

FACTORS AFFECTING CHINESE STUDENTS' CHOICES OF
GROCERY STORES AND LOYALTY

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ABSTRACT

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The number of international students in the United States has increased, with almost 900,000 students in 2014. Chinese students were a large part of the growth, comprising 30.4% of the international student population. International students spend more than 24 billion dollars each year to the U.S. economy. Therefore, this group should be considered as an interesting and profitable segment for marketers to invest in understanding their shopping behavior. This study investigated factors affecting Chinese students' choices of grocery stores and loyalty and whether their degree of ethnic identity and acculturation influenced grocery store choice and loyalty. Both online and offline questionnaires were distributed and the final sample with usable data consisted of 162 Chinese students studying in the U.S. Results showed that ethnic identity had a positive effect on the importance of ethnic store product assortment, cleanliness, and ethnic store loyalty. On the other hand, acculturation was positively related to the importance of mainstream store price, location, and mainstream store loyalty. Managerial implications and limitations were also discussed.

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University professor is always my dream job and I realized that I need to complete both Master's and Doctoral degree in order to achieve it. That was why I chose to do plan A with thesis. I would like to thank my professors and friends who involved in helping me complete this thesis.

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CHAPTER 1. INTRODUCTION

Recently, there has been an increase in the number of international students in the United States. According to the Opendoors report (2014), there are almost 900,000 foreign students enrolled in U.S. colleges and universities. According to the Institute of International Education (2013): “In 2012/13 international students contributed over 24 billion dollars to the U.S. economy” (p.1). Moreover, these international students generated more than 300,000 jobs during 2013 academic year (Explore International Education, 2013). With continuous growth for over 50 years and their contribution to the U.S. economy each year (Institute of International Education, 2013), international students should be considered as an interesting and profitable segment for marketers to invest in understanding their shopping behavior. This study focuses on Chinese students in the U.S., as they are a large part of the growth in international student enrollment with over 274,000 Chinese students in recent year, or 30.4% of total international students (Opendoors report, 2014). For those students that become permanent residents, we assume that their university experience would have shaped their buying patterns after graduation, thus it is logical to conclude that they may continue to have the same shopping patterns.

According to the Hierarchy of Needs (Maslow, 1970), food is one of the most basic needs, therefore, food shopping is likely to be one of the first shopping tasks that Chinese students become involved in. Many researchers have investigated ethnic diversity in various consumer behaviors such as food consumption (Jamal, 1998), food adjustment (Brown, 2009), food meaning (Brown et al., 2010), eating patterns (Pan et al., 1999), influences on buying decision processes (Tirelli et al., 2013), purchasing behavior (Seitz, 1998), acculturation (Gordon et al, 2003; Hartwell et al., 2011; Kang & Kim, 1998) and ethnic identity (Laroche et al., 1998; Phinney, 1992; Wang, & Lo, 2007). While there is a lack of research investigating Chinese

students and their dietary adjustment after moving to the U.S., there are studies of food adjustment with international students as their samples. As Chinese students represent a large proportion of international students, studies related to international students may also reflect insights of Chinese students and their food adjustment.

Studies of international student food habits, consumption and dietary adjustment include the work of Pan et al. (2009) who studied Asian students and their eating pattern after migrating to the US. Their results showed that 73% of informants ate more snacks. These researchers also found an increase in consumption of dairy products, fats and fruits consumption by respondents, but they consumed less meat and vegetables (Pan et al., 2009). Brown's (2009) investigation of international students' adaptation to a new host country showed that many international students in England rejected the host country's food because of unhealthiness, but were willing to try dishes from other international friends. They also reported that they prepared dishes of their home country. Furukawa (1997) studied whether cultural distance had an impact on Japanese exchange students who lived in a new host country for one year and which aspect had the most impact on respondents. The results showed that cultural distance had a positive effect on international students' psychological distress and among ten aspects (climate, clothes, language, education, food, religion, material life, leisure, family life, and courtship), food had the greatest influence on psychological adaptation to the host culture.

While several studies investigated international students' food adjustment and consumption after living in a new country, there is a lack of research about their choice of and their loyalty to grocery stores. Research acknowledges that food habits, values and consumption have an influence on grocery stores (Furst et al., 1996; Lust, 2011). However, the most closely related investigation to the topic of interest focuses on immigrants and their grocery store

perceptions (e.g., Wang, 2004; Wang & Lo 2007; Fowler et al., 2007; Kang & Kim, 1998; Wijnen et al., 2011). However, Chinese students may have different perceptions of grocery stores and store patronage behavior than immigrants because of their age, income, and education. For example, Hamlett et al., (2008) stated that education in terms of a host language contributed to a significant difference in shopping experience. Seock & Sauls (2008) revealed that age is one of the factors affecting people's evaluation of an apparel retail store. In addition, Hrboticky & Krondl (1985) posited that younger immigrants are more inclined to alter their food consumption after migration. This international student group, including those who are Chinese, consists of young people with high education (Hsu, Huang, & Swanson, 2010) and who are open to experiencing new things (Brown, 2009; Brown, Edwards & Hartwell, 2010). The current study is one of the first to investigate Chinese students' choices of grocery stores based on their degree of acculturation and ethnic identity. The study will provide insights on how Chinese students choose to shop at and become loyal to a particular grocery store. Moreover, grocery stores can utilize the results of this study in order to strategically manage product assortment, service mix and store promotional messages to attract the Chinese student group.

This study will explore whether the degree of acculturation and ethnic identity have an effect on Chinese students' choice of grocery stores, patronage frequency and loyalty for both ethnic and mainstream grocery stores.

CHAPTER 2. LITERATURE REVIEW

Store Attributes

Studies have investigated a wide variety of consumers' store choice criteria such as price competitiveness, cleanliness, product assortment, atmosphere, travel distance, perceived product and service quality (Babakus et al., 2004; Bloemer & De Ruyter, 1998; Chang & Tu, 2005; Hsu et al., 2010; Sivadas & Baker-Prewitt, 2000; Carpenter & Moore, 2006; Briesch et al., 2009), but the majority of the studies related to store choice characteristics have focused on specialty and department stores rather than food stores.

The work of Briesch et al. (2009), using household-level market basket data, found that consumers considered assortment as being more important than retail price when they made store choice decisions. Carpenter et al. (2006) explored consumers' retail format choice and specialty store attributes. The result showed that frequent shoppers considered cleanliness, crowding, product selection, courtesy of personnel and price competitiveness as the top five retail attributes when they chose a specialty store. Sivadas & Baker-Prewitt (2000) asserted that service quality of a retail department store had an impact on customers' attitudes and satisfaction.

The literature cited above illustrates that there are several store attributes that consumers take into consideration when they choose stores to shop, but what accounts for differences in consumers' evaluation of stores? A myriad of researchers contend that culture, defined as "The socially learned knowledge and patterns of behavior shared by some group of people" (Peoples & Bailey, 2011, p.24), and ethnicity, which refers to "a demographic characteristic that describes the national or geographic origin of an individual" (Ackerman & Tellis, 2001, p. 60) are two of the most important factors that affect consumer shopping patterns (Luna & Gupta 2001; Rossiter

& Chan 1998; Hartwell et al., 2011; Ho et al., 1966; Hrboticky & Krondl 1985; Sobal, 1998; Peñaloza & Gilly, 1999).

Ackerman & Tellis (2001) examined differences in grocery store perceptions and shopping patterns between Chinese and American consumers. The results showed that Chinese shoppers take more time to shop and look at items than American shoppers. Lee et al. (1992) also asserted that ethnic differences affected consumers' evaluation of product attributes. Shim & Gehrt (1996) observed that Hispanics had different shopping approaches from white people, using a hedonistic orientation while Whites exhibited a utilitarian orientation. Baltas & Papastathopoulou (2003) studied Greek consumers' product and store choice criteria and found that product quality and features are the most significant product choice criteria and store location also play an important role. Chinese immigrants in Toronto, Canada acknowledged their preference for Chinese supermarkets, with the most important factor for store choice being ethnic identification (Wang, 2004). Based on the previous literature, we hypothesize that ethnicity plays an important role in consumers' shopping patterns and store choice consideration.

Ethnic Identity

There are two separate constructs used to connect a person to a particular ethnic group: ethnicity and ethnic identity. Ethnicity refers to an objective designation of oneself to a specific group based on some similar demographic backgrounds (Ackerman & Tellis 2001; Ogden et al., 2004). Most previous research studying ethnicity has classified individuals by using their last names or native language (Stayman & Deshpande, 1989). However, this approach fails to take self-perception into consideration (Stayman & Deshpande, 1989). Later studies investigated ethnicity in a more subjective way, including people's felt ethnicity (Stayman & Deshpande, 1989). Ethnic identity is an identification of oneself to a particular social group involving a sense

of belonging and emotional attachment with the group (Tajfel, 1981; Jamal, 2003) and is more subjective compared to ethnicity (Ogden et al., 2004).

The formation of ethnic identity by adolescent minority groups of people in a White culture is posited to be a three-stage process. Stage one includes an acceptance of the host culture's attitudes by the minority, followed by an identity foreclosure which the minority may have either positive or negative attitudes toward their ethnicity (Phinney, 1989). Moratorium is the next stage, when individuals try to understand their own ethnicity. Confusion about their ethnicity may occur during this stage. The final process of ethnic identity is an achievement of identity, when individuals have a clear understanding about their ethnicity and accept themselves as being in a particular ethnic group (Phinney, 1989). Different stages of forming ethnic identity can lead to different scores on ethnic identity, which then affects immigrants' different choices of grocery stores. Delener & Neelankavil (1990) asserted that people in a particular ethnic group will have a similar preference for type of stores, sources of information and products that satisfy specific needs.

Felt ethnic identity can be affected by a social situation in which a person engages, as well as a person's perception of that circumstance (Stayman & Deshpande, 1989). Therefore, in different circumstances and with different people, a person may behave differently according to their felt ethnic identity at that time (Jamal, 2003). Phinney (1992) also asserted that ethnic identity is a dynamic construct. Stayman and Deshpande (1989) studied people's felt ethnicity and consumption in situational contexts in which respondents (Anglo, Mexican and Chinese undergraduate students) were asked to make a food choice for eating with parent or with business-associates situation. The results showed that respondents with different ethnicity had different perceptions of the appropriate food for consumption in the two situations.

Many researchers have investigated various aspects of ethnic identity. For example, Balasubramanian & Herche (1994) studied six ethnic groups of people and their shopping behavior. The results showed that Black people were more likely to seek and patronize ethnic (Black) businesses than the other groups (Hispanic, Chinese, Japanese, Italian, and Korean). Donthu & Cherian (1992) studied Hispanic response to marketing activities and reported that the level of ethnic identification had an impact on Hispanic coupon usage. People who scored high on their ethnic identity tended to use fewer coupons and responded to marketing activities less than people with low score ethnic identity. They also indicated that strong Hispanic identifiers were more likely to patronize Hispanic retailers (Donthu & Cherian, 1995). Deshpande et al.'s (1986) study about Hispanic identity found that Hispanics who scored high on their ethnic identity had a tendency to consume Spanish language media. Studies about Chinese immigrants and their ethnic identification include the work of Wang & Lo (2007). They examined Chinese immigrants living in Toronto, Canada and their grocery shopping behavior. Results indicated that strong Chinese identifiers patronized Chinese businesses more often than those who scored low in their ethnic identification.

Based on the previous literature, ethnic identity appears to have a direct effect of on people's shopping behaviors and their frequency of patronage in ethnic grocery stores.

Therefore, the following hypothesis is provided:

H1: Ethnic identity score is positively related to patronage frequency in ethnic grocery stores for Chinese students. See Figure 1 for hypothesized relationships.

Many studies suggested that immigrants need a wide range of specific products for their traditional home food, relating to their ethnicity. For example, Hartwell et al. (2011) indicated that international students in the UK shopped at specialty grocery shops for specific ingredients

from their home countries, which were related to their ethnicities. Ethnic respondents from Jamal's (2003) study stated that they could find a wide variety of specific products and ingredients from their country at one of the ethnic stores in the UK. Therefore, it is logical to assume that ethnic ingredients motivate people to shop at ethnic stores. Kaufman & Hernandez (1991) discovered that a wide variety of ethnic food was one of the factors affecting Puerto Ricans' choice of supermarket. As Chinese students are part of an immigrant group, it is logical to assume that they may also consider ethnic food as an important factor when deciding to shop at ethnic stores. With this regard, the following hypothesis is proposed:

H2a: Ethnic identity score is positively related to the importance of ethnic product assortment for Chinese students when considering ethnic store to shop.

