PRICE-QUALITY SCHEMA ORIENTATION AND MARKET EFFICIENCY PERCEPTIONS: A CROSS CULTURAL AND INTERCULTURAL STUDY OF CANADIANS AND CHINESE

MU MU
Bachelor of Science, Hunan University, 2003

A Research Project
Submitted to the School of Graduate Studies
Of the University of Lethbridge
In Partial Fulfillment of the
Requirement for the Degree

MASTER OF SCIENCE IN MANAGEMENT

Faculty of Management
University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

(Approval/ Signature page)

Abstract

This study investigates 1) whether Canadians have stronger price-quality schemas (PQ) and perceptions of market efficiency (ME) than Chinese in both Canada and China, and 2) how acculturation affects Chinese immigrants' PQ and ME. A pre-test and a main study were conducted. In the main study, data from 192 Canadians, 148 Chinese immigrants, and 170 domestic Chinese usable questionnaires were collected in Canada and China. PQ, ME, acculturation, individualism, and collectivism scales were adopted from prior studies. Data was analyzed by t-tests, ANOVA, ANCOVA, and regressions analyses. Findings showed that Canadians have significantly stronger PQ and ME than their Chinese immigrant in Canada and domestic Chinese with exception of that Chinese immigrant have an even stronger PQ than Canadians. Acculturation was not significantly related with Chinese immigrants' PQ or ME. However, individualism and collectivism were found related to three consumer groups' PQ and/or ME.

Acknowledgements

I would like to acknowledge my supervisor, Dr. Tanya Drollinger. Her enthusiasm, creativity, and knowledge have played such an important role in my success in M.Sc. program. Her kindness, understanding, and care were greatly appreciated. Working with her was very enjoyable.

I would like also thank my second reader, Dr. Debra Basil, for her endless support and valuable suggestions. Her professionalism provided a lot of insights and contributions to my entire thesis. Whenever I needed help, her response was always: "Feel free to stop by my office at any time."

Acknowledgement should also be extended to my external examiner, Dr. Nancy M. Ridgway, for her interest, expertise, and constructive feedback given her incredibly busy schedule.

I also wish to thank my fantastic cohort; their support and aspiration helped me to go through the hard times. Particularly, I would like to show my appreciation to Laurie Ingraham, whose patience, enthusiasm, and hospitality glued this cohort so tightly. We would never have had such an extraordinary group without her.

Last but not least, I want to thank my director, Dr. Helen Kelley, and my coordinator, Linda Janz, for organizing and assisting this program so well.

Table of Contents

List of Tables

List of Figures

1. Introduction

Price-quality schema has been a popular topic for academic researchers over the past few decades (Erevelles, Roy, & Yip, 2001; Lichtenstein, 1990; Lichtenstein & Burton, 1989; Lichtenstein, Ridgway, & Netemeyer, 1993; Veeck & Burns, 1995; Zhou, Su, & Bao, 2002). The underlying idea of price-quality schema is that consumers may hold a general heuristic of a positive relationship between product price and quality (Dodds, Monroe, & Grewal, 1991; Erevelles et al., 2001; Monroe, 1990; Monroe & Petroshius, 1990; Olshavsky, Aylesworth, & Kempf, 1995; Teas & Agarwal, 2000). The price quality schema heuristic is more commonly used by consumers in marketplaces that are considered to be efficient (Lichtenstein & Burton, 1989; Zhou & Nakamoto, 2001; Zhou et al., 2002). A market is efficient if relevant information regarding price, product features and those of competing products is readily available and accessible to consumers (Gabriel & Marsden, 1990). Similarly, the perception of market efficiency is the consumers' perception of their marketplace.

However, neither consumers' price-quality schemas nor perception of market efficiency is universal among different cultures/countries. Cross-cultural researchers have discovered that, compared with the United States consumers, Chinese consumers possessed significantly weaker price-quality schemas (Zhou & Nakamoto, 2001; Zhou et al., 2002) and also perceived China to have significantly lower levels of market efficiency (Zhou et al., 2002).

The question then arises: how do consumers from an inefficient marketplace

with relatively weak price/quality schemas adjust to a new efficient marketplace where the price/quality heuristic is commonly employed? This study will focus on Chinese consumers coming from a relatively inefficient marketplace (Batra, 1997) with reportedly low levels of price-quality schemas (Zhou & Nakamoto, 2001; Zhou et al., 2002), who are entering a more efficient marketplace in North America (Luo & Peng, 1999) where the price quality schema heuristic is commonly employed (Erevelles et al., 2001; Monroe & Petroshius, 1990).

Acculturation is the process of immigrants entering a new and dominant culture and the impact it has on immigrants' values and behaviors (Barringer, Gardner, &Levin, 1993; Jun, Ball, and Gentry, 1993; Lee & Tse, 1994; O'Guinn, Lee, & Faber, 1986; Weinstock, 1964; Neidert & Farley; 1985). Specifically, a number of acculturation scholars have reported that Chinese immigrants adopt the "attitudes, values, and behaviors" of the host country through the assimilation process (Barringer et al., 1993; Jun et al., 1993; Lee & Tse 1994; O'Guinn et al., 1986; Weinstock, 1964; Neidert & Farley; 1985).

To gain better understanding of the impact of culture to all three consumer groups: Canadians, Chinese immigrants, and domestic Chinese, individualism and collectivism were adopted as proxy measures of acculturation and control variables since acculturation only applies to immigrants.

Therefore, the purpose of this study is to investigate whether Canadian consumers have overall higher levels of price-quality schemas and perception of market efficiency than Chinese consumers in both the Canadian and Chinese

marketplace; and whether and how the acculturation process affects Chinese immigrant consumers' price-quality schema and perception of market efficiency.

There is no research that explores whether or not immigrant consumers experience change with regards to their price-quality schema, especially for those who come from developing countries and immigrate to developed counties. As Zhou et al. (2002) stated, it would be interesting to examine whether consumers' price-quality schema changes in a different country where market efficiency levels differ. This study will provide more insights toward understanding important questions such as the persistency of the price-quality schema and whether the price-quality schema is country-specific or culture-specific.

Specifically, this study explores the following questions:

All of the existing cross-cultural studies comparing consumers' price-quality schema in different countries and cultures primarily have used a United States comparison sample. China (Veeck & Burns, 1995; Zhou & Nakamoto, 2001; Zhou et al., 2002), Japan (McGowan & Sternquist, 1998), and South Korea (Jin & Sternquist, 2003) have all been investigated in comparison to United States consumers and their perceptions of price quality schemas. There is no empirical research that has investigated the price-quality heuristic on Canadian consumers. Although the United States and Canada are similar in many respects the findings of one country and culture should not be quickly assumed to another, in spite of their similarities.

Regrettably, there is no research that explores whether or not immigrant consumers experience change with regards to their price-quality schema, especially

for those who come from developing countries and immigrate to developed counties. As Zhou, Su, and Bao (2002) stated, it would be interesting to examine whether consumers' price-quality schema changes in a different country where market efficiency levels differ. This study will provide more insights toward understanding important questions such as the persistency of the price-quality schema and whether the price-quality schema is country-specific or culture-specific.

2. Review of literature

2.1. Price-Quality Schema

Consumers rely on various informational cues or product attributes in their decision-making (Jin & Sternquist, 2003). Price represents an extrinsic cue and is one of the most important kinds of information consumers use when they make a purchase decision, accounting for 40 percent of their information search (Helegeson & Beatty, 1985). Price perception, which is a multidimensional stimulus to consumers, negatively and positively affects consumers' purchasing intentions (Dodds, et al., 1991; Lichtenstein, et al., 1993; Zeithaml, 1988). In order to investigate the "positive role" and "negative role" of price, Lichtenstein, Ridgway, and Netemeyer (1993) put forward seven constructs to conceptualize price perceptions. Two of them, price-quality schema and prestige sensitivity, are believed to impact consumers' willingness to buy positively. The other five, value consciousness, price consciousness, coupon proneness, sale proneness, and price mavenism are viewed to play a negative role in affecting consumers' purchasing intentions.

In marketing literature the association between price and quality has been broadly studied. Researchers have examined the relationship between price and objective quality (Geistfeld, 1982; Gerstner, 1985; Lichtenstein & Burton, 1989); price and perceived quality (Etgar & Malhotra, 1981; Gerstner, 1985; Leavitt, 1954; Monroe and Krishnan, 1985; Rao & Monroe, 1989); as well as the variables moderating this relationship (Dodds et al., 1991; Mitra, 1995; Peterson and Wilson,

1985; Rao and Monroe, 1989).

Price–quality schema is defined as "the generalized belief across product categories that the level of price is related positively to the quality level of the product" (Lichtenstein et al., 1993, p. 236). This definition will be used for the present study. Price-quality schema only reflects the relationship between price and perceived quality but not the objective quality (Lichtenstein & Burton, 1989). However, as McGowan and Sternquist (1998) indicated, the perceived quality is one of the most important variables which influence consumers' purchasing intentions. Therefore, the relationship between price and perceived quality is very meaningful and important for both academic researchers and practitioners.

Consumers consider price as a surrogate of sacrifice or an indicator of quality (Lichtenstein et al., 1993; Monroe, 1990). In a broad study of a number of product categories reviewed by *Consumer Reports*, Caves and Greene (1996) found that the median rank correlation between price and quality is between 0.27 and 0.38. Not surprisingly, findings from prior studies showed that some consumers are simply more likely than others to judge quality by price in spite of situations and products (Lichtenstein & Burton, 1989; Peterson & Wilson, 1985). Consumers believe in this relationship because they assume that high quality is due to high material cost or heavy demand and results in a high price (Gerstner, 1985; Erevelles et al., 2001). Hence, price-quality schema is a heuristic or mental shortcut for consumers when judging product quality and making purchase decisions.

In addition, some scholars (e.g., Dodds et al., 1991; Erevelles et al., 2001;

Monroe, 1990; Monroe & Petroshius, 1990; Olshavsky et al., 1995) found that there is a positive price-quality schema among general consumers when price was the only available cue of the products' features. Further, Teas and Agarwal (2000) point out that price continues to be a significant quality cue even in the presence of other extrinsic quality cues. Under these circumstances, consumers appear to use the general decision heuristic "you get what you pay for" (Erevelles et al., 2001; Gabor & Granger, 1966; Leavitt, 1954; McConnell, 1968).

In general, numerous studies in the United States found consumers possess positive price-quality schemas and use product prices to indicate their qualities (Dodds et al., 1991; Erevelles et al., 2001; Etgar & Malhotra, 1981; Gerstner, 1985; Leavitt, 1954; Monroe, 1990; Monroe & Petroshius, 1990; Monroe & Krishnan, 1985; Rao & Monroe, 1989; Olshavsky et al., 1995; Veeck & Burns, 1995; Zhou & Nakamoto, 2001; Zhou et al., 2002). Consumers' price-quality schema is an important marketing signal as consumers with a positive price-quality schema are found to prefer higher-priced products (John, Scott, & Bettman, 1986), relying heavily on price as an indicator of quality (Etgar & Malhotra, 1981; Peterson & Wilson, 1985), and, therefore, accepting higher prices (Lichtenstein, Bloch, & Black, 1988).

However, other studies indicate that the consumers' price-quality schemas are not stable, and they can be moderated by other product attributes such as product category (Lichtenstein & Burton, 1989), brand name (Brucks et al., 2000; Dodds et al., 1991; Monroe & Krishnan, 1985; Teas & Agarwal, 2000), store name (Dodds et al., 1991; Rao & Monroe, 1989), country of origin (Supphellen & Rittenburg, 2001), and

other cultural differences such as risk-aversion (Zhou et al., 2002), ethnocentrism/ animosity (Klein, Ettenson, & Morris, 1998), and market efficiency (Curry & Riesz, 1988).

2.2 Perception of Market Efficiency

A positive price-quality schema is more commonly used in market places that are considered to be efficient (Lichtenstein & Burton, 1989; Zhou & Nakamoto, 2001; Zhou et al., 2002). Market efficiency has been defined "in terms of actual or potential losses to individual consumers, which results from imperfect information about alternatives: an inefficient market is one in which such losses are or can be large" (Ratchford, Agrawal, Grimm, & Srinivasan, 1996, p. 237). Ideally, in an efficient market, price itself perfectly reflects all information (Rosen, 1974). According to the definition of market efficiency, it is apparent that relevant information consumers want and need is easily accessible (Gabriel & Marsden, 1990). Consumers in efficient markets have the opportunity to be aware of and approach a variety of brands and products as well as their alternatives.

Intensive competition, smooth and abundant communication channels of information lead to an efficient market (Zhou et al., 2002). In efficient markets, consumers are also able to get authoritative opinions. Oppositely, insufficient consumer information causes inefficient markets (Geistfeld, 1988; Hjorth, 1984; Maynes & Terje, 1982). In inefficient markets, because of the lack of information, consumers do not have a lot of opportunity to make comparisons between different

products. Therefore, overpriced products have the possibility to survive and marketers can charge different prices for the same product to make more profit (Maynes & Assum, 1982). Consumers who buy goods over a period of time with insufficient marketing information and deceptive pricing practices may develop the perception that their market is inefficient.

In Canada, companies tend to use a variety of sales and promotion campaigns in order to attract consumers. Consumers can acquire the product information through advertisements, flyers, newspapers, magazines, websites, phone calls, salespeople, and publications such as *Consumer Reports*. Because consumers can easily get relevant marketing information to make comparisons among different products, overpriced products may be forced to exit the market or be fairly priced in an attempt to reflect a proportionate price quality relationship (Lichtenstein & Burton, 1989). Therefore, in most situations, consumers in Canada "get what they pay for".

