the relationship between perceived sacrifice and value, are discussed. Some new marketing literature regarding the relationship among perceived sacrifice, quality and value is also discussed, based on the existing literature.

### **2.5.1 Perceived quality**

Zeithaml (1988) defines perceived quality as the consumer’s judgement of a product’s excellence, or an overall evaluation of a product. Perceived quality is different from objective quality as an objective aspect of things or events. According to Rowley (1998) that perceived quality is defined as a type of attitude, which is related to consumer satisfaction, but is not exactly the same. Consequently, consumers compared their expectations with a perception of the product’s performance. On the other hand, although a number of definitions of perceived

quality are involved in meeting consumers' expectations, it is difficult to find a best description for every situation.

## **2.5.2 Antecedents of perceived quality**

The antecedents of perceived quality can be used, based on intrinsic cues, if it is realistic to measure them at the time of purchase (Nelson, 1970). However, in many situations, it is difficult to evaluate by using intrinsic cues. For instance, 98% fat free milk is not easy to measure. In addition, consumers may lack experience and knowledge of a particular product if it is purchased infrequently. Therefore, consumers usually use extrinsic cues (e.g. country-of-origin, brand name, store name and price) to evaluate their perceived quality. The antecedents of perceived quality about extrinsic cues are reviewed in relation to the hypotheses, in the section below.

### **2.5.2.1 Country of origin and perceived quality**

A large number of studies have found that country-of-origin perceptions aid to form overall attitudes of products and also have some impact on customers' perception of evaluation (Bilkey & Nes, 1982; Bruning, 1997; Han, 1989). Generally, most consumers use country-of-origin to evaluate product quality, especially when they are unfamiliar with the product categories or product brands (Eroglu & Machleit, 1988). Bruning (1997) also comments that country-of-origin is a cue that consumers use to make judgments on product attributes and may also result in different perceived quality of the same product from different countries. For example, consumers would prefer to pay more for an American mobile phone which is made in Austria, than for one manufactured by the same company in India, although the quality of both products is identical. Particularly in many developing countries, the product's country-of-origin plays a significant role in product evaluation because consumers have a lack of attribute information. A product made in a developed country seems to be perceived as having higher quality and performance. Thus, most consumers prefer products and positioned higher value of products which are made in economically developed countries rather than in developing countries (Okechuku & Onyemah, 1996). Moreover, other studies support that most consumers have negative perceptions of products made in economically less developed countries (Han & Terpstra, 1988; Wang & Lamb, 1983).

In fact, although many researchers identify that in general, country-of-origin has a positive relationship with consumer's quality evaluation in signal-cue studies; other multiple-cue studies reported either no significance or only minor effects on perceived product quality by country-of-origin (Chao, 1993; Ettenson, Gaeth, & Wagner, 1988). Therefore, Johansson (1989) has questioned whether country-of-origin is an important factor which impacts on consumer product evaluations, and, if there is any impact, whether the affects may only be transitory or continue to linger.

In recent research, the concept of country-of-origin has been extended to include multi-dimensional concepts which are no longer treated as "made-in" or "assembled-in" and also include "designed in" or "engineered in" concepts (Chao, 1993). Researchers conclude that both country of design and country of assembly positively influence on a consumer's quality evaluation. In addition, country of design had much more effect on quality perception than country of assembly (Ahmed & d'Astous, 1999). Moreover, Ahmed et al. (2002) conduct that country-of-origin has an indirect influence on product quality evaluation (Hong & Wyer, 1989) rather than a direct affection (Lillis & Narayana, 1974).

In comparison to other attendances such as brand name, store name and price, country-of-origin has the strongest effects on perceived quality in single-cue studies (Ahmed & d'Astous, 1999). In addition, some studies comment that inferred country-of-origin effects on product evaluation might depend on various moderating factors. This includes, modified by knowledge (Johansson, Douglas, & Nonaka, 1985) or purchase involvement and the greater the involvement of the product, the more likelihood there is that country-of-origin information will be used in a product evaluation situation (d'Astous and Ahmed, 1992). Recent research analyses in a study of 219 executives from more 40 different countries explored that country-of-origin does affect the perceived product quality in the consumer evaluation process (Cervino, Sanchez, & Cubillo, 2005).

#### 2.5.2.2 Brand name and perceived quality

Brand name is commonly used as a extrinsic cue to infer consumers' quality perceptions and can represent collective information about a product (Richardson, Kick, & Jian, 1994). Many empirical studies support the positive relationship

between brand name and perceived product quality (e.g. Dodds et al., 1991; Teas & Agarwal, 2000).

Moreover, Semeijn, Van Rile and Ambrosini (2004) find that when quality variance within a product category is high, consumers choose branded products over store brands. This may suggest that brand name is the best way to diminish the financial risks associated with the purchase. None of the store image factors is able to reduce these risks without considering branded products (Semeijn et al., 2004). Obviously, the brand name significantly influences consumers' perceptions of evaluation on perceived quality and value.

#### 2.5.2.3 Store name and perceived quality

Most consumers are more likely to evaluate products with shopping environments; positive feelings will lead to a favourable evaluation of products and negative feelings will make an unfavourable evaluation (Schwarz & Clore, 1988). Similarly, as previous findings have shown, the store environment has positive or negative effects on the evaluation of perceived product quality. For instance, Kerin (1992) notes that store image is linked to stimuli, which has a significant effect on product quality perceptions. On the other hand, other research comments that the effects of a store's surroundings and social environment on store image are mediated by product and service quality (Baker et al., 1994). Therefore quality may be considered as a mediating factor rather than a part of store image. Obviously, there is a relationship between product quality and store name.

However, there appears to be a positive relationship between product perceived quality and store name. Differing store image perceptions across chains are consequently diverse in retail strategies, store designs and commitment to enhance consumers' overall product evaluation.

#### 2.5.2.4 Price and perceived quality

Consumers rely heavily on price to predict product quality. Rao and Monroe (1988) write that evaluation on products has attached significant attention since Scitovsky (1945) observed that price is an indicator of product quality. The price in the marketplace is also determined by the interaction of the forces of competitive supply

and demand. A number of researchers have found that as the product's price increases, its quality also increases, in a general sense as "you get what you pay for" (e.g. Baumgartner, 1995; Broniarczyk & Alba, 1994; Rao & Monroe, 1988). However, the relationship between price and perceived quality are not agreed on worldwide, and appears to be highly variable across different individuals and product groups (e.g. Gardner, 1971; Lichtenstein & Burton, 1989; Lim & Olshavsky, 1988). For example, the positive relationship between price and quality is only within certain product groups, particularly for non-durable products rather than durable products (Reisz, 1979; Sproles, 1977). Moreover, several scholars note that the existence of a positive relationship between price and quality is not universal (e.g. Monroe, 1990; Olshavsky, Aylesworth, & Kempf, 1995). Sunil et al.(2001) conducted a research with Chinese consumers, and the results showed that there is no evidence of a price-based quality relationship.

Consumers' familiarity with product plays an important mediator role to determine whether price level effects on perceived quality in the evaluation process (Rao & Monroe, 1988). They conclude that unfamiliar buyers display a stronger positive relationship between price and perceived value than moderator familiar buyers. Familiar consumers have more experience of using the product cue, which helps to develop a better interpretation of the relationship between price and quality. Furthermore, other studies have shown that discounts can also lead to more negative consumer perceptions by declining the perceived quality on the discounted item (Raghubir & Corfman, 1999; Scott & Yalch, 1980).

Although most studies have been conducted with Western consumers and show a strong positive relationship between product price and quality, price is not always an accurate predictor of actual quality (Lichtenstein & Burton, 1989). Recent research, questions on the findings of the positive relationship between price and product quality have been discussed, and as a result, price based quality judgments should be adopted within certain boundary conditions (Kardes, Cronley, Kellaris, & Posavac, 2004). There is a positive relationship between price and perceived product quality within a certain price range (Sunil et al., 2001). Information processing is affected by the amount of information available and belief-consistent information is easily accepted by consumers in product evaluation. On the other hand, Wyer and Srull

(1989) point out that belief-inconsistent information is very difficult to process because the information required is not consistent with resolution. Kardes (2004) concludes that consumers who are less likely to ignore belief-inconsistent information and perceived quality are less influenced by price when concerned information is randomly represented or only a little information is represented.

Moreover, the relationship between price and quality has been viewed through risk perceptions (Sunil et al., 2001). Therefore, price could increase consumers' perceived quality by diminishing unfavorable risks when product quality is varied with huge different price levels. The next section discusses consumer product evaluation from a risk perspective.

### **2.5.3 Perceived sacrifice**

Many researchers note that perceived sacrifice equals the price of product, which not only includes the nominal price, but also the non-monetary features of price (e.g. Dodds et al., 1991; Slater & Narver, 2000; Zeithaml, 1988). The price of a product consists of monetary cost, energy costs and physical costs (Murphy & Enis, 1986). Zeithaml (1988) also identifies that perceived value involves all efforts, risks and uncertainty, which are connected with an achievement of use of a product.

One of the least studied concepts of perceived sacrifice by the marketing literature is risk. Risk has been defined as a subjective anticipation of loss of some degree (Sweeney et al., 1999). In other words, risk is a subjective estimation of wrong decisions by consumers, linked with possible consequences and the possibility of the product not always offering its expected benefits (Roselius, 1971). Dowling and Staelin (1994) summarise perceived risk as the consumer's perceptions of the uncertainty and associated consequences relating to unfavourable purchases of products or a service.

Murphy and Enis (1986) have classified risks into five types: financial risks, psychological risk, physical risk, functional risk and social risk. Moreover, Teas and Agarwal (2001) have examined performance risk as a mediator between perceived quality and value; financial risk as a mediator between perceived sacrifice and value.

However, other research considers all risks issues as perceived sacrifice (e.g. Snoj et al., 2004; Sweeney et al., 1999) to measure consumers perceived quality and value.

#### **2.5.4 Price and perceived sacrifice**

Price is an important cue when consumers evaluate products, because it essentially represents the sacrifice. More economical consumers are more likely to use price as an important cost component and compare it between variable alternatives to evaluate products (Zeithaml, 1988). Padula and Busacca (2005) state that the utility of using price is also clarified as the consumer's willingness to pay for different products. The difference between what the consumer is willing to pay and what is actually paid is defined as a consumer surplus (Varian, 1987). Consumers will buy a product at any current price not higher than the maximum sacrifice under normal conditions, which means that consumers are likely to pay for the product at any price level that matches to either a positive or zero with their surplus (Padula & Busacca, 2005).

According to Jacoby and Olson (1985), the consumer perceived price is defined as the judgement of acceptability of the product price, which depends on the consumer's expected price. In essence, most consumers normally have a predetermined acceptable price range (Dodds et al., 1991). Chang and Wildt (1994) state that consumers consider product perceived price to be different from objective price. For example, if a consumer evaluates \$100 to be an acceptable price for a normal jacket, a price of \$250 will be too expensive for him or her, which may cause a failure on the price acceptability. In contrast, if a consumer expects to pay \$250 for the normal jacket, he or she will accept this price, as it is what he or she perceived.

As reviewed earlier, monetary price has a positive effect on perceived product quality; on the other hand, price is also likely to lead to a financial uncertainty (Grewal & Marmorstein, 1994; Sweeney et al., 1999). Therefore, consumers who pay a higher price are more likely to face financial problems than consumers who pay a lower price. In addition, as the price level increases, the more the financial risk rises. This situation is more likely to appear when consumers purchase unfamiliar products because of infrequency of purchases (Rao & Monroe, 1989). Most consumers tend to use extrinsic cues to evaluate products, in particular, with products

where they have limited information. Thus, in these cases, price is more likely to appear to have a strong positive relationship with perceived sacrifice.

### **2.5.5 Perceived value**

Customer perceived value is formed by the trade-off between benefits and sacrifices (e.g. Cravens, Holland, Lamb, & Moncrief, 1988; Gale, 1994; Monroe, 1990). Zeithaml (1988) recommends that definition of perceived value is the consumer's overall evaluation of a product, based on the perception of "what is received and what is given". In other words, perceived value represents a trade-off of "get" and "given" components and in many respects, the value concept also suggests quality as the benefit and price as the sacrifice. In other words, consumer perceived value, which equates to the product perceived quality and is related to the price (Cronin, Brady, & Hult, 2000). A combination of different aspects of products identified as perceived benefits can be categorised as tangible and intangible, intrinsic and extrinsic (e.g. Sweeney et al., 1999; Ulaga & Chacour, 2001; Zeithaml, 1988).

Moreover, the concept of perceived customer value has been explained as a source of competitive advantage (Woodruff, 1997). Parasuraman and Zeithaml (1998) recommend that the definition of consumer value which relates to competitive advantage, made by Woodruff (1997), is broader than before. Woodruff (1997) defined perceived value as a customer's perceived preference of a product's attributes and the results occur from the use of facilitate achieving the customer's goals.

A considerable number of studies have shown that objective prices negatively relate with perceived value (Dodds et al., 1991; Monroe, 1990; Zeithaml, 1988). Thus, achieving price leadership has been identified as an effective way to enhance consumer value (Porter, 1985). Furthermore, many researchers have suggested that when consumers evaluate perceived value, they always relate to the consumption of previous experiences (e.g. Anderson & Narus, 1998; MacMillian & McGrath, 1997). Zeithaml, (1988) also recommends that the concept is included with the purpose of evaluating how perceived value is formed and what the value means to the customer with previous purchase experiences. Therefore, previous purchase experience also affects on product evaluation.

## **2.5.6 Antecedents of perceived value**

Positive quality perceptions lead to improved value attributions, and greater levels of sacrifices lead to perceptions of reduced value (Cronin et al., 2000). The next section discusses the relationships between perceived quality and value and perceived sacrifice and value.

### **2.5.6.1 Perceived quality and perceived value**

Many researchers have focused on the positive relationship between consumers' perceptions of quality and value, and the purchase intentions among consumers (e.g. Bolton & Drew, 1991; e.g. Cronin et al., 2000; Dodds et al., 1991). Quality acts as a form of overall evaluation of a product, which is related to global value judgments (Olshavsky, 1985). The relationship between a consumer's perception of quality and value has been created, as in the relationships between customers and suppliers, which in both parties are active (Eriksson, Majkgard, & Sharma, 1999).

There have been a number of published materials about consumer perceptions of perceived value that is very important to final purchase decision-making (e.g. Dodds et al., 1991; Rao & Monroe, 1989; Zeithaml, 1988). According to Jacoby and Olson (1985), perceived value is a subjective judgement rather than an objective judgement. The subjective judgment determines a consumer's response. Therefore, consumers' perceptions of product quality evaluations effect on their perceived value and subsequently, on purchase decision-making.

### **2.5.6.2 Perceived sacrifice and perceived value**

Many researchers conduct studies and find that perceived sacrifice has a negative effect on perceived value of products (e.g. Dodds et al., 1991; Snoj et al., 2004). The consumer's perceptions consist of measurements, such as perceived benefits, costs and risks when they evaluate products (Wood & Scheer, 1996). Broydrick (1998) suggests that it is very important for marketers to place emphasis on continuing to remove risks to enhance perceived consumer value.

### **2.5.7 Perceived sacrifice and quality**

In general, if consumers have a feeling of high risk, this may lead to lower quality perception. A few models have represented the negative effect of perceived risk on attitude towards a product (e.g. Bearden & Shimp, 1982; Sunil, 1993). Later, Sunil et al. (2001) investigated the empirical study and tested the relationship between risk perceptions and product quality perceptions for Chinese consumers. The findings of the study proved that there is a negative relationship between risk perception and product quality. Furthermore, Sweeney et al. (1999) comment that perceived risk has a direct and significant negative affect on perceived value and perceived risk as a mediator between perceived product quality and perceived value, especially in retail environments. In addition, Snoj et al. (2004) come to a similar conclusion and recommends that it is important to notice the indirect effects between perceived quality and perceived value. Therefore, perceived sacrifice may effect on perceived quality by some degree in evaluating consumer perceived value.

### **2.5.8 Summary of the relationships**

In general, these four extrinsic cues influence on perceived quality, sacrifice and customer value to some degree, which depends on the importance of each cue in a consumer's evaluation process. The positive relationships between the extrinsic cues and perceived quality, as well as the positive relationship between price and perceived sacrifice, are generally agreed on in most existing literature reviews and empirical studies. Generally, product perceived quality being positively related to value, and sacrifice being negatively related to value, has also been approved by some relative studies. The issues raised by Teas and Agarwal (2000) which have not yet been examined in their research, are consumers' perceptions of perceived sacrifice in mediating the relationship between perceived quality and value.

## **2.6 THE IMPACT OF CULTURE ON THE PRODUCT CUES**

Are the findings of the original research (Teas & Agarwal, 2000) about extrinsic cues' affect on product evaluation only specified to the country in which the research was conducted, the U.S., or can they be generalised across to other countries?

Some researchers comment that existing differences across cultures have little or no impact on certain consumer behaviours (e.g. Levitt, 1983; Ohmae, 1985). Douglas and Craig (1992) note that a consumer's cognitive processing, information searching, attitude towards complaining, response to advertisements and level of involvement with certain products is similar across countries. This cognitive processing is often discussed as being the result of the penetration of mass media in all cultures. The process increases competition among products, globalisation of products and international product awareness to consumers. Levitt (1983) suggests that the influences of different languages, learning institutions, customs, and other cultural factors are swamped by these resources. On the other hand, some researchers argue that the convergence has not occurred, or that the differences are actually increasing (Boddewyn, 1981; Fisher, 1984). This debate emphasises the importance of empirical studies of consumer behaviours across different cultures. For instance, if uses per capita income are an appropriate definition of culture, then the rejection of similarity is justified. In addition, Rao and Monroe (1989) suggest that experts may be more dependent on extrinsic cues usages to give them better understanding of the relationship between, for example, brand image and quality.

Until recently, a wide variety of consumer goods were simply not available to the average Chinese citizen, and consumption of goods and services was very limited in comparison to Western countries. However, China has undergone considerable social and economic changes in recent years. As a result, a strong consumer market is now developing in China (Chan 1995), and more Chinese consumers are in a position to purchase a wide variety of non-staple consumer goods (e.g. fashion wristwatches). Therefore, the next section reviews the definition of culture, Chinese culture and also discusses the differences between Chinese culture and Western culture. It is also examines the impact of extrinsic cues on the consumer's evaluation process from a cultural perspective.

### **2.6.1 Definitions of culture**

Multiple cultures are identified as culture groups, with boundaries which are believed to have some commonality and be diverse from other groups (Dawar & Parker, 1994). Schutte and Ciarlante (1998) have defined culture as the configuration of

learning behaviours and resulting from behaviours whose components are shared and broadcasted by the members of a particular society. Culture has two important characteristics. One characteristic is shared by the members of a group (or society), and the other one is that culture is very dynamic and transmissible. Culture is a common characteristic to the members of the cultural group or clusters with well-clarified boundaries (Hall, 1966). For instance, language is a culture dimension, which outlines well-defined groups because all members of one group have a common connection, which is only shared within the group and not by other groups.