Based on previous literature, people can find ethnic ingredients in an ethnic grocery store. Therefore, these specific ingredients may lead to increased patronage frequency of ethnic grocery store. With this regard, the following hypothesis is proposed:

H2b: Ethnic product assortment is positively related to patronage frequency in ethnic grocery stores for Chinese students.

There is a lack of research on whether a relationship between ethnic product assortment and mainstream store patronage exists. However, there may be a relationship between these two constructs. Therefore, the following research question is provided:

RQ1: What is the relationship between the importance of ethnic product assortment for mainstream store and mainstream store patronage?

Hamlett et al. (2008) analyzed dual shopping as a common practice of South Asian people living in Britain. Dual shopping involves consumers shopping at local stores for basic

needs and traveling further to the other stores in order to purchase specific ingredients. This phenomenon indicates that location is less important than specific ingredients when they consider which stores to shop. Moreover, Wang & Lo (2007) found that respondents (Chinese immigrants in Toronto, Canada) with a strong ethnic identity are willing to take time on making a trip to an ethnic store. With this regard, the following hypothesis is proposed:

H3a: Ethnic identity score is negatively related to the importance of store location when considering ethnic store to shop.

Drawing from hypothesis 3a, if Chinese students with high ethnic identity score consider store location to be less important and they still shop at ethnic stores, it is logical to assume that importance of store location will be negatively related to ethnic store patronage. Therefore, the following hypothesis is proposed:

H3b: When considering ethnic store to shop, importance of store location is negatively related to ethnic store patronage.

Based on a pre-test study with 30 international students at Michigan State University, results showed that students who indicated they always go to a mainstream store considered store location and low prices to be the most significant choice criteria. Therefore, the following hypothesis is proposed:

H3c: When considering mainstream store to shop, importance of store location is positively related to mainstream store patronage for Chinese students.

The relationship of travel distance to ethnic grocery store patronage leads to the question of whether these Chinese students are more or less price conscious than those who do not shop for ethnic ingredients. Segev (2014) investigated price consciousness of Hispanic immigrants in

the US and found that ethnic identification was a positive predictor of price consciousness.

Therefore, the following hypothesis is provided:

H4a: Ethnic identity score is positively related to price importance when considering mainstream store to shop for Chinese students.

International students from the pre-test investigation considered low price as one of the factors that accounted for their mainstream store patronage. Therefore, the following hypothesis is proposed:

H4b: When considering mainstream store to shop, the importance of price is positively related to mainstream store patronage for Chinese students.

There is a lack of research on price and ethnic store patronage. However, there may be a relationship between these two constructs. Therefore, the following research question is provided:

RQ2: What is the relationship between price and ethnic store patronage?

Acculturation

Acculturation is a process of trait acquisition of the host society or culture (Seitz, 1998; Laroche et al., 1998) and is multidimensional (Berry, 1980; Sobal, 1998). Redfield et al. (1936) defined acculturation as “those phenomena which result when groups of individuals having different cultures come into first-hand contact with subsequent changes in the original cultural patterns of either or both groups” (p.149). It is logical that immigrants who live in a new host country or culture such as the USA have a tendency to acculturate and adopt the host’s values (Kang & Kim, 1998). Although an acculturation process can happen for both immigrants and a

host culture group, it is more likely that immigrants will adopt the host country's values than the host group acquires immigrants' culture because of the greater number of people in the host country (Ogden et al., 2004). The process of acculturation can vary among immigrants (Seitz, 1998). People who stayed in the host country for a short period of time may have a lower degree of acculturation than people who stay longer, such as the case of immigration (Penaloza, 1989). Shopping patterns can also be different among immigrants when they have different degrees of acculturation (Kang & Kim, 1998).

Many studies attempted to measure the degree of acculturation by using a variety of indicators that include language dimension, media type consumption, social interaction, social participation and the number of host culture friends (Laroche & Tomiuk, 1998). Acculturation is also related to social and psychological factors (Tirelli et al., 2013) including behavioral changes of immigrants such as food and consumption patterns (Wallendorf, & Reilly, 1983; Hamlett et al., 2008).

In marketing, there is another term of acculturation called "consumer acculturation" which refers to a more specific process of learning and acquiring consumption patterns, attitudes and values from the host culture (Ogden et al., 2004). According to Penaloza (1989), both individuals and a group of people can experience consumer acculturation. Psychological theories explain the process of individuals' consumer acculturation, which involves the acquisition of norms and knowledge whereas social-psychological theories help explain consumer acculturation at a group level at which people share information with each other and this process can influence a person's consumer learning (Penaloza, 1989).

Examples of acculturation studies include research by Mehta & Belk (1991) who found that Indian immigrants in the US were different from Indians in their own country. Indian

immigrants have bigger places to live with more rooms and also adapted their use of local language and have local food. Kang & Kim (1998) explored Asian Americans and their social clothes decision-making and learned that degree of acculturation had an influence on store attribute evaluation. Results showed that respondents who scored low on their acculturation level considered convenience to be significant store attribute.

Dietary acculturation, one type of acculturation process, refers to the process of acquiring eating practices of the new environment by immigrants (Satia-Abouta, 2003). Even when immigrants prepare their ethnic food, they also use ingredients from the host country (Satia-Abouta, 2003). The study also found that the acquisition of host country's eating practice leads to both more and less healthy lifestyles. Different socioeconomic, demographic and cultural factors can lead to different dietary adaptation of people to the new host culture (Satia-Abouta, 2003). For example, Korean immigrants consumed fewer cookies and sweets but cooked rice was consumed more often than by Korean Americans (Park et al., 2004).

Many researchers have studied this process of dietary acculturation. For example, Satia et al. (2001) developed specific scales to measure Chinese-Americans and Chinese-Canadians' degree of dietary acculturation. Gordon-Larsen et al. (2003) studied Hispanic immigrants in the US and their overweight-related behaviors and contended that degree of acculturation is positively related to foreign-born respondents' becoming overweight. Wandel et al. (2008) investigated South Asians in Oslo and their food habits. Results showed that many Sri Lankans consumed more meat, potatoes and some of the dairy products after migration. Neuhouser et al. (2004) reported that Hispanics in Washington State who scored high (vs. low) on an acculturation scale ate fewer fruits and vegetables. Hartwell et al. (2011) showed that postgraduate international students from Europe and Asia living in southern England accepted

different foods but they tried to maintain having traditional food of their home country by bringing ingredients from home with the help of their friends and families.

Based on previous literature, the degree of acculturation has an impact on food consumption. Studies indicate that people who score high on an acculturation scale tend to consume the host country's food more than people who score low. Extrapolating from these findings, we posit that more highly acculturated students may patronize mainstream/local grocery stores more often than less acculturated people. At the same time, more acculturated students may be less likely to patronize ethnic grocery stores. Therefore, the following hypotheses are proposed:

H5a: The degree of acculturation is positively related to frequency of patronage in mainstream/local grocery store.

H5b: The degree of acculturation is positively related to frequency of patronage in ethnic grocery store.

Based on the finding from Neuhouser et al. (2004) that more acculturated people consume host food more often than less acculturated people, it is logical that more acculturated students may consume less ethnic food and that they may consider ethnic product assortment to be less important. Therefore, the following hypothesis is provided:

H6: The degree of acculturation is negatively related to importance of ethnic product assortment when considering mainstream store to shop.

There is a lack of research on the degree of acculturation and importance of store location. However, there may be a relationship between them. More acculturated students may behave more like American students. Arnold & Tigert (1978) found that store location is one of

the most important attributes for Americans when they consider a store for food shopping. Therefore, the following research question is provided:

RQ3: What is the relationship between the degree of acculturation and importance of store location when Chinese students consider a mainstream store to shop?

According to the pre-test of 30 international students, price appears to be an important attribute for those who stated that they only patronize mainstream stores. It is logical to assume that these students have high acculturation, as they prefer mainstream stores to ethnic stores. Therefore, the seventh hypothesis is:

H7: The degree of acculturation is positively related to price importance when considering mainstream store to shop.

Store Loyalty

Store loyalty is defined by Bloemer & De Ruyter (1998) as "The biased (i.e., non-random) behavioural response (i.e., revisit), expressed over time, by some decision-making unit with respect to one store out of a set of stores, which is a function of psychological (decision making and evaluative) processes resulting in brand commitment" (p. 500). Brand loyalty is defined by Oliver (1999) as "A deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" (p. 34).

Many studies have investigated brand loyalty, including Nam et al. (2011) and Chaudhuri & Holbrook (2001). These two studies focused on two dimensions of brand loyalty: behavioral loyalty and attitudinal loyalty. Behavioral loyalty refers to repurchase frequency and attitudinal

loyalty is defined as customers' commitment to a brand such as purchase intention and recommendation (Nam et al., 2011). Söderlund (2006) investigated different aspects of loyalty and found that loyalty intention has two aspects: re-patronage intentions and word-of-mouth intentions. Re-patronage intentions referred to a repeat act of a person that comes into contact with a supplier whereas word-of-mouth intentions involve people talking to others (Söderlund, 2006).

There is a lack of research on Chinese students in the U.S. and grocery store loyalty and there are only a few studies that investigated immigrants and grocery store loyalty. Such studies include Kaufman & Hernandez (1991) who examined the role of a small grocery store to a US Puerto Rican neighborhood. Results from personal interviews indicated that this small store helped maintain the Latin culture where people shopped for ethnic food. Another study about immigrants and their preference is from Wang (2004). Results showed that Chinese immigrants in Toronto, Canada prefer to patronize Chinese businesses such as Chinese travel agencies as well as Chinese grocery stores.

Segev et al. (2014) studied ethnic identification and acculturation of Hispanic immigrants in the US and former USSR living in Israel to determine whether these characteristics have an effect on their store loyalty. Results showed that both acculturation and ethnic identification have a direct effect on immigrants' loyalty to mainstream and ethnic stores. Ethnic identification is positively related to immigrants' loyalty to ethnic stores. Acculturation has a positive effect on immigrants' loyalty to mainstream stores, but has a negative effect on ethnic store loyalty.

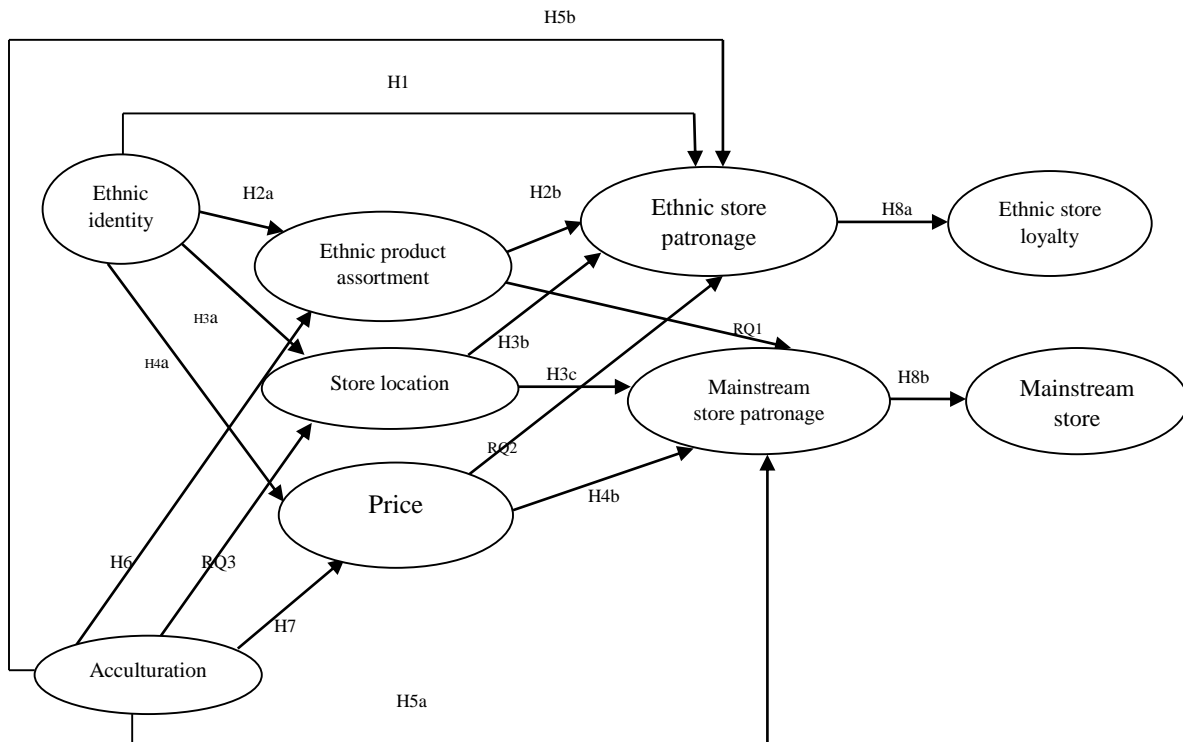
While Segev et al. (2014) investigated a relationship between ethnic identity, acculturation and store loyalty, this study postulates a relationship between store patronage and store loyalty. As previous literature demonstrates, store characteristics influence store patronage

and store patronage should influence store loyalty. Therefore, the following hypotheses are proposed:

H8a: Ethnic store patronage is positively related to ethnic store loyalty.