In contrast, the level of market competition in China is relatively low. Presently, China is in transition from a centrally planned economy to a market economy, and China's market lacks intensive competition and effective regulations (Batra, 1997; Fan & Xiao, 1998). In addition, with a very limited number of consumer protection organizations, detailed and reliable marketing information is not accessible to most consumers (Ho, 2001). In China, "Caveat Emptor" is still prominent in the marketplace (Fan & Xiao, 1998). Due to undesirable shopping experiences that are related to deceptive pricing, Chinese consumers may perceive their market is inefficient and possess weak price-quality schemas. This notion has been supported

by Zhou, Su, and Bao's (2002) study which found that Chinese consumers have a significantly lower perception of market efficiency and also significantly weaker price-quality schemas than their United States counterparts.

The question then arises: How do consumers from an inefficient marketplace with relatively weak price/quality schemas adjust to a new efficient market place where the price/quality heuristic is commonly employed? However, this question has never been empirically examined; and it is also what the present study was designed to investigate.

2.3. Acculturation

2.3.1. Acculturation.

Previous studies indicated that, in addition to demographic and socioeconomic factors, there is a need to include cultural factors in the study of consumer behaviour and the influence of culture in nearly all factors of marketing (Laroche, Kalamas, & Cleveland, 2005). Zhou and Nakamoto (2001) also asserted that besides market environment, culture is the most likely construct influencing consumers' price-quality schema.

Acculturation is often defined as "the cultural exchange that is initiated by the conjunction of two or more autonomous cultural systems" (Social Science Research Council, 1954, p. 974). Berry (1980) distinguished acculturation into two dimensions: population level and individual level. Social structure, economic base, and political organizations are the focus at the population level, and at the individual level the

changes in personal behavior, identity, values, and attitudes are the signals of acculturation (Berry, 1980). For the purpose of this study, we investigate the individual level of acculturation. Our basic premise is that an individual who is adapting to a new culture has his/her unique mode of individual acculturation process. The categorization of acculturation suggested by Berry (1990) is as follows: (1) assimilation, which occurs when an individual does not wish to maintain what he/she has been (e.g., in terms of identity, language, and way of life) and seeks daily interaction with new culture; (2) separation, which occurs when an individual values holding his/her original culture and at the same time wishes to avoid interaction with the new culture; (3) integration, which occurs when there is interest both in maintaining one's original culture and in daily interaction with the new culture, and (4) marginalization, which occurs when there is little possibility or interest in cultural maintenance and little interest in the new culture.

Acculturation is usually assumed to be a linear process heading toward one of the polar opposites of ethnicity or assimilation (Barringer et al., 1993; Jun et al., 1993; Lee & Tse 1994; O'Guinn et al., 1986; Weinstock, 1964; Neidert & Farley; 1985) and an individual may be perceived as being more or less acculturated along a continuum from separation through assimilation (Jun, et al., 1993).

A number of studies supported the notion that immigrants tend to adopt the host country's "attitudes, values, and behaviors" (Barringer et al., 1993; Lee & Tse 1994; O'Guinn et al., 1986; Weinstock, 1964; Neidert & Farley; 1985). Doran (1994) interviewed 25 Chinese graduate students and visiting scholars in Montreal and found

that these participants as Chinese consumers rely heavily on personal information sources. He also stated that Chinese immigrants will gradually become similar to the local people in their new society because of the influence of the dominant culture, and the marketing environment; even with strong Chinese cultural reinforcement.

2.3.2. Acculturation level.

Because of the dynamic nature of culture (Lee & Tse, 1994), immigrants have different levels (degrees) of acculturation due to individual differences such as demographic variables, language proficiency, length of stay, ethnic identity, and environmental factors (Penaloza, 1994). For this reason, the level of immigrant consumers' acculturation is a very important marketing signal when targeting several ethnic groups (O'Guinn et al., 1986). There is evidence of the linkage between acculturation effects on immigrant consumers' attitude and behavior. Faber, O`Guinn and McCarty (1987) examined the relationship between sub-cultural group membership and the importance of various product attributes in purchasing decisions. They differentiated highly acculturated Hispanic immigrants and less Hispanic acculturated immigrants and found a linear difference between low acculturated immigrants, highly acculturated immigrants, and the host Anglo culture. Specifically, this linear illustrated the following: low acculturated Hispanic immigrants in the United States rated some products are less important than the highly acculturated Hispanics immigrants and Americans. The highly acculturated Hispanic immigrants rated these products more important than the low acculturated counterparts but less

important than the Americans. That means the highly acculturated Hispanic immigrants fell in the middle of low acculturated Hispanics and the host Anglo culture. Similarly, Khairullah (1995) examined Asian-Indian immigrants' attitudes towards advertisements and reported the different acculturation levels, as well as the same linear trend.

Acculturation scholars also reported acculturation levels and linear acculturation trends in the Chinese context. Lee (1993) reported a positive correlation between Chinese-Americans' attitudes toward American advertising and higher acculturation levels. Lee and Tse (1994) found acculturation had an impact on Hong Kong immigrants' media consumption in Canada, even though their acculturation pace was slower than the authors expected. Hong Kong immigrants were found to still follow their original media habits when first arriving in Canada, and then they gradually consumed more host media than ethnic media. Lee and Tse (1994) also pointed out that learning from mass media could affect the process and outcome of acculturation of new immigrants and therefore acculturation is significantly and positively related with host media consumption. Similarly, Ownbey and Horridge (1997) reported that Asian Americans' shopping-orientation constructs are closely linked with their acculturation levels. Hence, this research proposes that different acculturation levels can moderate Chinese immigrants' price-quality schemas and perceptions of market efficiency.

2.4. Individualism and Collectivism

Hofstede (1980) developed five cultural dimensions: power distance, uncertainty avoidance, masculinity/femininity, long-term time orientation, and individualism/collectivism. Among the five cultural dimensions, individualism/collectivism had a strong influence on the individual's value building (de Mooij, 2004) since this dimension best captures the differences between sub-cultures (Laroch et al., 2005). In addition, because acculturation only applies to immigrants, individualism/collectivism was also adopted as proxy measure of acculturation and control variables to see the cultural impact on all three consumer groups' (Canadian, Chinese immigrants, and domestic Chinese) price-quality schemas and perceptions of market efficiency. Therefore, it is necessary to discuss this culture dimension.

Individualism is "I" consciousness and collectivism is "we" consciousness (Hofstede, 1980). In individualistic cultures such as the United States and Canada (Hofstede, 1980), each person is an independent, self-contained, autonomous, and self-sufficient entity (Watkins & Liu, 1996). In contrast, people in collectivistic cultures value group decisions, value sharing, maintaining in-group harmony and avoiding loss of face (de Mooij, 2004). Consequently, in-group members exercise greater influence on others in collectivist, rather than in individualist cultures (Gudvkunst, Ting, & Chua, 1988). In addition, since the group has so much influence, the people in collectivistic cultures tend to have greater ties to in-group members and the boundary of in-group membership tends to be narrower for them compared to the

individualists (Triandis, 1989). As scholars indicated, the degree to which an individual feels connected to others will affect himself/herself and therefore will adjust his/her behavior (Laroche, et al., 2005; Toffoli, 1997).

Cross-cultural researchers pointed out that individualism/collectivism strongly influences consumers' selection of information sources as well as the trust within social interactions, given that this dimension best represents sub-culture differences (Laroch et al., 2005). The collectivists' tendency to depend on in-group members inevitably has some impact on the individual's information sources: in collectivistic cultures, people are more likely to seek interpersonal sources of information, whereas in the individualistic cultures, people are more likely to acquire information by media sources (de Mooij, 2004). In addition, the collectivist cultures' strong social ties enable information (e.g. word of mouth) to flow more easily between group members, but there is more of a need for explicit communication in individualist cultures (Hofstede, 1991). Further, in individualistic cultures, people define the in-group as – the people in the same social class, race, beliefs, attitudes, and values- and most social reactions occur within this huge group; the collectivists defined the in-group as –the people who are connected such as family and friends (Triandis, 1972). Hence, a lot of the social interactions such as shopping are out-group. Empirical research also found the amount of out-group conflict and distrust is higher in collectivistic cultures (Almond & Verba, 1963).

In summary, people in the individualistic cultures are more self-sufficient, showing a higher level of trust in out-group social interactions (e.g. shopping) and

attaching more importance to extrinsic media/third party information sources than their collectivist counterparts, whereas collectivists rely on word of mouth communication because of their preferences of trusted and more familiar information sources (Laroche, et al., 2005).

3. Hypotheses

3.1 Price-quality schema

In a less-efficient market, because of the existence of low-quality, high-priced products, consumers may have some negative experiences from deceptive advertising, trademark violation, and unethical business practices (Ho, 2001). Therefore, consumers in an inefficient market may have the impression that price sometimes is not a good indicator of quality. Zhou, Su, and Bao (2002) pointed out that the inefficient market results in Chinese consumers' significantly weaker price-quality schemas than American consumers. Because it is available and easy for consumers to acquire information and compare among different products in an efficient market, inappropriate pricing is difficult to conceal. In highly efficient markets, higher price is usually caused by additional value of the product (Rosen, 1974). Consumers are expected to find that there is a correlation between price and quality. Most of the time, the more they pay for a certain product, the higher value they get. Therefore, they generate the belief that "you get what you pay for." Through past shopping experience, consumers may generate a heuristic that higher price is an indicator of higher quality (Tellis & Gaeth, 1990). As Lichtenstein and Burton (1989) indicated, positive price-quality relationships are more likely in an efficient market because consumers are fully informed.

Researchers have also suggested that consumers' price-quality schema is dynamic and it forms through consumer learning and the generalizing process

(Peterson & Wilson, 1985). The information absorbed during a number of different shopping experiences contributes to the generation of the price-quality relationship (Zhou et al., 2002). For Chinese immigrants in Canada, once they immigrate to North America, they need to "learn" the way local people consume (Lee & Tse, 1994). Through a progressive learning process, which is also a part of the acculturation process (Lee & Tse, 1994; Zhou, et al., 2002), Chinese immigrants become acquainted with various information sources, gradually adopt the dominant values of Canada and become akin to Canadian consumers. As Penaloza (1994) stated in her consumer acculturation study on Mexican immigrants:

> Learning the new consumer culture involved becoming adept at both its elements and rational rules. Cultural signs and heuristics drawn from the previous system were applied logically to the new system … when the application of previous rules to the new system did not work … the rules were modified in an iterative process of repetition and retrial. Over time, informants began to learn what many cultural signs meant and their value in the United States. …Through experiential trial-and-error learning process, informants adapted to the consumer environment in the United States (p. 42).

Therefore, for the Chinese immigrants in Canada, during the process of learning about the new marketplace (Lee & Tse, 1994; Zhou, et al., 2002), the repetition of generally getting high quality goods and services after paying a high price may convert or reinforce their beliefs in the relationship between price and quality. Over time, through learning from positive purchasing experiences, Chinese immigrants are expected to generate stronger and stronger price-quality schemas. At the same time, as the Chinese immigrants become more acculturated, they will tend to become more individualistic and therefore, they will be more self-sufficient, attaching

more importance to extrinsic media/third party information sources, and showing a higher level of trust to out-group social interactions. Consequently, they are expected to explore more outside marketing information by themselves rather than rely on in-group communication, as well as to believe in price as the indicator of quality due to their increased trust levels. Hence, it is hypothesized:

H1a: Canadian consumers in the Canadian marketplace will have overall higher levels of price-quality schemas than Chinese consumers in the Chinese marketplace.

H1b: Chinese immigrant consumers in the Canadian marketplace will have higher levels of price-quality schemas than Chinese consumers in the Chinese marketplace.

H1c: Canadian consumers in the Canadian marketplace will have higher levels of price-quality schemas than Chinese immigrant consumers in the Canadian marketplace.

H1d: Chinese immigrant consumers with high levels of acculturation to the Canadian marketplace will have higher levels of price-quality schemas than their less acculturated counterparts.

3.2 Perception of market efficiency

Sufficient consumer information is the main factor attributed to an efficient market (Zhou et al., 2002). In Canada, companies tend to use various methods such as advertisements, websites, and salespeople to inform consumers. At the same time, authoritative consumer publications such as *Consumer Reports* are also readily accessible to consumers in Canada. However, China's market lacks intensive

competition, effective regulations, as well as detailed and reliable marketing information (Batra, 1997; Fan & Xiao, 1998; Ho, 2001). Past research has shown that Chinese consumers were found to perceive the Chinese marketplace significantly less efficient than American consumers (Zhou, et al., 2002).

In addition, previous research indicates the existence of systematic differences in decision representations between Chinese and non-Chinese (Moore, 1998; Yates & Lee, 1996). Moore (1998) found that Chinese have a different style of information use when making decisions and use more distributional information- past experiences of one's own and others (Wen, 2003). In contrast, Americans use more singular information (current information) and tend to neglect background data (Moore, 1998). Similarly, in the external search dimension, Chinese consumers were found to be group orientated which is consistent with China's collectivistic cultural characteristic (Fernandez, Carson, Stepina, & Nicholson, 1997; Yao, 1988). Chinese consumers prefer offering shopping advice and heavily rely on in-group (family, relatives, and friends) information and word-of-mouth communication because of the high level of trust involved in personal relationships (Doran, 1994; Ownbey & Horridge, 1997; Yao, 1988; Wen, 2003). This cultural characteristic may lead to a lack of information from secondary sources and also may result in a low perception of market efficiency.

