

FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

OVERCOMING LIABILITY OF FOREIGNNESS: A STUDY ON PRODUCT  
COUNTRY IMAGE, ITS ANTECEDENTS, AND HOW PRODUCT LABELING  
INFLUENCES PURCHASE INTENTIONS

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the requirements for the degree of  
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by

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To: Dean William Hardin  
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This dissertation, written by Luis A. Gonzalez, and entitled Overcoming Liability of Foreignness: A Study on Product Country Image, Its Antecedents, and How Product Labeling Influences Purchase Intentions, having been approved in respect to style and intellectual content, is referred to you for judgment.

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Florida International University, 2022

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## DEDICATION

To my wife, Michelle, and my children, Isaac, Aaron, and Sarah, whose sacrificial love and patience made this accomplishment possible.

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I want to express my gratitude to my wife and children for their continued support in this journey. Without their patience and understanding, this journey would not have been possible. I want to express my sincere gratitude to Dr. William Newburry, who sparked my interest in the topic. His initial guidance on the subject helped me focus on the topic and the direction I ultimately followed for the study. I also want to thank my cohort, especially Michael Russel, Selena Seabrooks, and Tyrone Sawyer. Their support and encouragement convinced me that I should continue studying the topic.

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ABSTRACT OF THE DISSERTATION

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This dissertation focuses on the concept of liability of foreignness (LOF) and explores whether a multinational enterprise (MNE) can reduce this implied cost by explicitly stating the country of origin (COO) on its product label. Prior research studies have focused on the manufacturing country as the COO, but this study focuses on both the country that designed the product and the country that ultimately manufactured it. Empirical research has shown that foreign organizations incur additional costs when entering a local market. These costs primarily stem from unfamiliarity by the organization with the local market and the local consumers with the company. The study aims to explore whether an organization can reduce these implied costs in a new market by either designing or manufacturing its product in countries that are seen positively by local consumers.

Specifically, an experiment was conducted to test whether the product country image (PCI) positively or negatively affects the willingness to buy said product; consumer cosmopolitanism (COS), ethnocentrism (CET), and materialism (MAT) are

treated as antecedents to PCI. Age, gender, education, and country development status are treated as moderators to PCI; product type and brand image are control variables.

A fictitious brand called Raeden was created to test the willingness to buy earphones (in-ear headphones) introduced into the local market. This study will add to the literature on LOF, location choice, and consumer preference. By understanding the degree of COS, CET, and MAT of the local population, an organization can position itself for success.

Similarly, if management understands which production/design country gives it the best advantage in the local market, it might wish to manufacture/design the product in that location. The study uses previously established instruments to test and measure the constructs quantitatively. The data was collected through an electronic survey administered through Amazon MTurk. The analysis was mainly done using a structural equation model and analysis of variance.

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## 1 Introduction

Hymer (1960) was the first researcher to theorize that multinational enterprises (MNEs) conducting business abroad are faced with costs that arise from conducting business in an unfamiliar environment. These implicit costs are collectively referred to as *liability of foreignness* (LOF). These costs occur from the organization's need to coordinate across cultural, political, economic, and geographical differences between the host and home countries (Zaheer, 1995). Can an MNE successfully overcome LOF? Past research provides suggestions on how MNEs can limit their *liability of foreignness*. Dunning (1977) found that MNEs were able to compete if the costs related to LOF were outweighed by firm-specific advantages (FSAs) (Zaheer, 1995), suggesting that an MNE's strategic and organizational history (administrative heritage) can limit LOF and create a competitive advantage. Localization and reducing the unfamiliarity between the home and host countries were also found to reduce the *liability of foreignness* (Daamen et al., 2007). Despite prior research, the literature does not adequately address whether an MNE can utilize a production label to overcome LOF (Dunning, 1977).

Production labeling is a critical aspect of the manufacturing process and may be as important as the product itself. Consumers rely on production labeling to accurately communicate the identity of where a product is made, often described as the "country of origin (COO)." Studies have shown that consumers' perception of a product is influenced by their ideas and stereotypical images of the country (Lotz & Hu, 2001). This image is referred to as the "country image" and is defined as "the picture, the reputation, the stereotype that businessmen and consumers attach to products of a specific country"

(Nagashima, 1970, p. 68). Such variables as “representative products, national characteristics, economic and political background, history, and traditions” help create this image (Nagashima, 1970).

It is becoming increasingly crucial for MNEs to distinguish their offerings from their competitors. Consumers have a growing range of options for earphones from well-known brands such as Bose, Sony, Beats, JBL, Apple, Bang & Olufsen, and from lesser-known brands such as Skullcandy and Etymotic Research. Depending on the organization, it may choose to employ a cost leadership strategy or decide to compete on differentiation. MNEs can compete on quality, design, features, technology, and pricing, and they can also be strategic on where to place their manufacturing facilities (J. U. Kim & Aguilera, 2016). Establishing operations in host countries with multiple country-specific advantages (CSA) will help the MNE deliver value to its customers (Akpinar, 2020; Porter, 1996) and position itself strategically. This study investigates whether a multinational enterprise can use production labeling to influence consumer preference. More specifically, this study will answer the question: how do product country image, its antecedents, and moderators influence consumers' willingness to buy a product? A sub-question to the study is: can an organization utilize the reputational image of the country or countries where the product was designed and manufactured to counteract its *liability of foreignness* when entering a foreign market?

This study will focus on the product labeling of earphones on in-ear headphones. An earphone is a product that connects to a smartphone either through either a wired connection or Bluetooth. The product is used to enhance the experience of using a smartphone by providing a high-quality listening experience while watching videos,

listening to music, or even conversing. Although some manufacturers bundle earphones with the purchase of a smartphone, most consumers choose to upgrade (*The Best Earbuds (In-Ear Headphones) for 2021*, n.d.). The earphones and headphones market is projected to grow 11% annually from 2020 to 2026. As a result, the market size is expected to grow to \$52 billion by 2026. Europe is the largest market for headphones, with expected incremental revenues of \$6 billion during the period; the U.S. is expected to experience an increase of \$5 billion. Smart wearables dominate the market, with the active noise canceling (ANC) segment expected to experience an incremental growth of over \$15.3 billion during the forecasted period (Intelligence, n.d.).

Earphones dominate the headphones market with a share of 53% in 2019, and this can be attributed to their low cost, the comfort of hearing music, and, finally, technological advances such as the introduction of notchless phones, the removal of the 3.5mm headphone jacks, and the addition of smart features. In addition, features such as voice assistance, gesture recognition, and fitness tracking have fueled the adoption of the devices. In the U.S., Apple, Beats, Bose, and Sony share nearly 70% of the market for personal headphones (*Global Earphones & Headphones Market Size Report, 2020-2027*, n.d.).

Besides the expanding market and the opportunities associated with said expansion, the reason for choosing earphones as the product type in this study is that previous research has shown that for technologically complex products, the country of design (COD) is the strongest predictor of a favorable product evaluation (Ahmed et al., 2002). These results suggest that an organization might value employing a compound production label, i.e., Designed in .., Made in ..., to gain acceptance in a new market.