H8b: Mainstream store patronage is positively related to mainstream store loyalty.

Figure 1. Conceptual Framework



CHAPTER 3. METHODOLOGY

Sample, Design, and Procedures

As there is a lack of research on international students and their choices of grocery stores, a pre-test online survey was administered to Michigan State University students by using a student pool, SONA system to discover important criteria used when shopping for food.

The main online survey for this study was distributed through Amazon Mechanical Turk (mTurk) and the SONA system, a student research pool of Michigan State University. Using mTurk provides access to more heterogeneous respondents than SONA and mTurk is considered as a facilitating tool for researchers in gaining access to specific pools of respondents (Paolacci & Chandler, 2014). The proposed sample size of this study was 200 Chinese students, defined as students who are Chinese and are studying at US universities, and included both undergraduate and graduate students). Students who were recruited through SONA system earned 0.25 SONA credits per completion as an incentive. Students who completed the survey through Amazon Mechanical Turk received an incentive of \$0.75 per completion.

From a pre-test session, we gained only a few respondents who stated that they go to ethnic stores, thus in addition to the SONA and mTurk recruitment strategies, students were also recruited by using an online snowball sampling technique through Facebook to gain an adequate number of Chinese students who go to ethnic stores. Atkinson and Flint (2001) defined snowball sampling as a "technique for finding research subjects. In snowball sampling, one subject gives the researcher the name of another subject, who in turn provides the name of a third, and so on" (p. 1). Therefore, online snowball sampling is a snowball sampling method through online recruitment. Marpsat & Razafindratsima (2010) identified one of the hard-to-reach populations as the population with a relatively small numbers and an online snowball sampling can help

access this hard-to-reach population (Baltar & Brunet, 2012). After the initial data were collected, participants were also recruited from one of the ethnic stores in East Lansing called “Oriental Mart” as the initial data collection had a low response rate.

Measures

Ethnic Identity

The study uses a scale developed by Phinney (1992) to measure a person's level of ethnic identity, and is comprised of two subscales, ethnic identity achievement and affirming and belonging. The measurement was considered to be reliable with Cronbach's alpha of 0.81 and 0.9 for high school and college samples, respectively. Phinney (1992) asserted that the scale could be used with ethnically diverse groups, not specific to a particular group of people (See appendix A for survey instrument).

Acculturation

A 32-item scale to measure level of acculturation developed by Stephenson (2000) is adopted to use in this study. The measurement included two subscales, dominant society immersion (DSI) and ethnic society immersion (ESI). Each subscale measured language, interaction, media, and food. The measurement was considered to possess high reliability of 0.94 coefficient alpha for an ethnic society immersion factor and coefficient alpha of 0.75 for a dominant society immersion factor. Stephenson's (2000) study confirmed that this measurement could be used with a variety of ethnic groups.

Store Attributes

There were 8 items that measure the importance of store attributes (1=never important, 5=always important). The attributes include price, oriental product variety, and location. The study asked about other store attributes to see whether there are other store attributes that

respondents consider to be important such as cleanliness, crowding, security, parking facilities, and atmosphere. These store attributes are adopted from Yavas (2003).

Store Loyalty

This study uses 18 items from Zhao & Huddleston (2012) to measure two dimensions of store loyalty: conative loyalty and action loyalty. Conative loyalty refers to people's loyalty intention whereas action loyalty involves people's actual loyal behavior (DeWulf et al., 2001 and Zeithaml et al., 1996). Zhao & Huddleston (2012) adopted action loyalty items from DeWulf et al., (2001; Cronbach's $\alpha = 0.881$) and Zeithaml et al., (1996). Conative loyalty items were from Zeithaml et al., (1996; Cronbach's $\alpha = 0.856$).

Attitudes toward American Products

Attitude toward American products may have a potential effect on respondents' choices of grocery stores. For example, if a person does not like American products, (s)he may not choose to shop at American stores and shop at ethnic grocery stores instead regardless of their level of acculturation and ethnic identity. Therefore, attitude toward American products should be controlled. Attitudes toward American products consisted of 3 items from Kumar et al. (2009; Cronbach's $\alpha = 0.82$), who derived these items from Shimp & Sharma (1987).

Cultural Distance

Respondents are asked how close they feel about their culture and American culture. This single-item measurement is adopted from Aron et al. (1992), which is called the Inclusion of Other in the Self Scale (IOS Scale). Cultural distance should be considered as a control variable as it may have an effect on respondents' choices of grocery stores. For example, if a person feels

that Chinese and American culture are very similar, that person may not consider ethnic stores as places to shop because (s)he does not feel that ethnic and mainstream stores are different.

Other demographic information such as age, gender, length of stay in the US, nationality, and decision whether to stay or leave the U.S. after graduation were collected.

Data Analysis

Principal components factor analysis with varimax rotation was used to determine dimensions of ethnic identity, acculturation, and loyalty scales. Hierarchical Multiple Regression and Pearson Correlations were used to examine the effect of acculturation and ethnic identity on importance of store attributes, frequency patronage, and store loyalty. Descriptive statistics were computed to provide information of respondents on their demographic variables such as age, gender, education, income, and length of stay in the US.

CHAPTER 4. RESULTS

The final sample with usable data consisted of 162 participants. Seventeen participants were recruited at one of the ethnic stores in East Lansing, and 15 participants were recruited through Facebook snowball technique. Thirty-seven participants completed the survey through SONA system and 93 participants were from Amazon Mechanical Turk. Participants who failed to answer checking questions (such as please choose “disagree” for this answer) were not included in the analysis. Of the sample, 42.6% ($n = 69$) were men and 57.4% women ($n = 93$). Age of respondents ranged from 19 to 52 years, with a mean age of 25.6. The mode of total family income was in a category of \$60,000 or more with 21.6% ($n = 35$). Mean score of formal education was 15 years. Length of stay in the U.S. ranged from less than 1 year to 10 years, with an average of 5.5 years. After graduation, there were 13.6% ($n = 22$) who plan to leave the U.S., 44.4% ($n = 72$) who plan to stay, and 41.4% ($n = 67$) who were undecided. There were 145 participants who stated that they go to mainstream stores, 112 participants who patronize ethnic stores. Ethnic identity, acculturation, loyalty, and attitude toward American products scores were computed as an average score of the scale items.

After computing mean scores for importance of store attributes, ethnic store customers considered Asian product assortment (4.38) and cleanliness (4.0) to be the most important criteria, whereas parking facilities (3.07) and crowding (3.21) were the least important. For mainstream store customers, price (4.14) and location (4.0) were the most important criteria, while the least important criteria were Asian product assortment (3.01) and parking facilities (3.22). (See Table 1).

Table 1. Descriptive Information

	Min	Max	Mean	N	%
Age	19	52	25.6		
Length of stay	0	10	5.5		
Years of formal education	8	28	15		
Gender					
Male				69	42.6
Female				93	57.4
Decision After Graduation					
Stay				72	44.4
Leave				22	13.6
Undecided				67	41.4
Patronage Behaviors					
Ethnic Store customers				112	69.1
Mainstream Store customers				145	89.5
Go to both				104	64.2
Ethnic Identity					
Ethnic Store Group	2.13	5	3.83		
Mainstream Store Group	1.63	5	3.77		
Acculturation (Dominant society immersion)					
Ethnic Store Group	1.5	4	2.72		
Mainstream Store Group	1.5	4	2.89		
Store Loyalty					
Ethnic Store Group	1.5	5	3.44		
Mainstream Store Group	1	5	3.29		
Importance of Store Criteria (Ethnic, Mainstream)					
Price	1,1	5,5	3.90,4.14		
Asian product assortment	1,1	5,5	4.38,3.01		
Location	1,1	5,5	3.82,4.00		
Cleanliness	1,1	5,5	4.00,3.97		
Security	1,1	5,5	3.36,3.41		
Crowding	1,1	5,5	3.21,3.34		
Parking Facility	1,1	5,5	3.07,3.22		
Atmosphere	1,1	5,5	3.41,3.34		

Principal-components analyses with varimax rotation were conducted on the 12-item ethnic identity, 32 item acculturation and 18 item loyalty scales. For hypothesis testing, the study combined subscales and computed a mean score to create the study constructs (ethnic identity, acculturation and loyalty). Factor analysis of ethnic identity, acculturation, and loyalty scale was used only to determine if factors loaded on the same subscales as the original scales and possessed appropriate values. Two criteria were used in the selection of items to retain: (a) a

factor loading of at least .6 on the primary factor, (b) a cross loading of no more than .4. These criteria were suggested by Matsunaga (2010) in order to avoid cross-loading problems. The number of factors retained in each analysis was determined by the scree test plot. In addition to meeting the above two criteria, items were retained only when they loaded on both ethnic and mainstream store customers. Items which were dropped out of the scales are presented in Appendix B.

The ethnic identity analysis yielded a two-factor solution. A total of 8 items were retained that accounted for 64.174% of the scale variance; Factor 1 accounted for 41.425%, Factor 2 accounted for 22.749%. Factor 1 included 5 items related to affirmation and belonging (Cronbach's alpha = 0.885), Factor 2 included 3 items related to ethnic identity achievement (Cronbach's alpha = 0.616). Cronbach's alpha for the entire scale was 0.848. Factor loadings and items contributing to the factors are presented in Table 2.

Table 2. Items Contributing to Factors of Ethnic Identity

Items	Component	
	Affirming & Belonging	Ethnic Identity Achievement
I feel good about my cultural or ethnic background.	.805	
I am happy that I am a member of the group I belong to.	.798	
I have a strong sense of belonging to my own ethnic group.	.797	
I have a lot of pride in my ethnic group and its accomplishments.	.793	
I feel a strong attachment towards my own ethnic group.	.792	
In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.		.758
I think a lot about how my life will be affected by my ethnic group membership.		.754
I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs.		.650
Eigenvalue	3.31	1.82
% of variance	41.43	22.75

While the original ethnic identity scale purported to be comprised of three subscales: ethnic identity achievement, affirming and belonging, and ethnic behaviors, the current study factor results showed that ethnic identity measurement yielded only two subscales: ethnic identity achievement, and affirming and belonging. These results are similar to evidence from another study where this same scale yielded the two same subscales as the current study (Roberts et al., 1999).

The analysis of the acculturation yielded a two-factor solution. A total of 15 items were retained that accounted for 56.23% of the scale variance; Factor 1 accounted for 30.05%; Factor 2 accounted for 26.18%. Factor 1 included 8 items related to dominant society immersion (Cronbach's $\alpha = 0.868$), Factor 2 included 6 items related to ethnic society immersion (Cronbach's $\alpha = 0.852$). Cronbach's α for the whole scale was 0.751. Factor loadings and items contributing to the factors are presented in Table 3.

Table 3. Items Contributing to Factors of Acculturation

Items	Component	
	Dominant Society Immersion	Ethnic Society Immersion
I have many (Anglo) American acquaintances.	0.797	
I feel totally comfortable with (Anglo) American people.	0.755	
I speak English at home.	0.751	
I feel comfortable speaking English.	0.737	
I am familiar with important people in American history.	0.709	
I feel at home in the United States.	0.702	
I regularly read an American newspaper.	0.659	
I think in English.	0.657	
I know how to speak my native language.		0.819
I know how to read and write in my native language.		0.804
I speak my native language with my friend and acquaintances from my country of origin.		0.796
I feel comfortable speaking my native language.		0.762
I like to speak my native language.		0.743
I eat traditional foods from my native culture.		0.608
Eigenvalues	4.207	3.665
% of variance	30.05	26.18

Previous studies that used Stephenson's (2000) acculturation scale did not factor analyze the scale. Rather than confirming the underlying dimensions of acculturation, they computed only subscale reliability (Gordon et al., 2010; Rayle & Myers, 2004; Miville & Constantine, 2006). Some studies combined the two subscales, computed reliability, and used the scale as a whole (Calin et al., 2007). According to Stephenson (2000), dominant society immersion was created to measure acculturation to the host culture and ethnic society immersion was created to measure level of ethnic identification. Therefore, this current study used only dominant society immersion to measure acculturation to the host culture.