Nationality is used as a substitute for culture because generally all members have the same national group and usually share a similar history, political and educational environment and language (Dawar & Parker, 1994). In general, a consumer's demographic status, economic status and psychographics profile are not considered as culture dimensions, except if all members of the culture do not share the same of these dimensions. For example, not all Chinese consumers have the same economic conditions and living standards. Dawar and Parker (1994) have conducted research which used samples with average or average high economic conditions; the samples may represent more Chinese consumers from urban areas, rather than low income consumers from the countryside in China.

#### 2.6.1.1 Chinese culture

A primary characteristic that has been noted in Chinese consumers is a collectivistic orientation (Hofstede, 1980). Product evaluation and purchase decision making among Chinese consumers is mainly formed through interpersonal relationship and social orientation (Tes, Lee, Vertinsky, & Wehrung, 1998). Chinese consumers are more likely to stress the relationships between father and son, husband and wife, the old and the young, and friends. Within each relationship, the first party has higher power and social status while the latter party has hierarchical duties and responsibilities to obey. Moreover, this collectivistic orientation impacts on purchase decisions in two ways. Firstly, Chinese consumers are more likely to rely on informal information, such as word-of-mouth, rather than formal communication channels, and are easily advised by their family members and friends (Yau, 1988). Secondly, Chinese consumers are less likely to see purchases as a risk since they rely on help and support from their social groups (Sunil et al., 2001).

## **2.6.2 Cultural differences between Chinese and Western consumers**

There are several cultural differences between Chinese and Western consumers, both from individual beliefs and from the external environment, which may result in a significant difference in their perceptions of product evaluations.

### **2.6.2.1 Individual beliefs**

Western culture has a more individualistic orientation, which is different from Chinese culture (Tes et al., 1998). Modesty, humility or self-effacement are the exemplary social behaviours in Chinese culture (Lundstrom, Lee, & White, 1998). Chinese consumers generally have less self-confidence than Western consumers due to the concept of modesty and self-effacement. They are more likely to seek collective reorganization, and thus, group values are favoured by individuals.

Schutte and Ciarlante (1998) note that many Asian cultures have distinguishable beliefs in fate and external forces compared to Western cultures. There is a greater tendency among Chinese consumers to submit to their fate rather than to control their fate. For example, Chinese consumers may attribute business failure to bad luck or fate, rather than believing that the company made mistakes. However, Western consumers are more likely to believe that the company causes business failure. The concept of face is very important to Chinese, within the groups that the individual belongs to. Chinese consumers also believe that a purchase decision may represent their initiated behaviour and that any unfavourable outcome of the product would reflect damage to his or her “face”.

Sunil et al. (2001) comment that Chinese consumers are more brand loyal than American consumers when they evaluate products. In comparison to American consumers, Chinese consumers are much slower to accept new products or brands. This is because, in most cases, Chinese consumers evaluate product or brand loyalty from their previous purchase experiences, rather than by using product cues to assess new, unknown purchases.

#### 2.6.2.2 External environment

Cultural differences also appear in some other ways, because of the dissimilarity of the external environment. The socio-economic conditions, marketing media exposures and travel policies are relatively different between Chinese and Western cultures. In practice, the socio-economic condition (e.g. income, mobility, media access) of markets are an important factor that significantly affects on consumer behaviour. Per capita income and disposable income are good predictors for the limited amount of resources allocated to consumer goods (Johansson & Moinpour, 1977). For instance, if disposable income is low, price is the most important cue when consumers evaluate a product. On the other hand, when consumers have more resources, image attributes become more powerful in developed economies where consumers have a high disposable income. Compared with Western consumers, Chinese consumers have less disposable income. One of the most important reasons is that the monetary currency of the Chinese “Yuan” is much lower than Western dollars. For instance, around 8.2 Chinese “Yuan” converts to 1 U.S. dollar (2005). Thus, generally the consumption capabilities of Chinese consumers are much lower than Western consumers, especially with regard to the purchase of foreign goods.

Inadequate exposure to mass media and travel leads Chinese consumers to lack experience about the more symbolic aspects of consumption, which results in greater reliance on the performance and functional capabilities of product purchases (Sunil et al., 2001). In comparison to Western consumers, Chinese consumers have a lack of mobility and restricted exposure to Western products, with the result that Chinese consumers have had much less chance to learn about the consumption of foreign goods. On the other hand, Cui (1997) argues that the Chinese market has become more open and competitive, and that more and more local Chinese consumers are becoming increasingly discriminating in their needs and requirements toward foreign products and brands. This trend suggests that Chinese consumers have a greater reliance on foreign products and brand name in product evaluation than ever before. Chan (1995) also notes that the consumer market is now developing in China and that more Chinese consumers are more likely to purchase a wide variety of non-staple consumer goods (e.g. fashion products). In comparison to Western countries, the liberalisation policies for travelling abroad and opening domestic markets for

imports are much stricter in China. This may mean that Chinese consumers have less experience with a modern international free market system than Western consumers.

In summary, the disposable income of Chinese consumers is much lower than that of Western consumers. Compared with Western consumers, the exposure of Chinese consumers to foreign cultures, through travel and imports of foreign brands and goods, is much less widespread.

## **2.7 DIFFERENCES IN EXTRINSIC CUES USAGE BETWEEN CHINESE AND WESTERNERS**

Differences in culture from both an individual beliefs perspective and an external environment perspective are unlikely between Chinese and Western consumers. This may cause different perceptions of consumer evaluation between Western and Chinese consumers by using the extrinsic cues (country-of-origin, brand name, store name and price). The similarities and differences are discussed in the following section on perceptions of product evaluations.

### **2.7.1 Country-of-origin**

In recent years, Chinese economy growth rates and disposable income have increased significantly and Chinese consumers tend to classify themselves into groups. They normally pay much more attention to a product's quality and how the product could satisfy their individual needs (Scarry, 1997). The younger generation have a relatively positive attitude towards foreign products, while people who are over 35 years old mainly have some degree of hostility to advertising and do not care much about brand name (Crellin, 1998). Fan and Xiao (1998) also show similar findings that contemporary young Chinese adults have brand consciousness, quality consciousness, price consciousness, time consciousness, fashion consciousness and information utilisation. The purchasing behaviours of this group of younger Chinese consumers are quite similar to those of young generations in Western countries.

Other research has found that Western brands are more favourable than domestic brands in China (Sunil et al., 2001), especially in lifestyle related products which engage with the image of company name, manufacture and country-of-origin.

Country-of-origin significantly benefits Western firms in many instances (Schutte & Ciarlante, 1998). Other studies indicate that Chinese consumers weigh a product's country-of-origin heavily, and perceive a product made outside of China as a strong positive stimulus or attribute to consider when making selection and purchasing decisions (McDonald, 1995). Furthermore, Chinese consumers are more concerned about the country-of-design and the country-of-manufacturing, than the country-of-origin of the brand name (Ahmed & d' Astous, 1999). The reason may be because some foreign brands might be offensive in Chinese culture (Cui, 1997).

In addition, product familiarity also influences on consumers' use of extrinsic product cues. The individual consumer who is more familiar with products is more likely to rely on brand name and country-of-origin to evaluate the product. In these cases, both Western and Chinese consumers use country-of-origin as a product cue to evaluate product quality and value, which is not necessary patriotism (Lee & Lou, 1995).

### **2.7.2 Brand name**

Brand names are becoming increasingly important in product evaluation in both Western and Asian countries (Cui, 1997; Schlevogt, 2000). In comparison to Western consumers, Chinese consumers are more likely to use high profile brand names to reduce purchase risks, because of their limited consumption experience with a modern free market system rather than product quality evaluation (Eckhardt & Houston, 1998). Although some famous international brands have gained high recognition in urban areas in China (Li & Gallup, 1995), instead of using brand name to judge product quality, Chinese consumers tend to apply perceptions of physical quality and design to determine the quality (Forsythe et al., 1999). Moreover, Pan and Schmitt (1995) find that Chinese consumers use brand names as an indicator of product function more than American consumers. One study has also proved that Chinese use of brands as a cue of product is even stronger than that of Americans (Forsythe et al., 1999).

Ang (1996) notes that Chinese consumers prefer to use lucky letters and numbers within brand names. Most Chinese consumers believe that some letters or numbers

are luckier than others, such as: “A”, “S”, or “8”. The lucky brands tend to receive average high product quality image. The numbers have stronger influences on people’s perception of a brand’s luckiness than the letters. The belief of fate can be explained by some degree in this phenomenon. However, there is no certain evidence that shows that Western consumers use brand name to evaluate quality image in this way. In addition, Chinese characters of a brand name, particularly the pictorial features in writing, are one of the key factors for a particular brand’s success. Comparatively, in most Western countries, what a brand sounds like is more important to people.

In addition, Sunil et al. (2001) claim that because of collectivism orientation, Chinese consumers are more likely to be influenced by extended family and peers when evaluating products and making purchase decisions. Therefore, word-of-mouth might be more effective and more important than product cues usage when consumers evaluate products which need to be observed individually. The collective orientation leads to a reduction in the consumers’ risk perceptions as they can get help in their decision making from their social groups. Schutte and Ciarlante (1998) suggest that Chinese consumers are more likely to choose the “middle-of-the-road” brands rather than the one which may make them stand out. However, from a group-oriented perspective, the high-image brands positively affect Chinese consumers’ buying decisions, especially with the products related to their position and expectation (face) within the peer group.

### **2.7.3 Store name**

Chinese consumers tend to place relatively greater emphasis on the more concrete aspects of product evaluation than Western consumers (Malhotra & McCort, 2001). Remich (1995) also notes that apart from other extrinsic cues, most Chinese consumers are more likely to be concerned with a shop’s reputation, rather than product price. Chang (2001) states that sales of consumer goods in modern retail outlets achieved about 40 percent of total sales in China in the year 2000, which resulted in falling prices for general consumer household goods. Therefore, store name is heavily used by Chinese consumers as a signal of product quality, which is similar to Western consumer behaviour.

#### **2.7.4 Price**

Although most studies have been conducted with Western consumers and conclude that price can effect on perceived quality (e.g. Monroe & Chapman, 1987; Rao & Monroe, 1989), there is no direct positive relationship between the product price and quality when Chinese consumers evaluate products (Lee & Lou, 1995). Sunil et al.(2001) also supports this finding and notes that Chinese consumers do not use price as a direct quality cue and are more likely to use it mainly as a financial risk indicator. Price has a direct impact on perceived sacrifices or risks when Chinese consumers evaluate products, due to limited disposable income. In particular, when Chinese consumers consider the influences of price, independent of brand and reputation, high price is more likely to lead to greater anxiety to product evaluation (Yau, 1988).

However, some other studies show that Chinese consumers still strongly use price as an indicator of value and quality, as Western consumers do (Ahmed & d'Astous, 1999; Forsyth et al., 1999). This is particularly true in the case of purchasing unfamiliar products (Schutte & Ciarlante, 1998). Different consumers rely on different product cues to evaluate product quality, and individual Chinese consumers have different expectations of the price-quality relationship; some are low while others are strong (Lee & Lou, 1995) .

#### **2.7.5 Perceived value**

Many researchers have reviewed value as the outcome of culture and ethical identity of a society and address this under multi-dimensions (e.g. Phinney, 1992; Rokeach, 1973). Because the culture, society and socio-economic conditions are different, certain types of values may be considered as being more important to consumers in one country's market than in another one. This means that a consumer's needs are formed by their perceived values, which are influenced by the society that they belong to (Kim, Forsythe, Gu, & Moon, 2002). Yau (1994) notes that it is important to understand consumer behaviour in a particular cultural setting, especially in China which has rapidly growing potential consumer markets with a huge population.

## 2.8 CONCLUSION

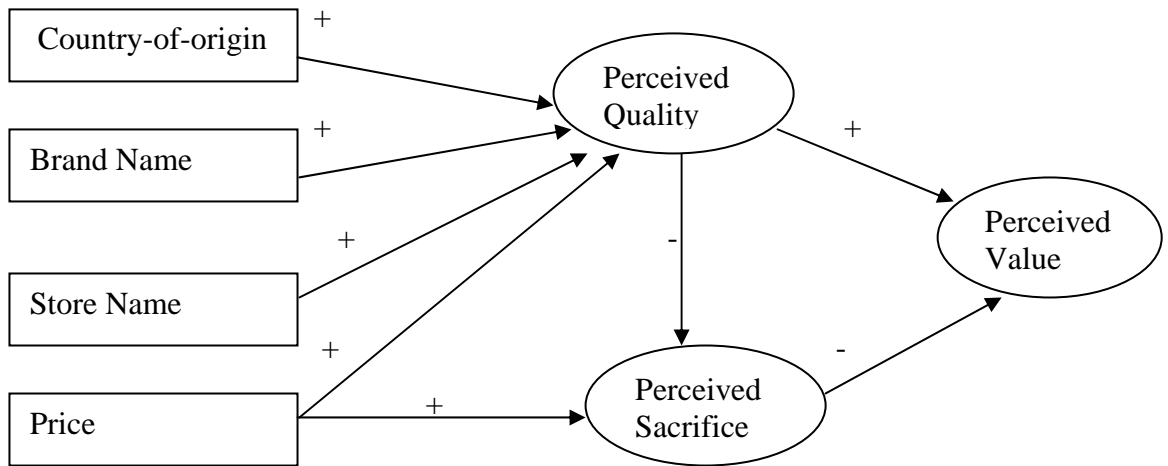
To sum up, product cues are expected to affect consumer perceptions of sacrifice, quality and value on their product evaluations. However, the differences in culture, society and economic conditions between Chinese and Western consumers result in different perceptions with respect to the cue usages on product evaluations. Therefore, more cross-cultural research needs to be conducted to examine the generalisability of relationships among these evaluation factors.

On the other hand, the literature and prior research have suggested that some consumers may use a different process for product evaluation in the marketplace, rather than making individual judgments on each attribute for all choice alternatives. Thus, consumers use other assessing cues to evaluate product quality and value, or a combination of their judgments. However, the absolute level of explanation differs between evaluation and ratings models, the directions of the affects of the factors within the models are relatively similar, and may appear to be dependent on product category or culture effectiveness.

According to these aspects, a conceptual model of relationships among the extrinsic cues, perceived quality, sacrifice and consumer value has been formed in a Chinese population, based on the existing literature and Teas and Agarwal's (2000) model. This is shown in Figure 1 (see next page), which summarises the relevant relationships among these factors in this research.

This revised research model has two major aspects which are different from Teas and Agarwal's (2000) model. The first difference is that country-of-origin has not been treated as a mediating factor to mediate the relationships between each extrinsic cue (brand name, store name, price) and perceived quality. The reason is that Teas and Agarwal (2000) did not show the mediator effects. There is a lack of evidence that Chinese consumers use this mediating factor in the product evaluation process. The second difference from Teas and Agarwal's (2000) model is that the current research adds the mediation affects by perceived sacrifice in relationships between perceived quality and value.

**Figure 1 A conceptual model of extrinsic-cue effects on perceived quality, sacrifice and value**



## 2.9 SUMMARY OF MAIN DEFINITIONS OF THE STUDY

Subjects	Definitions	Authors
Country-of-origin	<ul style="list-style-type: none"> <li>Countries of origin are defined as: the consumers' overall perception of products from a particular country, based on their previous perceptions of the country's product image, marketing strengths and weaknesses.</li> </ul>	(Roth & Romeo, 1992)
Country-of-origin & Perceived Quality	<ul style="list-style-type: none"> <li>A large number of studies found that country-of-origin perceptions aid to form overall attitudes of products and also have some impact on customers' perception of evaluation.</li> </ul>	(Bilkey & Nes, 1982; Bruning, 1997; Han, 1989)
Brand	<ul style="list-style-type: none"> <li>Brand is a name, term, sign, symbol, design or a combination of these that intends to identify the goods or services of sellers, and which is also used to distinguish them from their competitors.</li> </ul>	(American Marketing Association, 2000).
Brand & Perceived Quality	<ul style="list-style-type: none"> <li>Brand name is a commonly used as an extrinsic cue to infer a consumer's quality perceptions and empirical studies support for the positive relationship between brand name and perceived product quality.</li> </ul>	(Richardson, et al, 1994; Dodds et al, 1991; Teas & Agrawal, 2000)
Store Image	<ul style="list-style-type: none"> <li>Store image is the definition of store image as a set of cognitions, which are inferred either from ongoing perceptions or memory inputs and attached to a phenomenon that represents the phenomenon specified to an individual.</li> </ul>	Baker, Grewal et al (1994)
Store Image & Perceived Quality	<ul style="list-style-type: none"> <li>Store image is linked to the stimuli, which has a significant effect on product quality perceptions.</li> </ul>	Kerin (1992)
Price	<ul style="list-style-type: none"> <li>Price is defined as what is given up or sacrificed in order to gain a product.</li> </ul>	(Monroe & Krishman, 1985)
Price & Perceived Quality	<ul style="list-style-type: none"> <li>Consumers rely heavily on price to predict product quality.</li> </ul>	Rao and Monroe (1988)
Price & Perceived Sacrifice	<ul style="list-style-type: none"> <li>Price is also likely to lead to financial uncertainty.</li> </ul>	(Grewal & Marmorstein, 1994; Sweeney et al, 1999)
Perceived Quality	<ul style="list-style-type: none"> <li>The popular definition of perceived quality is a form of an overall judgement of a product's excellence or superiority.</li> </ul>	(Jacoby & Olson, 1985; Parasuraman et al., 1985; Zeithaml, 1988)
Perceived Quality & Perceived Value	<ul style="list-style-type: none"> <li>Many researchers have risen that there is a positive relationship between consumers' perceptions of quality and value, and purchase intentions among consumers.</li> </ul>	(Bolton & Drew, 1991; Cronin et al, 2000; Dodds et al, 1991)
Perceived Sacrifice	<ul style="list-style-type: none"> <li>The most recent marketing literature views perceived sacrifice as risk. Risk is seen as a subjective anticipation of loss in some degree.</li> </ul>	(Sweeney et al., 1999)
Perceived Sacrifice & Perceived Value	<ul style="list-style-type: none"> <li>Many researchers conduct studies and find that perceived sacrifice has a negative effect on perceived value of products.</li> </ul>	(Dodds, et al, 1991; Snoj et al, 2004)
Perceived Value	<ul style="list-style-type: none"> <li>Perceived value is defined as the consumer's overall evaluation of the utility of different products, based on perceptions of what is received and what is given up.</li> </ul>	(Sweeney et al., 1999; Zeithaml, 1988) .
Perceived Sacrifice & Perceived Quality	<ul style="list-style-type: none"> <li>Perceived risk is a mediator in relationship between perceived product quality and perceived value, especially in a retail environment.</li> </ul>	(Sweeney,1999; Snoj et al, 2004)

## **2.10 HYPOTHESES**

Because this current research is a comparative study, this research examines the hypotheses specified by Teas & Agarwal (2000) from Hypothesis 1 to Hypothesis 7. The relevant Hypothesis 8 is also formulated, based on the reviewed literature, and represented as follows:

H<sub>1</sub>: Consumers' perception of the favourability of country-of-origin image is positively related to quality.

H<sub>2</sub>: Consumers' perception of the favourability of brand name is positively related to quality.

H<sub>3</sub>: Consumers' perception of the favourability of store name is positively related to quality.

H<sub>4</sub>: Consumers' perception of price is positively related to quality.