This research will contribute to research on liability of foreignness (Hymer, 1960; Jiang et al., 2014; H. Kim & Jensen, 2013) and consumer preference and behavior (Newburry et al., 2006). This research will also expand upon the knowledge of factors influencing consumer preference and purchasing intentions. Furthermore, the findings of this study can influence how MNEs evaluate where they locate their subsidiaries to strategically overcome LOF when entering a new market and how to market to the local consumer based on their COS, CET, and MAT tendencies. Finally, the findings should be applicable to MNE seeking to enter a foreign market with other high-tech products.

The rest of the paper will proceed as follows. The next section will review the relevant literature. Following the literature review, the research model will be provided, the definitions of the key constructs for the study, and the hypotheses tested. The subsequent section describes the data collection process and measuring instruments. Finally, the last two chapters include the results, the discussion, and future work.



## 2 Literature Review

### 2.1 *Liability of Foreignness*

The concept that firms choosing to internationalize face unavoidable costs compared to locally embedded firms was developed by the early work of Stephen Hymer (1960). This *liability of foreignness* has remained a frequent research topic, and much is theorized about the nature of these costs and what organizations can do to minimize them. These implied and social costs of doing business in a foreign market have been historically grouped into three (3) groups: unfamiliarity, relational, and discrimination hazards (Denk et al., 2012; Eden & Miller, 2004) (Denk et al., 2012; Eden & Miller, 2004; Hymer, 1960).

Unfamiliarity hazards occur from a firm's lack of knowledge and experience with the local market and culture. This unfamiliarity hazard can be mitigated by first internationalizing in countries low in psychic distance or countries that are perceived to be similar to the firm's home market (Johanson & Vahlne, 1977). Internationalizing allows the MNE to gain market experience and familiarity with the host market. In addition, transferable knowledge about serving a particular market can be a source of competitive advantage for a firm (Caves, 1971). Empirically, it has been shown that the *liability of foreignness* and the related costs of doing business abroad will gradually decline as the organization learns and becomes similar to domestic organizations (Petersen & Pedersen, 2002; Zaheer & Mosakowski, 1997).

Relational hazards occur from higher transactional costs from managing an operation from afar. Internal (intra-firm transactions) and external (market transactions) costs are expected to be higher for an MNE operating in a foreign country. Anderson and

Gatignon (1986) proposed that MNE face more significant internal and external uncertainties as a result of increased variability in the foreign economy (external uncertainty) and the degree of control that the firm wants to exert on its foreign investment (internal uncertainty). Internal uncertainty is created by the sociocultural distance between the home and host cultures, necessitating a higher level of administrative control when there is a “substantial advantage to doing business in the entrant’s way” (Anderson & Gatignon, 1986).

Discriminatory hazards stem from the host country’s unfamiliarity with the foreign firm. Typically, the host country has less information with which to judge the firm, which could be scrutinized to a greater extent than local firms (Kostova & Zaheer, 1999). In addition, MNEs may face political hazards such as undue taxation and regulation (Henisz & Williamson, 1999). Furthermore, a lack of immersion and legitimacy in the host country makes prominent and visible MNEs more susceptible to political attacks (Kostova & Zaheer, 1999). Finally, the host country’s ethnocentric tendencies could also result in discriminatory behavior against the MNE (Balabanis et al., 2001) to the extent that it might affect an MNE’s attractiveness to local employees (Newburry et al., 2006).

The concepts of liability of foreignness and internationalization implicitly assume they are a liability (Hymer, 1960; Newburry et al., 2006); however, some scholars have argued that it can be a source of competitive advantage. Firms that excel at reading the international business environment and are agile enough to adapt to changing economic conditions can turn this liability into a competitive advantage. Drawing from a resource-based perspective, firms whose core competencies include flexible routines and an

adaptable organizational culture can quickly respond to changing market conditions by modifying their strategy whenever required (Sethi & Guisinger, 2002).

## *2.2 Country of Origin Labeling*

Consumers collect information about a product from various sources: the web, television, radio, print media, its packaging, and the product label itself (Saunders, 2010). The labeling on a product can provide the consumer with crucial data about the product features and attributes, the brand, price point, the origin, and any other product information that may benefit the consumer's decision-making process. For example, country of origin labeling connects the consumer to a particular product and may provide symbolic and emotional value to the consumer (Askegaard & Ger, 1998).

As consumers use a product's labeling to form preferences and purchase decisions, marketers use the label to deliver additional information to sway the consumer. Ever since Britain began using product labels to differentiate British products from the perceived 'inferior' Japanese products, country-of-origin labeling has been used creatively (Askegaard & Ger, 1998). It has been used to display the product's origin, but it has also been a differentiating factor.

The country-of-origin (COO) can be divided into two subconstructs, country of design (COD) and country of manufacture (COM), and each plays a vital role in a consumer's perception of the quality of the product. When exposed to products of unknown brand names, consumers rely on informational cues such as COD and COM to assess product quality (Hamzaoui-Essoussi, 2010). Ahmed et al. (2002) found that for technologically complex products, COD was the strongest predictor of a favorable product evaluation when the product was manufactured in a newly industrialized country

(NIC). Additionally, with outsourcing continuing to be so prevalent, consumers may place a greater emphasis on COD to form their judgment of a product (Chao, 2001). This suggests that a developed country firm may be able to offset the effect of a negative COM image by emphasizing the COD e.g. “German engineering (VW vehicles manufactured in Mexico)” or “designed by Apple in California (Apple iPhones made in China)” (Ahmed et al., 2002).

### *2.3 Consumer Cosmopolitanism*

As globalization continues to increase, national boundaries have blurred, leading to groups of people that consider themselves more global than local (Cleveland et al., 2009) – they view themselves as citizens of the world. The literature defines cosmopolitanism as a three-dimensional construct “capturing the extent to which a consumer (1) exhibits an open-mindedness towards foreign countries and cultures, (2) appreciates the diversity brought about by the availability of products from different national and cultural origins, and (3) is positively disposed towards consuming products from foreign countries” (Riefler et al., 2012).

These three characteristics of a cosmopolitan consumer: open-mindedness, appreciation for diversity, and consumption transcending borders imply that a cosmopolitan consumer will show a higher tendency to consume products originating from cultures other than their own. This perspective also means that highly cosmopolitan consumers regard the world as their personal “in-group” (groups with which one identifies) (Zeugner-Roth et al., 2015) and not their home country i.e. they display favoritism for foreign products as those transcend nationalities and are perceived as the

standard for quality. It has been shown that an individual's willingness to buy a product is influenced by their attitude towards the country of origin (Lamb, 1982).