As Chinese consumers become acculturated and more individualistic, they are more characterized by self-sufficiency (Hofstede, 1980; Zhang & Neelankavil, 1997) and therefore less inclined to involve their in group members and tend to look for marketing information by themselves. Similarly, researchers also reported that

acculturated Chinese immigrants are likely to shop at more stores, as well as use more "marketer-dominated sources of information" (e.g., advertising and salespeople) (Ownbey & Horridge, 1997, p. 14) and "neutral sources of information" (e.g., *Consumer Reports*) (Ownbey & Horridge, 1997, p. 14). Progressively, Chinese immigrants will find abundant marketing information; start to utilize this information to facilitate their consumption and further take advantage of the efficient market. With the accumulation of exposure to the efficient market and an increase in acculturation level, Chinese immigrants may develop greater perceptions of market efficiency. Therefore, it is hypothesized:

H2a: Canadian consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese consumers perceive the Chinese marketplace.

H2b: Chinese immigrant consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese consumers perceive the Chinese marketplace.

H2c: Canadian consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese immigrant consumers perceive the Canadian marketplace.

H2d: Chinese immigrant consumers with high level of acculturation to the Canadian marketplace will have higher levels of perceptions of market efficiency than their less acculturated counterparts.

4. Research Methodology

4.1 Instruments

The 4-item price-quality schema scale from Lichtenstein, Ridgway, and Netemeyer's (1993) study and the 3-item perception of market efficiency scale developed by Zhou, Su, and Bao (2002) were used in this study. The price-quality schema scale has been used and validated by a number of previous studies in American (Lichtenstein et al., 1993; Zhou et al., 2002), Japanese (McGowan & Sternquist, 1998), Korean (Jin & Sternquist, 2003), and Chinese settings (Zhou & Nakamoto, 2001; Zhou et al., 2002). Its measurement invariance was rigorously assessed (Zhou & Nakamoto, 2001). The coefficient alphas of the English and Chinese versions of price-quality schema (.754, .600) and perception of market efficiency (.856, .822) are respectable but the Chinese version of price-quality schema was considerably lower. Therefore, the Chinese version of the price-quality schema scale was refined through a translation-back translation process.

To examine the cultural effects of Chinese immigrants' potential changes on both price-quality schema and perception of market efficiency, an 13-item acculturation scale was also employed (see Appendix). Acculturation scale- Asian American Multidimensional Acculturation Scale (AAMAS) - was adopted from Chung, Kim, and Abreu's (2004) study. In Chung et al.'s (2004) study, AAMAS-AA was specially developed for Asian immigrants. Research showed that the coefficient alphas of AAMAS's three dimensions (cultural identity, language, and cultural

knowledge) range from 0.76 to 0.83. To meet Chinese immigrants' various English proficiencies and preferences, AAMAS-AA was also translated into Chinese through a translate-back translate process due to the lack of a Chinese version.

As Hofstede (1980) and Fernandez et al.'s (1997) studies indicated, Chinese culture represents the typical collectivistic culture and Canadian culture represents individualism. The 12-item Individualism/collectivism scale developed by Jung (2002) was adopted. All instruments were measured on a seven point likert type scale from 1 (strongly disagree) to 7 (strongly agree), except the 13-item AAMAS scale which was anchored from 1(not very much) to 6(very much). Hence, to reduce confusion for the survey participants, the AAMAS scale was re-anchored from 1(not very much) to 7(very much).

Table 1. DV and IVs' coefficients alphas and sources

Instruments		Coefficient alphas	Sources	Remarks
Price-quality schema	English version	0.822	Lichtenstein et al. (1993)	N/A
	Chinese version	0.600	Zhou et al. (2002)	Chinese modification
Perception of market efficiency	English version	0.856	Zhou et al. (2002)	N/A
	Chinese version	0.754	Zhou et al. (2002)	N/A
Acculturation	AAMAS-AA for Chinese immigrants	0.78-0.83	Chung, et al. (2004)	Chinese translation

4.2 Questionnaires

Questionnaires were composed of three versions: Canadians, Chinese

immigrants, and Domestic Chinese (see Table 2). Therefore, three versions of the questionnaire were created: one for Canadians, one for Chinese immigrants in Canada, and one for domestic Chinese in China. Specifically, Chinese immigrants were given the choice of English or Chinese version. Two bilingual Chinese graduate students translated the price-quality schema and acculturation AAMAS-AA scales from English to Chinese, the other two Chinese graduate students back-translated the scales to English. Vague words and other problems were discussed until equivalent ideas were achieved.

Sodowshy, Lai, and Plake, (1991) pointed out that demographic variables such as age, gender, generational status, and education are associated with the individual acculturation process. In addition, the national origin of the respondents and the information of respondents' parents were included since the amount of time a family has been in a country is traditionally thought of as being related to acculturation (Olmedo & Padilla, 1978). Therefore, this survey was quite extensive and collected information regarding many aspects of consumers, especially immigrant consumers (see Appendix).

Table 2. Contents of the questionnaires for Canadian, Chinese immigrants, and Domestic Chinese

Instruments	Price-quality schema	Perception of market efficiency	Acculturation	Individualism	Collectivism
Canadian	*	*		*	*
Chinese immigrants	*	*	*	*	*
Domestic Chinese	*	*		*	*

Table 3: Pretest samples Demographic Information

Demographic Information		Canadian		Chinese immigrant Chinese version		Chinese immigrant English version	
Gender	Female	124 (76.9%)		26 (60%)		9(45%)	
Marital Status	Single, never marries	115 (71.3%)		31 (73.8%)		14 (70%)	
	Married	30 (18.9%)		4 (9.5%)		4 (20%)	
Age		Range: 18-52 Mean: 26.61 Std. Deviation: 7.765		Range: 20-35 Mean: 24.88 Std. Deviation: 3.265		Rang: 21-34 Mean: 26.16 Std. Deviation: 4.475	
High school graduated		160 (99.4%)		42 (97.7%)		17 (89.5%)	
Average years of post high school education		3.85		2.057		5.05	
Received North American Education		Inapplicable		31 (72.1%)		5 (26.3%)	
First language		English	154 (95.7%)	Mandarin	42 (99.7%)	Mandarin	20 (100%)
Nationality (/area)		Canadian	147 (91.3%)	Canadian	34 (23.9%)	Canadian	1 (5.3%)
				Other parts of China than Canton	40 (93%)	Other parts of China than Canton	17 (8%)
Years lived in Canada		Lifelong	146 (90.7%)	Range: 1-6 Mean: 3.232 Std. Deviation: 1.30		Range: 2-6 Mean: 3.579 Std. Deviation: 1.25	
Parents born in Canada		118 (73.3%)		None		None	
Average years Non-native parents lived in Canada		Range: 18-50 Mean: 30.30 Std. Deviation: 9.476		0		0	
Average household income		CAD $45,000-$59,999		CAD $15,000-$29,999		RMB ¥30,000-¥44,999	

4.3 Respondents and Recruitment

4.3.1. Pre-test.

An on-line pre-test was conducted in early June at the University of Lethbridge. The questionnaires had three different versions: English version for Canadians, English version for Chinese immigrants, and Chinese version for Chinese

immigrants due to various language preferences and proficiencies. Participants were asked to fill out the on-line questionnaires and provide comments on the clarity of the questions and the accuracy of the language. In total, 161 Canadian and 63 Chinese immigrant respondents (43 Chinese version, and 20 English version) were collected. Demographic profiles of different groups were quite comparable (see Table 3).

Table 4. Cronbach's alphas of all Measurements in pretest

Cronbach's Alpha	Canadian	Chinese immigrant Chinese version	Chinese immigrant English version
Price-quality schema	.802	.698	.753
Perception of market efficiency	.593	.555	.442
Acculturation	Inapplicable	.849	.868
Individualism	.833	.833	.761
Collectivism	.842	.916	.799

As we can see in Table 4, none of the Cronbach's alphas of the perception of market efficiency scale was over .60, indicating that they were not satisfactory to meet the basic requirement for research (Nunnally, 1978). The low Cronhach's alphas were due to the confusing item "There are a lot of alternative brands available even for a specific product." Hence, a new item "There are lots of different brands for every kind of product." was developed as additional item to substitute the confusing item. The rest of content of the questionnaires and the accuracy of the language were clear and accurate to most respondents. Only one minor change was made to the questionnaire according to respondents' comments: the first item of the price-quality schema

"Generally speaking, the higher the price of a product, the higher the quality" was changed to "In general, the higher the price of a product, the higher the quality." The participants in the pre-test had a chance to enter a lucky draw for $50 Canadian dollars. A winner from the pre-test was randomly selected.

4.3.2. Main Study.

The data for this study were obtained in three major cities: Calgary (Canada), Guangzhou (China) and Shenzhen (China). Calgary was chosen because it is a financial center in Canada and it has the fourth largest Chinese ethnic community in Canada, which accounts for 4.5% of Calgary's total population and Chinese is also the leading non-official mother tongue in Calgary (Citizenship and Immigration Canada 2001).

Guangzhou and Shenzhen were chosen as Chinese sampling cities for convenience reasons due to personal connections. More importantly, they are both located in Guangdong province. Ho (2001) pointed out the conditions of the Chinese marketplace's environments vary extensively across different provinces. Guangdong has the most developed market system in China, and is also well in advance of the central reform programs (Zhao, Tong, & Qiao, 2002). Therefore, doing this study in Guangdong province was expected to provide a more rigorous test of the hypotheses because Guangdong is more advanced than other parts of China, and if the Chinese consumers in Guangdong were found possessing weaker price-quality schemas and perceptions of market efficiency than those of Canadian and Chinese immigrant

consumers, the Chinese consumers from the rest of China should have even weaker price-quality schemas and perceptions of market efficiency.

In addition, for the sake of validity, these two cities are highly similar. They are both large national financial centers (Zhao et al., 2002), and according to the Chinese National Bureau Statistics report (2004), they were ranked as first and second in the citizen income per capita among all Chinese metropolitan areas (Shenzhen, ¥31,928; Guangzhou,¥30,807). Similarly, Calgary is also a large financial center in Canada and according to the Canadian Census 2001, Calgary has the fourth highest families median income ($65,488) among the census Canadian metropolitan areas. Therefore, these cities should be quite comparable.

To insure time comparability, both the pre-test and main study were conducted in June, 2006. Participants were comprised of three groups: Canadians, Chinese immigrants in Canada, and domestic Chinese. Specifically, Canadians referred to Canadians who were born in Canada or at least spent half of their lives in Canada. Chinese immigrants were composed of the first generation Chinese in Canada. Domestic Chinese were comprised of adult consumers and university students who were living in China.

4.3.3. Main study Incentives.

Each participant in the main study was given the opportunity to enter an instant lucky draw for a University ball point pen, McDonald's free fries coupon, Calgary Parks' coupon, or Burger King's free burger gift certificate as compensation

for their time and efforts, irrespective of whether they completed the questionnaire.

4.4 Procedure

All recruitment procedures were consistent with requirements of the University's Human Subjects Committee. Due to time and financial constraints of this study, a convenience sample was collected. In Calgary, research stations were set up at various organizations to collect Canadian and Chinese immigrant consumers' samples (see Table 5). The adult domestic Chinese consumer sample was collected by a graduate student working in Shenzhen. The domestic Chinese student sample was collected in two classes of a university in Guangzhou, China. The survey was conducted under the permission of all the organizations' managers. With the exception of the domestic Chinese student sample, all participants were approached by the researchers. All participants were asked for their consent to participate in the study and were also asked to read the informed consent form before filling out the questionnaires.

Table 5. Locations of Research Stations in Calgary

	TD Square	University of Calgary	Bowl Valley College	Calgary Public Library	Pacific Place	Chinese Culture Center
Canadian	*	*	*	*	*	
Chinese immigrants		*	*	*	*	*

5. Results and Analysis

5.1 Descriptive Statistics

In total, 562 respondents (218 Canadians, 152 Chinese immigrants, and 192 domestic Chinese) completed the survey. Forty-six unfinished cases (2 Canadians, 2 Chinese immigrants, 22 domestic Chinese) were removed due to missing values of at least a whole scale. The researcher also removed 4 (2 Canadian, 2 Chinese immigrants) cases because they had over 3 standard deviations outliers on some scales. In the Canadian sample, 2 tourists and 20 cases in which respondents were other nationalities than Canadian or Chinese were not included in the analysis. The final sample consisted of 192 Canadians, 148 Chinese immigrants, and 170 domestic Chinese (79 non-student and 91 student sample).

Among the Canadian sample, 50% were female, 64% were single and never married (see Table 7). The average age of the respondents was 29.8 years old. Most of them (94.7%) are high school graduates and the average years of post high school education received was 3.8 years. Of the total Canadian respondents, 87.8% spoke English as their first language; 90.9% are Canadian citizens. Also, 82.6% of all the Canadian respondents spent their whole lives in Canada; for those did not, the average years lived in Canada was 22.9. In addition, 63.1% respondents' parents were born in Canada; for those parents who were not born in Canada, the average years lived in Canada was 29.19. The average household income was CAD $45,000-$59,999.

Among the Chinese immigrant sample, 52.7% were female. 6.8% were single

and never married, 91.1% were married (see Table 7). The average age of all the respondents was 38.42 years old. Similar to the Canadian sample, 98.6% are high school graduates. The average years of post high school education received was 5.14 years. Of total the Chinese immigrant respondents, 29.2% had received an education in North America; 90.1% speak Mandarin as the first language; 23.9% have attained Canadian citizenship; 108 (77.1%) have Chinese citizenship. The average years lived in Canada was 4.48. Among all Chinese immigrant respondents, 98.6% of the respondents' parents were not born in Canada, and the average years lived in Canada was only .28. The average household income was CAD $30,000-$44,999.