The analysis of the 18-item both ethnic and mainstream store loyalty yielded a two-factor solution. A total of 8 items were retained that accounted 63.26% (ethnic store loyalty) and 64.69% (mainstream store loyalty) of the scale variance; Factor 1 accounted for 36.57% (ethnic store loyalty) and 39.66% (mainstream store loyalty). Factor 2 accounted for 26.69% (ethnic store customers) and 25.04% (mainstream store customers). Factor 1 included 5 items related to action loyalty (Cronbach's $\alpha = 0.839$ and 0.865 for ethnic and mainstream store loyalty, respectively), Factor 2 included 3 items related to conative loyalty (Cronbach's $\alpha = 0.739$ and 0.698 for ethnic and mainstream store loyalty, respectively). Cronbach's α for the whole scale was 0.854 for ethnic store loyalty and 0.836 for mainstream store customers. Factor loadings and items contributing to the factors are presented in Table 4.

Table 4. Items Contributing to Factors of Ethnic and Mainstream Store Loyalty

Items	Component (Ethnic Store Loyalty)		Component (Mainstream Store Loyalty)	
	Action Loyalty	Conative Loyalty	Action Loyalty	Conative Loyalty
Even if this store was more difficult to reach, I would keep buying there.	0.786		0.848	
If competitors' stores are more conveniently located I still shop at my selected store.	0.762		0.747	
There are certain products I exclusively purchase at this store no matter what the price is.	0.722		0.794	
I am willing to 'go extra miles' to remain a customer of this store.	0.717		0.834	
I feel loyal to this store.	0.715		0.706	
I say positive things about this store to others.		0.858		0.814
I will recommend this store to someone who seeks advice.		0.819		0.794
I intend to continue shopping at this store over the next few years.		0.625		0.706
Eigenvalues	2.926	2.135	3.173	2.003
% of variance	36.57	26.69	39.66	25.04

To test hypotheses, hierarchical multiple regression was performed to investigate the predictive ability of the various independent variables (ethnic identity, acculturation) on dependent variables (importance of store characteristics, store patronage and store loyalty). For ethnic store hypotheses, only 112 ethnic store customers were included. For mainstream store hypotheses, 145 mainstream store customers were included. Those who indicated that they shop at both mainstream and ethnic store were included into both mainstream and ethnic store analysis. For each analysis, attitude toward American products and cultural difference were controlled for. In the first step of each hierarchical multiple regression, two predictors were entered: attitude toward American products and cultural difference.

Model 1, attitudes toward American products and cultural distance was not statistically significant, $F(2, 109) = 0.556$; $p > .05$. After entry of ethnic identity at step 2, the model was not

statistically significant, ($F(3, 108) = 0.903$; $p > .05$). There was no relationship between ethnic identity and ethnic store patronage frequency. H1 was not supported. (See Table 5).

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 109) = 2.582$; $p > .05$. After entry of ethnic identity at step 2, the total variance explained by the model as a whole was 8.3% ($F(3, 108) = 3.271$; $p < .05$). The introduction of ethnic identity explained additional 3.8% variance in importance of assortment, after controlling for attitude toward American products and cultural distance (R-square change = 0.038; $F(1, 108) = 4.483$; $p < .05$). Ethnic identity has a positive effect on importance of ethnic product assortment. H2a was supported.

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 109) = 0.556$; $p > .05$. After entry of importance of ethnic product assortment at step 2, the total variance explained by the model as a whole was 5.6% ($F(3, 108) = 2.141$; $p < .05$). The introduction of ethnic product assortment explained an additional 4.6% variance in ethnic store patronage frequency, after controlling for attitude toward American products and cultural distance (R-square change = 0.046; $F(1, 108) = 5.266$; $p < .05$). Ethnic product assortment has a positive effect on ethnic store patronage frequency. H2b was supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was statistically significant, $F(2, 109) = 2.551$; $p < .05$. After entry of ethnic identity at step 2, the model was not statistically significant $F(3, 108) = 1.780$; $p > .05$). There was no relationship between ethnic identity and importance of store location. H3a was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 109) = 0.556$; $p > .05$. After entry of importance of ethnic store location at step 2, the model was still not statistically significant $F(3, 108) = 0.920$; $p > .05$). There was no relationship between ethnic store location and ethnic store patronage frequency. H3b was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 142) = 0.222$; $p > .05$. After entry of importance of mainstream store location at step 2, the model was still not statistically significant $F(3, 141) = 0.382$; $p > .05$). There was no relationship between mainstream store location and mainstream store patronage frequency. H3c was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 142) = 0.985$; $p > .05$. After entry of ethnic identity at step 2, the model was still not statistically significant $F(3, 141) = 1.020$; $p > .05$). There was no relationship between ethnic identity and mainstream store price. H4a was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 142) = 0.222$; $p > .05$. After entry of importance of price at step 2, the model was still not statistically significant $F(3, 141) = 0.375$; $p > .05$). There was no relationship between importance of price and mainstream store patronage frequency. H4b was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 142) = 0.222$; $p > .05$. After

entry of acculturation at step 2, the model was still not statistically significant $F(3, 141) = 0.916$; $p > .05$). There was no relationship between acculturation and mainstream store patronage frequency. H5a was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 109) = 0.556$; $p > .05$. After entry of acculturation at step 2, the model was still not statistically significant $F(3, 108) = 0.394$; $p > .05$). There was no relationship between acculturation and ethnic store patronage frequency. H5b was not supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was statistically significant, $F(2, 142) = 5.491$; $p < .05$. After entry of acculturation at step 2, the model was not statistically significant $F(3, 141) = 3.738$; $p > .05$). There was no relationship between acculturation and ethnic product assortment. H6 was not supported.

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 142) = 0.985$; $p > .05$. After entry of acculturation at step 2, the total variance explained by the model as a whole was 4.4% ($F(3, 141) = 2.172$; $p < .05$). The introduction of acculturation explained additional 3% variance in mainstream store price, after controlling for attitude toward American products and cultural distance (R-square change = 0.030; $F(1, 141) = 4.497$; $p < .05$). Acculturation has a positive effect on importance of mainstream store price. H7 was supported.

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 109) = 0.196$; $p > .05$. After entry of ethnic store patronage at step

2, the total variance explained by the model as a whole was 10.2% ($F(3, 108) = 4.071; p < .01$). The introduction of ethnic store patronage explained additional 9.8% variance in ethnic store loyalty, after controlling for attitude toward American products and cultural distance (R-square change = 0.098; $F(1, 108) = 11.782; p < .01$). Ethnic store patronage has a positive effect on ethnic store loyalty. H8a was supported.

The model 1 predictors, attitude toward American products and cultural distance were statistically significant, $F(2, 142) = 3.554; p < .05$. After entry of mainstream store patronage at step 2, the total variance explained by the model as a whole was 7.6% ($F(3, 141) = 3.889; p < .05$). The introduction of mainstream store patronage explained additional 2.9% variance in mainstream store loyalty, after controlling for attitude toward American products and cultural distance (R-square change = 0.029; $F(1, 141) = 4.388; p < .05$). Mainstream store patronage has a positive effect on mainstream store loyalty. H8b was supported.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 142) = 0.222; p > .05$. After entry of importance of ethnic product assortment at step 2, the model was still not statistically significant $F(3, 141) = 0.161; p > .05$. There was no relationship between importance of ethnic product assortment and mainstream store patronage frequency.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 109) = 0.556; p > .05$. After entry of importance of ethnic store price at step 2, the model was still not statistically significant $F(3, 108) = 0.368; p > .05$. There was no relationship between importance of ethnic store price and ethnic store patronage frequency.

The two predictors entered in Model 1 were attitude toward American products and cultural distance. This model was not statistically significant, $F(2, 142) = 0.172$; $p > .05$. After entry of acculturation at step 2, the model was still not statistically significant $F(3, 141) = 1.267$; $p > .05$). There was no relationship between acculturation and importance of mainstream store location.

Table 5. Summary of Results

H/RQs	Description of hypotheses/research questions	Results	p-value	Correlations	R-square
H1	Ethnic identity → ethnic store patronage frequency (+)	Not supported	.210	.114	.024
H2a	Ethnic identity → ethnic store product assortment (+)	supported	.037	.214	.083
H2b	ethnic store product assortment → ethnic store patronage frequency (+)	supported	.024	.219	.056
H3a	Ethnic identity → ethnic store location (-)	Not supported	.602	-.062	.047
H3b	Ethnic store location → ethnic store patronage frequency (-)	Not supported	.203	-.134	.025
H3c	Mainstream store location → mainstream store patronage frequency (+)	Not supported	.403	-.069	.008
H4a	Ethnic identity → mainstream store price (+)	Not supported	.299	.079	.021
H4b	Mainstream store price → mainstream store patronage frequency(+)	Not supported	.410	-.064	.008
H5a	Acculturation → mainstream store patronage frequency(+)	Not supported	.132	.130	.019
H5b	Acculturation → ethnic store patronage frequency(-)	Not supported	.780	-.046	.011
H6	Acculturation → mainstream store ethnic product assortment (-)	Not supported	.593	.028	.074
H7	Acculturation → mainstream store price (+)	supported	.036	.209	.044
H8a	Ethnic store patronage → ethnic store loyalty (+)	supported	.001	.314	.102
H8b	Mainstream store patronage → mainstream store loyalty (+)	supported	.038	.180	.076
RQ1	What is the relationship between the importance of ethnic product assortment for mainstream store and mainstream store patronage?	Not correlated	.834	.005	.003
RQ2	What is the relationship between price and ethnic store patronage?	Not correlated	.978	-.007	.010
RQ3	What is the relationship between the degree of acculturation and importance of store location when Chinese students consider mainstream store to shop?	Not correlated	.065	.159	.026

Additional Analyses

An additional hierarchical regression analysis of the relationship of importance of ethnic store cleanliness to ethnic identity and ethnic store loyalty was conducted, as this criterion was considered the second most important by ethnic store shoppers.

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 109) = 1.136$; $p > .05$. After entry of ethnic identity at step 2, the total variance explained by the model as a whole was 7.8% ($F(3, 108) = 3.046$; $p < .05$). The introduction of ethnic identity explained additional 5.8% variance in ethnic store cleanliness, after controlling for attitude toward American products and cultural distance (R-square change = 0.058; $F(1, 108) = 6.747$; $p < .05$). Ethnic identity has a positive effect on importance of store cleanliness (See table 6).

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 109) = 0.196$; $p > .05$. After entry of importance of ethnic store cleanliness at step 2, the total variance explained by the model as a whole was 4.3% ($F(3, 108) = 1.630$; $p < .05$). The introduction of importance of ethnic store cleanliness explained additional 4% variance in ethnic store loyalty, after controlling for attitude toward American products and cultural distance (R-square change = 0.040; $F(1, 108) = 4.485$; $p < .05$). Ethnic store cleanliness has a positive effect on ethnic store loyalty.

Segev et al. (2014) tested the relationships between ethnic identity and ethnic store loyalty. Results confirmed that they were positively related. Therefore, the study tested relationship between these two variables to see whether ethnic identity had a direct effect on ethnic store loyalty.

The model 1 predictors, attitude toward American products and cultural distance were not statistically significant, $F(2, 109) = 0.196$; $p > .05$. After entry of importance of ethnic identity at step 2, the total variance explained by the model as a whole was 32.5% ($F(3, 108) = 17.301$; $p < .001$). The introduction of importance of ethnic identity explained an additional 32.1% variance in ethnic store loyalty, after controlling for attitude toward American products and cultural distance ($R\text{-square change} = 0.321$; $F(1, 108) = 51.331$; $p < .001$). Ethnic identity has a positive effect on ethnic store loyalty.