However, this does not mean that highly cosmopolitan consumers shun local cultures or products. The literature has identified two classes of cosmopolitan consumers. Those who are global and abstain from local cultures and local cosmopolitans feel positively attached to their local culture despite their higher standards for quality and authenticity (Cannon & Yaprak, 2002; Riefler & Diamantopoulos, 2009). These local cosmopolitans consume imported products without neglecting their local ties and culture (Zeugner-Roth et al., 2015). Previous studies have identified younger consumers (Cleveland et al., 2009; Riefler & Diamantopoulos, 2009), and women are more cosmopolitans (Cleveland et al., 2009, 2011) than elderly and male consumers, respectively. As the interdependence of world economies continues to increase, the younger population is more exposed to various cultures. As a result, young consumers tend to be more cosmopolitan.

Women's nurturing and collective disposition allows them to be more open to different cultural differences and perspectives. For this reason, women are believed to be more cosmopolitan than men (Cleveland et al., 2011). Furthermore, education has also been shown to positively influence COS (Cleveland et al., 2009; Riefler et al., 2012). The notion is conceptually sound as the development of open-mindedness in students has long been established to be an educational aim (McLaughlin, 2003; Russell, 1939).

#### *2.4 Consumer Ethnocentrism*

Shim and Sharma first introduced the concept of consumer ethnocentrism in 1987, and it is anchored in Social Identity Theory (Tajfel, 1982). This concept borrows from

other sociological concepts that try to differentiate between “in-groups” and “out-groups” (those opposing the “in-group”) (Parts & Vida, 2011). Ethnocentrism represents the inclination of individuals to view their own culture as superior and to reject those cultures that are different. Consumer ethnocentrism represents the beliefs “about the appropriateness, indeed morality, of purchasing foreign-made products” (Shimp & Sharma, 1987). This construct proposes that nationalistic emotions affect the attitudes towards foreign-made products and purchase intentions.

Highly ethnocentric customers believe that purchasing imported products is detrimental to the local economy and national pride. Therefore, ethnocentric consumers favor locally-sourced products and reject imported products (Kaynak & Kara, 2002; S. Sharma et al., 1995). Furthermore, based on moral standing, these consumers would buy an inferior product from a local brand than an imported one (Cleveland et al., 2009). In addition, previous empirical research has established a positive relationship between age and CET and a negative one with the level of education (Balabanis et al., 2001; Cleveland et al., 2009).

## *2.5 Consumer Materialism*

Materialism is the “importance a consumer attaches to worldly possessions” (Belk, 1985). Three themes consistently appear in the literature. The first is that highly materialistic consumers emphasize ownership and acquisitions. The second theme is that these possessions and their purchases provide a significant source of happiness and pride. Finally, highly materialistic consumers judge their success and those of others by the number and quality of possessions accumulated (Richins & Dawson, 1992). These consumers display their status through consumption (Eastman et al., 1997).

Cleveland et al. (2009) found that materialism drives the consumption of socially visible products.

Materialistic consumers are concerned with displaying their status and possessions by acquiring imported luxury products. Possessing imported luxury products denotes a higher level of achievement and helps materialists make a positive impression on others (Kilbourne et al., 2005; P. Sharma, 2011). However, materialistic tendencies vary across countries depending on socioeconomic factors and cultures (Cleveland et al., 2009). Consumers in emerging markets prefer products imported from developed countries, while consumers in developed countries are less concerned with materialistic goals (Jin et al., 2020). Consumers in emerging markets have more favorable product evaluations and behavioral intentions for products originating in developed countries.

In contrast, consumers in developed countries have less favorable product evaluations and business intentions for products originating in emerging markets (P. Sharma, 2011). Consumers in emerging markets place a greater emphasis on publicly visible markers to communicate financial achievement and social status. Ownership of foreign-made designer-labeled goods, expensive cars, jewelry, etc., serves to signal their level of status (Eastman et al., 1997; Wong & Ahuvia, 1998). It is aspirational for them to own foreign-made products because it signals a higher level of success and status. Sharma (2011) found that MAT has a more substantial positive influence on evaluating and purchasing intentions for products from developed markets than emerging markets. This influence is significantly stronger in consumers from emerging markets.

Consumers high in materialism tend to view the quality of products from emerging markets to be inferior to those originating in developed countries (C. M. Han

& Terpstra, 1988). Therefore, the influence of materialism on product country image depends on the development statuses of the originating and destination countries (Jin et al., 2020). In addition, previous research has established that consumers tend to be less materialistic as they age despite enjoying a higher level of income (Belk, 1985; Cleveland et al., 2009; Richins & Dawson, 1992).

## *2.6 Product Country Image*

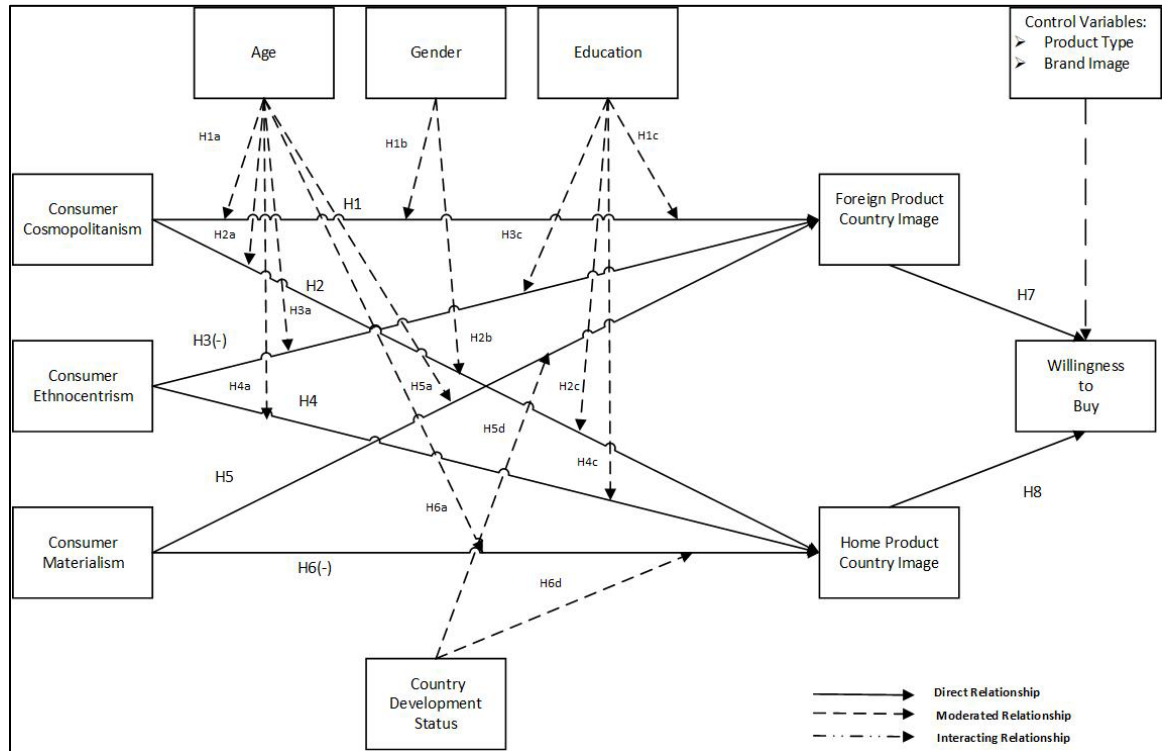
Country image is defined as the total “of all descriptive, inferential and informational beliefs one has about a particular country” (Martin & Eroglu, 1993). This image is created from familiarity with the country’s products, national characteristics, socioeconomic background, history, and traditions (Nagashima, 1970). Product country image is defined as the general perception of the quality of products made in a given country (Demirbag et al., 2010). When no other information is available, the country image can act as an information cue (halo effect) to aid the consumer in product evaluation (Martin & Eroglu, 1993). Consumers base their assessment on the information available, especially those related to the country where a product was designed or manufactured. They are unfamiliar with specific product characteristics and use what they know to assess the quality of the product (Essoussi & Merunka, 2007). Extant literature tells us that a consumer's image of the country where the product originated influences product evaluations (Bilkey & Nes, 1982). Additionally, a positive national image may boost a consumer’s perception of products made in that country (G. (Kevin) Han & Wang, 2015).