In the domestic Chinese sample 55.1% of the respondents were female (see Table 7). In the domestic Chinese sample 85.3% were single and never married. The average age of all the respondents was 23.94 years old. A large percentage, 98.6% were high school graduates. The average years of post high school education received was 2.76 years. Only 1.2% had received education in North America; 24.6% spoke Mandarin as their first language; 44.4% spoke Cantonese as their first language. The average household income was RMB ¥30,000-¥44,999 (see Table 7).

In order to determine the equivalency of the three different samples, ANOVA and Chi-square tests were run on the demographic characteristics of each group. Regrettably, ANOVA tests showed that age, $F(2,431) = 93.525$, $p < .001$, education level, $F(2,446) = 36.131$, $p < .001$, and income $F(2, 414) = 79.180$, $p < .001$, were significantly different between every two groups. In addition, Chi-square results showed that Chinese immigrants were more likely to be married $X^2(10) = 252.766$, p

< .001).

Chinese immigrants were older, more educated, and also tend to be married because Chinese immigrants have to meet some requirements to immigrate to Canada. These requirements are composed of six factors: education level, official language(s) proficiency, working experiences, age (21-49), arranged employment in Canada, and adaptability (Citizenship and Immigration Canada, 2006). Specifically, the requirements of education level, working experiences, and age directly result in that Chinese immigrants were older and more educated than the Canadian and domestic Chinese.

Even though the three consumer groups' demographic variables are not equivalent, results will not be jeopardized because previous price-quality schemas studies showed that demographic and socioeconomic variables do not affect consumers' price-quality schemas (Etgar & Malhotra, 1981; Lichtenstein & Burton, 1988; Veeck & Burns, 1995).

Table 6: Tukey Results of the Locations of demographic differences

	Age			Education			Income		
	1	2	3	1	2	3	1	2	3
Canadian		29.80			3.83				4.62
Chinese immigrants			38.42			5.14		3.40	
Domestic Chinese	23.94				2.76			1.65	

Table 7: Demographic Information in Main study

Demographic Information		Canadian	Chinese immigrants	Domestic Chinese
Percentage		218 (38.8%)	152 (27.0%)	192 (34.2%)
Gender	Female	96 (50%)	77 (52.7%)	76 (55.1%)
Marital Status	Single, never marries	121 (64%)	10 (6.8%)	116 (85.3%)
	Married	41 (21.7%)	133 (91.1%)	18 (13.2%)
	separated	6 (3.2%)	1 (.7%)	0
	divorced	9 (4.8%)	2 (1.4%)	0
	common law	11 (5.8%)	0	1 (.7%)
Age		Range: 15-67 Mean: 29.80 Std. Deviation: 10.89	Range: 22-52 Mean: 38.42 Std. Deviation: 5.72	Range: 20-58 Mean: 23.94 Std. Deviation: 6.263
High school graduated		180 (94.7%)	143 (98.6%)	136 (98.6%)
Average years of post high school education		3.80	5.14	2.76
Received North American Education		Inapplicable	42 (29.2%)	2 (1.2%)
First language		English: 165 (87.8%) French: 6 (3.2%)	Mandarin: 128 (90.1%) Cantonese: 13 (9.2%)	Mandarin: 31 (24.6%) Cantonese: 56 (44.4%)
Nationality (/area)		Canadian: 170 (90.9%) American: 4 (2.1%) European: 5 (2.7%) Asians: 6 (3.2%) African: 2 (1.1%)	Canadian: 34 (23.9%) Chinese: Canton 9 (6.3%); Rest of China 99 (69.7%)	Inapplicable
Years lived in Canada		Lifelong: 152 (82.6%) Not lifelong: Range: 7-54 Mean: 22.9 Std. Deviation: 10.79	Range: .1-27 Mean: 4.48 Std. Deviation: 4.97	Inapplicable
Parents born in Canada		118 (63.1%)	2 (1.4%)	Inapplicable
Years Non-native parents lived in Canada		Range: 0-80 Mean: 27.19 Std. Deviation: 15.13	Range: 0-11 Mean:0.28 Std. Deviation: 1.36	Inapplicable
Average household income		CAD $45,000-$59,999	CAD $30,000-$44,999	RMB ¥30,000-¥44,999

5.2 Reliability and Correlation Analysis

Table 8 reports reliability coefficients of the five measures (price-quality schema, perception of market efficiency, acculturation, individualism, and collectivism). Due to too low Cronbach's alphas in all three versions, the fourth item of the price-quality schema scale "You always have to pay a bit more for the best"; the first item of the perception of market efficiency scale "There are a lot of alternative brands available even for a specific product" and the additional item "There are lots of different brands for every kind of product" were removed. More specifically, the wordings-"best" and "specific product" were found confusing to some respondents. The resulting Cronbach's alphas were considered satisfactory by meeting the basic requirement for research of .60 (Nunnally, 1978). However, the coefficient reliabilities of the Price-quality schema and Individualism in Canadian sample (.796, .824) are generally higher than those in the Chinese immigrant sample (.656, .710) and the domestic Chinese sample (.651, .710). This suggests that the measurements adapted from one culture may not capture variance in another culture very well (Zhou & Nakamoto, 2001).

Table 8. Cronbach's alphas of all Measurements

Cronbach's Alpha	Canadian	Chinese immigrant	Domestic Chinese
Price-quality schema	.796	.656	.651
Perception of market efficiency	.648	.713	.669
Acculturation	Inapplicable	.795	Inapplicable
Individualism	.824	.710	.710
Collectivism	.821	.856	.829

As shown in Table 9, none of the correlation values was over .40. Between all the independent variables, dependent variables and individualism/collectivism scale, indicating that the independent variables were indeed independent and multicollinearity was not a threat (Shieh & Fouladi, 2003).

Table 9. Descriptive Statistics and Correlation of the study's instruments

	M	sd	N	1	2	3	4	5
1.Price-quality schema	4.60	1.11	510	-	-	-	-	-
2.Perception of market efficiency	4.59	1.34	508	.214**	-	-	-	-
3.Acculturation	2.14	0.54	510	.077	-.008	-	-	-
4.Individualism	4.94	1.01	508	.156**	.318**	.069	-	-
5.Collectivism	4.74	1.02	143	.093*	.057	-.191*	-.204**	-

Note. * Correlation is significant at 0.05 level (2-tailed).
** Correlation is significant at 0.01 level (2-tailed).

5.3 Hypotheses Testing

Descriptive analysis, independent sample t-test, ANOVA, and Regression statistical techniques were used to test the hypotheses.

5.3.1 Price-quality schema.

In order to establish the direction and strength of Canadian consumers' price-quality schemas, univariate statistics were carried out. The price-quality schema scale was from 1 (lowest) to 7 (highest). According to the one-sample t-test, it was found that Canadian consumers do have a positive price-quality schema ($M = 4.78$, $SD = 1.15$), $t(192) = 9.42$, $p < .001$ (see Table 10). That means Canadian consumers tend to use price as an indicator of product quality when making their purchasing decisions.

Table 10. Descriptive Statistics of Canadians' Price-Quality Schema and t-test Result

Variable	Test Value = 4					
	N	M	SD	t	df	*p*
Price-quality schema	192	4.78	1.15	9.42	191	.000

ANOVA test was adopted to see whether there was difference between three consumer groups' price-quality schemas. As we can see in Table 11, three consumer groups had significantly different levels of price-quality schema $F(2, 507) = 43.801$, $p < .001$ (see Table 11). Further, the difference of price-quality schemas remained significant after controlling the effects of some demographic variables and individualism/collectivism by using ANCOVA analysis, such as: marital status $F(2, 467) = 18.88$, $p < .001$, age $F(2, 430) = 15.962$, $p < .001$, education level $F(2, 445) = 15.564$, $p < .001$, income $F(2, 413) = 14.900$, $p < .001$, individualism $F(3, 506) = 30.798$, $p < .001$, and collectivism $F(3, 504) = 29.812$, $p < .001$. The difference was still significant after controlling all above control variables together $F(8, 376) = 6.682$, $p < .001$. These demographic variables were controlled because it was believed that they may affect consumers' price-quality schemas (Veeck & Burns, 1995).

Table 11. Descriptive Statistics of three consumer groups' Price-Quality Schema and ANOVA Result

Model	SS	df	MS	F	*p*
Between Groups	92.315	2	46.158	43.801	.000
Within Groups	534.274	507	1.054		
Total	626.589	509			

To have better understanding of the specific difference between the three consumer groups' price-quality schemas, independent-sample t-tests were used. Hypothesis 1a predicted that Canadian consumers in the Canadian marketplace will have overall higher levels of price-quality schemas than Chinese consumers in the Chinese marketplace. T-test (Table 12) results showed that Canadian consumers (M = 4.78, SD = 1.15) reported significantly higher levels of price-quality schema than their domestic Chinese counterparts (M = 4.02, SD = .99) $t(360) = 6.71$, $p < .001$. The results are consistent with previous studies investigating the United States and Chinese consumers' price-quality schemas. Therefore, hypothesis 1a is supported.

Table 12. Descriptive Statistics of Canadians' and Domestic Chinese's Price-Quality Schema and t-test Result

Variable	N	M	SD	t	df	*p*
Price-quality schema						
Canadian	192	4.78	1.15			
Domestic Chinese	170	4.02	.99			
Total	362	--	--	6.71	360	.000

Hypothesis 1b predicted that Chinese immigrant consumers in the Canadian marketplace will have higher levels of price-quality schemas than Chinese consumers in the Chinese marketplace. Immigrants were believed to adopt the host society's "value, attitude and behaviour" under the effect of acculturation. T-test (Table 13) results showed that Chinese immigrant consumers (M = 5.04, SD = .89) reported significantly higher levels of price-quality schema than the domestic Chinese respondents (M = 4.02, SD = .99) $t(316) = 9.63$, $p < .001$. Hypothesis 1b is supported.

Table 13. Descriptive Statistics of Chinese immigrants' and Domestic Chinese's Price-Quality Schema and t-test Result

Variable	N	M	SD	t	df	*p*
Price-quality schema						
Chinese immigrant	148	5.04	.89			
Domestic Chinese	170	4.02	.99			
Total	318	--	--	9.63	316	.000

Hypothesis 1c predicted that Canadian consumers in the Canadian marketplace will have higher levels of price-quality schemas than Chinese immigrant consumers in the Canadian marketplace. T-test (Table 14) results showed that Chinese immigrant consumers (M = 5.04, SD = .89) reported significantly higher levels of price-quality schema than their Canadian counterparts (M = 4.78, SD = 1.15) $t(337.99) = -2.34$, $p < .05$. Surprisingly, the result was significant but was in the opposite direction. Therefore, hypothesis 1c is not supported.

Table 14. Descriptive Statistics of Canadians' and Chinese immigrants' Price-Quality Schema and t-test Result

Variable	N	M	SD	t	df	*p*
Price-quality schema						
Canadian	192	4.78	1.15			
Chinese immigrant	148	5.04	.89			
Total	340	--	--	-2.34	337.99	.020

5.3.2 Perception of market efficiency.

To establish the direction and strength of Canadian consumers' perceptions of

their domestic market place efficiency univariate analyses were conducted. The perception of market efficiency scale was from 1 (lowest) to 7 (highest). As demonstrated in Table 15, Canadian consumers do have a positive perception of market efficiency ($M = 5.12$, $SD = 1.16$) $t(190) = 13.347$, $p < .001$. This means Canadian consumers do believe that the Canadian marketplace is efficient and the marketing information is sufficient and accessible.

Table 15. Descriptive Statistics of Canadians' Perception of Market Efficiency and t-test Result

Variable	Test Value = 4					
	N	M	SD	t	df	*p*
Perception of market efficiency	191	5.12	1.16	13.347	190	.000

For the perceptions of market efficiency, ANOVA test was also adopted to see whether there was a difference between the three consumer groups. In Table 16, three consumer groups had significantly different levels of perception of market efficiency $F(2, 505) = 54.342$, $p < .001$. Further, the difference of perceptions of market efficiency also remained significant after controlling the effects of some demographic variables and individualism/collectivism by using ANCOVA analysis: marital status $F(2, 465) = 27.053$, $p < .001$, age $F(2, 428) = 20.199$, $p < .001$, education level $F(2, 443) = 21.794$, $p < .001$, income $F(2, 413) = 18.349$, $p < .001$, individualism $F(3, 504) = 42.750$, $p < .001$, and collectivism $F(3, 502) = 37.415$, $p < .001$. The difference was still significant after controlling all above control variables together $F(8, 376) = 9.743$,

$p < .001$.

Table 16. Descriptive Statistics of three consumer groups' Price-Quality Schema and ANOVA Result

Model	SS	df	MS	F	*p*
Between Groups	162.318	2	81.159	54.342	.000
Within Groups	754.207	505	1.493		
Total	916.525	507			

Independent-sample t-tests were also adopted to examine the specific differences between the three groups' perceptions of market efficiency. Hypothesis 2a predicted that Canadian consumers in the Canadian marketplace would perceive the Canadian marketplace as more efficient than Chinese consumers would perceive the Chinese marketplace. T-test (Table 17) results revealed that Canadian consumers (M = 5.12, SD = 1.16) reported significantly higher levels of perceptions of market efficiency than the domestic Chinese counterparts (M = 3.81, SD = 1.33) $t(337.14) = 9.89$, $p < .001$. The findings were consistent with Zhou at el.'s (2002) study that US consumers had significantly higher levels of perceptions of market efficiency. Hence, hypothesis 2a is supported.

Hypothesis 2b predicted that Chinese immigrant consumers would perceive the Canadian marketplace as more efficient than Chinese consumers perceive the Chinese marketplace. T-test (Table 17) results showed that Chinese immigrant (M = 4.79, SD = 1.16) consumers reported significantly higher levels of perceptions of market efficiency than the domestic Chinese counterparts (M = 3.81, SD = 1.33) $t(314.98) = 6.94$, $p < .001$. Hypothesis 2b is supported.