The relationship between acculturation and mainstream store location was positive. While store location was not directly related to store patronage, the researcher wanted to investigate whether location had a direct effect on loyalty.

The model 1 predictors, attitude toward American products and cultural distance were statistically significant, $F(2, 142) = 3.554$; $p < .05$. After entry of importance of mainstream store location at step 2, the total variance explained by the model as a whole was 7.5% ($F(3, 141) = 3.791$; $p < .05$). The introduction of importance of mainstream store location explained an additional 2.7% variance in mainstream store loyalty, after controlling for attitude toward American products and cultural distance ($R\text{-square change} = 0.027$; $F(1, 141) = 4.108$; $p < .05$). Importance of mainstream store location has a positive effect on mainstream store loyalty.

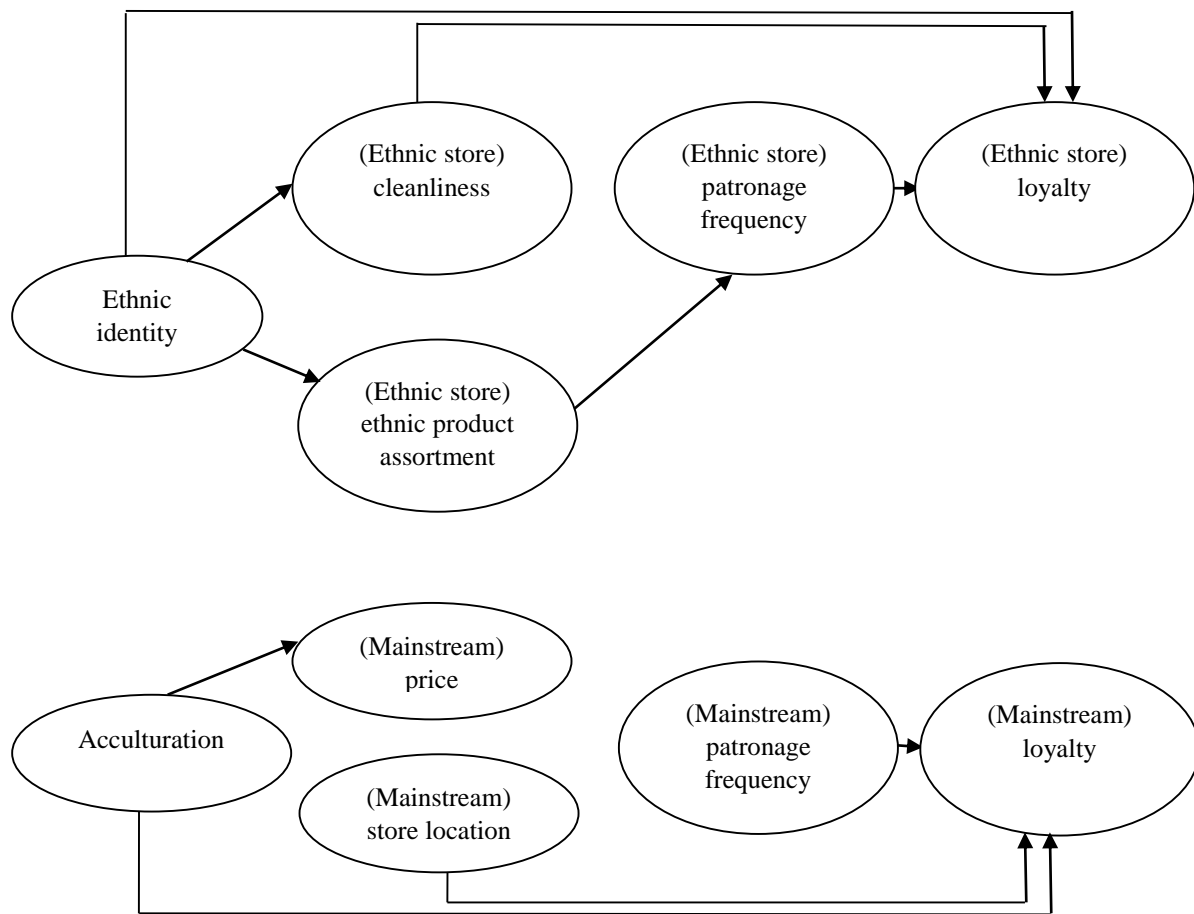
Segev et al. (2014) tested the relationships between acculturation and mainstream store loyalty. Results confirmed that they were positively related. Therefore, the study tested relationship between these two variables to analyze whether acculturation had a direct effect on mainstream store loyalty.

The model 1 predictors, attitude toward American products and cultural distance were statistically significant, $F(2, 142) = 3.554$; $p < .05$. After entry of acculturation at step 2, the total variance explained by the model as a whole was 11.1% ($F(3, 141) = 5.876$; $p < .01$). The introduction of acculturation explained additional 6.3% variance in mainstream store loyalty, after controlling for attitude toward American products and cultural distance (R-square change = 0.063; $F(1, 141) = 10.066$; $p < .01$). Acculturation has a positive effect on mainstream store loyalty.

Table 6. Summary of Additional Analyses

Description	p-value	Correlations	R-square
Ethnic identity → ethnic store cleanliness (+)	.011	.227	.078
Ethnic store cleanliness → ethnic store loyalty (+)	.036	.200	.043
Ethnic identity → ethnic store loyalty (+)	.000	.566	.325
Mainstream store location → mainstream store loyalty (+)	.045	.174	.075
Acculturation → mainstream store loyalty (+)	.002	.322	.111

Figure 2. Final Model



To separate the influence of the various (significant) independent variables on ethnic store loyalty, the study ran a hierarchical multiple regression and included ethnic identity, ethnic store cleanliness, ethnic product assortment, and patronage frequency as independent variables. Only ethnic identity and store patronage predicted store loyalty. The model explained 38.8% of the variance (See Table 7) and results showed that ethnic identity was the strongest predictor of ethnic store loyalty. From Table 7, ethnic identity was a strong predictor of ethnic store loyalty ($\beta = .526$) which means when ethnic identity increases by one point, ethnic store loyalty will increase .526. This means cultural factor which is ethnic identity in this case is the best predictor of ethnic grocery store loyalty while other store criteria do not matter in predicting

Chinese students' loyalty to the ethnic stores. Patronage frequency was also a predictor affecting ethnic store loyalty. However, the effect was less than ethnic identity ($\beta = .244$).

Table 7. Results from Regression of Model 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.575	.277		12.904	.000
	Attitude toward American products	-.020	.087	-.022	-.229	.819
	Cultural distance	-.022	.041	-.053	-.550	.583
2	(Constant)	.359	.540		.665	.507
	Attitude toward American products	.027	.071	.030	.375	.709
	Cultural distance	-.002	.033	-.005	-.065	.948
	Ethnic identity	.622	.096	.526	6.459	.000
	Ethnic product assortment	.016	.072	.018	.217	.829
	Ethnic store cleanliness	.043	.061	.056	.699	.486
	Patronage frequency	.153	.050	.244	3.087	.003

a. Dependent Variable: Ethnic store loyalty

Finally, to separate the influence of the various (significant) independent variables on mainstream store loyalty, the study ran a hierarchical multiple regression and included acculturation, mainstream store price, mainstream store location, and patronage frequency as independent variables. Both acculturation and store patronage predicted mainstream store loyalty. The model explained 15.5% of the variance (See Table 8) and results showed that acculturation was the strongest factor affecting mainstream store loyalty. From Table 8, acculturation had a moderate impact on mainstream store loyalty ($\beta = .228$) which means when acculturation increases by one point, mainstream store loyalty will increase by .228. This means that acculturation as a cultural factor is the best predictor of Chinese students' mainstream store

loyalty, whereas store criteria do not predict loyalty to mainstream grocery stores. Patronage frequency was also a predictor affecting mainstream store loyalty. However, the effect was less than acculturation ($\beta = .158$).

Table 8. Results from Regression of Model 2

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.685	.238		11.283	.000
Attitude toward American products	.129	.068	.155	1.890	.061
Cultural distance	.062	.036	.141	1.710	.089
2 (Constant)	1.471	.400		3.673	.000
Attitude toward American products	.069	.068	.083	1.019	.310
Cultural distance	.017	.038	.039	.458	.648
Mainstream store price	.057	.066	.073	.870	.386
Mainstream store location	.085	.058	.122	1.469	.144
Patronage frequency	.108	.054	.158	1.986	.049
Acculturation	.226	.091	.228	2.478	.014

a. Dependent Variable: Mainstream loyalty

CHAPTER 5. DISCUSSION

The study investigated Chinese students' choices of and their loyalty to both ethnic and mainstream grocery stores. Data were collected both online and offline. An online survey was distributed through mTurk, SONA system, and Facebook. The study also distributed a questionnaire at one of the ethnic grocery stores in East Lansing. Ethnic identity and acculturation were independent variables affecting store choice criteria and loyalty to the stores.

Results showed that ethnic identity was positively related to importance of ethnic store product assortment and cleanliness. Ethnic product assortment was positively related to ethnic store patronage frequency. Ethnic identity, cleanliness, and frequency each had a separate, direct effect on ethnic store loyalty, but when analyzed together, only ethnic identity and patronage frequency affect ethnic store loyalty. Ethnic identity was not related to ethnic store location and price, nor did these two store criteria have an effect on patronage frequency or loyalty.

Acculturation had a positive effect on importance of mainstream store price. Analyzed separately, acculturation and mainstream store patronage frequency were positively related to mainstream store loyalty.

Ethnic Identity

This study demonstrated that ethnic identity predicted ethnic store loyalty with a moderately strong relationship ($\beta = 0.526$). This result supported Segev et al. (2014), affirming that ethnic identity has a positive effect on ethnic store loyalty. Ethnic identity had a positive effect on ethnic product assortment, which contributed to ethnic store patronage frequency. However, when ethnic identity, store characteristics and patronage were analyzed together, only ethnic identity and patronage predicted ethnic store loyalty.

Ethnic product assortment was rated the most important criterion with a mean of 4.38. These results confirmed previous studies that ethnic product assortment was one of the most important criteria for both immigrant and international student groups. For example, Kaufman & Hernandez (1991) argued that a wide variety of ethnic food was one of the factors affecting Puerto Ricans' choice of supermarket. Hartwell et al. (2011) asserted that UK international students patronized specialty grocery stores for their home country ingredients. Jamal (2003) also found that ethnic respondents in UK shopped at ethnic store for specific ingredients for their home country foods.

Ethnic identity had a positive effect on importance of ethnic store cleanliness, which in turn, was related to ethnic store loyalty. Cleanliness was rated as the second most important ethnic store choice criterion, but it was not related to patronage frequency. When people consider store criteria, it is possible that they put an emphasis on cleanliness as they are about to purchase food, but cleanliness does not appear to draw people to a store. This may be because Chinese students expected that grocery stores have to provide a clean shopping environment. However, cleanliness may not attract consumers to a store, unlike offering a variety of ethnic products, explaining the lack of relationship with patronage frequency. This result was in line with Liu (2010), who found that Chinese immigrants in Toronto considered restaurant cleanliness to be a choice criteria and may be related to cultural values of Chinese students.

Ethnic identity was not related to importance of ethnic store price, in contrast with previous literature. According to Segev (2014), ethnic identification was a positive predictor of price consciousness. A possible explanation for the conflicting results may be because of the different ethnic group included in this study's sample. It is possible that Chinese students are not price sensitive. Future research could investigate price sensitivity with this Chinese group.

However, the importance of ethnic store price was the third most important store criterion (mean = 3.9), even though was not related to ethnic store patronage or loyalty. This means participants consider price to be one of the important criteria, but it does not appear to influence their ethnic store patronage or loyalty.

While an inverse relationship between ethnic identity and store location was predicted, it was not negatively related to importance of store location, in contrast with previous literature. According to Wang & Lo (2007), respondents (Chinese immigrants in Toronto, Canada) with a strong ethnic identity are willing to take time to make a trip to an ethnic store. Perhaps students are more concerned with convenience because they have limited time; or it is possible that many students do not have a car and have to rely on friends or public transportation to get to a store.

Acculturation

Similar to the pretest results, in the main study, acculturation had a positive effect on importance of price as a mainstream store choice criteria. Suri & Manchanda (2000) asserted that the more people acculturate with the host culture, the more they will behave like people from the host culture. It is logical to assume that the more Chinese students become acculturated to the U.S., the more they behave like Americans. According to Carpenter, & Moore (2006), American consumers considered price important when considering supercenter to shop. Therefore, it is logical that highly acculturated Chinese students will behave like American and consider price important.