H<sub>5</sub>: Consumers' perception of price is positively related to sacrifice.

H<sub>6</sub>: Consumers' perception of quality is positively related to perceived value.

H<sub>7</sub>: Consumers' perception of sacrifice is negatively related to perceived value.

H<sub>8</sub>: Consumer's perceptions of perceived sacrifice mediate the relationship between perceived quality and value.

### **3 CHAPTER III RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 INTRODUCTION**

This third chapter describes the overall research design and methodology used to examine the contribution of inter-relationships among different variables on Chinese consumers' perceptions of quality, sacrifice and rating of value. The first section of the chapter details the research approaches and justification of whether the concepts of product evaluation are well-known by the Chinese population in this research. The applied experimental design methodology is also discussed. The second section of the chapter provides details of the pre-test design. The third section addresses sample framing, sample size and the data collection of the procedure, while the next section explains the stimuli and measurements of the final questionnaire. The research then moves to a discussion of the validation study process, which includes the constructs developed and Likert-type scales adopted in this study. Ethical issues considered in the research are also discussed. Pre-test results conclude this chapter for the final questionnaire.

#### **3.2 JUSTIFICATION FOR THE METHODOLOGY**

This study is a comparative study of Teas and Agarwal's model (2000) in order to assess the validity of the evaluation model and its scales. As the purpose of this research is to investigate the relationships among these factors, which have been identified and measured previously, rather than to develop new variables, quantitative methodology is more appropriate than qualitative methodology (Perry, 1998).

Research philosophy depends on the way that researchers think about the development of knowledge. In business and management research, there are three views about the research process that dominate the literature: positivism, interpretivism and realism (Sanders & Thornhill, 2003). Positivism has been chosen to adopt the philosophical stance of the natural scientist in this research. This research uses the hypothetic-deductive method, based on the primary methods of

scientific investigation. The deductive method uses a process by which we arrive at a reasoned conclusion by logical generalization of known fact (Sekaran, 2003). Sekaran (2003) states that experimental research is a method which is used to examine the causal effects of an independent variable on a dependent variable. McDaniel and Gates (2001) named experimental research as causal research, which is the unique methodology approach used to demonstrate a change in one variable, caused by the alteration in another variable. Burns and Bush (2000) state that a true experimental design controls irrelevant variables and examines the effects of each independent variable on dependent variables. This is more than observation or measurement. In other word, experimental designs are often commended as the most “rigorous” or the “gold standard” against which other designs are judged with regard to accurate implementation (Trochim, 2001).

Experimental studies have been used effectively to examine the extrinsic cue effects on consumers’ perceptions of product quality, sacrifice and value (Dodds et al., 1991; Rao & Monroe, 1989; Teas & Agarwal, 2000). In addition, as Teas and Agarwal’s (2000) work has not been replicated in any other context, using a similar methodology is considered as more appropriate rather than choosing a completely different industry. This would lead this research to be more accurate when examining the conceptual model’s potential for generalisability to different contexts (Grayson & Ambler, 1999). Therefore, the current research is conducted as a survey of Chinese students in New Zealand with one product, the wristwatch, which was specified in Teas and Agarwal’s (2000) research.

### **3.2.1 Universal consumer perceptions**

It has already been noted that this study is a comparative study (Teas & Agarwal, 2000), thus it is important to ensure that the concept of this study is equally understood by selected samples across different countries. The evaluation research of product quality on the cue usages of brand, price, retail store and physical appearance of product, with a student sample representing 38 nationalities, including mainland Chinese, was conducted by (Dawar & Parker, 1994). The researchers conclude that consumer use of branding, pricing, physical appearance and retail store prestige, as signals to evaluate product quality, are well-known concepts of the main concerned

segment of consumers. Further research has been conducted in the U.S. by Sweeney et al. (1999) using a similar method to measure consumer perceived product quality and perceived value. The key issues of the relationships among a few variables, including product quality, perceived risk and price to consumers, particularly for online shoppers' value perception, were investigated by Chen and Dubinsky (2003). Based on the results from these previous studies, the results showed that the overall structure of similar models examined on product evaluation study can be applied across countries, but the relative importance in the extrinsic cues may be used to different degrees by consumers from different countries.

In summary, the concepts of product evaluation in the current research are well-known by a Chinese population as the main concerned segment of consumers. From an academic point of view, cross-cultural validation is necessary for the refinement of Teas and Agarwal's (2000) model. From a strategic point of view, cross-cultural validity is necessary for the ability of marketing managers to use the model efficiently when transferring to national markets (Sunil et al., 2001).

### **3.2.2 Experimental design**

Since this research is a comparative study of Teas and Agarwal (2000), an experimental design based upon a  $2 \times 2 \times 2 \times 2$  between subjects full-factorial design has been employed. The stimulus design involves four attributes, which are country-of-origin, brand name, store name and price, as extrinsic-cues. Each extrinsic cue includes both high and low levels. Therefore, the manipulation checks involve prestige of country-of-origin (high and low), brand name (high and low), store name (high and low) and two price levels (high and low). Therefore, the pre-test is needed.

### **3.3 PRE-TEST**

The purpose of the pre-test is to establish extrinsic cues for the questionnaire. This section discusses the product selection of this research, pre-test design and pre-test results.

### **3.3.1 Product selection**

The original investigation (Teas & Agarwal, 2000) used two products, a wrist-watch and a calculator. It is important to make sure that the selected product is familiar to the research respondents. In this case, tertiary students were chosen for this research, as in the original study (Teas & Agarwal, 2000). Product information seeking was conducted with a few Chinese students enrolled in business studies around the researcher. Two issues were raised through the discussion: firstly, although the selected participants were business students, because of computers being widely used with the fundamental function of a calculator, students may not frequently use a calculator. Secondly, the mobile phone was discussed as a familiar product that almost every student owns, but the mobile phone is strongly associated with different mobile company-line services. For example, different companies may offer various discounts on package-sales. This means that if a customer buys a particular brand and model of mobile phone, he or she will get a certain free call time or a certain number of free texts. Thus, the mobile was not considered to be the right product selection for this study. Therefore, this research only adopted one focal product, the wristwatch, from Teas and Agarwal's (2000) study.

### **3.3.2 Pre-test design**

A pre-test involving 15 Chinese students enrolled in business courses at the Auckland University of Technology was used to determine the stimulus treatment, which includes countries-of-origin, brand name and store names recognizable to the participants. Since the participants for this study were Chinese students, it was important to select brand names, store names and countries that were relatively well known to the subject population. The country names, brand names, store names and price range were discussed with a few Chinese students before the written pre-test questionnaire to generalise the basic acceptable information of each stimulus treatment.

A pre-test questionnaire (Appendix 7.2) asked about participants' level of feelings towards different prestige images and price ranges, in accordance with the original research (Teas & Agarwal, 2000). To maintain consistency, the first pre-test question

asked respondents about the prestige of a wristwatch made in three countries China, Japan and Switzerland. The second question involved three brands, Tian Wang, Swatch and Casio. The third question deals with a selection of three retail outlets, Bai Shen supermarket, Yan Sha shopping centre and a gift or jewellery shop in a local area. The third question about the retail outlets used locations in China, because, although this research was conducted in New Zealand, the respondents were required to answer the questions as if they were living in China rather than in New Zealand. Countries-of-origin, brand name and store name were also used to determine whether they were associated with a favourable or unfavourable image. Based on the literature review, price may be different across countries. Therefore a realistic price range needed to be identified as acceptable by Chinese consumers in this research. The last two pre-test questions involved a realistic price range of both high price levels (RMB 2000, RMB 1200) and low price levels (RMB 200, RMB 80). Each price would be selected from two price levels for the final questionnaire. The reason for choosing these price ranges is based on the actual selling prices of the three brands of wristwatches in China.

### **3.4 DATA PROCEDURE**

This section discusses research sample size and how the questionnaire was designed and measured, how the participants were selected and how the data was collected and screened.

#### **3.4.1 Sample**

The sample consisted of 320 Chinese students enrolled in business studies from one university (Auckland University of Technology) and four private tertiary institutes (Queen's Academic Institute, New Zealand Institute of Commerce, Regent International Education Group, St George Institute of Learning) located in Auckland, New Zealand. The sample size used is similar to the study by Teas and Agarwal (2000) in which 530 students were randomly assigned to 24 treatment cells. This research involved 320 students randomly assigned to 16 treatment cells for the wristwatch study. It will take approximately 10 minutes to complete the questionnaire. The questionnaire itself is also tested with a written survey in class

time which allowed the researcher to clarify some inquiries in Chinese across the language barriers, as well as ensuring a high return rate.

### **3.4.2 Questionnaire design**

The questionnaire is mainly adapted from the original questionnaire written by Teas and Agarwal (2000) with some adjustments based on literature reviews. The questionnaire is administered in English and represented in Appendix 7.3.

The cover page describes the purpose of this wristwatch study and gives the name of the researcher. The second page of the questionnaire displays a black and white wristwatch advertisement. The advertisement page also contains four-controlled stimuli (country-of-origin, brand name, store name and price information), which will be adjusted from pre-test results. The information is displayed beside the wristwatch picture, following generally accepted advertising conventions. The third and fourth page consists of 22 questions with instructions in each small section. The unspecified scales for each of the constructs were contained between one to five items. At the end of the questionnaire, the researcher's contact details are provided and thanks to participants are also acknowledged.

### **3.4.3 Stimuli and measurements in questionnaire**

This section discusses likert-type scales which are used in measuring the four extrinsic cues, perceived quality, sacrifice and value. The main reason for choosing likert-type scales is to generate sufficient variance among participants for subsequent statistical analysis (Hinkin, 1995). Many researchers have stated that the reliability of responses increases steadily from a 2-point scale to a 5-point scale or 7-point scale, and then levels off (e.g. Hinkin, 1995; Rasmussen, 1990). Therefore, both 5-point and 7-point scales are appropriate for the current research.

#### **3.4.3.1 Measurement of variables**

The measurements of different variables are crucially important to this research, and can directly affect the validity of the research. The measures of all constructs have been adapted from the study of Teas and Agarwal (2000), which was developed by

the authors based on a prior literature review, in particular following the study of Dodds et al.(1991). The intention of the conceptual model has been reviewed in early literature, which explained why the variables were correlated to each other. The questionnaire enclosed measures for manipulation checks, dependent and independent variables, as well as mediating variables based on the conceptual model specified on a Chinese population. Thus, the main purpose of this section is to explain how the developed measurements were employed for the variables in this research.

#### 3.4.3.2 Measurement of independent variables

There were four independent variables in the research including country-of-origin, brand name, store name and price. The Chinese respondents marked particular indicators of their perceptions of the brand name by using a seven-degree scale (7=high quality and 1= low quality), price (7=very high and 1=very low), store name (three 7-point scaled questions measuring the likelihood that the retail store sells high quality watches, with good reputation or whether it is a high-quality store). Marton (1986) found that a five-point scale is readily comprehensible to the respondents and enables them to express their observations and views. A five-point disagree and agree scale is employed in this research to measure country-of-origin, which is comprised of expectation about the product's reliability, workmanship, quality, dependability and durability.

#### 3.4.3.3 Measurement of dependent variables

There were three dependent variables in this research, which are consumers' perceptions of product quality, sacrifice and value. Hence, the measuring items of perceived product quality, sacrifice and value developed in this research were intended to capture the three constructs. According to Dodds et al.(1991) perceived value indicates a trade off between perceived sacrifice and perceived quality. Two constructs, perceived quality and perceived value to the model were judged with a 7-point summated scale developed by Dodds et al.(1991). The two items developed by Teas and Agarwal (2000) were used to measure perceived sacrifice with a 5-point summated scale based on previous research (Dodds et al., 1991; Monroe & Chapman, 1987) which was adapted in this research.

#### 3.4.3.4 Measurement of mediating variables

A strong effect on the relationship between an independent variable and a dependent variable is defined as the moderating variable (Sekaran, 2003). Product quality and sacrifice identified as two mediating variables in the relationships between the four extrinsic-cues (independent variables) and perceived quality (dependent variable) which was modified from Teas and Agarwal (2000). This research adapted the mediation affects as modified from Teas and Agarwal (2000), as well as the mediation affects by perceived sacrifice in the relationship between perceived quality and value, specified by Snoj et al. (2004) and Sweeney et al. (1999).

In addition, according to Sweeney et al (1999), it is generally more advisable to use measures with a number of indicators, rather than a large number of single item measures. Therefore, all six constructs, except brand and price level, used two and more than two items to measure each construct in this research.

#### **3.4.4 Data collection**

A total of 320 tertiary students enrolled in business courses studies participated in the experimental subjects. Firstly, the researcher had to obtain permission from the university and four private tertiary institutes to distribute these questionnaires. The researcher also asked the lecturers to deliver the questionnaires in class-time and to make time available for their completion. This allowed the researcher to explain the effect variables in the survey to students before they filled in the questionnaires. As some respondents could not return questionnaires immediately, the researcher gave them stamped addressed envelopes to facilitate the return of the questionnaires. All questionnaires were divided into 5 parts with 16 treatments. The first part with 4 treatments, and 80 questionnaires, was distributed to Auckland University of Technology Chinese students enrolled in New Zealand business diploma studies. The remainder of the 240 questionnaires, with three treatments, were distributed equally to business students enrolled in four tertiary institutes.

### **3.4.5 Data screening and cleaning**

Before entering the data from each questionnaire, it is necessary to check through each section to ascertain whether or not the participant has completed it correctly. This will be double checked manually for all collected questionnaires with each question. If some questionnaires contain too many incomplete answers, these questionnaires will not be included for the final data analysis. The missing data is replaced by a mean score if there are a few incomplete responses in some questionnaires.

## **3.5 RESEARCH VALIDITY AND RELIABILITY**

This section discusses the validity of the measurements of the current research construct, based on the adjusted conceptual model specified in a Chinese population. There are a number of different ways in which the validity of research can be assessed. The four common aspects of validities discussed in this study are as follows: internal validity, external validity, constructs validity and reliability.

### **3.5.1 Internal validity**

Internal validity was applied in this research to find whether only treatment factors or additional extraneous factors cause the effects on the evaluation process. Internal validity checks were made in this research through the preliminary research that involved both the pre-test and the final survey test. The treatment factors (four extrinsic-cues) were generated by fifteen Chinese consumers in the pre-test stage, for adjusting the final written questionnaire, which was mainly adapted from Teas and Agarwal (2000).

### **3.5.2 External validity**

External validity concerns issues about the generalisability of the findings to other settings and whether the experimental situation differs from the setting to which the findings are to be generalised, which may directly affect the degree of risk it causes to external validity (Sekaran, 2003). Based on Teas and Agarwal's (2000) model, this research has proposed a conceptual model specified in a Chinese population. The

purpose of this research is to test the generalisation of the model specified in a Chinese population. The current research was conducted with Chinese students who are studying business in New Zealand, using only one product, the wristwatch, and was not generalised beyond the product category and geographic location of this study.

### **3.5.3 Construct validity**

Construct validity concerns the problem of phenomena that are not directly observable. The validity of the three reflective measures (perceived quality, sacrifice and value) was assessed using confirmatory factor analysis. Exploratory factor analysis is used to condense the items for each of the constructs into meaningful dimensions (Aaker, Kumar & Day, 2001). The factor analysis has two primary purposes in this study: the first is to understand these constructs as a data set, which can be identified as variables that express a similar meaning, such as whether or not the five items used in measuring quality perception captured a similar meaning for consumers' perceptions of product quality. Secondly, factor analysis can help to reduce the number of variables so that the researcher can analyse a sample structure with necessary general dimensions, instead of detailed variables.

### **3.5.4 Reliability**

Reliability is the internal consistency method which allows the study to be repeated with the same results (Hair, Bush, & Ortinau, 2003). Coefficient alpha measures the internal consistency of a set of items (Gilbert, 1979) which is often used to determine the reliability in evaluation of consumer perception (Dodds et al., 1991; Teas & Agarwal, 2000). In this comparative study, coefficient alpha should be the first measure one calculates to judge the quality tool. The closer the coefficient alpha value is to 1.00, the greater the internal consistency of the items in the instrument. In other words, a low coefficient alpha indicates that the Chinese sample of items performs poorly in capturing the construct. In contrast, a high coefficient alpha indicates that the set of items correlates well with true scores.

### **3.6 ETHICAL CONSIDERATIONS**

Sekaran (2003) stated that there are three ethical issues that need to be addressed. The first one is confidentiality, which means all information used by the informants in this study had to be treated as confidential. The second ethical issue is accuracy of finding interpretations. The third ethical issue is informed consent, which means all selected participants have to be respected and treated fairly. The researcher has a duty to act honourably and in good faith towards all participants involved in the research. The wordings of all questions should not be offensive and no questions concerning ethical classification shown. All responses provided by participants are treated as confidential.

Every student received the participant information sheet and was asked for informed consent to participate in this research. Any participant who refused to answer the questionnaire or had any difficulty in completing the questionnaire had their wishes respected and were thanked for their time. However, only few students refused to participate in this survey. The ethical considerations for this survey and current study were approved by the Auckland University of Technology Ethics Committee, and are attached in Appendix 7.4.

### **3.7 PRE-TEST RESULTS**

The results from the completed 15 pre-test questionnaires were analysed by one-way ANOVA, which is statistical techniques used to check whether there is statistical significance among these variable means. An initial one way-ANOVA procedure was calculated on the pre-test for three groups' variables and revealed significant differences between them. The results (Table 3.1) showed that the means of three countries' prestige were statistically significant different from each other ( $F=115.45$ ;  $p=0.00<0.05$ ). Formally stated, Switzerland represents the highest country prestige and China represents the lowest country prestige respectively for the manufacture of wristwatches. It was also found that the means of the three brands' prestige were significantly different ( $F=21.87$ ;  $p=0.00<0.05$ ). The results suggest that Swatch was perceived to be the best brand and Tian Wang, the worst brand name in the wristwatch industry. The results also displayed that the means of three stores'

prestige were statistically significant ( $F=10.42$ ;  $p=0.00<0.05$ ). The stores' prestige means of the Bai Shen supermarket was significantly lower than the Yan Sha shopping centre and a local jewellery and gift shop. The Bai Sheng supermarket is one of the most popular supermarket chains in China. The results also showed that the prestige means of the Yan Sha Shopping centre and local jewellery and gift shops had a similarly high image. The Yan Sha Shopping centre is located in the capital city, Beijing. Consumers from other parts of China may be unfamiliar with the Yan Sha Shopping centre, so a local jewellery and gift shop was chosen to represent the highest store prestige in the local market.

**Table 3-1 Pre-test results**

Subject	Mean Score	Between Group	
		F	Sig.
<b>Prestige Country</b>		115.45	0.00
Switzerland	5.00		
Japan	3.80		
China	2.33		
<b>Prestige Brand</b>		21.87	0.00
Swatch	4.40		
Casio	3.40		
Tian Wang	2.47		
<b>Prestige Store</b>		10.42	0.00
A Gift and Jewellery Shop	3.73		
Yan Sha Shopping Centre	3.40		
Bai Sheng Supermarket	1.93		
<b>High Price Level</b>		4.93	0.04
RMB 2000	3.93		
RMB 1200	2.73		
<b>Low Price Level</b>		5.24	0.03
RMB 200	4.06		
RMB 80	2.60		

Note: The mean differences are all significant at the .05 level.