Table 17. Descriptive Statistics of Canadians' and Domestic Chinese's Perception of Market Efficiency and t-test Result

Variable	N	M	SD	t	df	*p*
Perception of market efficiency						
Canadian	191	5.12	1.16			
Domestic Chinese	170	3.81	1.33			
Total	361	--	--	9.89	337.14	.000

Table 18. Descriptive Statistics of Chinese immigrants' and Domestic Chinese's Perception of Market Efficiency and t-test Result

Variable	N	M	SD	t	df	*p*
Perception of market efficiency						
Chinese immigrant	147	4.79	1.16			
Domestic Chinese	170	3.81	1.33			
Total	317	--	--	6.94	314.98	.000

Table 19. Descriptive Statistics of Canadians' and Chinese immigrants' Perception of Market Efficiency and t-test Result

Variable	N	M	SD	t	df	*p*
Perception of market efficiency						
Canadian	191	5.12	1.16			
Chinese immigrant	147	4.79	1.16			
Total	338	--	--	2.63	313.81	.009

Hypothesis 2c predicted that Canadian consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese immigrant consumers perceive the Canadian marketplace. T-test (Table 19) results showed that Canadian consumers (M = 5.12, SD = 1.16) reported significantly higher levels of perceptions of market efficiency than the Chinese immigrant counterparts

(M = 4.79, SD = 1.16) t(313.81) = 2.63, p < .01. Therefore, hypothesis 2c is supported.

5.3.3. Acculturation.

Hypothesis H1d stated that Chinese immigrant consumers with higher levels of acculturation to the Canadian marketplace will have higher levels of price-quality schemas than their less acculturated counterparts. Table 20 provided the regression analysis regarding the relationship between acculturation and price-quality schema. The independent variable was acculturation and the dependent variable was price-quality schema. According to the regression results, when acculturation was higher, the price-quality schema was higher, but insignificant $F(1,146) = .882$, $p = .35$ ($R^2 = .006$, Adjusted $R^2 = -.001$) (see Table 19), and acculturation only accounted for 12.8% of the variance in price-quality schema (see Table 21). In addition, control variables were adopted as well as quasi-acculturation- individualism/collectivism. The results remained insignificant after controlling the effects of gender, age, whether graduated from high school, education level, nationality, whether received North American education, length of stay in Canada, whether parents were born in Canada, parents' length of stay in Canada, income, individualism and collectivism $F (1,13) = .851$, $p = .590$ ($R^2 = .088$, Adjusted $R^2 = -.015$), and acculturation only accounted for 3.8% of the variance in price-quality schema. Therefore, hypothesis H1d was not supported.

Table 20. Effect of Chinese immigrants' Acculturation levels on Price-Quality Schema

Model	SS	df	MS	F	*p*
1Regression	.701	1	.70	.882	.35
Residual	116.03	146	.80		
Total	116.73	147			

Table 21. Chinese immigrants' Acculturation levels predict Price-Quality Schema and Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
1 (Constant)	4.77	.301	.077	15.84	.000
Acculturation	.128	.136		.94	.35

Hypothesis H2d stated that Chinese immigrant consumers with higher levels of acculturation to the Canadian marketplace will have higher levels of perceptions of market efficiency than their less acculturated counterparts. Table 22 provides the regression analysis regarding the relationship between acculturation and perceptions of market efficiency. The independent variable was acculturation and the dependent variable was perception of market efficiency. According to the regression results, when acculturation was higher, the perception of market efficiency was negative and insignificant $F(1,145) = .008$, $p = .93$ ($R^2 = .000$, Adjusted $R^2 = -.007$) (see Table 22). In addition, the results remained statistically insignificant after controlling the effects of gender, age, whether graduated from high school, education level, nationality, whether received North American education, length of stay in Canada, whether parents were born in Canada, parents' length of stay in Canada, income, individualism and collectivism $F(1,13) = 2.408$, $p = .011$($R^2 = .215$, Adjusted $R^2 = .125$), but

acculturation negatively accounted for 13.5% of the variance in perceptions of market efficiency. Therefore, hypothesis H2d was not supported.

Table 22. Effect of Chinese immigrants' Acculturation levels on Perception of Market Efficiency

Model	SS	df	MS	F	*p*
1Regression	.011	1	.011	.008	.93
Residual	197.49	145	1.36		
Total	197.50	146			

Table 23. Chinese immigrants' Acculturation levels predict Perception of Market Efficiency and Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
1 (Constant)	4.82	.394	-.008	12.23	.000
Acculturation	-.016	.178		-.09	.93

In addition, the acculturation scale was composed of three sub-scales (cultural identity, language, and cultural knowledge). Regression analyses were done to examine the effects of acculturation sub-scales on Chinese immigrant consumers' price-quality schemas and perceptions of market efficiency. However, the results still remained insignificant: cultural identity/price-quality schema $F(1,144) = .175$, $p = .676$, $B = -.043$, language/price-quality schema $F(1,144) = 2.504$, $p = .163$, $B = .158$, and cultural knowledge/price-quality schema $F(1,142) = .466$, $p = .496$, $B = .074$; cultural identity/perception of market efficiency $F(1,143) = 1.398$, $p = .239$, $B = .161$, language/ perception of market efficiency $F(1,143) = .775$, $p = .380$, $B = -.138$, and cultural knowledge/ perception of market efficiency $F(1,141) = 2.206$, $p = .420$, $B = -.186$.

Table 24. A summary of hypotheses testing

Hypotheses		Results
H1a	Canadian consumers in the Canadian marketplace will have overall higher levels of price-quality schemas than Chinese consumers in the Chinese marketplace.	Supported
H1b	Chinese immigrant consumers in the Canadian marketplace will have higher levels of price-quality schemas than Chinese consumers in the Chinese marketplace.	Supported
H1c	Canadian consumers in the Canadian marketplace will have higher levels of price-quality schemas than Chinese immigrant consumers in the Canadian marketplace.	Not Supported
H1d	Chinese immigrant consumers with high level of acculturation to the Canadian marketplace will have higher levels of price-quality schemas than their less acculturated counterparts.	Not Supported
H2a	Canadian consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese consumers perceive the Chinese marketplace.	Supported
H2b	Chinese immigrant consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese consumers perceive the Chinese marketplace.	Supported
H2c	Canadian consumers in the Canadian marketplace will perceive the Canadian marketplace more efficient than Chinese immigrant consumers perceive the Canadian marketplace.	Supported
H2d	Chinese immigrant consumers with high level of acculturation to the Canadian marketplace will have higher levels of perceptions of market efficiency than their less acculturated counterparts.	Not Supported

5.4 Further Analysis

5.4.1 Length of stay and price-quality schema and perception of market efficiency.

Previous acculturation research reported that the length of stay in the new host culture/society was strongly related to immigrants' adoption of the new host culture (Doran, 1994). Hence, length of stay in Canada may positively and significantly correlate with Chinese immigrants' price-quality schemas and perceptions of market

efficiency. However, results did not support the notion. Length of stay was found neither related with price-quality schema $F(1,140) = .441$, $p = .508$, nor with perception of market efficiency $F(1,1405) = .756$, $p = .386$.

5.4.2 Acculturation and Individualism/Collectivism

In order to have a deeper understanding of the directional relationship between acculturation and individualism and collectivism, the top 30% (more acculturated cases) and bottom 30% (less acculturated cases) were sorted out and a t-test technique was employed to test whether the top 30% highly acculturated and 30% least acculturated immigrants had significantly different levels of individualism and collectivism. Results showed that the highly acculturated immigrants had positively and significantly higher individualism scores $t(89) = 1.40$, $p = .165$ (see Table 25) and lower levels of collectivism $t(89) = -3.54$, $p < .01$ (see Table 26) than the 30% less acculturated counterparts at least under 90% confidence level.

Table 25. Descriptive Statistics of Chinese immigrants' Individualism levels and t-test Result

Variable	N	M	SD	t	df	*p*
Individualism						
30% More Acculturated	49	4.59	.65			
30% Less Acculturated	42	4.37	.87			
Total	91	--	--	1.40	89	.165

Table 26. Descriptive Statistics of Chinese immigrants' Collectivism levels and t-test Result

Variable	N	M	sd	t	df	*p*
Collectivism						
30% More Acculturated	49	4.87	.76			
30% Less Acculturated	42	5.45	.80			
Total	91	--	--	-3.54	89	.001

Figure 1 is the integrative chart of the effects of acculturation on Chinese immigrants' individualism and collectivism. The ordinal interaction showed that the Chinese immigrants in Canada did become more individualistic and less collectivistic after they acculturated. The finding was consistent with previous study (Zhang and Neelankavil, 1997), demonstrating the validity of the acculturation scale.

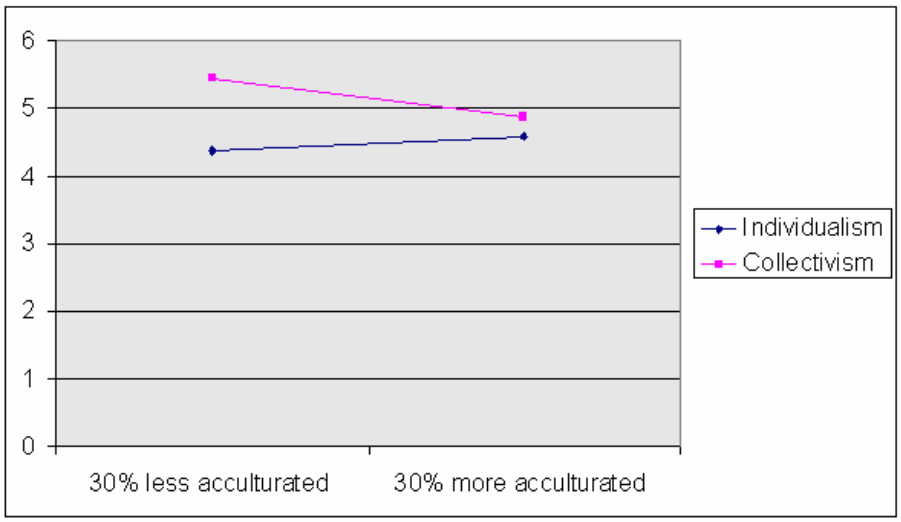

Figure 1. Integrative chart of the effects of acculturation on Chinese immigrants' individualism and collectivism

5.4.3 Individualism/Collectivism and Price-quality schema/Perceptions of market efficiency.

The cultural dimension of individualism/collectivism best captures the

differences between sub-cultures (Laroch et al., 2005) and has strong influence on individual's value building (de Mooij, 2004). Therefore, individualism and collectivism were analyzed to examine their effects on consumers' price-quality schema and perception of market efficiency. It was expected that the consumers who possess more individualism and less collectivism will be more characterized as self-sufficient, emphasizing extrinsic information sources, and showing a higher level of trust to out-group social interactions. Consequently, consumers with high levels of individualism and low levels of collectivism were expected to have higher levels of price-quality schema and perceptions of market efficiency.

When combining the three consumer groups-Canadians, Chinese immigrants, and domestic Chinese into one overall consumer group, and using individualism/ collectivism as independent variables and price-quality schema/perception of market efficiency as dependent variables, the results showed that with regard to individualism, the notion was supported that consumers' individualism was found to be significantly and positively correlated with price-quality schema $F(1,508) = 12.673$, $p < .01$ (see Table 27) and individualism accounted for 17.2% of the variance in price-quality schema (see Table 28). Also, individualism was found to be positively and significantly correlated with consumers' perceptions of market efficiency $F(1,506) = 56.893$, $p < .01$ (see Table 29), and individualism accounted for 42.4% of the variance in perceptions of market efficiency (see Table 30).

Table 27. Effect of individualism on overall consumers' price-quality schemas

Model	SS	df	MS	F	*p*
1Regression	15.251	1	15.251	12.673	.000
Residual	611.338	508	1.203		
Total	626.589	509			

Table 28. Overall consumers' individualism levels predict price-quality schemas and Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
1 (Constant)	3.755	.243	.156	15.428	.000
Individualism	.172	.048		3.560	.000

Table 29. Effect of individualism on overall consumers' perceptions of market efficiency

Model	SS	df	MS	F	*p*
1Regression	92.635	1	92.635	56.893	.000
Residual	823.890	506	1.628		
Total	916.525	507			

Table 30. Overall consumers' individualism levels predict perceptions of market efficiency and Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
1 (Constant)	2.492	.283	.318	8.798	.000
Individualism	.424	.056		7.543	.000

However, when it came to collectivism, consumers' collectivism was found to be significantly correlated with price-quality schema $F(1,506) = 4.437$, $p < .05$ (see Table 31) and collectivism accounted for 10.2% of the variance in price-quality schemas (see Table 32), but in the opposite direction as expected. For perception of market efficiency, collectivism was found neither significantly correlated with

F(1,506) = 1.646, p = .20 (see Table 33), nor on the direction as it was expected (see Table 34).