### 3 Research Model and Hypotheses Development

#### 3.1 Research Model

Figure 1: *Research Model*



Based on the existing literature, it is believed that traits such as cosmopolitanism (COS), ethnocentrism (CET), and materialism (MAT) influence how consumers view products originating from either their home country or abroad. For instance, COS will positively affect home and foreign product country images since highly cosmopolitan consumers are open to trying products from different cultures. On the same stream of thought, highly ethnocentric consumers will have a positive image of products originating in their home country and a less favorable image of products originating abroad. Highly materialistic consumers will have a positive image of products originating in foreign countries, but the relationship's strength is reinforced by the development status of their home country. The effect of product country image on a consumer's willingness to buy

will follow their perception; if it is positive, then the relationship will be positive and vice versa.

### *3.2 Hypotheses*

#### *Consumer Cosmopolitanism*

The three characteristics most often displayed by a cosmopolitan consumer: open-mindedness, appreciation for diversity, and consumption transcending geographical boundaries imply that the consumer will show a higher tendency to consume or purchase products from a different culture. This perspective also means that highly cosmopolitan consumers regard the world and not their home country as their personal “in-group” (Zeugner-Roth et al., 2015). They display favoritism for foreign products as those transcend nationalities and are perceived as the standard of quality. Therefore, the individual’s attitude towards a foreign country may influence their willingness to acquire a product originating there (Lamb, 1982).

However, this does not mean that a cosmopolitan consumer will eschew local products in favor of imported products. On the contrary, previous studies have identified two classes of cosmopolitan consumers. Those who consider themselves wholly global and therefore abstain from local cultures and products and those who do not neglect their local ties and cultures and consume both local and foreign products (Cannon & Yaprak, 2002; Riefler & Diamantopoulos, 2009; Zeugner-Roth et al., 2015).

For these reasons, it is hypothesized that:

H1: Cosmopolitanism is positively related to foreign product country image.

H2: Cosmopolitanism is positively related to home product country image.

### *Consumer Ethnocentrism*

The concept of consumer ethnocentrism borrows from other sociological concepts that try to differentiate between “in-groups” and “out-groups” (those opposing the “in-group”) (Parts & Vida, 2011). Ethnocentrism is the tendency of individuals to view their cultures as superior and to reject those cultures that are different. Consumer ethnocentrism represents the beliefs “about the appropriateness, indeed morality, of purchasing foreign-made products” (Shimp & Sharma, 1987). The construct implies that consumers high on ethnocentrism will prefer local-made products and avoid foreign-made products even though they might be of better quality, more economical, and have higher utility. For these consumers, purchasing imported products is unpatriotic and is seen as hurting the local economy. (Balabanis et al., 2001; Cleveland et al., 2009).

For these reasons, it is hypothesized that:

H3: Consumer ethnocentrism is negatively related to foreign product country image.

H4: Consumer ethnocentrism is positively related to home product country image.

### *Consumer Materialism*

Materialism is the “importance a consumer attaches to worldly possessions” (Belk, 1985). Highly materialistic consumers place the acquisition of possessions as a source of happiness and satisfaction. Furthermore, they are concerned with how their possessions display their status in society and prefer imported products. These imported products denote a higher level of achievement, e.g., imported luxury vehicles and leather goods, and therefore are symbols of success (Kilbourne et al., 2005; P. Sharma, 2011).

Therefore, the following hypotheses are tested:

H5: Materialism is positively related to foreign product country image.

H6: Materialism is negatively related to home product country image.

### *Product Country Image*

Product country image (PCI) is the perception a consumer has of the quality of the products originating from the country (Demirbag et al., 2010). This image of the country stems from socioeconomic factors such as national characteristics and traditions (Nagashima, 1970). Lacking experience with a product, consumers will rely on what they know about the country of origin. In this regard, the consumer uses their perception of the country as a proxy for the quality of the product. In this study, two types of product country images are tested. One to discern what a consumer thinks about products originating in their home country (HPCI) and what they think about a foreign country of their choosing (FPCI).

The congruity principle is borrowed to assert that when home and foreign PCI are in the same direction, they will reinforce consumers' willingness to buy. The principle of congruity (Osgood & Tannenbaum, 1955) proposes “that an individual's evaluations or re-evaluations of objects tend to seek congruity with that individual's frame of reference.” When a change in evaluation or attitude occurs, the principle of congruity points to increased congruity with the frame of reference. Therefore, it is expected that consumers will respond more positively when presented with congruent conditions (Chao, 2001; Osgood & Tannenbaum, 1955; Zajonc, 1960). In this case, it is expected that when a consumer has a positive (negative) home and foreign PCI (congruent conditions), it will result in a stronger (weaker) willingness to buy than when an incongruent condition is presented.

For these reasons, the following hypotheses are tested:

H7: Foreign country product image is positively related to a consumer's willingness to buy.

H8: Home country product image is positively related to a consumer's willingness to buy.

### *3.3 Moderating Variables*

#### *Age*

The literature has established the relationship between COS, CET, MAT, and age. Earlier empirical research has shown that younger consumers tend to be more cosmopolitan than older consumers. In an eight-country study that examined COS, CET, and MAT, Cleveland et al. (2009) found that age is negatively related to COS for consumers from Hungary, Korea, and Sweden. An exploratory study that sought to examine the effects of demographics on acculturation to the global consumer culture, a construct with its origin in COS, found a similar negative relationship among US consumers older than 18 (Carpenter et al., 2013). Similar results establishing the negative relationship between age and COS have been obtained for consumers from various countries (Riefler et al., 2012; Riefler & Diamantopoulos, 2009; Schueth & O'Loughlin, 2008). It is believed that the negative relationship between COS and age results from young people being more exposed to international cultures, traveling more, and often being multilingual (Riefler et al., 2012).