Acculturation did not have an effect on importance of mainstream store location, even though store location was rated as the second most important criterion. It is possible that Chinese students considered location to be important as they have limited traveling time, but cultural

factors such as acculturation may not have an influence on location. As there is a lack of research about relationships between these two variables, future research is advised to examine this issue. Moreover, as location was an important criterion, future research may consider adding questions about how they travel to the stores in order to better understand their insights.

Acculturation was not related to importance of ethnic product assortment when choosing a mainstream store. This is logical as highly acculturated people may be less likely to cook ethnic food and eat host country food. Therefore, they may not need ethnic products when considering a mainstream store to shop. Moreover, results showed that attitudes toward American products were negatively related to the importance of ethnic product assortment when choosing a mainstream store. That is, the more Chinese students like American products, the less importance they place on ethnic product assortment. Pearson correlations also showed that acculturation and attitude toward American products were related ($r(160) = 0.179, p < 0.05$). This means the more people acculturate with U.S. culture, the more they like American products and the less they consider ethnic product assortment to be important.

Acculturation had a positive effect on mainstream store loyalty. This result confirmed Segev et al. (2014) which found that acculturation was positively related to mainstream store loyalty. Acculturation measured in this study included four dimensions which were use of media, interaction, language, and food. However, this study did not separate these dimensions in the analysis. Future research may consider separately analyzing these sub dimensions.

It was interesting that none of the mainstream store criteria were related to mainstream store patronage frequency. It is possible that there are other factors accounting for patronage frequency such as family size and income (Roy, 1994) or store reputation (Ou et al., 2006). For a lack of relationship between store location and patronage frequency, it is possible that Chinese

students want to shop at mainstream store that is close to their living place. However, they may not shop at the store frequently because of a lack of time, but still being loyal to that store.

To sum up, ethnic identity and acculturation lead Chinese students to focus on different criteria when selecting ethnic and mainstream stores. The two most important criteria for ethnic stores were ethnic product assortment and cleanliness, however, only ethnic product assortment was related to ethnic store patronage. These results could be explained by their level of ethnic identity. The more Chinese students are attached to their Chinese group, the more they consider ethnic product assortment and cleanliness important. Further, cleanliness was directly related to ethnic store loyalty.

However, acculturation explains Chinese students' mainstream store criteria. The most important criterion when selecting a mainstream store to shop was price. This means the more Chinese students are acculturated with the U.S. culture, the more they consider price important. Acculturation was directly related to mainstream store loyalty.

CHAPTER 6. IMPLICATIONS AND LIMITATIONS

Theoretical Contributions

This study applied two theories, ethnic identity and acculturation, to explain different behaviors of cultural groups. For ethnic identity, this study confirmed that the ethnic identity scale from Phinney (1992) can be used with Chinese student group with satisfactory reliability of 0.848 and 64.17% of explained variance. Moreover, ethnic identity can help explain Chinese students' choices of and their loyalty to ethnic grocery store. Future research focusing on Chinese students should take ethnic identity into consideration when studying their shopping behaviors.

For acculturation, this study established that dominant immersion subscale from Stephenson (2000) can be used with Chinese group, with satisfactory reliability of 0.868. In addition, because of its strong explanatory power, this study confirmed that acculturation should be taken into consideration when studying Chinese students and their mainstream store shopping behaviors.

Most previous research studying international student group focused on their dietary acculturation after living in the new host culture. For example, Pan et al. (1999) asserted that Asian students changed their eating habits such as eating more salty snacks and skipping breakfasts. Brown et al. (2010) found that international students tried different foods prepared by their foreign friends. These changes in eating patterns are likely to have an effect on how students choose to shop at a particular store, but previous studies have not investigated store choice criteria for international students. Moreover, cultural difference was not investigated in Pan et al. (1999) and Brown et al. (2010) whereas this current study analyzed how ethnic identity

and acculturation lead to different store choices criteria and confirmed that cultural factors should be investigated when studying ethnic groups.

Previous literature studying ethnic identity and acculturation mostly focused on immigrant groups. For example, Donthu & Cherian (1992) verified that less acculturated Hispanics in the U.S. used less coupons. However, the current study investigated younger and well-educated Chinese group whose behaviors were different from immigrant groups. Results of this study asserted that ethnic identity and acculturation were positively related to loyalty to both ethnic and mainstream stores. Therefore, future research studying store loyalty and shopping behavior in a host country should take ethnic identity and acculturation into account when studying different minority and ethnic groups.

Few studies investigated the influence of ethnic identity and acculturation on loyalty, but the focus was on brand, rather than store loyalty. Studies investigating ethnic identity and loyalty included the work of Deshpande et al. (1986) which also focused only on Hispanic immigrants and asserted that a high level of Hispanic identity tended to be positively related to loyalty to national brands. Donthu & Cherian (1992) also argued that Hispanics who had strong attachment with the group were more loyal to brands. One exception, Segev et al. (2014) demonstrated that acculturation had a positive effect on mainstream store loyalty whereas ethnic identity was positively related to ethnic store loyalty. This current study confirmed results from Segev et al. (2014) but with different ethnic group which was Chinese student group.

Results of this study provide insights about Chinese students. While some of the store criteria had an effect on patronage frequency and loyalty to grocery stores, results showed that the most important factors were related to culture. Ethnic identity was the most influential factor

affecting ethnic store loyalty whereas acculturation was the strongest predictor of loyalty to mainstream stores.

Managerial Implications

The study yielded useful managerial insights about ethnic identity, acculturation and their relationship to the importance of Chinese students' store choice criteria, patronage and loyalty to ethnic and mainstream stores. Ethnic identity was not related to price or store location, suggesting that Chinese students may not be price sensitive and may be willing to travel further to less convenient store locations to shop for their ethnic products. The results suggest three managerial implications for managers of ethnic stores. First, managers of ethnic stores should emphasize attachment with the ethnic group in their marketing messages because ethnic identity leads directly to ethnic store loyalty. For example, they may advertise that Chinese should be proud of their group as they have precious traditions with history. Managers could incorporate marketing activities to call attention to Chinese ways of life. For example, stores may celebrate Chinese New Year by selling traditional food of this celebration such as moon cakes. Second, as ethnic product assortment was the most important criterion to Chinese customers, managers should highlight the various kinds of Chinese products available to serve their customers' needs in their marketing messages. Third, managers should keep in mind that cleanliness was also important to customers when they select and develop loyalty to an ethnic store, so attention to hygiene should be a priority.

There are several implications for managers of mainstream stores as well. First, because acculturated Chinese student shoppers prioritize price, mainstream stores should offer products with competitive prices. Second, even though acculturation did not have an effect on importance of mainstream store location, location was still considered important to Chinese students and had

a positive effect on mainstream store loyalty. Customers go to mainstream stores that are close to their home, so a convenient location is essential. If a mainstream store does not have a convenient location, it is still possible to provide convenience to their customers. For example, stores may provide shuttle bus for students from campus to the store. Acculturation and attitude toward American products were positively correlated, and it is logical to assume that Chinese students who go to mainstream stores would be more or less acculturated to the U.S. culture. Therefore, managers should emphasize quality of American products in their marketing messages to encourage acculturated people to shop at and be loyal to mainstream stores.

Limitations

There are several limitations of this study. First, sample size was small with a total number of 162. In order to provide more precise results, more participants are needed. According to Osborne & Costello (2004), suggested a minimum of 5:1 ratio respondents to scale items. As this study had acculturation as the lengthiest scale with 32 items, at a minimum, the study required 160 subjects. However, Osborne & Costello (2004) also recommended that a higher respondent to item ratio would produce more accurate results.

Second, the study is not generalizable because the data were collected through an online survey via several online channels such as Facebook, SONA system, and Amazon Mechanical Turk. Therefore, these online respondents may not be representative of all international students. Moreover, while the study collected data from Chinese students who are the largest international student group in the U.S., this group is less than half of all international students in the U.S.; there are many more ethnic groups of international students who may be different from Chinese students. Therefore, future research should incorporate more nationalities to see whether international students from different countries yield similar results. In addition, while the study

used reliable scales to measure ethnic identity, acculturation, and loyalty, the questionnaire was lengthy, which might have resulted in participant fatigue. The study had to eliminate 24 respondents (11.48% of all complete questionnaires) from the analysis because they failed to correctly answer checking questions. Future research should use shorter scales to measure respondents' degree of acculturation and store loyalty.

APPENDICES

APPENDIX A.

SURVEY INSTRUMENT

When you shop for food, do you shop at mainstream stores (such as Meijer, Kroger, Walmart)? Yes___ No___

Please indicate how important each of the following factors is to you when selecting a **mainstream store** (such as Meijer, Kroger, Walmart) to go grocery shopping.

	Never important 1	Rarely important 2	Sometimes important 3	Often important 4	Always important 5
Price	1	2	3	4	5
Asian product variety	1	2	3	4	5
Store location	1	2	3	4	5
Cleanliness	1	2	3	4	5
Security	1	2	3	4	5
Level of crowding	1	2	3	4	5
Parking facilities	1	2	3	4	5
Atmosphere	1	2	3	4	5

Other (please specify).....

When you shop for food, do you shop at ethnic stores (such as Asian market, Oriental Mart, Japanese store, Korean market, Indian market, etc.)

Yes___ No___

Please indicate how important each of the following factors is to you when selecting an **ethnic store** (such as Asian market, Oriental Mart, Japanese store, Korean market, Indian market, etc.) to go grocery shopping.

	Never important 1	Rarely important 2	Sometimes important 3	Often important 4	Always important 5
Price	1	2	3	4	5
Asian product variety	1	2	3	4	5

Store location	1	2	3	4	5
Cleanliness	1	2	3	4	5
Security	1	2	3	4	5
Level of crowding	1	2	3	4	5
Parking facilities	1	2	3	4	5
Atmosphere	1	2	3	4	5
Other (please specify).....					

When you go grocery shopping, how many stores would you normally visit on a single shopping trip?_____

Please list the names of these stores. 1.____2.____3._____

About how much do you spend at each store per shopping trip?

- a. Store 1
- b. Store 2
- c. Store 3

Which of these is your favorite place to shop for food?_____

How often do you shop at mainstream grocery stores (such as Meijer, Kroger, Walmart)?

Check one answer

More than twice a week

Twice a week

Once a week

Once every two weeks

Once a month

Less than once a month

I never shop at mainstream stores

How often do you shop at ethnic grocery stores (such as Asian market, Oriental Mart, Japanese store, Korean market, etc.). Check one answer

More than twice a week

Twice a week

Once a week

Once every two weeks

Once a month

Less than once a month

I never shop at ethnic grocery stores

Please indicate how much you agree or disagree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I prefer American products over domestic products.	1	2	3	4	5
American products are of higher quality than domestic products.	1	2	3	4	5
Given a choice, I buy American-made rather than domestic products.	1	2	3	4	5

Please tell us how much you agree or disagree with the following statements about your favorite mainstream/ethnic grocery store that you identified in question XX by checking your level of agreement/disagreement with each statement.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I intend to continue shopping at this store over the next few years.	1	2	3	4	5
I would expend effort on behalf of this store to help it succeed.	1	2	3	4	5
I say positive things about this store to others.	1	2	3	4	5
I will recommend this store to someone who seeks advice.	1	2	3	4	5
I encourage friends to go to this store.	1	2	3	4	5
I intend to remain a customer of my selected store.	1	2	3	4	5
I would switch to a competitor if I experience a problem with this store.	1	2	3	4	5
I am not interested in advertisements from other stores.	1	2	3	4	5
I feel loyal to this store.	1	2	3	4	5
I love this store, even if I have had a bad experience, I would continue to shop here.	1	2	3	4	5
I am willing to pay a higher price for the products/services I currently receive from this store.	1	2	3	4	5
This store is always my first choice.	1	2	3	4	5
I am willing to 'go extra miles' to remain a customer of this store.	1	2	3	4	5
Even if this store was more difficult to reach, I would keep buying there.	1	2	3	4	5

I only buy from my selected store.	1	2	3	4	5
There are certain products I exclusively purchase at this store no matter what the price is.	1	2	3	4	5
I would not switch from this store under any circumstances.	1	2	3	4	5
If competitors' stores are more conveniently located I still shop at my selected store.	1	2	3	4	5

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Check one number to indicate how much you agree or disagree with each statement.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs.	1	2	3	4	5
I am active in organizations or social groups that include mostly members of my own ethnic group.	1	2	3	4	5
I have a clear sense of my ethnic background and what it means for me.	1	2	3	4	5
I think a lot about how my life will be affected by my ethnic group membership.	1	2	3	4	5
I am happy that I am a member of the group I belong to.	1	2	3	4	5
I have a strong sense of belonging to my own ethnic group.	1	2	3	4	5
I understand pretty well what my ethnic group membership means to me.	1	2	3	4	5

In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.	1	2	3	4	5
I have a lot of pride in my ethnic group.	1	2	3	4	5
I participate in cultural practices of my own group, such as special food, music, or customs.	1	2	3	4	5
I feel a strong attachment towards my own ethnic group.	1	2	3	4	5
I feel good about my cultural or ethnic background.	1	2	3	4	5

Below are a number of statements that evaluate changes that occur when people interact with others of different cultures or ethnic groups. For questions that refer to "COUNTRY OF ORIGIN" or "NATIVE COUNTRY", please refer to the country from which your family originally came. For questions referring to "NATIVE LANGUAGE", please refer to the language spoken where your family originally came.