A Sample T-test procedure was used to formulate the pre-test results for two price levels. The results of two high price levels that participants are more likely to pay for a wristwatch were also represented in Table 3.1. The overall high price range means were highly significant from each other ( $F=4.934$ ,  $p=0.01<0.05$ ). The pre-test led to the selection of RMB 2000 for the final questionnaire to represent a high-level price. The mean of two low prices which participants were likely to pay for a wristwatch was also significantly different from each other ( $F=5.24$ ;  $p=0.03<0.05$ ). Therefore, the results suggested that RMB 200 was selected to represent a low-level price for the final questionnaire.

In summary, the pre-test results showed that China and Switzerland are the indicated two levels for prestige of country-of-origin; Tian Wang and Swatch are the indicated brand names; Bai Sheng supermarket and a local jewellery and gift shop the indicated store names; and RMB 200 and RMB 2000 indicated two levels of price. These entire stimuli are experimentally manipulated changes across sixteen treatments for the final questionnaire.

### **3.8 CONCLUSION**

This is a comparative study, the purpose of which is to investigate the relationships among these variables that have been previously identified and measured in a Western population, rather than to explore what variables are involved. Therefore, quantitative methodology was chosen for the current research and the methodology was adapted from that used by Teas and Agarwal (2000). The discussions related to these constructs were identified by Teas and Agarwal (2000), which emphasises that the general concept is well understood by the Chinese sample. Then the discussion moved to the background information related to the research setting and Chinese participants are represented almost equally across sixteen different treatments. Reliability and internal, external, construct validity as four aspects of research validity were discussed in the current validation study to assess the performance of the conceptual model which was proposed in a Chinese population, based on Teas and Agarwal's (2000) model. The research procedure and the development of the questionnaire are also discussed and the data set was collected and screened. Research ethical considerations are also discussed. Finally, pre-test results of the extrinsic cues conclude this chapter for the final questionnaire.

## **4 CHAPTER IV DATA ANALYSIS AND RESULTS**

### **4.1 INTRODUCTION**

The fourth chapter discusses the data analysis process and presents the results for the current validation study. It starts with a brief description of the respondent profile and data transformation, and then focuses on examination of the research questions. In addition, preliminary analyses consist of an exploratory examination of the data, missing data and the reliability testing and validity of measurements used for this research.

Eight hypotheses were examined: the first four hypotheses were related to the positive relationship between each of the four extrinsic cues and perceived quality; the fifth hypothesis was the positive relationship between price and perceived sacrifice; the sixth hypothesis was the positive relationship between perceived quality and perceived value; the seventh hypothesis was the negative relationship between perceived sacrifice and the final hypothesis was that perceived value and perceived sacrifice mediates the relationship between perceived quality and value. Eight hypotheses testing of the current study were examined by using ANOVA and ANCOVA after manipulation checks. The results from both this research and the original research (Teas & Agarwal, 2000) were compared and discussed with similarities and differences. Finally, a brief conclusion is provided.

### **4.2 PRELIMINARY ANALYSIS**

This section describes the respondent profile and data transformation for the current research analysis. The basic characteristics of the data were examined to obtain a good understanding of the relationships underlying the data. Factor analysis was conducted for all constructs, except for brand name and price, which used only one item. Reliability tests for the extrinsic cues were examined in turn. Manipulation checks were tested for rechecking whether the information given in the final questionnaire of four extrinsic cues represented either high or low levels significantly.

Finally, preliminary MANOVA tests checked whether the assumptions hypothesised were appropriate for the current research.

#### 4.2.1 Respondent profile

The 320 questionnaires were delivered in class time with business students enrolled in five institutions and 312 questionnaires were returned. Two questionnaires were returned by mail because two students were late for class and did not have enough time to completed questionnaires. A total of 314 questionnaires were collected at the end of the survey and 2 questionnaires did not qualify for the study because of the large number of incomplete responses. Thus, 312 completed questionnaires were ready for the final data analysis. The overall response rate was 97.5 percent. The composition of the respondents according to their tertiary institutes in the current survey is provided in Table 4.1. It took three weeks for the whole data collection, from 2<sup>nd</sup> of May to 20<sup>th</sup> of May 2005.

**Table 4-1 Respondents' positions in the current survey**

<b>Respondent's position (within Auckland)</b>	<b>Numbers of Respondents</b>	<b>Percentage of Respondents (%)</b>
Auckland University of Technology	100	100%
Queen's Academic Institute	60	100%
New Zealand Institute of Commerce	38	95%
Regent International Education Group	100	100%
St George Institute of Learning	16	80%
<b>Total</b>	<b>314</b>	<b>97.5%</b>

#### 4.2.2 Missing data

It is necessary to examine missing data before hypothesis testing. The intention of missing data analysis is to address any issues raised by missing data. In this research, the missing patterns represented that the values missing in the two cases that had more than ten values missing were concentrated in all seven constructs. Hair et al. (1998) suggested that when missing values were considered as not missing randomly, it was recommended that these missing values be deleted. Thus, these two cases were eliminated in this research and not included in the final data analyses.

There were 12 cases that had a total of twenty-two values missing. Nine out of 12 cases had only one value missing. One out of 12 cases had three values missing and two out of 12 cases had five values missing. A remedy is initially necessary for missing data analyses. According to Hair et al.(1998), there are a few remedies available for missing data analyses, such as, deleting cases, case substitutions and mean substitution approaches. Since the remaining twenty-two missing values in the 12 cases were spread across seven constructs of consumers' perceptions, these missing values were considered as missing at random, and were replaced by the mean value of the variable based on all valid responses. Final data analyses were conducted on a new data set with replaced missing values.

#### **4.2.3 Data transformation**

Eight hypotheses developed at the end of Chapter Two were tested through statistical analysis of the dataset. SPSS (version 11.0) statistical package was used for the data analysis. A number of statistical tests were performed in the later section of this chapter which included: factor analysis, ANOVA, ANCOVA, MANOVA.

#### **4.2.4 Exploratory examination**

Table 4.2 showed the mean values of Chinese consumers' perceptions on product evaluation. The consumers' perceptions of perceived quality, perceived value, brand name, price-level and store name are formed as seven-degree scales with a range from 3.81 to 4.37, and perceived sacrifice and country-of-origin formed as five-point scales with a range of 2.92 to 3.62. The mean values of perceived quality, brand name, price-level and store name remained as a similar value above 4.00 and consumer perceived value perceptions appeared as a lower mean value from 3.98 to 3.81. The construct of country-of-origin has a higher mean value (from 4.23 to 4.37) than perceived sacrifice (from 2.92 to 2.96) formed in five-point scales. This indicates that a consumer's perceived sacrifice is quite low for the current research. However, some of the variables did not depart markedly from normal distribution.

The Mahalanobis distance results showed that there were no multivariate outliers in this sample because the highest  $D^2/df$  value is 2.58 when all 22 items are examined,

which is much lower than 5.0 as Hair et al. (1998) recommend. Therefore, the database is suitable for factor analysis.

**Table 4-2 Descriptive statistics of the 22 questionnaire items**

<u>Items</u>	<u>Mean</u>	<u>Std. Deviation</u>
<b>Quality Perception</b>		
The likelihood that this watch would be reliable is	4.03	1.64
The workmanship of this watch is probably	4.03	1.52
The quality of this watch is likely to be	4.27	1.52
The likelihood that this watch is likely to be dependable	4.35	1.43
This watch is likely to be durable	4.36	1.50
<b>Value Perception</b>		
This watch is	3.98	1.52
At the price shown, this watch is	3.92	1.59
I consider this watch to be a good buy	3.81	1.44
The price shown for this watch is	3.91	1.59
This watch appears to be a bargain	3.85	1.63
<b>Sacrifice Perception</b>		
If I purchased the watch for the indicated price, I would not be able to purchase some other products I would like to purchase now	2.92	1.27
If I purchased this watch for the indicated price, I would have to reduce the amount of money I spend on other things for a while	2.96	1.19
<b>Brand Perception</b>		
I think that the brand name is known for: (high quality or poor quality)	4.02	1.90
<b>Price Perception</b>		
The price of this watch is: (very high or very low)	4.11	1.94
<b>Store Perception</b>		
The store sells high quality products	4.23	1.74
The store is a store with a high reputation	4.37	1.73
The store is a high quality store	4.27	1.76
<b>Country-of-image Perception</b>		
The country sells high or low quality products	3.42	1.13
The country sells durable or nondurable products	3.42	1.06
The country sells products with high or low reputation	3.44	1.13
The country sells reliable or non-reliable products	3.50	1.12
The country sells products with excellent technology	3.62	2.58

#### 4.2.5 Factor analysis for dependent variables

Exploratory factor analysis is used to summarise the variables into few constructs and analyse the performance of each construct to reduce the items for those constructs into meaningful dimensions (Aaker, Kumar, & Day, 2001). A factor analysis was completed for three dependent variables (perceived quality, sacrifice and value) and followed procedures used by Teas and Agarwal (2000). Three factor analysis, Varimax rotation, Cronbach's alpha and correlation analysis were employed for examining reliability of the three independent variables.

**Table 4-3 Results of factor analysis**

Item	Factor Loadings		
	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
<b>Quality Perception</b>			
The likelihood that this watch would be reliable is	.82		
The workmanship of this watch is probably	.84	.30	
The quality of this watch is likely to be	.90		
The likelihood that this watch is likely to be dependable	.88		
This watch is likely to be durable	.82	.34	
<b>Value Perception</b>			
This watch is	.41	.57	
At the price shown, this watch is		.78	
I consider this watch to be a good buy		.81	
The price shown for this watch is		.83	
This watch appears to be a bargain		.80	
<b>Sacrifice Perception</b>			
If I purchased the watch for the indicated price, I would not be able to purchase some other products I would like to purchase now			.91
If I purchased this watch for the indicated price, I would have to reduce the amount of money I spend on other things for a while			.91
Total Eigevalue	6.09	1.88	1.20
Eigevalue percentage of variance explained	50.75	15.63	1.00
Rotation sums of squared loadings (cumulative %)		76.36%	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

The results of the factor analysis, reported above in Table 4.3, showed perceived quality, value and sacrifice perfectly loading on three factors, which indicates they are consistent with the intended measures. The three factors in total explained 76.36

percentage of the variance for the construct. Above 70 percentage for the total explanation should be treated as acceptable (Hair et al., 1998). The Cronbach's alpha for perceived quality, value and sacrifice was calculated to be 0.94, 0.87 and 0.82 respectively. This means that the reliability of the three factors was highly acceptable among each other, and the items in each of them measured what they were aimed to measure.

#### **4.2.6 Reliability tests of extrinsic cues - independent variables**

The reliability test was used to check whether or not the internal consistent of the final questionnaire was achieved. This is necessary to test if the items in one construct measure the same thing. Although the final questionnaire was mainly adopted from Teas and Agarwal's (2000) research, because this questionnaire was administered in English, Chinese participants may hold a different understanding of these questions. Thus, it is especially necessary to test the reliability of each measured independent variable.

There are three questions regarding the store name and five questions about country-of-origin designed for measuring the consumer's perceived quality and value. For the reliability on store name, Cronbach's alpha was 0.92 and country-of-origin was 0.78. The results showed acceptance of internal consistency. According to Nunnally's (1978) recommendations, all the Cronbach's alpha values were greater than 0.60, the minimum acceptable level. In other words, these questions were fully understood in English by Chinese participants. The questions for brand name and price in the questionnaire for the current study were asked as a single item, so there was no need to test the reliability here.

#### **4.2.7 Manipulation checks**

Eight pieces of information about four extrinsic cues (store name, country-of-origin, brand name and price level) were examined in the pre-test and the results were used in the final questionnaire. The information for each cue, which included the numbers of questionnaires collected and the mean value with both levels, is represented in Table 4.4. The results show that numbers of respondents for both levels were

collected almost equally across four extrinsic cues and the value means of both levels were significantly different within groups of each extrinsic cue.

The manipulation checks of the information of extrinsic cues were analysed by one-way analyses of variance (ANOVA) were conducted to assess the impact of each cue are also provided (Table 4.4). The impact of two country-of-origin levels ( $F=164.3$ ,  $p=0.000$ ); two brand levels ( $F=189.74$ ,  $p=0.000$ ); two store levels ( $F=206.21$ ,  $p=0.000$ ) and two price levels ( $F=334.07$ ,  $p=0.000$ ). The results show that the p-value for four independent variables is less than .05 which means that their means are significantly different from each other. Therefore, each of the manipulation checks indicated that each extrinsic cue of experimental treatments was perceived correctly by the respondents, as intended for a Chinese population. The eight pieces of information therefore represent the same results as the pre-test did. The results show that Switzerland received more favourable country-of-origin image ratings than China; Swatch received a more favourable brand image rating than Tian Wang; a local jewellery and gift shop received more favourable store image ratings than Bai Sheng supermarket and RMB 2000 was high and RMB 200 low for price levels.

**Table 4-4 Results of ANOVA test – manipulation checks**

<b>Construct</b>	<b>Levels</b>	<b>Number of respondents</b>	<b>Mean Score</b>	<b>F</b>	<b>Sig.</b>
<b>Country-of-image</b>					
Switzerland	High	152	4.15		
China	Low	160	2.85		
	Total	312	3.45	164.30	.000
<b>Store Name</b>					
Gift & Jewellery shop	High	159	5.27		
Bai Sheng Supermarket	Low	153	3.27		
	Total	312	4.29	189.74	.000
<b>Brand Name</b>					
Swatch	High	158	5.20		
Tian Wang	Low	154	2.81		
	Total	312	4.02	202.61	.000
<b>Price</b>					
RMB 2000	High	158	5.50		
RMB 200	Low	154	2.70		
	Total	312	4.11	334.07	.000

Note: The mean differences are all significant at the .05 level.

#### 4.2.8 Preliminary MANOVA tests for checking the assumptions

MANOVA is used to examine the differences between groups of two or more metric dependent variables (Sekaran, 2003). This research examined specific hypothesised linkages between the set of treatment variables (four extrinsic cues) and the set of endogenous variables (perceived quality, sacrifice and value). The results (Table 4.5) show that each treatment variable is statistically significant ( $p=0.00<0.05$ ) to the set of endogenous variables. This also indicates that the hypothesised tests are linked between treatment variables and endogenous variables, which are consistent with the original study's results, reported by Teas and Agarwal (2000). Therefore, the testing of the specific hypothesized linkages between these variables is justified.

**Table 4-5 Analysis of variance - MANOVA**

<u>Treatment</u>	<u>MANOVA</u>				
	<u>Wilks</u>	<u>Hypothesis df</u>	<u>Error df</u>	<u>F Value</u>	<u>Sig.</u>
Brand (B)	0.75	3	294	32.69	0.00
Country (C)	0.91	3	294	9.36	0.00
Store (S)	0.95	3	294	5.60	0.00
Price (P)	0.64	3	294	55.44	0.00
B*C	0.99	3	294	0.56	0.64
S*C	0.93	3	294	7.16	0.00
P*C	0.97	3	294	2.65	0.05
B*S	0.98	3	294	2.39	0.07
B*P	0.96	3	294	4.62	0.00
S*P	0.98	3	294	1.67	0.17

*Note:* MANOVA= multivariate analysis of variance

To maintain consistency, the univariate homogeneity of variance across the 16 treatment groups was assessed via the Levene's test of equality of error variances. The results showed that quality ( $p=0.435$ ) was insignificant; sacrifice ( $p=0.002$ ) and value ( $p=0.008$ ) were significant. The multi-variate tests of homogeneity of covariance showed that it was statistically significant (Box's  $M=139.39$ ,  $p=0.003$ ).

Teas and Agarwal (2000) noted that violation of the equality of variance-covariance matrices assumption has a little impact if the groups formed are approximately

similarly size (Hair et al., 1998). Because the results of the univariate homogeneity of variance were statistically significant, regression coefficients were employed between the independent variable (quality and sacrifice) and the dependent variable (value). The results of regression coefficients show that the independent variables and dependent variables were statistically significant ( $F=99.06$ ;  $p=0.000$ ) related. This means that the two independent variables are good predictors of the dependent variable. The results in Table 4.6 also showed that quality ( $t = 14.03$ ) and sacrifice ( $t = -2.31$ ) were two significant predictors of value, because “t” values well below  $-2.0$  or above  $+2.0$  were treated as useful predictors of the dependent variable. The t-statistics also determine the relative importance of each variable in the model, thus perceived product quality was a better predictor than sacrifice in determining consumer value perception. Collinearity statistics of quality and sacrifice showed that the regression model is not affected by multicollinearity. Therefore, the MANOVA tests for examining specific hypothesized linkages between the set of treatment variables and the set of endogenous variables indicated that the assumptions had been met by the Chinese respondents.

**Table 4-6 Regression of perceived quality and sacrifice on perceived value**

Regression Model (items)	Unstandardized Coefficients	t	Sig.	Collinearity Statistics	
				Tolerance	VIF
Constant	1.77	8.42	0.00		
Quality	0.59	14.03	0.00	0.94	1.06
Sacrifice	-0.12	-2.31	0.02	0.94	1.06

#### **4.2.9 Summary of preliminary analysis**

In this section, respondent profile and data transformation for the current research were discussed. It was concluded that there is not a problem for response bias in the current research. The internal consistency for both independent and dependent factors of the conceptual model constructs examined by using factor analysis and Cronbach’s alpha were well supported for the current research. Manipulation checks were tested for checking the four extrinsic cues. Finally, preliminary MANOVA tests were used to check these assumptions of hypothesized linkages and the results show that these assumptions are valid for a Chinese population for the current research.

### 4.3 HYPOTHESIS TESTING

The hypothesis testing employed ANOVA, ANCOVA and regression statistical techniques. ANOVA is competent to test the first five hypotheses due to the fact that each treatment variable (four extrinsic cues) was examined with every endogenous variable (either perceived quality or perceived sacrifice) individually. Hypothesis 6 and 7 involving the mediation effects, by perceived quality and sacrifice in the relationship between four extrinsic cues and perceived value, were tested via ANOVA and ANCOVA (analysis of covariance). The last hypothesis was examined by using ANOVA and ANCOVA to test the mediation affects by perceived sacrifice in the relationship between perceived quality and value.

#### 4.3.1 Extrinsic cues on perceived quality and sacrifice

The statistical results of these hypotheses were displayed in the same manner as the manipulation check, in addition to mean scores followed by a related ANOVA table. An overview of the findings is displayed in Table 4.7, which summarises the findings of each treatment variable effect on two endogenous variables (perceived quality and perceived sacrifice).

H<sub>1</sub>: Consumers' perception of the favourability of country-of-origin image is positively related to quality.