In the eight-country study, Cleveland et al. (2009) found that age is positively related to CET in all countries sampled and negatively associated with MAT for consumers from Chile, Sweden, Greece, and Canada. A similar relationship between age and CET has been previously established for consumers from Turkey (Balabanis et al., 2001), France (Javalgi et al., 2005), and Australia (Josiassen et al., 2011). The literature

has also established a negative relationship between MAT and age; as consumers age, materialistic tendencies weaken despite older consumers typically having the financial means to indulge once in a while (Belk, 1985; Cleveland et al., 2009; Richins & Dawson, 1992).

For these reasons, the following hypotheses are tested:

H1a: The relationship between consumer cosmopolitanism and foreign product country image will be stronger for younger consumers than for older consumers.

H2a: The relationship between consumer cosmopolitanism and home product country image will be stronger for younger consumers than for older consumers.

H3a: The relationship between consumer ethnocentrism and foreign product country image will be stronger for older consumers than for younger consumers.

H4a: The relationship between consumer ethnocentrism and home product country image will be stronger for older consumers than for younger consumers.

H5a: The relationship between consumer materialism and foreign product country image will be stronger for younger consumers than for older consumers.

H6a: The relationship between consumer materialism and home product country image will be stronger for younger consumers than for older consumers.

### *Gender*

The literature has yet to establish the relationship between COS and gender conclusively. Some studies have found support for females being more cosmopolitan than their male counterparts (Cleveland et al., 2009, 2011), while others have found no evidence (C. M. Han & Won, 2018; Riefler et al., 2012; Schueth & O'Loughlin, 2008). For this study, it is believed that women's nurturing disposition allows them to accept

cultural differences and, therefore, tend to exhibit a higher degree of cosmopolitan tendencies than their male counterparts (Cleveland et al., 2011).

For this reason, it is hypothesized that:

H1b: The relationship between consumer cosmopolitanism and foreign product country image will be stronger for female consumers than for male consumers.

H2b: The relationship between consumer cosmopolitanism and home product country image will be stronger for female consumers than for male consumers.

### *Education*

As with gender, the influence between consumer ethnocentrism and education has not been well established and seems to be country-specific. However, multiple studies have found a direct relationship between the two constructs in consumers from the United States (Carpenter et al., 2013), Austria, and Singapore (Riefler et al., 2012), Mexico, Greece, Hungary, and Sweden (Cleveland et al., 2009). It is hypothesized that education encourages more frequent contact with foreign cultures, and therefore highly educated consumers will tend to have a stronger cosmopolitan orientation. Contrary to COS, education seems to negatively correlate with consumer ethnocentrism. The relationship is particularly true for countries high in patriotism and nationalism (Balabanis et al., 2001). Consumer ethnocentrism and cosmopolitanism are sometimes seen as different faces of the same coin. They frequently exhibit a negative correlation between them (Cleveland et al., 2009), and as such, it is intuitive that as education promotes cosmopolitan tendencies, a lack of education would encourage ethnocentric tendencies.

For these reasons, the following hypotheses are tested:

H1c: The relationship between consumer cosmopolitanism and foreign product country image will be stronger for highly educated consumers than for less-educated consumers.

H2c: The relationship between consumer cosmopolitanism and home product country image will be stronger for highly educated consumers than for less-educated consumers.

H3c: The relationship between consumer ethnocentrism and foreign product country image will be stronger for less-educated consumers than for highly educated consumers.

H4c: The relationship between consumer ethnocentrism and home product country image will be stronger for less-educated consumers than for highly educated consumers.

#### *Country Development Status*

A country's development status influences how highly materialistic consumers see its products. Imported products are seen as a status symbol in most cultures, particularly true in emerging markets (Kilbourne et al., 2005; P. Sharma, 2011). As a result, imported goods from developed countries are seen as superior to products from emerging economies. Highly materialistic consumers judge the quality of the products based on their origin and believe that products originating in emerging markets have inferior quality (C. M. Han & Terpstra, 1988).

Therefore, the following are hypothesized:

H5d: The development status of the foreign country will moderate the relationship between consumer materialism and foreign product country image in such a way that the relationship will be stronger for developed markets and weaker for emerging countries.

H6d: The development status of the home country will moderate the relationship between consumer materialism and home product country image in such a way that the relationship will be stronger for developed markets and weaker for emerging countries.



## 4 Methodology

### *4.1 Data Collection and Analysis*

This quantitative study required surveying individual consumers through Amazon Mechanical Turk (MTurk) to test the hypotheses. Using MTurk as the source of participants allowed the ability to obtain high-quality data in a short amount of time at a reasonable cost. Previous research has suggested that MTurk is suitable for a wide range of psychology and social sciences research. MTurk participants are more representative of the noncollege population, and the data acquired from these participants meets or exceeds the standards associated with published research (Buhrmester et al., 2011). Compared to the general population, they are similar in terms of demographics. They have similar income distribution, are slightly younger, 54% are between 21-35 years old, and have an average number of children for their age group. The majority of the users are from the United States (47%) and India (34%) (Ipeirotis, 2010).

However, using MTurk participants is not devoid of risks. One of the most prominent risks is that MTurk participants may be skimming through the surveys. One study found that MTurk participants scored poorly on a Modified Instructional Manipulation Check (IMC). The IMC is a test to gauge whether participants pay attention and follow instructions (Goodman et al., 2013). There is also the risk that participants will take the survey more than once (Smith et al., 2016). The speeding through and not thoroughly reading questions can be mitigated easily by administering an attention test and then filtering participants by whether they answered correctly. The mitigation will reduce statistical noise in the sample (Goodman et al., 2013). The issue of the same participants taking the survey multiple times can be mitigated in a few ways, either in

Qualtrics or Amazon. In this study, the problem was mitigated by administering the survey in micro-batches, identifying the MTurk worker identification number of those that took the survey, and qualifying them as already have taken the survey. Those identified as having taken the survey were disqualified from taking additional surveys. The process was done directly on Amazon MTurk.

The respondents were asked to rank from most familiar to least familiar from a list of preselected countries. The survey was meant to be administered to people residing in the United States, Mexico, and Nicaragua. These three countries were chosen for two reasons. One was convenience; MTurk allows a researcher to select the countries to administer the survey, and each of the three countries can be chosen. Another reason was to have one country from each of the three major groups of the International Monetary Fund's country classification – advanced economies, emerging economies, and finally, low-income countries (LIC).

The countries were selected from the Observatory of Economic Complexity's (OEC) 2019 list of top exporters of microphones and headphones (*Microphones and Headphones* (HS, n.d.)). Out of the top thirteen exporters of microphones and headphones, China was excluded for its dominant position in the segment – 45% of exports originated from China – and its reputation for being the world's manufacturing superpower (*Infographic*, n.d.). In addition, the United States and Mexico were excluded because they are two of the three countries identified for data collection. Finally, Hong Kong was removed from the list because of its close economic and political ties to mainland China and to avoid the participants associating it with China. The nine countries provided enough participants enough alternatives to rank the countries from most familiar to least

familiar. The nine countries are: Belgium, Czech Republic, France, Germany, Italy, Malaysia, Netherlands, United Kingdom, and Vietnam.