Table 31. Effect of collectivism on overall consumers' price-quality schemas

Model	SS	df	MS	F	*p*
1Regression	5.436	1	5.436	4.437	.036(a)
Residual	620.019	506	1.225		
Total	625.455	507			

Table 32. Overall consumers' collectivism levels predict price-quality schemas and Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
1 (Constant)	4.121	.234		17.615	.000
Collectivism	.102	.048	.093	2.106	.036

Table 33. Effect of collectivism on overall consumers' perceptions of market efficiency

Model	SS	df	MS	F	*p*
1Regression	2.964	1	2.964	1.646	.200(a)
Residual	907.383	504	1.800		
Total	910.346	505			

Table 34. Overall consumers' collectivism levels predict perceptions of market efficiency and Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
1 (Constant)	4.226	.284		14.891	.000
Collectivism	.075	.058	.057	1.283	.200

Specifically, when the overall consumer group was split into the three consumer groups-Canadians, Chinese immigrants, and domestic Chinese, the

relationship between the independent variables and dependent variables was changed. For individualism and price-quality schema, the correlation for domestic Chinese was very weak $F(1,168) = .117$, $p = .733$ (see Table 35) and individualism only accounted for 3% of the variance in price-quality schemas. For individualism and perception of market efficiency, the correlation for Chinese immigrants was insignificant $F(1, 145) = 2.268$, $p = .134$ (see Table 35), and individualism only accounted for 18% of the variance in Chinese immigrants' perceptions of market efficiency. For collectivism and price-quality schema, the correlation for Canadians was the only one among the three consumer groups which direction was the same as expected-collectivism was negatively related with price-quality schema. However, the correlation was very weak $F(1, 188) = .021$, $p = .885$ (see Table 35), and the decrease of collectivism only accounted for 1.1% of the increase in Canadians' price-quality schemas. For collectivism and perception of market efficiency, the correlation for Chinese immigrants was significantly different from the other two consumer groups. Chinese immigrants' collectivism levels were significantly and negatively related with their perceptions of market efficiency $F(1, 145) = 3.740$, $p = .055$ (see Table 35), and collectivism accounted for 21.3% of the variance in Chinese immigrants' perceptions of market efficiency.

Table 35. Integrative table of Individualism/Collectivism and Price-quality schema/Perception of market efficiency

		Individualism/ Price-quality schema	Individualism/ Perception of market efficiency	Collectivism/ Price-quality schema	Collectivism/ Perception of market efficiency
Overall Consumers	F	12.673	56.893	4.437	1.646
	p	.000	.000	.036	.200
	B	.172	.424	.102*	.075*
Canadians	F	2.818	6.587	.021	5.451
	p	.095	.011	.885	.021
	B	.160	.245	-.011**	.180*
Chinese immigrants	F	2.275	2.268	.938	3.740
	p	.134	.134	.334	.055
	B	.139	.182	.082*	-.213**
Domestic Chinese	F	.117	7.688	4.825	4.525
	p	.733	.006	.029	.035
	B	.031	.334	.171*	.224*

Note. * Correlation was on the opposite direction as expected.

** Correlation was on the direction as expected.

6. Discussion

The results of this study supported hypothesis 1 (see Table 24 for a summary of hypothesis testing). Canadian consumers in the Canadian marketplace had significantly higher levels of price-quality schema their domestic Chinese counterparts in the Chinese marketplace. Tse, Belk, and Zhou, (1989) indicated that economic development level is certainly a very important factor influencing consumers' price perceptions. In the transition process from a planned central economy to a market economy, the Chinese marketplace is characterized by lack of robust business regulation and legislation (Nee, 1992). In addition, competition in China is relatively low (Zhou & Nakamoto, 2001). Less intensive competition and incomplete regulation contribute to the perception of an inequitable pricing system (Zhou & Nakamoto, 2001). Moreover, some name brand products are overpriced, yet some general products are under-priced due to the poor marketing administration (Fan & Xiao, 1998); weak regulation allows large numbers of fake products to enter the market (Ho & Sin, 1988). Therefore, Chinese consumers are more likely to doubt the credibility of price in indicating product quality than their Canadian counterparts.

After immigrating and living in Canada, where positive and high levels of price-quality schema are employed, Chinese immigrants may start getting used to the new marketplace and building their pricing perceptions. As Rao and Monroe (1988) stated, consumers develop price-quality schemas based on their consumption experiences. Progressively, immigrants may learn from repetition of getting high

quality after paying a high price and these experiences reinforce their beliefs in the relationship between price and quality. After the accumulation of shopping experiences and knowledge of the new market, immigrant consumers may become more and more confident to the market therein.

Zhou, Su, and Bao, (2002) pointed out that the information absorbed during a number of different shopping experiences contributes to the generation of the price-quality relationship. At the same time, as they become acculturated to the new society, Chinese immigrants became more individualistic. Therefore their boundary of in-group members broadened and their trust levels of social interactions rose, in turn, these also boosted their level of price-quality schemas. The present research found Chinese immigrant consumers in Canada had significantly higher level of price-quality schemas than their domestic counterparts. Hence, hypothesis 1b was also supported (see Table 24).

Acculturation scholars have reported that Chinese immigrants adopt the "attitudes, values, and behaviors" of the host country through the linear assimilation process (Barringer et al. 1993; Jun et al. 1993; Lee & Tse 1994; O'Guinn et al. 1986; Weinstock, 1964; Neidert & Farley; 1985). However, Chinese immigrant consumers in Canada were found to have even higher level of price-quality schemas than their Canadian counterparts, whom the Chinese immigrants were supposed to get close to rather than exceed to.

This inconsistency may occur for the three reasons. First, Veeck and Burns (1995) conducted price-quality schema comparison study between US and Chinese

consumers. Their finding was consistent with US studies finding that individuals with less purchase experience are more likely to judge a product by its price (Rao & Monroe, 1988; Rao & Sieben, 1992). In my study, most of the Chinese immigrant respondents are fairly new in Canada (M = 4.48 years). Their purchasing experience in Canda was limited because they were not familiar with the new market; further most of the products they purchased in their home country were not available (Doran, 1994; Penaloza, 1994). To avoid or reduce uncertainty and risk, they tend to depend on price as surrogate of the product quality (Zhou et al. 2002). Therefore, they may rely heavily on price to make their shopping decisions.

Second, consumers tend to learn very quickly in the early learning stage. Penaloza (1989) pointed out that the immigrants will try to assimilate the consumption patterns of the host country right after arriving in the new country. Doran (1994) also found that the young Chinese female appeared to adopt more typically Western strategies right away. After immigrating to Canada, where high level of price-quality schema is adopted, the Chinese immigrants may have found that there were a lot of native consumers using price to predict product quality, therefore, they may adopt this heuristic to guide their shopping and hence developed their a price-quality schema.

Third, Gentry, Jun, and Tansuhaj (1995) asserted that acculturation is not linear; there are instances in which immigrants engage in consumption patterns that exceed that which is typical of the host group. Further, they stated that the "over-acculturation" phenomenon may occur because new coming immigrants learn from

indirect observation (media) rather than direct experience. Chinese immigrants, especially for the newcomers, tried to learn shopping skills as soon as possible. However, indirect observation was a shortcut for them because hands-on experience is both time and money consuming. Through observations, some new Chinese immigrant consumers may develop very strong price-quality schemas.

Hypothesis 2a to hypothesis 2c predicted the linear trend from domestic Chinese consumers' perceptions of market efficiency through Chinese immigrant consumers in Canada to Canadian consumers' perceptions of market efficiency. It was completely supported (see Table 24). Again, because of the lack of competition, regulation, and information channels, as well as the nature of collectivistic culture relying on the in-group communication, Chinese consumers not surprisingly had significantly lower level of perceptions of market efficiency than their Canadian counterparts.

For the Chinese immigrants, once they landed in Canada, which has sufficient marketing information as well as numerous information channels, they started to learn the new marketplace through the progressive learning process, and explored more marketing information by themselves after becoming more individualistic. Therefore, they started to perceive the Canadian marketplace as more and more efficient.

Figure 2 showed the integrative findings of price-quality schemas and perceptions of market efficiency of three consumer groups.

For hypothesis 1d and hypothesis 2d, the findings in the present study showed that Chinese immigrant did increase both their price-quality schema and perception of

market efficiency in Canada, indicating that immigrants do become similar towards to the majority of the host country and adopt some of the dominant society's "attitudes, values, and behaviors." Although the findings were in the hypothesized direction there was not a relationship between acculturation levels and immigrants' price-quality schemas and perceptions of market efficiency. It maybe due to the reasons below:

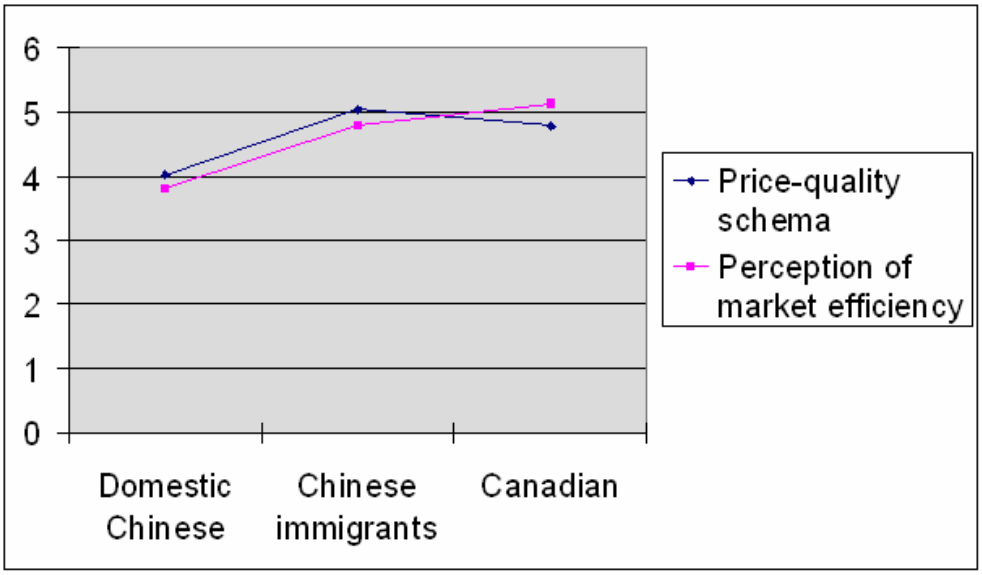

Figure 2. Integrative chart of three consumer groups' Price-quality schemas and Perceptions of market efficiency

First, acculturation has several dimensions and each dimension varies at different paces. Berry (1990) pointed out that the acculturation process is uneven across behaviour and social life dimensions. Similarly, Gentry, Jun, and Tansuhaj (1995) also reported this between different acculturation dimensions. Therefore, the acculturation paces of the three dimensions of AAMAS scale-Cultural identification, Language, and Cultural knowledge- may be too slow and therefore not suitable to reflect immigrants' consumption pattern changes. The findings of this study were

consistent with previous findings of several acculturation studies that immigrants do not always adopt the consumption habits of the new culture/society even for the long time immigrants with high levels of acculturation (Lee & Tse, 1994; Penaloza & Gilly, 1999; Wallendorf & Reilly, 1983). For the present study, immigration did impact Chinese immigrant consumers' price-quality schemas and perceptions of market efficiency, but perhaps general acculturation as measured in this study was not the causal mechanism. Future research could seek to identify the causal element that leads to this change. Therefore, consumer acculturation scale rather than the general acculturation scale is needed, consistent with Ogden, Ogden, and Schau's (2004) call for a valid and specific consumer acculturation scale. Further, the ideal sample size is 385for each consumer group. But the sample size of Chinese immigrants was smaller than needed. Additionally, the Chinese immigrant respondents were fairly newcomer in Canada (M = 4.48 years). The variance of acculturation levels was limited.

Furthermore, results showed that Chinese immigrants' length of stay in Canada did not significantly correlate with immigrants' price-quality schemas and perceptions of market efficiency. Acculturation researcher pointed out that the longer the immigrants stayed in the host culture, the more acculturated they are (Doran, 1994). However, consumers' price-quality schemas are more consumption experience orientated (McGowan & Sternquist, 1998; Rao & Monroe, 1988; Rao & Sieben, 1992). In addition, length of stay may not strongly relate to consumption experiences since there are numerous demographic factors influencing consumers' consumption activities. Therefore, general acculturation, which is length of stay orientated, was not

found to be significantly related to price-quality schema which is shopping experiences orientated.

For the proxy measures of acculturation- individualism and collectivism, individualism was found to be positively related to consumers' price-quality schemas and perceptions of market efficiency (see Table 34). However, the results of the relationship between collectivism and price-quality schema/perception of market efficiency were not in the direction as expected (see Table 34). This can be explained that individualism and collectivism are separate and independent dimensions (Egri, Ralston, Murray, & Nicholson, 1996; Ralston, Egri, Stewart, Terpstra, & Yu, 1999). Therefore, individualism and collectivism are not two opposite polars in a continuum, and being less collectivistic does not necessarily mean being more individualistic. In other words, the consumers who reported low levels of collectivism may not be characterized by self-sufficiency and high levels of trust in out-groups interactions.

In addition, there were some findings that were inconsistent with previous research. Veeck and Burns (1995) found Chinese consumers had significantly lower levels of price-quality schema than their US counterparts and argued that China's high inflation rate, which was an offspring of China's market reform, may contribute to Chinese consumers' "tenuous" price-quality schema. However, from June 2005 to June 2006, China's CPI (Consumer Price Index) increased 2.1% (National Bureau of Statistics, 2006) and Canada's increased 2.5% (Statistics Canada, 2006) but at the same time, domestic Chinese consumers still have significantly lower price-quality schema than their Canadian and Chinese immigrant counterparts. When we look at a

longer period of time (see figure 3), the average CPI growth rate in China for the past decade (1997-2006) is even lower than that of Canada. The statistics demonstrates that CPI inflation may not be the major cause of Chinese consumers' low price-quality schema.