*Country-of-origin:* The results showed that the country-of-origin manipulation positively influences on perceived quality ( $\bar{x}_{\text{high country}} = 4.51$ ,  $\bar{x}_{\text{low country}} = 3.89$ ;  $F=23.14$ ,  $p<0.001$ ). Therefore, the relationship between country-of-origin and perceived quality in Hypothesis 1 is supported. Since country-by-store interaction is statistically significant, the country effect is interpreted within different store levels. The country effect is significant within a high-store condition, but insignificant within a low-store condition (high store:  $\bar{x}_{\text{high country}}= 4.95$   $\bar{x}_{\text{low country}}= 3.85$ ; low store:  $\bar{x}_{\text{high country}}= 4.07$   $\bar{x}_{\text{low country}}=3.92$ ). Therefore, the findings indicate that the positive relationship between country-of-origin and perceived quality in Hypothesis 1 is supported within a high-store image condition but is not supported within a low-store image condition.

H<sub>2</sub>: Consumers' perception of the favourability of brand name is positively related to quality.

*Brand*: The results show that the brand manipulation positively influences on perceived quality ( $\bar{x}_{\text{high brand}} = 4.79$ ,  $\bar{x}_{\text{low brand}} = 3.61$ ;  $F=82.45$ ,  $p<0.001$ ). Since brand-by-price interaction is statistically significant, the brand effect is interpreted within price levels. The results show that the brand influences perceived quality and is statistically significant in both price levels conditions. (high price:  $\bar{x}_{\text{high brand}} = 4.77$ ;  $\bar{x}_{\text{low brand}} = 3.96$ ; low price:  $\bar{x}_{\text{high brand}} = 4.80$   $\bar{x}_{\text{brand}} = 3.27$ ). Therefore, the positive relationship between brand and perceived quality in Hypothesis 2 is supported.

H<sub>3</sub>: Consumers' perception of the favourability of store name is positively related to quality.

*Store*: The results showed that the store manipulation positively influences on perceived quality ( $\bar{x}_{\text{high store}} = 4.40$ ,  $\bar{x}_{\text{low store}} = 4.00$ ;  $F=9.35$ ,  $p<0.01$ ). Therefore, the relationship between brand and perceived quality in Hypothesis 3 is supported. Since store-by-country interaction is statistically significant, the store effect is interpreted within different country-of-origin levels. The store effect is significant with a high-country condition but insignificant with the low-country condition. (high country:  $\bar{x}_{\text{high store}} = 4.95$   $\bar{x}_{\text{low store}} = 4.01$ ; low country:  $\bar{x}_{\text{high store}} = 3.85$   $\bar{x}_{\text{low store}} = 3.93$ ). Therefore, these findings indicate that the relationship between store name and perceived quality in Hypothesis 3 is supported under a high-country image condition but is not applied under a low-country image condition.

H<sub>4</sub>: Consumers' perception of price is positively related to quality.

H<sub>5</sub>: Consumers' perception of the price is positively related to sacrifice.

*Price*: The results showed that the price-level manipulation positively influences on perceived quality ( $\bar{x}_{\text{high price level}} = 4.37$ ,  $\bar{x}_{\text{low price level}} = 4.04$ ;  $F=6.45$ ,  $p<0.001$ ) and perceived sacrifice ( $\bar{x}_{\text{high price level}} = 3.54$ ,  $\bar{x}_{\text{low price level}} = 2.32$ ;  $F=133.01$ ,  $p<0.001$ ). Since price-by-brand interaction is statistically significant, the price effect is interpreted within brand levels in both perceived quality and perceived sacrifice. The price effect on perceived quality is significant with a low-brand condition but

insignificant with a high-brand condition. (high brand:  $\bar{x}_{\text{high price level}}=4.77$   $\bar{x}_{\text{low price level}}=4.803$ ; low brand:  $\bar{x}_{\text{high price level}}=3.96$   $\bar{x}_{\text{low price level}}=3.27$ ). Thus, the findings indicate that the positive relationship between price and perceived quality in Hypothesis 4 is supported under a low-brand condition but is not supported under a high-brand condition. The results also show that the price effects on perceived sacrifice are significant in both levels' conditions (high brand:  $\bar{x}_{\text{high price level}}=3.60$   $\bar{x}_{\text{low price level}}=2.59$ ; low brand:  $\bar{x}_{\text{high price level}}=3.52$   $\bar{x}_{\text{low price level}}=2.05$ ). Therefore, the positive relationship between price and perceived sacrifice ( $H_5$ ) is fully supported by both brand level conditions.

**Table 4-7 Analysis of variance-ANOVA (Chinese data)**

Treatment	<b>ANOVA</b>					
	Quality		Sacrifice		Value	
	F Value	Sig.	F Value	Sig.	F Value	Sig.
Brand (B)	82.45	0.00	7.88	0.01	65.17	0.00
Country (C)	23.14	0.00	1.20	0.28	11.86	0.00
Store (S)	9.35	0.00	1.27	0.26	11.46	0.00
Price (P)	6.54	0.01	133.01	0.00	9.42	0.00
B*C	0.34	0.58	0.96	0.33	0.02	0.90
S*C	13.81	0.00	0.88	0.35	18.07	0.00
P*C	0.13	0.90	1.31	0.25	4.35	0.04
B*S	0.68	0.41	1.96	0.16	1.86	0.17
B*P	7.82	0.01	5.44	0.02	8.53	0.00
S*P	1.96	0.16	1.96	0.16	0.09	0.76
Mean square explained	13.93		9.51		11.20	
Mean square residual	1.29		0.87		1.11	
F	10.79	0.00	10.94	0.00	10.04	0.00

### 4.3.2 Prediction of perceived value

H<sub>6</sub>: Consumers' perception of quality is positively related to perceived value.

H<sub>7</sub>: Consumers' perception of sacrifice is negatively related to perceived value.

The hypotheses testing moved to the prediction of perceived value, which involved mediators' effects, tested by using ANOVA and ANCOVA (analysis of covariance) and consistently followed the original study of Teas & Agarwal (2000). Grewal et al.

(1998) recommends that three conditions must be applied to create mediation. Firstly, the independent variables influence the mediating variables. Secondly, the independent variables influence the dependent variables. Thirdly, when the independent variables regressed on the dependent variable with mediating variables, the mediators must be significant, which results in the effects of the independent variables being reduced.

The ANOVA results (Table 4.7) show that independent variables (extrinsic-cues) influence the mediators (perceived quality and sacrifice;  $p=0.00<0.05$ ), which meet the first condition. The second condition was tested with the independent variables (four extrinsic cues) and the dependent variable (perceived value). The results of the ANOVA (Table 4.7) indicate that each extrinsic cue is significant ( $p=0.00<0.05$ ). In addition, three interaction (store-by-country, price-by-country and brand-by-price) effects are significant ( $p<0.05$ ).

Analysis of covariance is a sensitive test (ANCOVA) and is used to assess the third condition to establish mediation. The results (Table 4.8) showing that perceived quality is statistically significant with perceived value ( $F=105.46$ ;  $p=0.00<0.05$  respectively), support Hypotheses 6. The results also show that perceived sacrifice is insignificant ( $F=0.97$ ;  $p=0.33>0.05$ ). Since the F values associated with the direct effect of extrinsic cues on perceived value are generally smaller in the presence of the covariate perceived quality than in their absence, the findings satisfy the third condition for mediation. This indicates that four extrinsic cues and perceived value is mediated by perceived quality and not mediated by perceived sacrifice. In addition, the extrinsic cues are significant ( $p=0.00<0.05$ ) and the store-by-country ( $p=0.00<0.05$ ) and price-by-country ( $p=0.03<0.05$ ) are significant. Moreover, without considering mediator-quality affects on perceived value, perceived sacrifice showed as statistically significant ( $F=5.57$ ;  $p=0.02<0.05$ ) in mediating the relationship between each treatment variable (extrinsic cues) and perceived value. This indicates that perceived sacrifice mediated the linkage between these treatment variables and perceived value without considering the affects of perceived quality. Therefore, the results supported Hypothesis 6 that perceived quality mediated the relationship between each extrinsic cue and perceived value and did not support

Hypothesis 7, that perceived sacrifice mediated the relationship between the extrinsic cues and perceived value.

**Table 4-8 Analysis of covariance-ANCOVA (Chinese data)**

<b>Treatment</b>	<b><u>ANCOVA</u></b>					
	Value (quality & sacrifice)		Value (quality)		Value (sacrifice)	
	F Value	Sig.	F Value	Sig.	F Value (c )	Sig.
Brand (B)	11.28	0.00	11.78	0.00	58.51	0.00
Country (C)	1.30	0.26	1.08	0.30	13.05	0.00
Store (S)	4.58	0.03	4.225	0.04	12.66	0.00
Price (P)	23.31	0.00	26.17	0.00	15.08	0.00
B*C	0.18	0.67	0.24	0.63	0.00	1.00
S*C	7.30	0.01	7.40	0.01	17.85	0.00
P*C	6.63	0.01	6.33	0.01	5.07	0.03
B*S	4.03	0.05	4.43	0.04	1.39	0.24
B*P	2.45	0.12	2.83	0.09	6.76	0.10
S*P	1.64	0.20	1.48	0.23	0.25	0.62
<b>Covariates</b>						
Quality	105.46	0.00	112.05	0.00		
Sacrifice	0.97	0.33			5.57	0.02
Mean square explained	15.22		16.12		10.84	
Mean square residual	0.81		0.81		1.01	
F	18.83		19.94		9.90	

### 4.3.3 Perceived sacrifice as a mediator

H<sub>8</sub>: Consumer's perceptions of perceived sacrifice mediate the relationship between perceived quality and value.

This section examines the hypothesis involving the assumption that perceived sacrifice is a mediator between perceived quality and value. The results (Table 4.9) showed that perceived quality (independent variable) affect perceived sacrifice (mediator) (F=1.63; p<0.05). This meets the first condition, that the independent variable must affect the mediator to establish mediation.

**Table 4-9 Analysis of variance – quality & sacrifice**

Source	df	Mean Square	F	Sig.
Quality	1	1.97	1.63	0.02

**Note:** a. Dependent variable: Perceived Sacrifice  
 b. Independent variable: Perceived Quality  
 c. R Squared = 0.15 (Adjusted R Squared= 0.06)

The results (Table 4.10) show that perceived quality (independent variable) affect perceived value (dependent variable) ( $F=7.65$ ;  $p=0.00<0.05$ ). This meets the second condition, that the independent variable must affect the dependent variable to establish mediation.

**Table 4-10 Analysis of variance – quality & value**

Source	df	Mean Square	F	Sig.
Quality	30	7.54	7.86	0.00

**Note:** a. Dependent variable: Perceived Value  
 b. Independent variable: Perceived Quality  
 c. R Squared = 0.45 (Adjusted R Squared= 0.39)

ANCOVA was used to satisfy the last condition. The results displayed in the Analysis of Covariance, Table 4.11, show that when perceived quality (independent variable) and perceived sacrifice (mediator) is regressed on perceived value (dependent variable), perceived sacrifice is significant ( $F=4.64$ ,  $p=0.03<0.05$ ) and the effects of the perceived quality (independent variable) are reduced (from  $F=7.86$  table 4.10 to  $F=7.65$  Table 4.11). This finding satisfies the third condition, to establish mediation. In this case,  $R^2 = 0.46$  remained as high “strength” for the relationship between the perceived quality and perceived value which is mediated by perceived sacrifice. Therefore, Hypothesis 8 is supported. It concludes that perceived sacrifice plays an important mediator role between perceived quality and value.

**Table 4-11 Analysis of covariance-mediator: perceived sacrifice**

Source	df	Mean Square	F	Sig.
Intercept	1	561.00	584.35	0.00
Sacrifice	1	4.45	4.64	0.03
Quality	30	7.44	7.65	0.00

**Note:** a. Dependent variable: Perceived Value;  
 b. Independent variable: Perceived Quality  
 c. R Squared = 0.46 (Adjusted R Squared= 0.40)

#### **4.4 COMPARISON RESULTS OF CHINESE AND WESTERNERS**

As reviewed earlier, there are some different perceptions held by Chinese and Western consumers when they evaluate products, because of cultural and structural differences. The purpose of the current research, conducted with a Chinese sample, is to test the generalisability of the findings specified by Teas and Agarwal (2000) who investigated in the U.S. a country that is not equally developed. This section discusses the similarities and differences between Chinese and Western consumers with regard to the evaluation perceptions that consumers hold.

##### **4.4.1 Extrinsic cues on perceived quality and sacrifice**

Similar to the results reported by Teas and Agarwal (2000) in Table 4.12 (U.S. data), the findings indicate that four treatment variables (country-of-image, brand name, store name and price) have a statistically significant ( $p=0.00$ ) effect on perceived quality.

Moreover, the results of the U.S. data showed that brand-by-store interaction has a statistically significant effect on perceived quality. Therefore, the brand effect is interpreted within store levels, while Western consumers evaluate product quality. The results of the Chinese data did not show a significant brand-by-store interaction. Instead, the results show that store-by-country ( $p=0.00<0.05$ ), price-by-country ( $p=0.04<0.05$ ) and brand-by-price ( $p=0.00<0.05$ ) interactions have a statistically significant effect on perceived quality. The results for both countries show that price has a statistically significant effect on perceived sacrifice ( $p=0.00<0.05$ ).

**Table 4-12 A comparison of T & A (2000) data and Chinese data - ANOVA**

Treatment	<u>ANOVA</u> <u>Chinese Data</u>						<u>ANOVA</u> <u>Teas &amp; Agarwal (2000) Data</u>					
	Value (quality)		Value (sacrifice)		Value (q & s)		Value (quality)		Value (sacrifice)		Value (q & s)	
	F Value	Sig.	F Value	Sig.	F Value	Sig.	F Value	Sig.	F Value	Sig.	F Value	Sig.
Brand (B)	82.45	0.00	7.88	0.01	65.17	0.00	21.09	0.00	2.33	N/S	26.53	0.00
Country (C)	23.14	0.00	1.20	0.28	11.86	0.00	56.56	0.00	0.04	N/S	18.58	0.00
Store (S)	9.35	0.00	1.27	0.26	11.46	0.00	20.57	0.00	0.43	N/S	35.12	0.00
Price (P)	6.54	0.01	133.01	0.00	9.42	0.00	5.57	0.01	43.03	0.00	84.18	0.00
B*C	0.34	0.58	0.96	0.33	0.02	0.90	1.04	N/S	0.65	N/S	0.98	N/S
S*C	13.81	0.00	0.88	0.35	18.07	0.00	0.69	N/S	1.65	N/S	7.76	0.01
P*C	0.13	0.90	1.31	0.25	4.35	0.04	0.17	N/S	1.57	N/S	1.66	N/S
B*S	0.68	0.41	1.96	0.16	1.86	0.17	5.70	0.05	2.95	N/S	8.35	0.01
B*P	7.82	0.01	5.44	0.02	8.53	0.00	1.61	N/S	2.43	N/S	2.00	N/S
S*P	1.96	0.16	1.96	0.16	0.09	0.76	0.01	N/S	0.40	N/S	0.32	N/S
Mean square explained	13.93		9.51		11.20		13.28		8.69		29.28	
Mean square residual	1.29		0.87		1.11		1.52		1.17		1.50	
F	10.79	0.00	10.94		10.04		8.74	0.00	7.43		19.52	

Notes: N/S= not significant

#### 4.4.2 Prediction of perceived value

The results of both countries (Table 4.13) showed that the hypothesized linkages between perceived quality ( $F=112.05$ ,  $p=0.00<0.05$  Chinese data;  $F=123.8$ ,  $p=0.00<0.05$  US data) and perceived value, and between perceived sacrifice ( $F=5.57$ ,  $p=0.02<0.05$  Chinese data;  $F=17.05$ ,  $p=0.00<0.05$  US data) and perceived value are supported.

The results of the U.S. data indicate that three extrinsic cues (brand name, store name and price) have significant direct linkages with perceived value, that are not completely mediated by perceived quality and sacrifice. The results of the Chinese data also indicate that the effects of the three extrinsic cues are not mediated by perceived sacrifice ( $F=0.97$ ,  $p=0.33>0.05$ ) on consumer evaluations of perceived value, when perceived quality is a mediating factor ( $F=105.46$ ,  $p=0.00<0.05$ ).

Additionally, the Chinese data also shows that without considering the influence of perceived quality, perceived sacrifice ( $F=5.57$ ,  $p=0.02<0.05$ ) is a mediating factor with regard to the negative affections between extrinsic cues and perceived value. Therefore, the findings for both countries indicate that three extrinsic cues have significant direct linkages with perceived value that are mediated by perceived quality and sacrifice, but not completely.

**Table 4-13 A comparison of T & A (2000) data and Chinese data - ANCOVA**

Treatment	<u>ANCOVA</u> <u>Chinese Data</u>						<u>ANCOVA</u> <u>Teas &amp; Agarwal (2000) Data</u>					
	Value (quality)		Value (sacrifice)		Value (q & s)		Value (quality)		Value (sacrifice)		Value (q & s)	
	F Value	Sig.	F Value	Sig.	F Value	Sig.	F Value	Sig.	F Value	Sig.	F Value	Sig.
Brand (B)	11.28	0.00	11.78	0.00	58.51	0.00	14.32	0.00	11.63	0.00	30.20	0.00
Country (C)	1.30	0.26	1.08	0.30	13.05	0.00	0.64	N/S	1.11	N/S	18.85	0.00
Store (S)	4.58	0.03	4.225	0.04	12.66	0.00	16.87	0.00	18.37	0.00	34.77	0.00
Price (P)	23.31	0.00	26.17	0.00	15.08	0.00	85.19	0.00	125.54	0.00	56.54	0.00
B*C	0.18	0.67	0.24	0.63	0.00	1.00	3.63	N/S	2.55	N/S	1.32	N/S
S*C	7.30	0.01	7.40	0.01	17.85	0.00	5.78	0.05	7.29	0.01	6.70	0.01
P*C	6.63	0.01	6.33	0.01	5.07	0.03	1.27	N/S	1.59	N/S	1.45	N/S
B*S	4.03	0.05	4.43	0.04	1.39	0.24	2.42	N/S	4.14	0.05	6.83	0.01
B*P	2.45	0.12	2.83	0.09	6.76	0.10	1.06	N/S	0.91	N/S	2.08	N/S
S*P	1.64	0.20	1.48	0.23	0.25	0.62	0.27	N/S	0.42	N/S	0.23	N/S
<b>Covariates</b>												
Quality	105.46	0.00	112.05	0.00			148.27	0.00	123.8	0.00		
Sacrifice	0.97	0.33			5.57	0.02	37.58	0.00			17.05	0.00
Mean square explained	15.22		16.12		10.84		37.66		37.33		28.98	
Mean square residual	0.81		0.81		1.01		1.13		1.21		1.46	
F	18.83		19.94		9.90		33.33		30.38		19.85	

Notes: N/S= not significant

## 4.5 CONCLUSION

To sum up, this chapter represented the analyses results of the study to test the validity of the conceptual model, which specified in a Chinese population. The preliminary results of the exploratory factor analysis indicted that the seven constructs (four extrinsic cues, perceived quality, sacrifice and value) developed by Teas & Agarwal (2000) as components of consumer perception, are renewed by a Chinese population. Therefore, it theoretically results that the dimensions of the conceptual model and levels are also supported by the Chinese sample for this study.