One of the nine countries on the list was chosen for the subsequent questions in the survey. The country selected was chosen based on how the participants ranked the countries. The sample population was divided into three groups. The country assigned as their foreign country corresponded with their most familiar country (rank 1) for one group. Another group was assigned the country that they were somewhat familiar with (rank 5), and the final group was assigned the country they selected as least familiar (rank 9). Each participant was assigned a single condition, i.e., the country corresponding to either one, five, or nine. The response was used throughout the survey.

Once the foreign country had been selected, the participants answered questions to measure their willingness to purchase the product. Next, each participant was shown one of the nine versions of the product labels. The versions are as follows:

Figure 2: *Product Label Versions*

Version	Label
1	Designed in Home Country Made in Foreign Country
2	Designed in Home Country Made in Home Country
3	Designed in Foreign Country Made in Foreign Country
4	Designed in Foreign Country Made in Home Country
5	Made in Home Country
6	Made in Foreign Country
7	Designed in Home Country
8	Designed in Foreign Country
9	NO LABEL

Testing every single combination of product labels, including a group that was not shown a product label, allowed testing the statistically significant impact on the

willingness to buy the product (dependent variable) by analyzing differences between groups. There are 27 groups in total: nine versions of the labels times the three foreign country selections (most familiar, somewhat familiar, and least familiar). Following Mundfrom et al. (2005) recommendations, it was estimated that a minimum sample size of 400 was needed.

As part of the survey, demographical information was collected alongside the questions meant to test the different constructs—first, the statistical technique of exploratory factor analysis (EFA) to identify poorly fitted items. Then, a confirmatory factor analysis (CFA) followed the EFA. Structural equation models (SEM) were then used to test the structural paths between the hypotheses. Finally, an analysis of variance was performed to test the differences in the dependent variable between groups.

#### 4.2 Constructs

Figure 3: *Constructs and Definitions*

<b>Constructs</b>	<b>Definition</b>
Cosmopolitanism (COS)	A set of beliefs, attitudes and qualities held by certain people regarding the world and cultural differences
Consumer Ethnocentrism (CET)	The proclivity for people to view their own group as the center of the universe, to interpret other social units from the perspective of their own group, and to reject persons who are culturally dissimilar while blindly accepting those who are culturally like themselves.
Materialism (MAT)	The importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states.
Product Country Image (PCI)	The picture, the reputation, the stereotype that businessmen and consumers attach to products of a specific country.
Willingness to Buy (WB)	The behavioral intention of a consumer to purchase a product.
Consumer Affinity (CA)	The affective attachment to a specific country

#### 4.3 Instrumentation

The survey questions utilized in this study were borrowed from multiple research papers. All constructs were measured through seven-point Likert scales ranging from 1- strongly disagree to 7 – strongly agree. See Figure 2 for a definition of the dependent and

independent variables. See appendix A for a more detailed presentation of the measurement questions.

*Dependent Variable:*

**Willingness to buy** was measured using a modified version of the Purchase Intention Scale (Putrevu & Lord, 1994).

*Independent Variables:*

**Materialism** was measured using the 9-item short version of the Material Values Scale (Richins, 2004; Richins & Dawson, 1992). **Consumer Cosmopolitanism** was measured using Cleveland et al.'s (2009) 6-item scale to measure. **Consumer ethnocentrism** will be measured by a 4-item short version of the CETSCALE adopted by Cleveland et al. (2009). (Kaynak & Kara, 2002; Shimp & Sharma, 1987). **Home product country image** and **foreign country product image** were adopted from the study by Jin et al. (2015).

*Control Variables*

The product type (earphones) and brand image were control variables. A fictitious brand was created not to confound the study results; a brand can be used to differentiate a product from those of its competitors (Hoyer & Brown, 1990) and may influence what a consumer thinks about a product (Keller, 1993).

*4.4 Informed Pilot Study*

Before embarking on a pilot study, five colleagues were asked for feedback and recommendations on the project. The main goal was to obtain feedback on the research model, the hypotheses, and the survey. They were asked to read and complete the survey and provide feedback on the length and clarity of the survey. Since multiple constructs

were being tested, the survey required that the participants answer many questions, and survey fatigue was concerning. Luckily, no negative feedback on the length of the survey was received. Even though the survey does ask a significant number of questions, none of the questions are long or confusing. On the contrary, the feedback received was positive regarding the questions and the overall survey.

The other aspect of the survey where feedback was sought was the survey's order or flow. The current flow of the survey is as follows. First, the participants are asked to rank the nine foreign countries, and after choosing one of the countries are asked about their willingness to buy the product by showing them one of the nine versions of the product labels. Next, they are asked about their perception of the quality (FPCI) of products originating from the foreign country. Then, similar questions are asked to gauge their perception of products originating from their home country (HPCI). Finally, they are asked the personality trait questions (COS, MAT, CET), followed by the demographical information.

#### *4.5 Pilot Study*

After completing the informed pilot and making the recommended modifications to the survey, the next step was to advance to the pilot study stage of the study. The purpose of completing a pilot study was to verify the measuring instruments on a sample of the target population. Besides testing the adequacy of the research instruments, the pilot study served to assess the feasibility of the research protocol and helped estimate how long it would take to collect data for the final study. It also tested whether the monetary compensation proposed was enough to entice people to take the survey and thus estimate the funding needed to complete the study. It was discovered that a payment

of 50 cents per response was appropriate as it provided enough participants in a reasonable amount of time. The pilot study also allowed testing of the Qualtrics survey on actual participants and fix any issues that might arise. Luckily, no issues were encountered while administering the pilot study.

Another benefit of performing the pilot study is that it allows for preliminary data analysis. First, basic statistical tests were performed on the data to understand the sample population. Then, the data collected in the sample study was analyzed using the same techniques ultimately used in the final study. Most of the preliminary data analysis was concentrated on exploratory factor analysis (EFA) of the sample data to uncover any challenges before spending the time and resources collecting the final data.

#### Pilot Study Sample

Data for the pilot study were collected during September and October through Amazon MTurk. The surveys were administered to U.S. participants, and only those MTurk workers with a lifetime approval rate of greater than 90% were allowed to participate. Amazon MTurk allows requestors, i.e., those requesting surveys to be completed by MTurk workers, to approve or reject the participant's responses. The approval rate is tracked over time, and it is commonly used to gauge the quality of the data from those participants. In this case, all workers with less than 90% lifetime approval rates were excluded from seeing the request. Using this type of qualifier results in better quality data at the expense of a more extended data collection period. Since the total population of MTurk workers that satisfied the desired requirement is limited, it took longer to complete the data collection process than if all MTurk workers were

allowed to participate. On average, it took slightly less than a day to complete each survey iteration and collect the data.