Select the answer that best matches your response to each statement.

	Fals e	Par tly fals e	Par tly true	Tru e
I understand English, but I'm not fluent in English.	1	2	3	4
I am informed about current affairs in the United States.	1	2	3	4
I speak my native language with my friends and acquaintances from my country of origin.	1	2	3	4
I know how to read and write in my native language.	1	2	3	4
I feel at home in the United States.	1	2	3	4
I attend social functions with people from my native country.	1	2	3	4
I feel accepted by (Anglo) Americans.	1	2	3	4
I speak my native language at home.	1	2	3	4
I regularly read magazines in my ethnic group.	1	2	3	4

I know how to speak my native language.	1	2	3	4
I know how to prepare (Anglo) American foods.	1	2	3	4
I am familiar with the history of my native country.	1	2	3	4
I regularly read an American newspaper.	1	2	3	4
I like to listen to music of my ethnic group.	1	2	3	4
I like to speak my native language.	1	2	3	4
I feel comfortable speaking English.	1	2	3	4
I speak English at home.	1	2	3	4
I speak my native language with my spouse or partner.	1	2	3	4
When I pray, I use my native language.	1	2	3	4
I attend social functions with (Anglo) American people.	1	2	3	4
I think in my native language.	1	2	3	4
I stay in close contact with family members and relatives in my native country.	1	2	3	4
I am familiar with important people in American history.	1	2	3	4
I think in English.	1	2	3	4
I speak English with my spouse or partner.	1	2	3	4
I like to eat American foods.	1	2	3	4
I have never learned to speak the language of my native country.	1	2	3	4
I feel totally comfortable with (Anglo) American people.	1	2	3	4
I eat traditional foods from my native culture.	1	2	3	4
I have many (Anglo) American acquaintances.	1	2	3	4
I feel comfortable speaking my native language.	1	2	3	4

I am informed about current affairs in my native country.

1

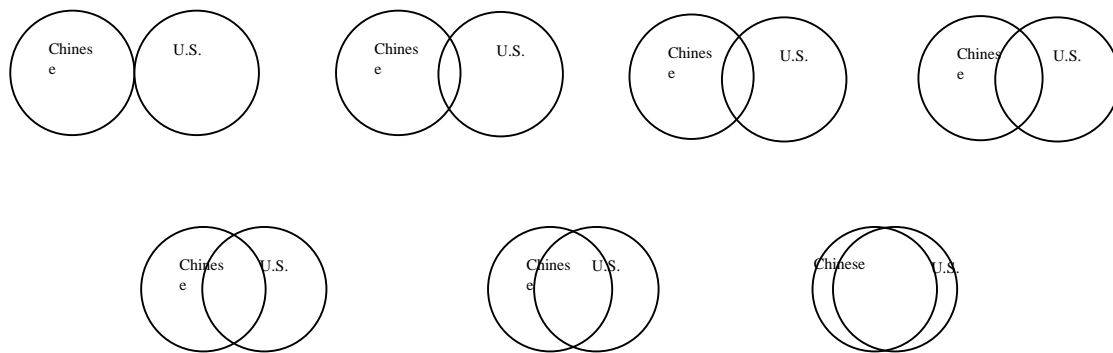
2

3

4

Please click on the picture that best describes how close you feel about your culture and American culture.

Figure 3. Pictures Describing Chinese and American Culture



Please tell us about yourself.

Your gender: 1. male 2. female

Year of birth (EXAMPLE: 1988)_____

Nationality_____

Years of formal education you have completed, not counting kindergarten: _____year(s)

Length of stay in the US _____year(s)

After graduation, do you plan to leave or stay in the U.S.?.? ___leave ___stay

___undecided

Your total family income:

- Less than \$25,000

- \$25,000 – \$29,999
- \$30,000 – \$39,999
- \$40,000 – \$49,999
- \$50,000 – \$59,999
- \$60,000 or more
- Prefer not to answer

APPENDIX B.

ITEMS DROPPED OUT OF THE SCALES

Table 9. Items Dropped Out of the Scales

Scales	Drop-out items
Ethnic identity	<ul style="list-style-type: none"> - I am active in organizations or social groups that include mostly members of my own ethnic group. - I participate in cultural practices of my own group, such as special food, music, or customs. - I understand pretty well what my ethnic group membership means to me. - I have a clear sense of my ethnic background and what it means for me.
Acculturation	<ul style="list-style-type: none"> - I understand English, but I'm not fluent in English. - I am informed about current affairs in the United States. - I attend social functions with people from my native country. - I feel accepted by (Anglo) Americans. - I speak my native language at home. - I regularly read magazines in my ethnic group. - I know how to prepare (Anglo) American foods. - I am familiar with the history of my native country. - I like to listen to music of my ethnic group. - I speak my native language with my spouse or partner. - When I pray, I use my native language. - I attend social functions with (Anglo) American people. - I think in my native language. - I stay in close contact with family members and relatives in my native country. - I speak English with my spouse or partner. - I like to eat American foods. - I have never learned to speak the language of my native country. - I am informed about current affairs in my native country.
Loyalty	<ul style="list-style-type: none"> - I would expend effort on behalf of this store to help it succeed. - I encourage friends to go to this store. - I intend to remain a customer of my selected store. - I would switch to a competitor if I experience a problem with this store. - I am not interested in advertisements from other stores. - I love this store, even if I have had a bad experience, I would continue to shop here. - I am willing to pay a higher price for the products/services I currently receive from this store. - This store is always my first choice. - I only buy from my selected store. - I would not switch from this store under any circumstances.

REFERENCES

REFERENCES

- Ackerman, D., & Tellis, G. (2001). Can culture affect prices? A cross-cultural study of shopping and retail prices. *Journal of Retailing*, 77(1), 57-82.
- Arnold, S. J., Ma, S., & Tigert, D. J. (1978). A comparative analysis of determinant attributes in retail store selection. *Advances in consumer research*, 5(1), 663-667.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of personality and social psychology*, 63(4), 596.
- Atkinson, R., & Flint, J. (2001). Accessing hidden and hard-to-reach populations: Snowball research strategies. *Social research update*, 33(1), 1-4.
- Babakus, E., Bienstock, C. C., & Van Scotter, J. R. (2004). Linking Perceived Quality and Customer Satisfaction to Store Traffic and Revenue Growth*. *Decision Sciences*, 35(4), 713-737.
- Balasubramanian, S., & Herche, J. (1994). Ethnicity and shopping behavior. *Journal of Shopping Center Research*, 1(1), 65-80.
- Baltar, F., & Brunet, I. (2012). Social research 2.0: virtual snowball sampling method using Facebook. *internet Research*, 22(1), 57-74.
- Baltas, G., & Papastathopoulou, P. (2003). Shopper characteristics, product and store choice criteria: a survey in the Greek grocery sector. *International Journal of Retail & Distribution Management*, 31(10), 498-507.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.
- Berry, J. W. (1980). Acculturation as varieties of adaptation. *Acculturation: Theory, models and some new findings*, 9-25.
- Bloemer, J., & De Ruyter, K. (1998). On the relationship between store image, store satisfaction and store loyalty. *European Journal of Marketing*, 32(5/6), 499-513.
- Briesch, R. A., Chintagunta, P. K., & Fox, E. J. (2009). How does assortment affect grocery store choice?. *Journal of Marketing Research*, 46(2), 176-189.
- Brown, L. (2009). The role of food in the adjustment journey of international students. *The new cultures of food: Marketing opportunities from ethnic, religious and cultural diversity*, 37-56.
- Brown, L., Edwards, J., & Hartwell, H. (2010). A taste of the unfamiliar. Understanding the meanings attached to food by international postgraduate students in England. *Appetite*, 54(1), 202-207.

- Calin, T., Green, J., Hetherington, J., & Brook, G. (2007). Disclosure of HIV among black African men and women attending a London HIV clinic. *Aids care*, 19(3), 385-391.
- Carpenter, J. M., & Moore, M. (2006). Consumer demographics, store attributes, and retail format choice in the US grocery market. *International Journal of Retail & Distribution Management*, 34(6), 434-452.
- Chang, C. H., & Tu, C. Y. (2005). Exploring store image, customer satisfaction and customer loyalty relationship: evidence from Taiwanese hypermarket industry. *Journal of American Academy of Business*, 7(2), 197-202.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing*, 65(2), 81-93.
- Cuellar, I., Nyberg, B., Maldonado, R. E., & Roberts, R. E. (1997). Ethnic identity and acculturation in a young adult Mexican-origin population. *Journal of Community Psychology*, 25(6), 535-549.
- Delener, N., & Neelankavil, J. P. (1990). Informational sources and media usage-a comparison between Asian and Hispanic subcultures. *Journal of Advertising Research*, 30(3), 45-52.
- Deshpande, R., Hoyer, W. D., & Donthu, N. (1986). The intensity of ethnic affiliation: A study of the sociology of Hispanic consumption. *Journal of Consumer Research*.
- Donthu, N., & Cherian, J. (1992). Hispanic coupon usage: The impact of strong and weak ethnic identification. *Psychology & Marketing*, 9(6), 501-510.
- Donthu, N., & Cherian, J. (1995). Impact of strength of ethnic identification on Hispanic shopping behavior. *Journal of Retailing*, 70(4), 383-393.
- Explore international education. (2013). Retrieved 08, 29, 2014, from NAFSA: http://www.nafsa.org/Explore_International_Education/Impact/Data_And_Statistics/The_International_Student_Economic_Value_Tool/
- Fowler, D. C., Wesley, S. C., & Vazquez, M. E. (2007). Simpatico in store retailing: How immigrant Hispanic emic interpret US store atmospherics and interactions with sales associates. *Journal of Business Research*, 60(1), 50-59.
- Furst, T., Connors, M., Bisogni, C. A., Sobal, J., & Falk, L. W. (1996). Food choice: a conceptual model of the process. *Appetite*, 26(3), 247-266.
- Furukawa, T. (1997). Cultural distance and its relationship to psychological adjustment of international exchange students. *Psychiatry and clinical neurosciences*, 51(3), 87-91.
- Golden, L. L., & Zimmer, M. R. (1986). Relationships between affect, patronage frequency and amount of money spent with a comment on affect scaling and measurement. *Advances in Consumer Research*, 13(1), 53-57.