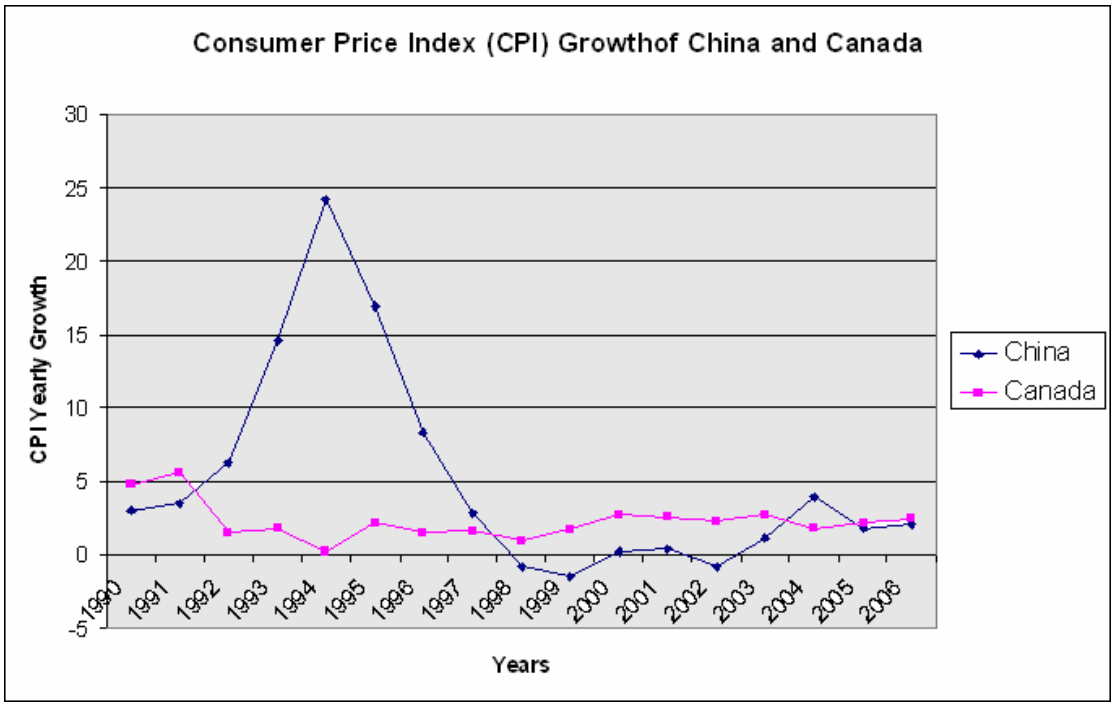

Figure 3. Consumer Price Index Growth in China and Canada

7. Conclusion, Contribution and Implications

This study was the first one investigating Canadian consumers' price-quality schemas and perceptions of market efficiency. It was also the first study in North America examining immigrant consumers' price-quality schemas and perceptions of market efficiency, and how acculturation affects their schemas and perceptions. Further, this study was also the first study exploring the effects of individualism/collectivism on consumers' price-quality schemas and perceptions of market efficiency.

Results showed that Canadian consumers have positive price-quality schemas and perceptions of market efficiency. Canadians were found to have stronger price-quality schemas and perceptions of market efficiency than Chinese immigrants and domestic Chinese, with the exception that Chinese immigrants demonstrated the highest levels of price-quality schemas. Further, Chinese immigrants were found possessing stronger price-quality schemas and perceptions of market efficiency than domestic Chinese consumers. Also, acculturation was positively but not significantly related to Chinese immigrants' price-quality schemas and perceptions of market efficiency. Individualism positively related to all three consumer groups' price-quality schemas and perceptions of market efficiency. In addition, collectivism was found also positively related to prices-quality schemas and perceptions of market efficiency, except for Chinese immigrants. Findings supported Zhou and Nakamoto's (2001) statement that culture and market environment are probably the two main factors that

affect consumers' price-quality schemas, although acculturation wasn't significantly related to Chinese immigrants' price-quality schemas and perceptions of market efficiency.

From a managerial perspective, consumers' price-quality schema is an important marketing signal as consumers with a positive price-quality schema are found preferring higher-priced products (John, Scott, & Bettman, 1986), relying heavily on price as an indicator of quality (Etgar & Malhotra, 1981; Peterson & Wilson, 1985), accepting higher prices (Lichtenstein et al., 1988).

Results showed that Canadian and Chinese immigrants in Canada have strong price-quality schemas. Therefore, the marketers whose target markets are Canadians or/and Chinese immigrants should make their pricing strategy based on the consumers' strong price-quality schemas. On the contrast, the marketers whose target consumer segment is domestic Chinese should not assume domestic Chinese consumers believe in "you get what you pay for". Zhou and Nakamoto (2001) pointed out that market cues such as store and brand name must be provided to assure product quality for the consumers with weak price-quality schemas. However, as Maslow (1954) indicated, as the economy develops, consumers will express higher social needs such as prestige and self-actualization. Hence, as the Chinese marketplace environment improves, domestic Chinese consumers may develop stronger price-quality schemas. Therefore, marketers in China should pay attention on the efficiency of the Chinese marketplace and adjust their marketing strategies.

8. Limitations and Future Researches

First, some Cronbach's alphas of price-quality schema and perception of market efficiency scales were too low, especially for their Chinese versions. However, after dropping the weak items, the Cronbach's alphas were acceptable.

Second, due to time financial constraints, convenience sampling method was used. However, as a nonprobability sampling method, convenience sampling has somewhat limited validity and generalizability compared with other probability sampling methods. Further, the three groups' demographic variables were not equivalent. This may also jeopardize the validity of the results. In addition, ideally, approximately 385 respondents per group were needed, but only 192 Canadians, 148 Chinese immigrants, and 170 domestic Chinese were collected.

Third, this study was a cross sectional study. It only gives a snapshot of the three consumer groups' price-quality schemas and perceptions of market efficiency at one point of time. To determine whether and how immigrants increase their price-quality schemas and perceptions of market efficiency, a longitudinal study of the immigrants would be necessary.

Fourth, the general acculturation scale was used in this study. However, cultural identity or cultural knowledge might not relate much with immigrants' consumer perceptions. Consumer acculturation or particular consumer perception acculturation scales would be more appropriate for this study.

Young consumers are recognized as a specialized market segment for a variety

of goods and services (Moschis & Moore 1979), and they are also important segment to broaden the understanding of consumer behavior. It would be important and beneficial to examine young consumers' price-quality schema and perception of market efficiency in the three consumer groups.

Last but not least, price-quality schema is only one of the seven roles of price perceptions (Lichtenstein, Ridgway, & Netemeyer, 1993). Future studies should examine the rest roles - prestige sensitivity, value consciousness, coupon proneness, sale proneness, and price mavenism- and examine whether and how they change crossculturally.

References

Almond, G.A., & Verba, S. (1963). *The civic culture*. Princeton, NJ: Princeton University Press.

Batra, R. (1997). Marketing issues and challenges in transitional economics. *Journal of International Marketing, 5*(4), 95-114.

Barringer, H.R., Gardner, R.W., & Levin, M.J. (1993). *Asians and pacific islanders in the United States*. New York: The National Committee for Research on the 1980 Census and Russell Sage Foundation.

Berry, J.W. (1980). *Acculturation as adoption: theory, models, and some new findings*. Amado M. Padilla, ed. Boulder: Westview Press.

Berry, J.W. (1990). *Psychology of acculturation, in cross-cultural perspectives, proceedings of the Nebraska symposium on motivation*. 1989, Berman, J.J. (ed.), 201-234.

Brucks, M., Zeithaml, V.A., & Naylor, G. (2000). Price and brand name as indicators of quality dimensions for consumer durables. *Academy of Marketing Science*, *28*, 359-374.

Caves, R.E., & Greene, D.P. (1996). Brands' quality levels, prices, and advertising outlays: empirical evidence on signals and information costs. *International Journal of Industrial Organization*, *14*, 29-52.

Census families' median income, Canada and census metropolitan areas, 1990 and 2000. (2006). *Statistics Canada.* Retrieved August 28, 2006 from http://www12.statcan.ca/english/census01/products/analytic/companion/inc/subprovs.cfm

Chung, R.G., Kim, B.S.K., & Abreu, J.M. (2004). Asian American multidimensional acculturation scale: development, factor analysis, reliability, and validity. *Cultural Diversity and Ethnic Minority Psychology, 10*(1), 66-80.

CPI gained a fine increase in June. (2006). *National Bureau of Statistics of China.* Retrieved August 1, 2006 from http://www.stats.gov.cn/english/newsandcomingevents/t20060720_402338556.htm

Consumer Price Index (CPI) Growth of Major Countries. (2006). *Invest in Taiwan, Department of Investment Services.* Retrieved August 11, 2006 from

http://investintaiwan.nat.gov.tw/en/env/stats/cpi.html

Curry, D.J., & Riesz, P.C. (1988). Prices and price/quality relationships: a longitudinal analysis. *Journal of Marketing*, *13*, 134-145.

De Mooij, M. (2004), *Consumer behaviour and culture: consequences for global marketing and advertising*. Sage Publication, Thousand Oaks, CA.

Dodds, W.B., Monroe, K.B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, *28*(3), 307-319.

Doran, K.B. (1994). Exploring cultural differences in consumer decision making: Chinese consumers in Montreal. *Advances in Consumer Research*, *21*. 318-322.

Egri, C.P., Ralston, D.A., Murray, C.S., & Nicholson, J.D. (1996). Work values of managers in the NAFTA countries. *Working paper,* Simon Fraser University.

Erevelles, S., Roy, A., & Yip, L.S.C. (2001). The universality of the signal theory for products and services. *Journal of Business Research*, *52*, 175-187.

Etgar, M., & Malhotra, K.M. (1981). Determinants of price dependency: personal and perceptual factors. *Journal of Consumer Research, 8*, 217-222.

Faber, R.J., O`Guinn, T.C., & McCarty, J.A. (1987). Ethnicity, acculturation and the importance of product attributes. *Psychology and Marketing, 4*, 121-134.

Fan, J.X., & Xiao, J.J. (1998). Consumer decision-making styles of young-adult Chinese. *The Journal of Consumer Affairs, 32*, 275-294.

Fernandez, D.R., Carson, D.S., Stepina, L.P., & Nicholson, J.D. (1997). Hofstede's country classification 25 years later. *The Journal of Social Psychology*, 137, 43-54.

Gabriel, P.E., & Marsden, J.R. (1990). An examination of market efficiency in British racetrack betting. *Journal of Political Economy, 98*, 874-885.

Gabor, A., & Granger C.W.J. (1966). Price as an indicator of quality: report on an enquiry. *Economical, 46*, 43-70.

Geistfelf, L.V. (1988). The price quality relationship: the evidence we have, the evidence we need. *The Frontier of Research in the Consumer Interest*, Maynes, E. S., ed. Columbia, MO: American Council on Consumer Interest, 143-172.

Gentry, J.W., Jun, S., & Tansuhaj, P. (1995). Consumer acculturation process and cultural conflict: how generalizable is a North American model for marketing globally. *Journal of Business Research*, *32*, 129-139.

Gerstner, E. (1985). Do higher prices signal higher quality? *Journal of Marketing Research*, *22*, 205-209.

Gudvkunst, W.B., Ting-Toomey, S., & Chua, E., (1988). *Culture and interpersonal communication*. Sage Publications, Newbury Park, CA.

Helegeson, J.G., & Beatty, S.E. (1985). An information processing perspective on the internalization of the price stimuli. *Advances in Consumer Research, 12*, 91-96.

Hjorth, A.C. (1984). The concept of quality and the efficiency of markets for consumer products. *Journal of Consumer Research, 11*, 708-718.

Ho, S.C. (2001). Growing consumer power in China: some lessons for managers. *Journal of International Marketing, 9*(1), 64-83.

Hofstede, G. (1980). *Culture's Consequences: International Difference in Work-related Values.* Sage, Beverly Hills, CA.

Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind.* McGraw-Hill, London.

Jin, B., & Sternquist, B. (2003). The influence of retail environment on price perceptions: an exploratory study of US and Korean students. *International Marketing Review, 20*(6), 643-660.

John, D.R., Scott, C.A., & Bettman, J.R. (1986). Sampling data for covariation assessment: the effect of prior beliefs on search patterns. *Journal of Consumer Research, 13*(1), 38-47.

Jun, S., Ball, A.D., & Gentry, J.W. (1993). Modes of consumer acculturation. *Advances in Consumer Research, 20*, 76-79.

Jung, J.M. (2002). *The interactive impact of culture and individual characteristics on ethnical decision-making process, criteria, and judgmental outcomes: a cross-cultural comparison between South Korea and United States.* University of Cincinnati.

Khairullah, D.Z. (1995). Acculturation and its relation to Asian-Indian immigrants' perception of advertisements. *Journal of Applied Business Research*, *11*(2), 55-66.

Klein, J.G., Ettenson, R., & Morris, M.D. (1998). The animosity model of foreign product purchase: an empirical test in the People's Republic of China. *Journal of Marketing, 62*, 89-100.

Laroche, M., Kalamas, M., & Cleveland, M. (2005). "I" versus "we": how individualists and collectivists use information sources to formulate their service expectations. *International Marketing Review*, *22*(3), 279-309.

Latest release from the consumer price index. (2006). *Statistics Canada.* Retrieved August 1, 2006 from http://www.statcan.ca/english/Subjects/Cpi/cpi-en.htm

Leavitt, H.J. (1954). A note on some experimental findings about the meaning of price. *Journal of Business*, *27*, 205-210.

Lee, W.N. (1993). Acculturation and advertising communication strategies: a cross-cultural study of Chinese and Americans. *Psychology and Marketing*, *10*, 381-397.

Lee, W.N., & Tse, D.K. (1994) Changing media consumption in a new home: acculturation patterns among Hong Kong immigrants to Canada. *Journal of Advertising*, *23*(Mar), 57-70.

Lichtenstein, D.R., Bloch, P.H., & Black, W.C. (1988). Correlates of price acceptability. *Journal of Consumer Research, 15*, 243-252.