The surveys were published one at a time to avoid participants answering more than one survey version. Each survey was released in batches, and each initial set allowed for 15 participants. If 15 usable responses were not collected on the first batch, then another set was released to collect the remaining responses. The process was repeated until the desired number of usable responses was obtained. Each response was checked, and some were rejected based on whether or not the participants answered the two attention check questions correctly. The participant had to answer both questions correctly for the survey to be accepted. Once the 15 responses were collected and recorded by Qualtrics, controls were placed in Amazon MTurk to prevent participants from taking another survey version. Amazon tracks the unique worker identification number for payment purposes and allows the requestors to use those numbers to assign qualification types. This functionality was used to designate a qualification type of “already taken survey” to disqualify those workers from retaking any of the subsequent surveys. Since the surveys were administered in batches and one at a time, every time one would complete, the full list of all participants was downloaded from Amazon and assigned the qualification type to the participants that completed the surveys. This process disqualified them from taking another version of the survey and was done to ensure that they did not unduly influence the analysis.

A total of 487 completed responses were collected. Of which 413 or 85% were usable, approximately 15.3 usable responses for each survey version. There were no missing data on the pilot study as all questions were set as required in Qualtrics. Of the



413 participants, 246 (59.6%) identified as male and 40.4% as female. Even though a tertiary option for gender identification was provided, none of the participants selected it. Fifty-four percent of the participants were between 30 and 44 years old, 22% were between 18 and 29, and 23% were between 45 and 64. The median income of the participants was between 50 and 70 thousand dollars, with 44.8% reporting household income between 50 and 90 thousand dollars. Eighty-four percent of the participants reported a bachelor's degree or higher. The education level is significantly higher than expected since approximately 37.5% of the U.S. population holds at least a bachelor's degree (• *Educational Attainment in the U.S. 1960-2020* | *Statista*, n.d.). The results might be an unintended consequence of distributing the survey to MTurk workers with a lifetime approval rate of at least 90%. It would be interesting to study if there is a positive correlation between education and the task accuracy of MTurk workers. Table 1 provides the frequency and percentage of the pilot study sample.

Table 1: *Pilot Study Participant Demographical Information*

		Frequency	Percent
<i>Age</i>	18 to 29	91	22.0
	30 to 44	223	54.0
	45 to 64	95	23.0
	65 or Older	4	1.0
	Total	413	100.0
<i>Income</i>	Less than \$10,000	14	3.4
	\$10,000 to \$30,000	77	18.6
	\$30,001 to \$50,000	98	23.7
	\$50,001 to \$70,001	111	26.9
	\$70,001 to \$90,000	74	17.9
	Over \$90,001	39	9.4
	Total	413	100.0
<i>Education</i>	Less than High School	1	0.2
	High School Graduate	27	6.5
	Two-year degree/Some college	36	8.7
	Bachelor's degree or more	349	84.5
	Total	413	100.0
<i>Gender</i>	Male	246	59.6
	Female	167	40.4
	Other	0	0.0
	Total	413	100.0

### Exploratory Factor Analysis

One of the primary purposes of performing the pilot study was to do an exploratory factor analysis (EFA) to test the adequacy of the measuring instruments against the sample population. This study uses previously validated measuring instruments, and it was expected that the EFA would result in a favorable outcome. A 4-item short version of the *CETSCALE* and a 6-item scale measure CET and COS, respectively (Cleveland et al., 2009; Shimp & Sharma, 1987). Willingness to buy (WTB) was measured using a modified version of the *Purchase Intention Scale* (Putrevu & Lord, 1994), and materialism was assessed using the 9-item short version of the *Material Values Scale* (Richins, 2004; Richins & Dawson, 1992). Both HPCI and FCPI were measured using the scale from Jin et al. (2015).

## Extraction Method

This section summarizes the steps taken to perform the EFA with the pilot study data. The analysis was performed using SPSS version 28. The first step in the analysis was to recode the one negatively worded question, i.e., a score of 1 became 7, 2 became 6, etc. Then, descriptive statistics were computed on the demographical questions and each of the items to better understand the data. Normality tests were not performed on the item distributions; this was left for the final analysis. The primary purpose of the pilot study was to evaluate the measuring instruments and how each item loaded on the expected factors.

The adequacy of the instruments and the data was tested using the Kaiser-Meyer-Okin Measuring of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity. The KMO measures the "tendency towards unifactoriality for a given row and the tendency toward unifactoriality for the entire factor pattern matrix" (Kaiser, 1974). The test can determine if the data is adequate to perform a factor analysis and determine if what is set out to measure is being measured. The statistic is an index between zero and one, and the closer to one, the better. The overall KMO measure was 0.922, and the individual KMO measures in the anti-image correlation matrix were all above 0.88. According to Kaiser (1974), these values can be described as "meritorious" to "marvelous." Bartlett's Test of Sphericity also confirmed that the pilot data is appropriate for factor analysis,  $\chi^2(406)=10,173.79, p < .001$ . Finally, the communalities were above the 0.3 threshold, confirming that the pilot data is well suited for factor analysis. Table 2 contains the individual KMOs and communalities for each retained item. The correlation matrix is shown in Appendix B.

Initially, multiple rotation methods that use principal axis factoring as the extraction method were tried. Both orthogonal (varimax) and oblique (direct oblimin and promax) rotations were tried but ultimately decided on using promax, a form of oblique rotation, for a few reasons. The first one is that at this stage of the analysis, the main interest was to identify how the items load into the latent factors, and as such, any readily available method in SPSS will do an adequate job (J. D. Brown, 2009; J. Kim & Mueller, 1978, p. 50). Additionally, using the oblique rotation provided the cleanest *simple structure* among all the tried methods. A *simple structure* is a desirable condition in which the items load near 1 (Bryant & Yarnold, 1995, pp. 132–133). Another reason for using an oblique rotation is that the correlation between most factors exceeded 0.32 when using this rotation method. This suggests enough overlap in variance among the factors to justify using an oblique rotation (J. D. Brown, 2009; Tabachnick & Fidell, 2007, p. 646).

For the most part, most variables loaded accordingly with a few exceptions. One was the only reverse-coded question in the survey. This question is part of the *Material Values Scale* and unexpectedly did not load into the construct it is supposed to measure. This question was removed from the final survey version and subsequent analyses. Three additional questions cross-loaded into other unrelated constructs. Two questions that measure the quality and reliability of products originating in the foreign country (FPCI) cross-loaded into the WTB construct, and one of the WTB questions that measure the willingness to try the product cross-loaded into the COS construct. These cross-loadings can be considered significant since they were all above 0.30 (J. D. Brown, 2009; Kline, 2002, pp. 52–53). However, since these questions also loaded into the expected constructs (primary loadings) with much higher coefficients (the lowest being 0.592), it

was decided to suppress coefficients less than 0.40 to arrive at the expected *simple structure*.