- Gordon, K. H., Castro, Y., Sitnikov, L., & Holm-Denoma, J. M. (2010). Cultural body shape ideals and eating disorder symptoms among White, Latina, and Black college women. *Cultural Diversity and Ethnic Minority Psychology*, 16(2), 135.
- Gordon-Larsen, P., Harris, K. M., Ward, D. S., & Popkin, B. M. (2003). Acculturation and overweight-related behaviors among Hispanic immigrants to the US: the National Longitudinal Study of Adolescent Health. *Social science & medicine*, 57(11), 2023-2034.
- Hamlett, J., Bailey, A. R., Alexander, A., & Shaw, G. (2008). Ethnicity and Consumption South Asian food shopping patterns in Britain, 1947—75 1. *Journal of Consumer Culture*, 8(1), 91-116.
- Hartwell, H. J., Edwards, J. S., & Brown, L. (2011). Acculturation and food habits: lessons to be learned. *British food journal*, 113(11), 1393-1405.
- Ho, G. P., Nolan, F. L., & Dodds, M. L. (1966). Adaptation to American dietary patterns by students from Oriental countries. *J Home Econ*, 58, 277-280.
- Hrboticky, N., & Krondl, M. (1985). Dietary acculturation process of Chinese adolescent immigrants. *Nutrition Research*, 5(11), 1185-1197.
- Hsu, M. K., Huang, Y., & Swanson, S. (2010). Grocery store image, travel distance, satisfaction and behavioral intentions: Evidence from a Midwest college town. *International Journal of Retail & Distribution Management*, 38(2), 115-132.
- Hui, M. K., Joy, A., Kim, C., & Laroche, M. (1992). Acculturation as a determinant of consumer behavior: conceptual and methodological issues. In *Proceedings, AMA Winter Educator's Conference* (Vol. 3, pp. 466-473).
- Institute of International Education. (2013). Retrieved 08, 29, 2014 from: <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/Infographic>
- Jamal, A. (1998). Food consumption among ethnic minorities: the case of British-Pakistanis in Bradford, UK. *British Food Journal*, 100(5), 221-227.
- Jamal, A. (2003). Marketing in a multicultural world: the interplay of marketing, ethnicity and consumption. *European Journal of Marketing*, 37(11/12), 1599-1620.
- Jamal, A. (2003). Retailing in a multicultural world: the interplay of retailing, ethnic identity and consumption. *Journal of Retailing and Consumer Services*, 10(1), 1-11.
- Kang, J., & Kim, Y. K. (1998). Ethnicity and acculturation: influences on Asian American consumers' purchase decision making for social clothes. *Family and Consumer Sciences Research Journal*, 27(1), 91-117.
- Kaufman, C. J., & Hernandez, S. A. (1991). The Role of the Bodega in a United-States Puerto-Rican Community. *Journal of Retailing*, 67(4), 375-396.

- Kumar, A., Lee, H. J., & Kim, Y. K. (2009). Indian consumers' purchase intention toward a United States versus local brand. *Journal of Business Research*, 62(5), 521-527.
- Laroche, M., Kim, C., & Tomiuk, M. A. (1998). Italian ethnic identity and its relative impact on the consumption of convenience and traditional foods. *Journal of Consumer Marketing*, 15(2), 125-151.
- Lee, W. N., & Um, K. H. R. (1992). Ethnicity and consumer product evaluation: a cross-cultural comparison of Korean immigrants and Americans. *Advances in consumer research*, 19(3), 429-36.
- Liu, L. W. (2010). Chinese immigrants and lifelong learning for food safety and diversity. In *Proceedings of the 29th Annual Conference of the Canadian Association for the Study of Adult Education, Congress of the Humanities and Social Sciences, Concordia University, Montreal, Quebec*.
- Luna, D., & Gupta, S. F. (2001). An integrative framework for cross-cultural consumer behavior. *International Marketing Review*, 18(1), 45-69.
- Lusk, J. L. (2011). External validity of the food values scale. *Food Quality and Preference*, 22(5), 452-462.
- Marpsat, M., & Razafindratsima, N. (2010). Survey methods for hard-to-reach populations: introduction to the special issue. *Methodological Innovations Online*, 5(2), 3-16.
- Maslow, A. H., Frager, R., & Cox, R. (1970). *Motivation and personality* (Vol. 2). J. Fadiman, & C. McReynolds (Eds.). New York: Harper & Row.
- Matsunaga, M. (2010). How to Factor-Analyze Your Data Right: Do's, Don'ts, and How-To's. *International Journal of Psychological Research*, 3(1), 97-110.
- Mehta, R., & Belk, R. W. (1991). Artifacts, identity, and transition: Favorite possessions of Indians and Indian immigrants to the United States. *Journal of Consumer Research*, 398-411.
- Miville, M. L., & Constantine, M. G. (2006). Sociocultural predictors of psychological help-seeking attitudes and behavior among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology*, 12(3), 420.
- Nam, J., Ekinci, Y., & Whyatt, G. (2011). Brand equity, brand loyalty and consumer satisfaction. *Annals of Tourism Research*, 38(3), 1009-1030.
- Neuhouser, M. L., Thompson, B., Coronado, G. D., & Solomon, C. C. (2004). Higher fat intake and lower fruit and vegetables intakes are associated with greater acculturation among Mexicans living in Washington State. *Journal of the American Dietetic Association*, 104(1), 51-57.
- Ogden, D. T., Ogden, J. R., & Schau, H. J. (2004). Exploring the impact of culture and acculturation on consumer purchase decisions: Toward a microcultural perspective. *Academy of Marketing Science Review*, 3(2004), 1-22.

- Oliver, R. L. (1999). Whence consumer loyalty?. *the Journal of Marketing*, 33-44.
- Opendoors Report. (2014). Retrieved 01, 06, 2015 from: <http://www.iie.org/en/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2014/2014-11-17-Open-Doors-Data>
- Osborne, J. W., & Costello, A. B. (2004). Sample size and subject to item ratio in principal components analysis. *Practical Assessment, Research & Evaluation*, 9(11), 8.
- Oswald, L. R. (1999). Culture swapping: Consumption and the ethnogenesis of middle-class Haitian immigrants. *Journal of consumer research*, 25(4), 303-318.
- Otnes, C., Lowrey, T. M., & Shrum, L. J. (1997). Toward an understanding of consumer ambivalence. *Journal of Consumer Research*, 24(1), 80-93.
- Ou, W. M., Abratt, R., & Dion, P. (2006). The influence of retailer reputation on store patronage. *Journal of Retailing and Consumer Services*, 13(3), 221-230.
- Pan, Y. L., Dixon, Z., Himburg, S., & Huffman, F. (1999). Asian students change their eating patterns after living in the United States. *Journal of the American Dietetic Association*, 99(1), 54-57.
- Paolacci, G., & Chandler, J. (2014). Inside the Turk Understanding Mechanical Turk as a Participant Pool. *Current Directions in Psychological Science*, 23(3), 184-188.
- Park, S. Y., Paik, H. Y., Skinner, J. D., Spindler, A. A., & Park, H. R. (2004). Nutrient intake of Korean-American, Korean, and American adolescents. *Journal of the American Dietetic Association*, 104(2), 242-245.
- Peoples, J., & Bailey, G. (2011). *Humanity: An introduction to cultural anthropology*. Cengage Learning.
- Penaloza, L. N. (1989). Immigrant consumer acculturation. *Advances in consumer research*, 16(1), 110-118.
- Peñaloza, L., & Gilly, M. C. (1999). Marketer acculturation: the changer and the changed. *The Journal of Marketing*, 84-104.
- Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The Journal of Early Adolescence*, 9(1-2), 34-49.
- Phinney, J. S. (1992). The multigroup ethnic identity measure a new scale for use with diverse groups. *Journal of adolescent research*, 7(2), 156-176.
- Rayle, A. D., & Myers, J. E. (2004). Counseling adolescents toward wellness: The roles of ethnic identity, acculturation, and mattering. *Professional School Counseling*, 81-90.
- Redfield, R., Linton, R., & Herskovits, M. J. (1936). Memorandum for the study of acculturation. *American anthropologist*, 38(1), 149-152.

- Roberts, R. E., Phinney, J. S., Masse, L. C., Chen, Y. R., Roberts, C. R., & Romero, A. (1999). The structure of ethnic identity of young adolescents from diverse ethnocultural groups. *The Journal of Early Adolescence*, 19(3), 301-322.
- Rossiter, J. R., & Chan, A. M. (1998). Ethnicity in business and consumer behavior. *Journal of Business Research*, 42(2), 127-134.
- Roy, A. (1994). Correlates of mall visit frequency. *Journal of Retailing*, 70(2), 139-161.
- Satia-Abouta, J. (2003). Dietary acculturation: definition, process, assessment, and implications. *International Journal of Human Ecology*, 4(1), 71-86.
- Satia, J. A., Patterson, R. E., Kristal, A. R., Hislop, T. G., Yasui, Y., & Taylor, V. M. (2001). Development of scales to measure dietary acculturation among Chinese-Americans and Chinese-Canadians. *Journal of the American Dietetic Association*, 101(5), 548-553.
- Segev, S. (2014). The Effect of Acculturation on Ethnic Consumers' Decision-Making Styles: An Empirical Analysis of Hispanic Consumers. *Journal of International Consumer Marketing*, 26(3), 168-184.
- Segev, S., Ruvio, A., Shoham, A., & Velan, D. (2014). Acculturation and consumer loyalty among immigrants: a cross-national study. *European Journal of Marketing*, 48(9/10).
- Seitz, V. (1998). Acculturation and direct purchasing behavior among ethnic groups in the US: implications for business practitioners. *Journal of consumer Marketing*, 15(1), 23-31.
- Seock, Y. K., & Lin, C. (2011). Cultural influence on loyalty tendency and evaluation of retail store attributes: An analysis of Taiwanese and American consumers. *International Journal of Retail & Distribution Management*, 39(2), 94-113.
- Seock, Y. K., & Sauls, N. (2008). Hispanic consumers' shopping orientation and apparel retail store evaluation criteria: An analysis of age and gender differences. *Journal of Fashion Marketing and Management*, 12(4), 469-486.
- Shim, S., & Gehrt, K. C. (1996). Hispanic and native American adolescents: an exploratory study of their approach to shopping. *Journal of Retailing*, 72(3), 307-324.
- Shimp, T. A., & Sharma, S. (1987). Consumer ethnocentrism: construction and validation of the CETSCALE. *Journal of marketing research*, 280-289.
- Sivadas, E., & Baker-Prewitt, J. L. (2000). An examination of the relationship between service quality, customer satisfaction, and store loyalty. *International Journal of Retail & Distribution Management*, 28(2), 73-82.
- Sobal, J. (1998). Cultural comparison research designs in food, eating, and nutrition. *Food Quality and Preference*, 9(6), 385-392.
- Söderlund, M. (2006). Measuring customer loyalty with multi-item scales: a case for caution. *International Journal of Service Industry Management*, 17(1), 76-98.

- Stayman, D. M., & Deshpande, R. (1989). Situational ethnicity and consumer behavior. *Journal of Consumer Research*, 361-371.
- Stephenson, M. (2000). Development and validation of the Stephenson Multigroup Acculturation Scale (SMAS). *Psychological assessment*, 12(1), 77.
- Suri, R., & Manchanda, R. V. (2000). The effects of acculturation on consumers' sensitivity to prices. *Journal of International Consumer Marketing*, 13(1), 35-56.
- Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. New York: Cambridge University Press.
- Tirelli, C., Pilar Martínez-Ruiz, M., & Gómez-Ladrón-De-Guevara, R. (2013). Major influences on buying decision processes by international university students. Differences by continent of origin. *Appetite*, 71, 104-112.
- Wallendorf, M., & Reilly, M. D. (1983). Ethnic migration, assimilation, and consumption. *Journal of Consumer Research*, 292-302.
- Wandel, M., Råberg, M., Kumar, B., & Holmboe-Ottesen, G. (2008). Changes in food habits after migration among South Asians settled in Oslo: the effect of demographic, socio-economic and integration factors. *Appetite*, 50(2), 376-385.
- Wang, L. (2004). An investigation of Chinese immigrant consumer behaviour in Toronto, Canada. *Journal of Retailing and Consumer Services*, 11(5), 307-320.
- Wang, L., & Lo, L. (2007). Global connectivity, local consumption, and Chinese immigrant experience. *GeoJournal*, 68(2-3), 183-194.
- Wang, L., & Lo, L. (2007). Immigrant grocery-shopping behavior: ethnic identity versus accessibility. *Environment and Planning A*, 39(3), 684.
- Wijnen, G., Kemperman, A., & Janssen, I. (2011). Shopping behavior and attribute evaluation of expatriates—a cross cultural study. In *18th Annual Conference, European Real Estate Society, Eindhoven, ERES*.
- Wulf, K. D., Odekerken-Schröder, G., & Iacobucci, D. (2001). Investments in consumer relationships: a cross-country and cross-industry exploration. *Journal of marketing*, 65(4), 33-50.
- Yavas, U. (2003). A multi-attribute approach to understanding shopper segments. *International Journal of Retail & Distribution Management*, 31(11), 541-548.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *the Journal of Marketing*, 31-46.
- Zhao, J., & Huddleston, P. (2012). Antecedents of specialty food store loyalty. *The International Review of Retail, Distribution and Consumer Research*, 22(2), 171-187.