Lichtenstein, D.R., & Burton, S. (1989). The relationship between perceived and objective price-quality. *Journal of Marketing Research, 26*, 429-443.

Lichtenstein, D.R., Netemeyer, R.G., & Burton, S. (1990). Distinguishing coupon proneness from value consciousness: an acquisition-transaction utility theory perspective. *Journal of Marketing, 54*(3), 54-67.

Lichtenstein, D.R., Ridgway, N.M., & Netemeyer, R.G. (1993). Price perceptions and consumer shopping behaviors: a field study. *Journal of Marketing Research, 30*, 234-245.

Luo, Y., & Peng, M.W. (1999). Learning to compete in a transition economy: experience, environment, & performance. *Journal of International Business Studies, 30*(2), 269-296.

Maynes, E.S., & Terje, A. (1982). Informationally imperfect consumer markets: empirical findings and policy implications. *Journal of Consumer Affairs, 16*, 62-87.

McConnell, J.D. (1968). An experimental examination of the price-quality relationship. *Journal of Business, 41*, 439-444.

McGowan, K.M., & Sternquist, B.J. (1998). Dimensions of price as a marketing universal: a comparison of Japanese and US consumers. *Journal of International Marketing*, *6*(4), 49-65.

Monroe, K.B. (1985). Buyers' subjective perceptions of price. *Journal of Marketing Research, 10*, 70-80.

Monroe, K.B. (1990). *Pricing: making profitable decisions, second edition.* New York: McGraw-Hill Book Company.

Monroe, K.B., & Krishnan, R. (1985). *The effect of price on subjective product evaluations.* In perceived quality: how consumers view stores and merchandise, Jacoby, J. and Olson, J. C., eds. Lexington, MA: D. C. Health and Company, 209-232.

Monroe, K.B., & Petroshius, S.M. (1990). Buyers' perception of price: an update of the evidence. *Review of Marketing*. Chicago: AMA.

Moore, E.G. (1998). Competitive judgments in a business simulation: a comparison between American and Chinese business students. *Psychology & Marketing, 15*(6), 547-562.

Moschis, G.P., & Moore, R.L. (1979). Decision making among the young: a socialization perspective. *Journal of Consumer Research, 6*, 101-112.

Nee, V. (1992). Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China. *Administrative Science Quarterly, 37*.

Neidert, L.J., & Farley, R. (1985). Assimilation in the United States: an analysis of ethnic and generational differences in status and achievement. *American Sociological Review, 50*, 840-850.

Nunnally, J. (1978). *Psychometric Theory*. New York: McGraw Hill.

Ogden, D.T., Ogden, J.R., & Schau, H.J. (2004). Exploring the impact of culture and acculturation on consumer purchase decisions: towards a microcultural perspective. *Academy of Marketing Science Review, 8*, 1-26.

O'Guinn, T.C., Lee, W.N., & Faber, R.J. (1986). Acculturation: the impact of divergent paths on buyer behavior. *Advances in Consumer Research,* Ed. R. Lutz.

Provo: Association for Consumer Research. *13*, 579-583.

Olmedo, E.L., & Padilla, A.M. (1978). Empirical and construct validation of a measure of acculturation for Mexican Americans. *Journal of Social Psychology, 105*, 179-197.

Olshavsky, R.W., Aylesworth, A.B., & Kempf, D.S. (1995). The price-choice relationship: a contingent processing approach. *Journal of Business Research, 33*, 207-218.

Ownbey, S.F., & Horridge, P.E. (1997). Acculturation levels and shopping orientations of Asian-American consumers. *Psychology and Marketing, 14* (1), 1-18.

Penaloza, L.N. (1989). Immigrant consumer acculturation. *Advances in Consumer Research, 16*, 110-118.

Penaloza, L.N. (1994). Atravesando fronteras/border crossings: a critical ethnographic exploration of the consumer acculturation of the Mexican immigrants. *Journal of Consumer Research, 21*(1). 32-54.

Penaloza, L.N., & Gilly, M.C. (1999). Marketer acculturation: the changer and the changed. *Journal of Marketing, 63*(3), 84-104.

Peterson, R.A., & Wilson, W.R. (1985). Perceived risk and price reliance schema as price-perceived quality mediators. In J. Jacoby, and J. C. Olson (Eds.), *Perceived quality: how consumers view stores and merchandise* (pp. 247-268). Lexington, MA: D.C. Health and Company.

Ralston, D.A., Egri, C.P., Stewart, S., Terpstra, R.H., & Yu, K.C. (1999). Doing business in the 21st Century with the new generation of Chinese managers: a study of generational shifts in work values in China. *Journal of International Business Studies, 30*(2), 415-427.

Rao, A.R., & Monre, 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., & Monre, K.B. (1989). The effect of price, brand name, and store name on buyers' perceptions of product quality: an integrative review. *Journal of Marketing Research, 26*, 351-357.

Rao, A.R., & Sieben, W.A. (1992). The effect of prior knowledge on price acceptability and the type of information examined. *Journal of Consumer Research, 19*, 256-270.

Ratchford, B.T., Agrawal, J., Grimm, P.E., & Srinivasan, N. (1996). Toward understanding the measurement of market efficiency. *Journal of Public Policy & Marketing, 15*(2), 167-184.

Rosen, S. (1974). Hedonic prices and implicit markets: product differentiation in pure competition. *Journal of Political Economy, 82*, 34-55.

Shieh, Y.Y., & Fouladi, R.T. (2003). The effect of multicollinearity on multilevel modeling parameter estimates and standard errors. *Educational and Psychological Measurement, 63*(6), 951-985.

Six Selection Factors and Pass Mark. (2006). *Citizenship and Immigration Canada.* Retrieved August 18, 2006 from http://www.cic.gc.ca/english/skilled/qual-5.html

Sodowshy, G.R., Lai, E.W.M., & Plake, B.S. (1991). Moderating effects of sociocultural variables on acculturation attitudes of Hispanics and Asian Americans. *Journal of Counseling and Development, 70*, 194-204.

Supphellen, M., & Rittenburg, T.L. (2001). Consumer ethnocentrism when foreign products are better. *Psychology & Marketing, 18*(9), 907-927.

Teas, R.K., & Agarwal, S. (2000). The effects of extrinsic product cues on consumers' perceptions of quality, sacrifice, and value. *Academy of Marketing Science, 28*, 278-290.

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.

Toffoli, R. (1997). *The moderating effect of culture on cognitive responding mechanisms toward advertising message sidedness, unpublished dissertation*. John Molson School of Business, Concordia University, Montreal.

Triandis, H.C. (1972). *The analysis of subjective culture*. New York: Wiley.

Triandis, H.C. (1989). The self and social behaviour in differing cultural contexts. *Psychological Review, 96*(3), 506-520.

Tse, D.K., Belk, R.W., & Zhou, N. (1989). Becoming a consumer society: a longitudinal and cross-cultural content analysis of print ads from Hong Kong, the People's Republic of China, and Taiwan. *The Journal of Consumer Research, 15*(4), 457-472.

Veeck, A., & Burns, A.C. (1995). An investigation of the use of price-quality schema by urban Chinese consumers. *Advances in Consumer Research, 22*, 297-302.

Wallendorf, M., & Reilly, M.D. (1983). Ethnic migration, assimilation, and consumption. *Journal of Consumer Research, 10*(3), 292-302.

Watkins, H.S., & Liu, R. (1996). Collectivism, individualism and in-group membership: implications for consumer complaining behaviors in multicultural contexts. *Journal of International Consumer Marketing, 8*, 69–96.

Wen, G. (2003). Chinese consumer behavior: a cultural framework and implications. *Journal of American Academy of Business, 3*, 373-380.

Weinstock, A.S. (1964). Some factors that retard or accelerate the rate of acculturation: with specific reference to Hungarian immigrants. *Human Relations, 17*, 321-340.

Yates, J.F., & Lee, J.W. (1996). Chinese decision making. In M. H. Bound (Ed.), *Handbook of Chinese psychology*. Hong Kong: Oxford University Press.

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

Zhang, Y., & Neelankavil, J.P. (1997). The influence of culture on advertising effectiveness in China and the USA a cross-cultural study. *European Journal of Marketing, 31*(2), 134-144.

Zhao, S.X., Tong, C.S.P., & Qiao, J. (2002). China's WTO accession, state enterprise reform, and spatial economic restructuring. *Journal of International Development, 14*(4), 413-433.

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

Zhou, Z., & Nakamoto, K. (2001). Price perceptions: a cross-national study between American and Chinese young consumers. *Advances in Consumer Research, 28*, 161-168.

Zhou, K.Z., Su, C., & Bao, Y. (2002). A paradox of price-quality and market efficiency: a comparative study of the US and China markets. *International Journal of Research in Marketing, 19*, 349-365.

Appendix

1. Consent form

June 1, 2006

Dear Participant

I am a graduate student in the faculty of Management of the University of Lethbridge. As a part of my master research project, I am investigating consumers' behavior and cultural perceptions in Canada. As a Chinese immigrant consumer/Canadian consumer in Calgary, your opinion is unique and important to my study. This letter is to ask for your consent to participate to allow us an opportunity to get your opinions related to this project. Please note that your participation is entirely voluntary and you have the right to refuse or withdraw your participation at any time without any consequences.

All of the information we receive from you will be anonymous and confidential. We will ask for your opinions only. Please do not put your name on any form. Data will be kept in a secure location and the hard copies will be destroyed at the end of the study. Only direct researchers will have access to the data. We may publish the findings of this study in academic journals or conferences. Any publication we develop will only report aggregate data; we will not, under any circumstances, identify any personal information.

Your task is to fill out the questionnaire. Completing it will take about 15 minutes. By returning the completed materials, we assume that you have consented to provide your information to us. If you have any questions about the study, please contact Dr. Tanya Drollinger at the University of Lethbridge by phone: (403)3292174 or by email: tanya.drollinger@uleth.ca. If you wish to obtain a copy of these results, please contact Mu Mu by phone: (403)3827143 or by email: mu.mu@uleth.ca.

Every respondent will have a chance to participate in an instant lucky draw for a University of Lethbridge ball point pen or other prizes with similar value for their time and effort.

Best Regards,
Dr. Tanya Drollinger
Faculty of Management,
University of Lethbridge
Mu Mu
Graduate student of Management
University of Lethbridge

2. Questionnaire

Using a scale of 1 (strongly disagree) to 7 (strongly agree) describe your feelings about the following statements. Please fill the number in the blank before each item.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

Part 1

_____1. Generally speaking, the higher the price of a product, the higher the quality.
_____2. The old saying "you get what you pay for" is generally true.
_____3. The price of a product is a good indicator of its quality.
_____4. You always have to pay a bit more for the best.
_____5. There are a lot of alternative brands available even for a specific product.
_____6. I can easily collect plenty of information about the price and quality of a product.
_____7. I could always seek the specific product information on the internet.
_____8. There are lots of different brands for every kind of product.

Strongly Agree						Strongly Disagree
1	2	3	4	5	6	7

Part 2

_____1. How much do you feel you have in common with Chinese culture?
_____2. How much do you interact and associate with Chinese culture?
_____3. How much do you identify with Chinese culture?
_____4. How much do you like to interact and associate with Chinese culture?
_____5. How proud are you to be a part of Chinese culture?
_____6. How negative do you feel about Chinese culture?
_____7. How well do you speak Chinese (Mandarin or Cantonese)?
_____8. How well do you understand Chinese (Mandarin or Cantonese)?
_____9. How well do you read and write in Chinese?

_____10. How often do you listen to music or look at movies and magazines from Chinese societies (Mainland China/Taiwan/Hong Kong)?
_____11. How knowledgeable are you about the Chinese culture and traditions?
_____12. How knowledgeable are you about the Chinese history?
_____13. How much do you actually participate in Chinese traditions and keep its holidays?

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

Part 3

_____1. Acting as an individual is more appealing to me than acting as a member of a group.
_____2. I would rather be known for who I am as a member than as a member of an organization to which I belong.
_____3. I often do "my own thing".
_____4. I enjoy being unique and different from others in many ways.
_____5. I'd rather depend on myself than others.
_____6. My personal identity, independent of others, is very important to me.
_____7. It is important to maintain harmony within my group.
_____8. I will sacrifice my self-interest for the benefit of the group I am in.
_____9. It is important to me to respect decisions made by the group.
_____10. I believe that group harmony is more important than personal satisfaction.
_____11. To me, the interests of the group are generally more important than my personal interests.
_____12. I believe that it is my duty and obligation to observe the norms set by the group to which I belong, even if personal costs outweigh personal benefits.

Part 4

Demographic Information

1) Gender: M_____ F_____
2) Marital Status: Single, Never Married _____ Married _____
Separated_____ Divorced _____ Widowed_____
Common law_____ Other_____
3) Year of birth: _____
4) Education Level:
Did you graduate from high school? Yes_____ No_____
If yes, how many years of post high school education have you received? Please circle:

0	1	2	3	4	5	6	7	8	9	10

5) Have you ever received any post high school education in North America?

Yes_____ No_____

6) Your first language:

English _____; Cantonese _____; Mandarin _____ Other_____

7) Your Nationality:

Canadian _____

Chinese from Canton Province _____; Chinese from rest of China _____

Hong Kong Chinese _____; Taiwanese _____

Other(s) (Please specify) _____

8) How many years you have lived in Canada? _____

9) Were your parents born in Canada? Yes_____ No_____

If not, how many years have they lived in Canada? _____

10) Annual household income (Canadian dollars):

Below $15,000 _____ $15,000-$29,999_____ $30,000-$44,999_____

$45,000-$59,999 _____ $60,000-$74,999 _____ $75,000-$89,999_____

$90,000 or above _____