The first six hypotheses of this study were supported by using ANOVA, ANCOVA tests and multiple regression tests. The results indicate that four extrinsic-cues (country-of-origin, brand name, store name and price) were significant positively related to perceived product quality. Price as a product cue was markedly related to perceived sacrifice. Both perceived quality and perceived sacrifice have appeared as strong relationships with perceived value, but have the reverse effects on perceived value. Perceived quality acted as a valuable mediating factor between each of four extrinsic cues and perceived value. However, the results show that the relationship between each extrinsic cue and perceived value was weakly or insignificantly mediated by perceived sacrifice. Thus, Hypothesis 7 is not supported. The result of the final hypothesis ( $H_8$ ), show that perceived sacrifice mediates the relationship between perceived quality and value, and is supported as hypothesised.

Both the current research and Teas and Agarwal's (2000) research findings show that four extrinsic cues have significant effects on perceived quality and that price cue has a significant effect on perceived sacrifice as the hypotheses expected. A major difference of this study, compared with Teas and Agrawal's (2000) is that perceived sacrifice did not mediate the relationship between extrinsic cues and perceived value for the current research.

The results summary of the current research is provided at the end of this section, which details results for each hypothesis.

## 4.6 SUMMARY OF HYPOTHESES RESULTS

In summary, the results of the current study (Table 4.14) almost support the generalisability of the conceptual model developed by Teas and Agarwal (2000). The following findings, as reported for the U.S. by Teas and Agarwal (2000), were supported by the data for this study in a Chinese population.

**Table 4.14 A summary of eight hypotheses results**

<b>Hypothesis</b>	<b>Support or not</b>	<b>Evidence</b>
H <sub>1</sub> : Consumers' perception of the favourability of country-of-origin image is positively related to quality.	<b>Supported</b> Except in low-store image condition	F=23.14, p=0.00
H <sub>2</sub> : Consumers' perception of the favourability of brand name is positively related to quality.	<b>Supported</b>	F=82.45, p=0.00
H <sub>3</sub> : Consumers' perception of the favourability of store name is positively related to quality.	<b>Supported</b> except in low-county condition	F=9.35, p=0.00
H <sub>4</sub> : Consumers' perception of price is positively related to quality.	<b>Supported</b> except in high-brand condition	F=6.45, p=0.00
H <sub>5</sub> : Consumers' perception of price is positively related to sacrifice.	<b>Supported</b>	F=133.01, p=0.00
H <sub>6</sub> : Consumers' perception of quality is positively related to perceived value.	<b>Supported</b>	F=105.46, p=0.00
H <sub>7</sub> : Consumers' perception of sacrifice is negatively related to perceived value.	<b>Not Supported</b>	F=0.97, p=0.33
H <sub>8</sub> : Consumer's perceptions of perceived sacrifice mediate the relationship between perceived quality and value.	<b>Supported</b>	F=4.64, p=0.03

## **5 CHAPTER V CONCLUSIONS**

### **5.1 INTRODUCTION**

This chapter presents the discussion of the hypotheses test results obtained from the previous chapter. The implications for both theory and business practice are also discussed. The conclusion of the research is given and the significance of the study is assessed. Finally, the limitations of the study and the possibilities for future research are discussed.

### **5.2 CONCLUSIONS ABOUT RESEARCH QUESTIONS AND HYPOTHESES**

The major purpose of the current study was to test the validity of Teas and Agarwal's (2000) model and its scales, as well as its cross national generalisability in a Chinese population. The conceptual model is identified as key antecedents-extrinsic cues (country-of-origin, brand name, store name and price) and mediating factors, perceived quality and perceived sacrifice, which are likely to affect perceived customer value. The discussion of each construct is formed in order to compare the influences of perceived value with the previous research findings of Teas and Agarwal (2000).

Most of the hypotheses are supported in the current research by the major relationships among the extrinsic cues, perceived quality, sacrifice and customer value, specified by Teas and Agarwal (2000). In fact, only one hypothesis was not supported, which was that perceived sacrifice is related to perceived value. The current research also tested the validity of the model by examining the extent of the relationship between perceived quality and value through perceived sacrifice. As a result, the mediation affects by perceived sacrifice in the relationship between perceived quality and value are supported. The potential explanation for both expected and unexpected results are discussed, together with some new findings addressed in a Chinese population. The results of the findings provide some useful insights to explain the evaluation attitudes of Chinese consumers.

### **5.2.1 Predictors of perceived product quality**

The starting point for discussion of hypotheses testing results in this research is whether the four antecedents significantly predict the perceived product quality. The results and findings of this study will be discussed and compared with the findings and results of the U.S. study by Teas and Agarwal (2000).

#### **5.2.1.1 Country-of-origin as perceived product quality cue**

The empirical results were compared with the original study (Teas & Agarwal, 2000) which represents similar findings that support the hypothesized positive linkage between country-of-origin and perceived product quality. Since local Chinese consumers lack information about foreign products, they may be more likely to rely on country-of-origin to alter their perception of perceived quality by simply judging the particular product country's reputation. This finding is consistent with previous studies' findings (e.g. Ahmed & d'Astous, 2004; Forsythe et al.,1999). The findings of this study indicate that there is a positive relationship between country-of-origin and perceived quality in a high-store image condition, but this is not supported in a low-store image condition. These findings are different from the findings for Western consumers. The possible explanation for the difference is that Chinese consumers are more likely to trust the product's country-of-origin image, which is displayed in high-image stores, and suspect the products' country-of-origin image which is represented in low-image stores.

#### **5.2.1.2 Brand name as perceived product quality cue**

The results indicate that the brand name is positively related to evaluation of product quality, which is in accordance with the original study of Teas and Agarwal (2000). This can be explained because Chinese consumers' perceptions of quality are also influenced by brand names when the other quality cues are controlled. This is similar to Western consumers. Since the results show that brand names have a marked effect on product quality evaluations under both high and low price levels' conditions, it is suggested that Chinese consumers rely heavily on the brand name to evaluate product quality. Because the population sample of the current research were students, this finding is consistent with the study by Fan and Xiao (1998) that showed that

young Chinese consumers are more brand conscious than Western consumers. This research is also supported by a similar finding of other two studies (Cui, 1997; Schlevogt, 2000), that brand names are becoming increasingly important for Chinese consumers when they evaluate product quality.

#### 5.2.1.3 Store name as perceived product quality cue

The store name is significantly related to Chinese consumers' perceived quality evaluation, which is consistent with the original findings of Teas and Agarwal's (2000) research conducted within a Western population. However, the findings of the current study are different from Teas and Agarwal's (2000) and indicate that the relationship between store name and perceived quality is supported under the high-country image condition, but is not supported in the low-country image condition. The possible explanation for the difference could be that Chinese consumers are more likely to rely on store cue to evaluate product quality because, compared with Western consumers, Chinese consumers have less experience with foreign goods. The findings of this study are also similar to the national survey (Li & Gallup, 1995) of the Chinese population that relies on store cues to evaluate perceived product quality. The possible explanation is that products that are displayed in the same store and come from high image countries are usually perceived to be of good quality. Products from low image countries, on the other hand, will be evaluated according to other cues. In most situations Chinese consumers, when evaluating products from a low-image country condition, are more likely to perceive the products as being of a low quality, especially when they are manufactured in a low-image country.

#### 5.2.1.4 Price as perceived product quality cue

The empirical results are partially similar to the original study (Teas & Agarwal, 2000) in that the price and perceived product quality relationship is represented as positive. In general, Chinese consumers mostly also use price as an evaluation cue to infer quality, particularly when they purchase unfamiliar products or lack other quality cues. However, the consumer's use of price to infer perceived quality may also depend on other factors, such as product categories and the price-levels difference within a certain category of products.

Additionally, the findings of the current study indicate that the relationships between price and brand cues affect the evaluation of a product's perceived quality. The findings are also consistent with Dawar and Parker's (1994) study that brand name paired together with price is most useful in determining perceived product quality. Price and brand cues are assumed to change together, which means that the effect on the evaluation of perceived quality is more significant when price is used together with a brand cue, rather than on its own (Brucks, Zeithaml, & Naylor, 2000). The major difference in the findings in the U.S. data is that the positive relationship between price and perceived quality found in the low-brand image condition was not supported under the high-brand name image condition in the findings of Chinese data. The possible explanation of the finding could be the huge variety of products with low-brand images or unfamiliar brand choices which are available in the Chinese market. In these circumstances, Chinese consumers are more likely to use price to measure perceived quality. On the other hand, if Chinese consumers found a famous brand with a lower than average price, they might still perceive the famous brand as a signal of high quality.

Therefore, the major point of difference between Western consumers and Chinese consumers is that price appears to play the most important role in measuring quality, especially under brand conditions. This finding is also consistent with previous studies (e.g. Lee & Lou, 1995; Sunil et al., 2001) in a Chinese population.

#### 5.2.1.5 Conclusions about antecedents of perceived quality

In summary, the results of this current research show that four antecedents of perceived quality (four extrinsic cues) influence perceived quality significantly, except under some conditions. For example, the positive relationship between country-of-origin and perceived quality was not supported under the low-store name image; the positive relationship between store name and perceived quality was not supported under low country image and the positive relationship between price and perceived quality was not supported under high-brand name image condition. The major differences between Chinese and Western consumers' use of extrinsic cues to evaluate product quality are that the Chinese consumers are more likely to use price together with brand name to evaluate a product's quality but Western consumers tend

to use brand name with store name to evaluate a product's quality. However, both Chinese and Western consumers appear to use the four extrinsic cues to evaluate product quality.

### **5.2.2 Price as perceived sacrifice cue**

This current research also showed that price is negatively related to perceived sacrifice. This is in accordance with the research findings of Teas and Agarwal (2000) and Dodds et al. (1991; 2002). The finding indicated that even when other information is also available, Chinese consumers are more likely to rely on price to evaluate product perceived sacrifice, which is similar to the way in which Western consumers measure.

Chinese consumers using price to evaluate product perceived sacrifice are more likely to use a price cue together with brand names. Since the finding of price-by-brand interaction is significant in both brand levels measuring perceived sacrifice, brand name does not seem to influence ratings of price acceptability among Chinese consumers. The possible explanation could be that brand name under both price-levels' conditions may be beyond the acceptable price range for different Chinese consumers. Moreover, this could also be explained as Chinese consumers are more sensitive to price and emphasis on quality, because of their limited amount of income and consumption experience with foreign goods in a modern free market system.

The finding of a positive relationship between price and perceived sacrifice is also supported by Teas and Agarwal (2000) in a Western population. Therefore, there was a significant use of price cues to evaluate perceived sacrifice by both Chinese and Western consumers.

### **5.2.3 Perceived value**

The overall results of the coefficients show that perceived quality and sacrifice significantly effect on evaluation of consumer perceived value. These findings are similar to the original study of Teas and Agrawal (2000) and support the hypotheses

that perceived quality is positively related to perceived value, and perceived sacrifice is negatively related to the perceived value.

However, the findings of the current research also indicate that the four extrinsic cues are directly linked with perceived value, which is not totally mediated by perceived sacrifice and perceived quality. In particular, the significance of perceived quality and perceived sacrifice together do not appear to have a significant effect on perceived value. Moreover, the pattern of results concerning the price has significant direct linkages with perceived value. The finding of a relationship between price and perceived value is similar to the study of Teas and Agarwal (2000), which indicated that Chinese consumers use price to evaluate a product by a similar degree as Western consumers do when assessing value. This finding is also consistent with the conclusions of Forsyth et al (1999) that indicated that Chinese consumers seem to use price perceptions primarily to determine value perceptions.

#### 5.2.3.1 Perceived quality as a predictor of perceived value

The findings of this current research showed similar results to Teas and Agarwal's (2000) that four extrinsic cues (country-of-image, brand name, store name and price) are significantly related to perceived value mediated by perceived quality. The direct impact of this interaction is also about extrinsic-cues' affect on perceived value that is significantly mediated by perceived quality and there is a non-significant effect on perceived value mediated by perceived sacrifice. The positive effects between perceived quality and perceived value were also proved in other research studies, for example, in the research with small households by Sweeney et al (1999) and in the research on the evaluation of mobile phones by Snoj et al (2004).

Since the Chinese participants in this research were international students who are studying in New Zealand, they may be influenced by Western culture compared with Chinese consumers in China who have less experience of foreign products in China.

#### 5.2.3.2 Perceived sacrifice as a predictor of perceived value

The results of the empirical test were not supported in Hypothesis 7 and there was a negative association between perceived sacrifice and perceived customer value. The

results represented by a Chinese population are not consistent with the findings of Teas and Agarwal's (2000) study. The results indicated that the effects of the three extrinsic-cues (brand name, store name and price) were not mediated by perceived sacrifice on Chinese consumers' evaluation of perceived value, when perceived quality was a mediating factor. In addition, without considering the influence of perceived quality, perceived sacrifice was a mediating factor with regard to the negative effect between extrinsic cues and perceived value. This also means that perceived quality plays a significant mediator role between extrinsic-cues and consumers perceived value in a Chinese population. A possible explanation of the findings may pertain to understanding that in the concept of perceived sacrifice, there are differences between Chinese consumers and Western consumers. As discussed earlier, the most popular manifestation of perceived sacrifice is risk. Teas and Agarwal (2001) extended the conceptual model and investigated the relationship between perceived quality and perceived value that is mediated by performance risk and the relationship between perceived sacrifices and perceived value mediated by financial risk. Another explanation of the difference in findings could be that, since the selected Chinese participants are international students who receive financial support directly from their parents, they may be less involved in perceived risk considerations and the results may not truly present the perceptions of the other Chinese consumers in China.

The results also show that perceived sacrifice has a negative impact on perceived value and perceived quality has positive effects on perceived value, influences of extrinsic-cues were not considered. This finding indicates that Chinese consumers use both perceived quality and perceived sacrifice to evaluate perceived value, which is consistent with the findings in the original research (Teas & Agarwal, 2000) with U.S. data. The possible explanation of this finding may be that perceived sacrifice is significant in determining perceived value, especially when the product-purchase is in a high price-level range and infrequently purchased. For example, Sweeney et al. (1999) found that perceived sacrifice is a very important factor in determining perceived customer value for home appliance products.

Furthermore, the results showed that Chinese consumers are more likely rely on perceived quality as a mediator between extrinsic-cues and perceived value, rather

than perceived sacrifices. The findings can be explained by group orientation (Schutte & Ciarlante, 1998) as although the higher price relates to higher sacrifice when evaluating perceived value, it gives Chinese consumers a greater sense of “standing out” in the group.

#### 5.2.3.3 Perceived sacrifice as a mediator

The findings of the current research show the mediation effects by perceived sacrifice, in the relationship between perceived quality and value. This finding is consistent with Snoj et al. (2004). The possible explanation is that, although the previous result of the current study showed that perceived sacrifice does not mediate the relationship between extrinsic cues and perceived value, perceived sacrifice has a significant negative relationship with perceived value. Snoj et al. (2004) also note that perceived quality has a direct effect on perceived value and at the same time an indirect effect by reducing perceived risks. Therefore, it is more important for this research to validate indirect effects between perceived quality and value through perceived sacrifice in a Chinese population. As a result, Chinese consumers use perceived quality to evaluate consumer perceived value through reducing perceived sacrifice.

#### 5.2.4 Summary of findings

The findings of Chinese consumer perceptions of evaluation are similar to Western consumers in most situations, such as brand conscious from both quality and value perspectives. The current research findings are also consistent with other research, which indicates that Chinese consumers seem to rely more on the four extrinsic cues to judge value than Western consumers. This is because Chinese consumers have more limited consumption experience, especially with foreign products. Chinese consumers’ use of extrinsic-cues differs from Western consumers in some ways, which includes sensitivity to price and emphasis on quality, stemming from differing amounts of disposable income. Chinese consumers consider lower than average price-level purchases with famous brands as a big bargain, with perceived high product quality. The new finding is that perceived sacrifice is a good mediator between perceived quality and value in a Chinese population. It concludes that,

similar to Western consumers, Chinese consumers also use both perceived quality and sacrifice to evaluate perceived value.

### **5.3 IMPLICATIONS**

The implications of this research are provided as critical insights from the both the theoretical perspective and practice perspectives to assess marketing literature and for business marketing managers.

#### **5.3.1 Implications for theory**

Theoretically, the research contributes to the marketing literature on consumer evaluation perceptions in three ways. Firstly, the results, which provide insights into the issue of the generalisation and validate the conceptual model, are consistent between the findings of U.S. consumers and Chinese consumers. The positive relationship between price and consumer perceived value play a very important role in the product evaluation process, especially in a Chinese population. Secondly, the use of the adjusted conceptual model in a Chinese population, based on Teas and Agarwal's (2000) model, provides the first efforts to explore Chinese perceptions of consumer value through extrinsic cues usage. Thirdly, there is validation of the adjusted conceptual model by extending the mediation affects in the relationship between perceived quality through perceived sacrifice and value in a Chinese population. This may raise a new issue, which suggests concentrating on the mediation affects and rebuilding the conceptual model.

#### **5.3.2 Implications for business**

The findings of this study discussed that Chinese consumers in an emerging market and economically less developed country are also heavily reliant on extrinsic-cues to measure a product's perceived value. Due to income disparity in China, this study provides meaningful implications for managers targeting consumers from urban rather than poorer rural areas. Another reason for targeting urban consumers is that the sample selections for this research are international students who come from average or above average income families in China. Although Chinese consumers from urban areas may have less income than in high-income countries, such as Japan

and the U.S., their consumption of purchasing power is rising rapidly with a varied range of products and services. The population of these Chinese consumers is growing and over three hundred million Chinese consumers in China and around the world are willing to buy foreign products and luxury goods. Therefore, marketers who better understand their consumers and have knowledge about perceptions of product evaluation, are more likely to be successful in today's competitive market environment. Based on the large product-cues effect on product perceived quality, sacrifice and value, the following section is aimed at enabling managers to better target Chinese consumers, thereby increasing their chances of success.

Since country-of-origin plays a very important role in Chinese consumers' evaluation of product quality and perceived value, this may suggest that country-of-origin can be a very important tool in marketing foreign products to Chinese consumers and the right selection of product country will help product promotion and quality recognition. Thus, it is very important for companies to choose an appropriate manufacturing location. Companies with product that have a positive country-of-origin image in China might benefit from promotional campaigns by highlighting the country-of-origin of their products.

Based on the obvious effects of brand recognition product evaluation found in this research, it appears that Chinese consumers may be extremely sensitive to brand image. The product that has a famous brand image in the market certainly has an advantaged position compared to other brands within the same product choices. This is consistent with the finding that to successfully market products to Chinese consumers, managers may be required to use a stronger brand image for the products. It is strongly recommended that managers emphasise building up an impressive brand-image for their product in order to target Chinese consumers.

Respected distribution outlets can increase Chinese consumers' perceptions of evaluation on product quality. However, the choice of outlets can be less important because the effects of store image can be overwhelmed by other influential factors.

Chinese consumers are more likely to rely on price to evaluate product perceived quality and value in most cases. On the other hand, if the price is lower than the

reasonable average price-level, Chinese consumers may consider the product to be as a bargain, with perceived high quality. Therefore, an overseas business considering entry into the Chinese market, or local business managers targeting Chinese consumers, should not be afraid to use discount and price promotions in China. In addition, because of the complex relationship between price and perceived value, which is mediated by perceived sacrifice and perceived quality, it is very difficult for managers to decide the price levels of various products. However, the price level must be in accordance with the firm's planned strategic position and a thorough and constant benchmarking should be performed before the decision is made.

To summarise, these marketing implications demonstrated some useful findings for managers to balance between emphasising on cultural differences and playing up these differences at the individual consumer level when adjusting their international segmentation and marketing strategies.

## **5.4 LIMITATIONS AND FUTURE RESEARCH**

This section discusses a number of limitations that need to be acknowledged. Based on the acceptance of these limitations, suggestions for future research on the conceptual model and research are made in the following section.

### **5.4.1 Limitations**

The results generated by this study should be interpreted with caution due to a number of limitations that need to be acknowledged in the research. Therefore, the experimental nature of the current study's findings generalisability to other settings must be approached with caution.

#### **5.4.1.1 Language barriers**

Since both the pre-test and the final questionnaire are administered in English, there are some difficulties relating to the understanding of the questions from the Chinese participants. A follow up of the final questionnaire showed that some of the language used was not straightforward enough for the respondents to understand. For example, many participants asked about the meaning of "workmanship". As the results, some

respondents may have misinterpreted a few questions. This could have altered the findings of the research.

#### 5.4.1.2 Sample selection problems and limited size

In order to be accurate, and maintain consistency of the original research, the sample must be chosen using random sample selection. According to Siegel (1997) the random sample must satisfy two criteria: first, each population unit has an equal chance to be drawn and second, each sample must be chosen independently. The sample selection in this research did not meet the second criterion. This is because the sample used in this research was more of a convenience sampling as the researcher is familiar with the university and tertiary institutes which have a large Chinese population. However, each sample was assigned to every treatment randomly.

This sample is confined to the Auckland region with Chinese students who are enrolled in business studies at tertiary level. The Chinese students who participated in this research are somewhat different from local Chinese. For example, there are some cultural and sub-cultural differences between local Chinese and Chinese abroad. The overseas Chinese tend to appreciate Western culture, or at least intend to accept the different culture more than Chinese consumers in China. Since Chinese participants in this research were international students who receive most of their financial support directly from their parents, their financial situation may be different from local Chinese. Forsythe et al. (1999) suggested that financial situation influences buying behaviour. Therefore the student participants may not represent most Chinese consumers' perceptions. In other words, large numbers of modern and young generation Chinese consumers participated in the survey, which may not represent perceptions of many traditionalists.

#### **5.4.2 Future research**

In order to consider the identified research limitations, there is a need for future research into this area to examine the conceptual work which was specified by Teas and Agarwal (2000) across countries. There are some recommendations that can be made for future research.

First, a Chinese language questionnaire should be used to avoid the language barriers and minimise the misunderstanding that may have occurred in the English form. Second, it is strongly recommended that the survey should be administered in China to ensure a better representative rate of the entire population. Thus, future research should seek to employ more valuable sampling procedures with local Chinese universities. Third, from the nature of the study point of view, product cues usage may vary for different product categories. Since this research employed one product only, the product effect should be conducted across other product categories and product environments. Fourth, with the progress of globalisation, further studies should investigate product cue country-of-origin effects from two perspectives: country of design and country of manufacturing. Fifth, the indirect effects between perceived quality and perceived value through perceived sacrifice have been found by Snoj et al. (2004) as well as validated in the current research. Teas and Agarwal's (2000) model may be rebuilt in a way that could better explain the evaluation process.

## **5.5 OVERALL CONCLUSION**

The principle objective of this comparative study was to explore Chinese consumer perceptions of perceived quality, sacrifice and value by using extrinsic-cues based on the conceptual model specified by Teas and Agarwal (2000).

The gaps between Western consumers and Chinese consumers within the reviewed literature were identified and linked to the research problems of this study. Generally, Chinese consumers are similar to Western consumers in using country-of-image, brand name, store name and price as basic extrinsic cues to evaluate perceived quality, sacrifice and consumer value. In particular, under the multiple-cues circumstance, the extrinsic-cues still influence on Chinese perception of quality and ratings of value. Price was reviewed as an insignificant role in signalling quality to Chinese consumers, which is a major difference from Western consumers. In many cases, Chinese consumers use brand name as a cue to evaluate product quality even more than Western consumers.

A measurement instrument was adapted from the original study (Teas & Agarwal, 2000), which employed experimental full-factorial design based upon a  $2 \times 2 \times 2 \times 2$

between subjects. The items for the instruments were adopted for the existing scale and justified with a Chinese population to make them relevant for use in this study. A sample of 320 Chinese students from five tertiary institutions in Auckland was randomly assigned to sixteen different treatments in the survey. The responses obtained were analysed statistically by using ANOVA, ANCOVA and multiple regressions to test hypotheses. The final results were compared with the original research (Teas & Agarwal, 2000) to analyse the difference of perceptions between Chinese consumers and Western consumers on perceived quality, sacrifice and value with the extrinsic-cues usage.

The discussion of the results was compared with the study of Teas and Agarwal (2000) which suggests that the Chinese consumers' behaviours are similar to Western consumers in most situations. For example, brand building is a critical cue to the desired success because it can promote perceptions from both quality and value perspectives. However, it has been found that the ways that Chinese consumers use product evaluation cues are different to how Western consumers use them. The major difference is that, if the price is lower than the reasonable average price-level, Chinese consumers may consider the product to be a bargain, with perceived high quality. This may suggest that marketing managers can use discount and price promotions in China. It was found that Chinese consumers are more likely to evaluate product quality than use country image under a high-image store condition. Therefore, this suggests that marketers should highlight the positive country image of their products to promote their products and distinguish them between their competitors' in a high-image store condition. Other findings of the current research for marketing were also discussed, with implications and recommendations for managers. Suggestions were made for future research based on a number of limitations of the current research and Teas and Agarwal's (2000) conceptual model. Based on the current research, it is strongly recommended that the survey should be administered in Chinese characters and conducted in China to ensure a better representative rate of the entire population. Since the perceived sacrifice has been found as a mediator serving between perceived quality and value, it could be suggested that Teas and Agarwal's (2000) model may be rebuilt in a way which could better explain the evaluation process.

To summarise, this study offers insights which allow better understanding of Chinese consumers' perceptions of product evaluation, based on Teas and Agarwal's (2000) study. The findings should be able to provide advice for managers to formulate appropriate strategies. Finally, marketers must carefully plan their marketing interventions and manipulate extrinsic cues for the best outcome effects cautiously, according to the different situations in the evaluation process.

## 6 REFERENCES

- Aaker, D. A., Kumar, V., & Day, G. S. (2001). *Marketing Research*. New York: John Wiley and Sons.
- Aaker, D. A., Stayman, D. M., & Hagerty, M. R. (1986). Warmth in advertising: measurement, impact, and sequence effects. *Journal of Consumer Research*, 12, 365-381.
- Agarwal, S., & Sikri, S. (1996). Country image: consumer evaluation of product category extensions. *International Marketing Review*, 13(4), 23-37.
- Ahmed, Z. U., Johnson, J. P., Ling, C. P., Fang, T. W., & Hui, A. K. (2002). Country-of-origin and brand effects on consumers' evaluations of cruise lines. *International Marketing Review*, 19(2/3), 279-302.
- Anderson, J. C., & Narus, J. A. (1998). Business marketing: understand what customer value. *Harvard Business Review*, 76(6), 53-65.
- Ang, S. H. (1996). Chinese consumers' perception of alpha-numeric brand names. *Asia Pacific Journal of Marketing and Logistics*, 8(1), 31-47.
- Arnthorsson, A., Berry, W. E., & Urbany, J. E. (1991). Difficulty of pre-purchase quality inspection: conceptualization and measurement. *Advances in Consumer Research*, 18, 217-224.
- Assael, H. (1992). *Consumer Behaviour and Marketing Action* (4<sup>th</sup> ed.). United States of America: PWS-Kent, Wadsworth, Inc.
- Baker, J., Grewal, D., & Parasuraman, A. G. (1994). The influence of store environment on quality inferences and store image. *Academy of Marketing Science*, 22(4), 328-339.
- Baumgartner, H. (1995). On the utility of consumers' theories in judgments of covariation. *Journal of Consumer Research*, 21, 634-643.
- Bearden, W. O., & Shimp, T. A. (1982). The use of extrinsic cues to facilitate product adoption. *Journal Marketing Research*, 19, 229-239.
- Berma, B., & Joel R, E. (1995). *Retail management: a strategic approach* (6<sup>th</sup> ed.). London: Prentice-Hall International London Press.
- Bilkey, W. J., & Nes, E. (1982). Country-of-origin effects of product evaluation. *Journal of International Business*, 13, 89-99.

- Boddewyn, J. J. (1981). Comparative marketing: the first twenty-five years. *Journal of International Business Studies*, 12, 61-79.
- Bolton, R. N., & Drew, J. H. (1991). A multistage model of consumers' assessments of service quality and value. *Journal of Consumer Research*, 18, 375-384.
- Broniarczyck, S. M., & Alba, J. W. (1994). Theory versus data in prediction and correlation tasks. *Organizational Behaviour and Human Decision Processes*, 57, 117-139.
- Broydrick, S. C. (1998). Seven laws of customer value. *Executive Excellence*, 15, 15-30.
- Brucks, M., Zeithaml, V. A., & Naylor, G. (2000). Price and brand name as indicators of quality dimensions for consumer durables. *Journal of the Academy of Marketing Science*, 28(3), 359-374.
- Bruning, E. R. (1997). Country of origin, national loyalty and product choice: the case of international air travel. *International Marketing Review*, 14(1), 59-74.
- Burns, A. C., & Bush, R. F. (2000). *Marketing Research*: New Jersey; Prentice-Hall.
- Calder, B., J., & Burnkrant, R. E. (1977). Interpersonal influence on consumer behaviour: an attribution theory approach. *Journal of Consumer Research*, 4, 29-38.
- Carman, J. M. (1977). Values and consumption patterns: a closed loop. *Advances in Consumer Research*, 5, 403-407.
- Cervino, J., Sanchez, J., & Cubillo, J. M. (2005). Made in effect, competitive marketing strategy and brand performance: an empirical analysis for Spanish brands. *Journal of American Academy of Business*, 2(6), 237-243.
- Chan, K. W. (1995). Information content of television advertising in China. *International Journal of Advertising*, 14, 365-373.
- Chang, L. (2001). Modern trade fuels China's retail growth. *The Wall Street Journal*, 12, B7.
- Chang, T. Z., & Wildt, R. A. (1994). Price, product information, and purchase intention: an empirical study. *Journal of the Academy of Marketing Science*, 22, 16-17.
- Chao, P. (1993). Partitioning country of origin effects: consumer evaluations of a hybrid product. *Journal of International Studies*, 24(2), 291 - 306.

- Chen, Z., & Dubinsky, A. J. (2003). A conceptual model of perceived customer value in e-commerce :a preliminary investigation. *Psychology and Marketing*, 20(4), 323-324.
- Cordell, V. V. (1992). Effects of consumer preferences for foreign sourced products. *Journal of International Business Studies*, 23(251-69).
- Cravens, D. W., Holland, C. W., Lamb, C. W. J., & Moncrief, W. C. (1988). Marketing's role in product and service quality. *Industrial Marketing Management*, 17(4), 285-304.
- Crellin, M. (1998). Young China welcomes west. *Marketing Week*, 21, 38 -39.
- Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effect of quality, value, and customer scarification on consumer behavioural intentions in service environments. *Journal of Retailing*, 76(2), 193-218.
- Cui, C. (1997). The name game: foreign and PRC brands race to build their reputations and market shares in China. *The China Business Review*, 24(6), 40-45.
- Darley, W. K., & Lim, J.-S. (1993). Assessing demand artefacts in consumer research: an alternative perspective. *Journal of Consumer Research*, 20, 489-495.
- Dawar, N., & Parker, P. (1994). Marketing universals: consumers' use of brand name, price, physical appearance, and retailer reputation as signals of product quality. *Journal of Marketing*, 58(2), 81-95.
- de Chernatony, L., & McDonald, M. (1992). *Creating Powerful Brand*. Oxford: Butterworth-Heinemann.
- Dhruv, G., Krishan, R., Baker, J., & Borin, N. (1998). The effect of store name, brand name and price discounts on consumers' evaluation and purchase intentions. *Journal of Retailing*, 74(3), 331-352.
- Dodds, W. B., & Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluation. *Advances in Consumer Research*, 12, 85-90.
- Dodds, W. B., Monroe, K. B., & Dhruv, G. (1991). Effect of price, brand and store information on buyer's product evaluations. *Journal of Marketing Research*, 307-319.
- Douglas, P. S., & Craig, S. (1992). Advances in international marketing. *International Journal of Research in Marketing*, 291-318.

- Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research*, 21, 119-134.
- Eckhardt, G. M., & Houston, M. J. (1998). *Consumption as self-presentation in a collectivist society*: Asia-Pacific Conference, Association for Consumer Research, Hong Kong.
- Erickson, G. M., & Johansson, J. K. (1985). The role of price in multi-attribute product evaluations. *Journal of Consumer Research*, 12(2), 195-199.
- Eriksson, K., Majkgard, A., & Sharma, D., d. (1999). Service quality by relationships in the international market. *The Journal of Services Marketing*, 13(4/5), pp. 361-375.
- Eroglu, S. A., & Machleit, k. A. (1988). Effects of individual and product-specific variables on utilising country of origin as a product quality cue. *International Business Review*, 6(6), 27-41.
- Ettenson, R., Gaeth, G., & Wagner, J. (1988). Evaluating the effect of country-of-origin and the 'made in the U.S.A.' campaign: A conjoint approach. *Journal of Retailing*, 15, 85-100.
- Fan, J. X., & Xiao, J. J. (1998). Consumer decision-making styles of young-adult Chinese. *The Journal of Consumer Affairs*, 32(2), 275 - 294.
- Feick, L. F., & Price, L. (1987). The market maven: a diffuser of marketplace information. *Journal of Marketing*, 51, 83-97.
- Fisher, A. B. (1984). The Ad Biz Gloms onto 'Global'. *Fortune*, 77-80.
- Forsythe, S., Kim, J. O., & Petee, T. (1999). Product cue usage in two Asian markets: a cross-cultural comparison. *Asia Pacific Journal of Management*, 16(2), 275-292.
- Gale, B. T. (1994). *Managing Customer Value*. New York: The Free Press.
- Gilbert, A. C., JR. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, XVI, 64-73.
- Grayson, K., & Ambler, T. (1999). The dark side of long-term relationships in marketing services. *Journal of Marketing Research*, XXXVI, 132-141.
- Grewal, D., Gotlieb, J., , & Marmorstein, H. M. (1994). The moderating effects of message framing and source credibility on the price-perceived risk relationship. *Journal of Consumer Research*, 8, 145-153.

- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*: New Jersey: Prentice-Hall.
- Hair, J. F., Bush, R. P., & Ortinau, D. J. (2003). *Marketing Research within a changing information Environment*. New York: McGraw-Hill Companies, Inc.
- Hall, E. T. (1966). *The Hidden Dimension*. New York: Doubleday & Co. Inc.
- Han, C. M. (1989). Country image or summary construct? *Journal of Marketing Research*, 26(2), 222-229.
- Han, C. M., & Terpstra, V. (1988). Country-of-origin effects for uni-national and bi-national products. *Journal of International Business Studies*, 19(2), 235-255.
- Haubl, G. (1996). A cross-national investigation of the effects of country-of-image and brand name on the evaluation of a new car. *International Marketing Review*, 13(5), 76-97.
- Herr, P. M., Kardes, F. R., & Kim, J. (1991). Effects of word-of-mouth and product attribute information on persuasion: an accessibility-diagnostic perspective. *Journal of Consumer Research*, 17, 454-462.
- Heslop, L. A., Papadopoulos, N., & Bourk, M. (1998). An interregional and intercultural perspective on sub-cultural differences in product evaluations. *Canadian Journal of Administrative Sciences*, 15(2), 113-127.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organisations. *Journal of Management*, 21(5), 967-988.
- Hofstede, G. H. (1980). *Culture's Consequences: International Differences In Work-Related Values*. California: Beverly Hills.
- Hong, S. t., & Wyer, R. S. J. (1989). Effects of country-of-origin and product attribute information on product evaluation: an information-processing perspective. *Journal of Consumer Research*, 16(2), 175-187.
- Jacoby, J., & Olson, J. (1985). *Perceived quality*. Lexington: Lexington Books/D.C. Heath.
- Johansson, J. K. (1989). Determinants and effects of the use of 'made in' labels. *International Marketing Review*, 6(1), 47-58.
- Johansson, J. K., Douglas, P. S., & Nonaka, I. (1985). A assessing the impact of country-of-origin on product evaluations: a new methodological perspective. *Journal of Marketing Research*, 6, 388-394.

- Johansson, J. K., & Moinpour, R. (1977). Objective and perceived similarity of Pacifica rim countries. *Columbia Journal of World Business Studies*, 11, 65-76.
- Kardes, F. R., Cronley, M. L., Kellaris, J. J., & Posavac, S. S. (2004). The role of selective information processing in price-quality inference. *Journal of Consumer Research*, 31(2), 368-374.
- Kerin, R. A., Jain, A., & Howard, D. J. (1992). Store shopping experience and consumer price-quality-value perceptions. *Journal of Retailing*, 68, 376-397.
- Kim, J. O., Forsythe, S., Gu, Q., & Moon, S. J. (2002). Cross-culture consumer values, needs and purchase behaviour. *Journal of Consumer Marketing*, 19(6), 481-502.
- Kotler, P., Ang, S. H., Leong, S. M., & Tan, C. T. (1999). *Marketing management: An Asian perspective*. Singapore: Prentice-Hall (Singapore).
- Lee, M., & Lou, Y.-C. (1995). Consumer reliance on intrinsic and extrinsic cues in product evaluations. *Journal of Applied Business Research*, 12(1), 21-29.
- Levitt, T. (1983). The globalization of markets. *Harvard Business Review*, 61, 92-102.
- Li, D., & Gallup, A. M. (1995). In search of the Chinese consumer. *The Chinese Business Review*, 22(5), 19 - 22.
- Lichtenstein, D., & Burton, S. (1989). *The relationship between perceived and objective price quality*: J Mark Res.
- Lichtenstein, D., & Ridgway, N. M. (1993). Price perceptions and consumer shopping behaviour: a field study. *Journal of Marketing Research*, 30(2), 234 - 245.
- Lillis, C. M., & Narayana, C. (1974). Analysis of made-in product image-an exploratory study. *Journal of International Business*, 5(1), 119-127.
- Lim, J.-S., & Darley, W. K. (1997). An assessment of demand artefacts in country-of-origin studies, using three alternative approaches. *International Marketing Review*, 14(4), 201-216.
- Lundstrom, W. J., Lee, O. W., & White, D. S. (1998). Factors influencing Taiwanese consumer preference for foreign-made white goods: USA versus Japan. *Asia Pacific Journal of Marketing and Logistics*, 10(3), 5-15.

- MacMillian, J. C., & McGrath, R. G. (1997). Discovering new points of differentiation. *Harvard Business Review*, 75, 19-28.
- Malhotra, N. K., & McCort, J. D. (2001). A cross-cultural comparison of behavioural intention models: theoretical consideration and an empirical investigation. *International Marketing Review*, 18(3), 235-253.
- Maronick, T. (1995). An empirical investigation of perceptions of 'made in USA's claims. *International Business Review*, 12(3), 15-30.
- Marton-Williams, J. (1986). *Consumer Market Research Handbook*. New York: Elsevier Science Publisher.
- McDaniel, C., & Gates, R. (2001). *Marketing Research Essentials* (3<sup>rd</sup> ed.). South-Western: Intl Thomson Education Group.
- McDonald, W. J. (1995). American versus Japanese consumer decision making: an exploratory cross-cultural content analysis. *Journal of International Consumer Marketing*, 7(3), 81-94.
- Monroe, K. B. (1990). *Price: Making profitable decisions*. New York: McGraw-Hill Book Company.
- Monroe, K. B., & Chapman, J. D. (1987). Framing effect on buyers' subjective product evaluations. *Advances in Consumer Research*, 14, 193 -197.
- Monroe, K. B., & Krishman, R. (1985). The effects of price on subjective product evaluations. In *Perceived Quality* (pp. 209-232). Lexington, MA: Lexington Books.
- Nebenzahel, I. D., & Jaffe, E. D. (1996). Measuring the joint effect of brand and country image on consumer evaluation of global products. *International Marketing Review*, 13(4), 5-22.
- Nelson, P. (1970). Information and consumer behaviour. *Journal of Political Economy*, 78(2), 311-329.
- Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- Nurphy, P. E., & Enis, B. M. (1986). Classifying products strategically. *Journal of Marketing*, 50(24-42).
- Ohmae, K. (1985). *Triad Power: The Coming Shape of Global Competition*. New York: The Free Press.

- Okechuku, C., & Onyemah, V. (1996). Nigerian consumer attitudes towards foreign and domestic products. *Journal of International Business Studies*, 30(3), 611-622.
- Olshavsky, R. W. (1985). *Perceived Quality*. Lexington, MA: Lexington Books.
- Olshavsky, R. W., Aylesworth, A., & Kempf, D. (1995). The price - choice relationship: a contingent processing approach. *Journal of Business Research*, 33, 207-218.
- Olson, J. C. (1977). Price as an information cue: effects in product evaluations, in consumer and industrial buying behaviour. In (pp. 267-286). New York: North Holland.
- Olson, J. C., & Jacoby, J. (1972). Cue utilisation in the quality perception process. *Advances in Consumer Research*, 12, 167-179.
- Padula, G., & Busacca, B. (2005). The asymmetric impact of price-attribute performance on overall price evaluation. *International Journal of Service Industry Management*, 16(1), 28-54.
- Pan, Y., & Schmitt, B. H. (1995). What's in a name? An empirical comparison of Chinese and Western brand name. *Asia Pacific Journal of Marketing*, 4, 7-16.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing Research*, 49(4), 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1998). SERVQUAL: A multiple item scale for measuring customer perceptions of service quality. *Journal of Marketing*, 64, 12-40.
- Perry, C. (1998). A structured approach for presenting theses. *Australasian Marketing Journal*, 6(1), 63-85.
- Phinney, J. S. (1992). The multi-group ethnic identity measure: a new scale for use with diverse group. *Journal of Adolescent Research*, 7, 156-176.
- Porter, M. E. (1985). Competitive advantage: Creating and sustaining superior performance. In. New York: The Free Press.
- Quester, P. G., & Chong, I. (2001). Validating acculturation models: the case of the Australian-Chinese consumers. *Journal of Consumer Marketing*, 3, 203-218.
- Raghubir, P., & Corfman, K. (1999). When do price promotions affect pre-trial brand evaluations? *Journal of Marketing Research*, 36, 211-222.

- Rao, A. R., & Monroe, K. B. (1988). The moderating effect of prior knowledge on cue utilization in product evaluations. *Journal of Consumer Research*, 15, 253-264.
- Rao, A. R., & Monroe, K. B. (1989). The effect of price, brand name, and store name on buy's perceptions of product quality: An integrative review. *Journal of Marketing Research*, 351 -357.
- Rasmussen, J. L. (1990). Analysis of Likert-scale data : a reinterpretation of gregoire and Driver. *Psychological Bulletin*, 105(1), 167-170.
- Reisz, P. (1979). Price-quality correlations for packaged good products. *Journal of Consumer Affaires*, 13, 236-247.
- Remich, N. C. (1995). China or bust. *Appliance Manufacturer*, 43(4), 68.
- Richardson, P. S., Kick, A. S., & Jian, A. K. (1994). Extrinsic and intrinsic cue effects on perceptions of sore brand quality. *Journal of Marketing*, 58(28-30).
- Rokeach, M. S. (1973). *The Nature of Human Value*. New York: Free Press.
- Roselius, T. (1971). Consumer ranking of risk reduction methods. *Journal of Marketing*, 35, 56-61.
- Roth, M. S., & Romeo, J. B. (1992). Matching product category and country image perceptions: a framework for managing country-of-origin effects. *Journal of International Business Studies*, 23(3), 477-497.
- Rowley, J. (1998). Quality measurement in the public sector: some perspectives from the service quality literature. *Total Quality Management*, 9(2/3), 321-335.
- Sanders, M., P. & Thornhill, A. (2003). *Research Method For Business Students*: Harlow :Pearson.
- Scarry, J. (1997). Making the consumer connection. *The China Business Review*, 24(4), 40-42.
- Schlevogt, k. A. (2000). The branding revolution in China. *The China Business Review*, 27(3), pp. 52-57.
- Schutte, H., & Ciarlante, D. (1998). *Consumer Behaviour in Asia*. New York University, New York.
- Schwarz, N., & Clore, G. L. (1988). How do I feel about it? the informative function of affective states. In *Affect, Cognition, and Social Behaviour* (Vol. 44-62). Toronto: Hogrefe.

- Scitovsky, T. (1945). Some consequences of the habit of judging quality by price. *The Review of Economic Studies*, 12(32), 100-105.
- Scott, C. A., & Yalch, R. F. (1980). Consumer response to initial product trial: a Bayesian analysis. *Journal of Consumer Research*, 7, 32-41.
- Sekaran, U. (2003). *Research Methods for Business Students: A Skill Building Approach*. United States of America: Hermitage publishing services.
- Semeijn, J., van Riel, A. C. R., & Ambrosini, A. B. (2004). Consumer evaluations of store brands: effects of store image and product attributes. *Journal of Retailing & Consumer Services*, 11(4), 247.
- Shimp, T. A., & Bearden, W. O. (1982). Warranty and other extrinsic cue effects on consumers' risk perceptions. *Journal of Consumer Research*, 9, 38 - 46.
- Siegel, A. F. (1997). *Practical business statistics* (3<sup>rd</sup> ed.). Chicago Il: Irwin.
- Slater, S. F., & Narver, J. C. (2000). Intelligence generation and superior customer value. *Journal of the Academy of Marketing Science*, 28(1), 120-128.
- Snoj, B., Pisnik, K. A., & Damijan, M. (2004). The relationships among perceived quality, perceived risk and perceived product value. *Journal of Product & Brand Management*, 13(3), 156-169.
- Sproles, G. (1977). New evidence on price and quality under asymmetric information. *Journal of Consumer Affairs*, 11(1), 63-77.
- Srinivan, N., Jian, S. C., & Sikand, K. (2004). An experimental study of two dimensions of country-of-origin (manufacturing country and branding country) using intrinsic and extrinsic cues. *International Business Review*, 13, 65-82.
- Sunil, E. (1993). The price-warranty contract and product attitudes. *Journal of Business Research*, 25, 135-141.
- Sunil, E., Abhik, R., & Leslie, S. C. Y. (2001). The universality of the signal theory for products and services. *Journal of Business Research*, 52(2), 175-187.
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: a study in a retail environment. *Journal of Retailing*, 75(1), 77-105.
- Teas, R. K., & Agarwal, S. (2000). The effects of extrinsic product cues on consumers' perception of quality, sacrifice, and value. *Journal of the Academy of Marketing Science*, 28(2), 278-290.

- Teas, R. K., & Agarwal, S. (2001). Mediating role of perceived risk. *Marketing Theory and Practice*, 9(4), 1-14.
- Tellis, G. J., & Gaeth, G. J. (1990). Best value, price-seeking, and price aversion: the impact of information and learning on consumer choices. *Journal of Marketing*, 54, 34-45.
- Tes, D. K., & Gorn, G. J. (1993). An experiment on the salience of country-of-origin. *Journal of International Marketing*, 19(1), 57-76.
- Tes, D. K., Lee, K., Vertinsky, I., & Wehrung, D. (1998). Does culture matter? across cultural study of executives' choice, decisiveness, and risk adjustment in international marketing. *Journal of Marketing*, 52(4), 81-95.
- Thorelli, H. B., Lim, J. S., & Ye, J. (1988). Relative important of country-of-origin, warranty and retail store image on product evaluation. *International Marketing Review*, 6(1), 35-44.
- Trochim, W. M. K. (2001). *Research Methods Knowledge Base* (2<sup>nd</sup> ed.). Cincinnati, OH: Atomic Dog Publishers.
- Uлага, W., & Chacour, S. (2001). Measuring customer-perceived value in business markets. *Industry Marketing Management*, 20(2), 193-153.
- Varian, H. R. (1987). *Intermediate Microeconomics: A Modern Approach*. In. New York, NY: Norton & Company.
- Vijayasarathy, L. R., & Jones, J. M. (2000). Print and Internet catalog shopping: Assessing attitudes and intentions. *Internet Research*, 10(3), 191-202.
- Wang, C. K., & Lamb, C. W. J. (1983). Foreign environmental factors influencing American consumers' predisposition towards European products. *Journal of the Academy of Marketing Science*, 8, 346-356.
- Wheatley, J. J., & Chiu, J. Y. (1977). The effects of price, store image, and product and respondent characteristics on perception of quality. *Journal of Marketing Research*, 5, 181 -186.
- Wikie, W. L. (1994). *Consumer Behaviour*. New York: Von Hoffman Press.
- Wood, C. M., & Scheer, L. K. (1996). Incorporating perceived risk into models of consumer deal assessment and purchase intention. *Advances in Consumer Research*, 23, 399-404.
- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139-153.

Wyer, R. S., & Srull, T. K. (1989). *Memory and Cognition in Its Social Context*. Hillsdale, NJ: Lawrence, Erlbaum.

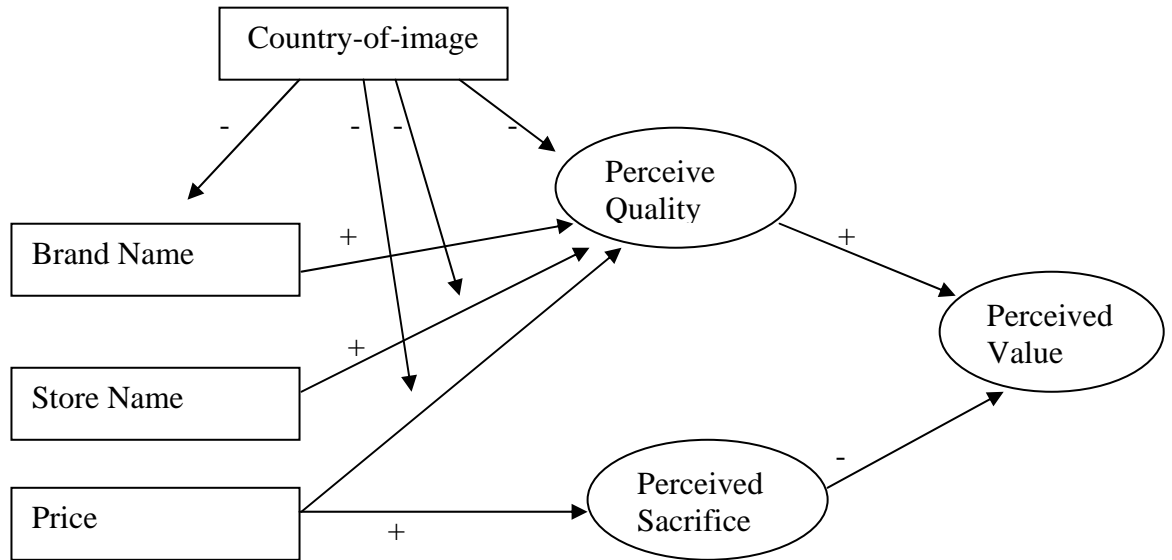
Yau, O. (1988). Chinese cultural values: their dimensions and marketing implications. *European Journal of Marketing*, 22(5), 44-57.

Yau, O. (1994). *Consumer Behaviour in China: Customer Satisfaction and Cultural Values*. London: Rutledge.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing Research*, 52, 2-22.

## 7 APPENDIXES

### 7.1 A model of consumers' perceptions of value - Teas & Agrawal (2000)



## 7.2 Pre-Test Questionnaire

### PRE-TEST QUESTIONNAIRE

I am undertaking research at the Auckland University of Technology on the role of identifying some of the factors that will influence Chinese perception of product quality and value. I would be grateful if you could spare five minutes to complete this questionnaire and return it to me. All information will be treated in confidence.

*Please consider the answers as if you are living in China rather than in New Zealand*

**Direction:** The following questions concern your feelings about wrist-watches. Just circle the number that corresponds most closely to your view.

Do any of the following countries convey a high status or prestige image of making wrist-watches?

China	not at all	1	2	3	4	5	very much
Switzerland	not at all	1	2	3	4	5	very much
Japan	not at all	1	2	3	4	5	very much

Do any of the following wrist-watch brands convey a high status or prestige image?

TianWang	not at all	1	2	3	4	5	very much
Swatch	not at all	1	2	3	4	5	very much
Casio	not at all	1	2	3	4	5	very much

Do any of the following wrist-watch stores convey a high status or prestige image?

Bai Sheng Supermarket (百盛超市)	not at all	1	2	3	4	5	very much
Yan Sha Shopping Centre (燕莎购物中心)	not at all	1	2	3	4	5	very much
A Gifts or Jewelry shop	not at all	1	2	3	4	5	very much

If you want to purchase a new watch, please indicate the likelihood that you would pay for a high priced watch:

High price range RMB1500	not at all	1	2	3	4	5	very much
RMB 800	not at all	1	2	3	4	5	very much

If you want to purchase a new watch, please indicate the likelihood that you would pay for a low priced watch:

Low price range RMB 300	not at all	1	2	3	4	5	very much
RMB 100	not at all	1	2	3	4	5	very much

*Note : Please feel free to contact me if you have any concern or question regarding this survey. Email address: [shineeyang@yahoo.com.cn](mailto:shineeyang@yahoo.com.cn) or Ph: 3073941*

**Thank you very much!**

### **7.3 Final Questionnaire**

## **Wrist-watch survey**

The purpose of this research is to analysis the effects of extrinsic product cues on Chinese consumer's perceptions of quality, sacrifice and value.

Represented by Yang Liu from Auckland University of Technology

# SWATCH

**THE FUTURE OF TIME**

*Now Made in China*



Available at Local

**BAI SHEN** 百盛超市  
*Supermarket*

Sales Price: RMB 200.00

## QUESTIONNAIRE

I am undertaking research at the Auckland University of Technology on the role of identifying some of the factors that will influence Chinese perception of product quality and value. I would be grateful if you could spare ten minutes to complete this questionnaire and return it to me. All information will be treated in confidence.

*Please consider the answers as if you are living in China rather than in New Zealand*

**Direction:** The following questions concern your feelings about the wrist-watch shown in the advertisement on the opposite page. For each of the scales below, read the descriptions on each end of the scale mark and please circle the number that best describes your feeling to the following questions.

The likelihood that this watch would be reliable is:	very low	1 2 3 4 5 6 7	very high
The workmanship of this watch is probably:	very low	1 2 3 4 5 6 7	very high
This quality of this watch is likely to be:	very poor	1 2 3 4 5 6 7	very good
This watch is likely to be dependable:	strongly disagree	1 2 3 4 5 6 7	strongly agree
This watch is likely to be durable:	strongly disagree	1 2 3 4 5 6 7	strongly agree
This watch is:	Very poor value for money	1 2 3 4 5 6 7	very good value for money
At the price shown, this watch is:	very uneconomical	1 2 3 4 5 6 7	very economical
I consider this watch to be a good buy:	strongly disagree	1 2 3 4 5 6 7	strongly agree
The price shown for this watch is:	very unacceptable	1 2 3 4 5 6 7	very acceptable
This watch appears to be a bargain:	strongly disagree	1 2 3 4 5 6 7	strongly agree

**Direction:** Please answer these questions about the retail store shown in this advertisement.  
The likelihood that the retail store:

sells high quality products	extremely unlikely	1 2 3 4 5 6 7	extremely likely
is a store with high reputation	extremely unlikely	1 2 3 4 5 6 7	extremely likely
is a high quality store	extremely unlikely	1 2 3 4 5 6 7	extremely likely

**Direction:** Please indicate the degree to which you agree with the following statements, about the country mentioned in the advertisement.

In general I would expect watches made in that country to be:

	strongly disagree	disagree	neither agree or disagree	agree	strongly agree
high quality:	1	2	3	4	5
durable:	1	2	3	4	5
high in reputation:	1	2	3	4	5
reliable	1	2	3	4	5
with excellent technology	1	2	3	4	5

**Direction:** Please indicate the degree to which you are familiar with the brand in this advertisement.

I think that the brand is known for:	poor quality	1	2	3	4	5	6	7	high quality
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**Direction:** Please circle the degree to which you agree with the following statements.

	strongly disagree	disagree	neither agree or disagree	agree	strongly agree
If I purchased the watch for the indicated price, I would not be able to purchase some other products I would like to purchase now.	1	2	3	4	5
If I purchased this watch for the indicated price, I would have to reduce the amount of money I spend on other things for a while.	1	2	3	4	5

**Direction:** Please answer the following questions by circling the degree numbers which you choose.

The price of this watch is:	very low	1	2	3	4	5	6	7	very high
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*Note : Please feel free to contact me if you have any concern or question regarding this survey. Email address: [shineeyang@yahoo.com.cn](mailto:shineeyang@yahoo.com.cn) or Ph: 307-3941*

**Thank you very much!**

## 7.4 Ethical Approval Letter



# MEMORANDUM

## Academic Services

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To: Mark Glynn  
From: **Madeline Banda**  
Date: 18 November 2004  
Subject: 04/193 The effects of extrinsic product cues on Chinese consumer's perceptions of quality, sacrifice and value

Dear Mark

Thank you for providing amendment and clarification of your ethics application as requested by AUTEK.

Your application was approved for a period of two years until 18 November 2006.

You are required to submit the following to AUTEK:

- A brief annual progress report indicating compliance with the ethical approval given.
- A brief statement on the status of the project at the end of the period of approval or on completion of the project, whichever comes sooner.
- A request for renewal of approval if the project has not been completed by the end of the period of approval.

Please note that the Committee grants ethical approval only. If management approval from an institution/organisation is required, it is your responsibility to obtain this.

The Committee wishes you well with your research.

Please include the application number and study title in all correspondence and telephone queries.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Madeline Banda', is written over a light blue horizontal line.

Madeline Banda  
**Executive Secretary**  
**AUTEK**

CC: Margaret Blackburn, 0105336 Liu Yang shineeyan