Multiple statistical methods were used to decide on the appropriate number of factors. The first method considered to determine the number of components was the scree test (Cattell, 1966). The test is a graphical method that uses Kaiser's criterion to decide how many factors to retain. It is common practice to retain the number of factors above the inflation point as those will explain most of the variance. In this case, either five or six factors explained the most variance (Wilson & Cooper, 2008). The second method used was the Kaiser-Guttman criterion, only including eigenvalues greater than one (Guttman, 1954; Kaiser, 1960, 1970). In this case, five factors had an eigenvalue greater than one. A sixth factor missed the cut-off with an eigenvalue of 0.958. Since previously validated scales are being used, it was expected that five factors were sufficient to explain most of the variance since two of the independent variables (HPCI and FPCI) shared the same scale. The only difference was that one asked about the perception of products originating from the home country and the other one about the perception of products originating from the foreign country. As expected, the variables loaded into a single factor that resulted in five factors that explained approximately 68.33% of the total variance. The last step was to re-run the analysis using six as the number of fixed factors. As expected, this version of the EFA split the original single factor (HPCI and FPCI) into two distinct components, resulting in six (6) factors that explained 71.42% of the total variance. The six factors are *materialism (MVS)*, *consumer ethnocentrism (CET)*, *willingness to buy (WTB)*, *consumer cosmopolitanism (COS)*, *home*

*product country image (HPCI)*, and *foreign product country image (FPCI)*. Table 2 contains the factor loadings per item as well as the extracted communalities.

Table 2: *Factor Loadings and Communalities – Pilot Data*

*Factor loadings and communalities based on a principal axis factoring analysis with promax rotation on 29 items (N = 413)*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)	Communality	KMO
It is very likely that I will buy a product Designed in [Product Label].						.78	.68	.91
I will purchase earphones Designed in [Product Label].						.88	.79	.88
I will definitely try earphones Designed in [Product Label] next time I need one.						.71	.62	.92
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]- Reliable:Not Reliable					.86		.78	.89
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Innovative:Unoriginal					.70		.69	.93
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-High Quality:Poor Quality					.89		.83	.90
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Good Performance:Poor Performance					.79		.84	.91
The position that best represents your feelings about brands/products ORIGINATING from the United States-Reliable:Not Reliable			.87				.77	.89
The position that best represents your feelings about brands/products ORIGINATING from the United States-Innovative:Unoriginal			.77				.70	.93
The position that best represents your feelings about brands/products ORIGINATING from the United States-High Quality:Poor Quality			.90				.84	.90
The position that best represents your feelings about brands/products ORIGINATING from the United States-Good Performance:Poor Performance			.91				.88	.89
I enjoy exchanging ideas with people from other cultures or countries.		.78					.66	.94
I am interested in learning more about people who live in other countries.		.79					.68	.90
I enjoy being with people from other countries to learn about their views and approaches.		.83					.72	.93
I like to observe people from other countries, to see what I can learn from them.		.83					.66	.95
I like to learn about other ways of life.		.78					.65	.95
I find people from other cultures stimulating.		.85					.67	.92
I admire people who own expensive homes, cars, and clothes.	.63						.62	.93
The things I own say a lot about how well I'm doing in life.	.74						.66	.91
I like to own things that impress people.	.73						.70	.93
Buying things gives me a lot of pleasure.	.72						.64	.94
I like a lot of luxury in my life.	.66						.65	.95
My life would be better if I owned certain things I don't have.	.90						.61	.90
I'd be happier if I could afford to buy more things.	.97						.70	.89
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	.67						.56	.96
Citizens from [United States] should not buy foreign products because this hurts [United States]'s businesses and causes unemployment.				.90			.80	.90
It is not right to purchase foreign products, because it puts citizens of [United States] out of jobs.				.88			.77	.91
A real citizen from [United States] should always buy [United States]-made products.				.84			.77	.92
We should purchase products manufactured in [United States] instead of letting other countries get rich off us.				.78			.74	.94

*Note:* Factor loadings <.4 are suppressed.

## Reliability and Validity Analysis

Reliability analysis was performed on the six constructs. Each construct has a high level of internal consistency, with all of them having Cronbach's alphas  $\geq 0.87$  (Bland & Altman, 1997; Cronbach, 1951). No increases in Cronbach's alphas could have been achieved by eliminating any other items from the constructs. The Fornell-Larcker criterion was used to test for discriminant validity among the constructs. Each construct's average variance extracted exceeded the squared correlations with the other constructs (Fornell & Larcker, 1981; Henseler et al., 2015). This result and the strong factor loadings suggest suitable discriminant and construct validity. Table 3 includes the correlation between factors, Cronbach's alpha for each factor, and the average variance extracted in the upper triangle of the matrix.

Table 3: *Factor Correlation Matrix, Average Variance Extracted, and Cronbach's Alphas*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)	Cronbach's Alpha	Number of Items
Materialism (MVS)	1.00	.61	.66	.64	.61	.59	.93	8
Consumer Cosmopolitanism (COS)	.37	1.00	.70	.69	.66	.64	.93	6
Home Product Country Image (HPCI)	.08	.37	1.00	.74	.70	.69	.94	4
Consumer Ethnocentrism (CET)	.63	.13	-.05	1.00	.69	.68	.93	4
Foreign Product Country Image (FPCI)	.16	.38	.68	.08	1.00	.64	.93	4
Willingness to Buy (WTB)	.38	.59	.28	.32	.39	1.00	.87	3

## Confirmatory Factor Analysis

Based on the results of the EFA in the previous section, it was decided to test a simplified version of the research model using confirmatory factor analysis. Maximum likelihood (ML) was used to estimate the parameters and a goodness-of-fit for the model was examined using  $RMSEA \leq 0.063$  ( $90\% 0.058 \leq CI \leq 0.068$ ),  $CFI > 0.94$ ,  $SRMR < 0.05$ , and the chi-square/df ratio  $\leq 3$  (Gaskin, 2021; Hu & Bentler, 1999; Kyriazos, 2018).



The model showed an acceptable fit with factor loadings ranging from 0.693 to 0.934.

Tables 4 and 5 for reliabilities coefficients, factor correlations, and factor loadings.

Table 4: *Confirmatory Analysis Reliability Coefficients and Factor Correlations*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)
Cronbach's Alpha	.93	.92	.94	.93	.93	.87
Omega 1 ( $\omega_1$ )	.93	.92	.94	.93	.94	.87
Omega 2 ( $\omega_2$ )	.93	.92	.94	.93	.94	.87
Omega 3 ( $\omega_3$ )	.92	.92	.94	.93	.94	.87
Avg. Variance Extracted	.62	.67	.80	.77	.79	.69
<i>Factor Correlations</i>						
Materialism (MVS)	1.00					
Consumer Cosmopolitanism (COS)	.36	1.00				
Home Product Country Image (HPCI)	.09	.38	1.00			
Consumer Ethnocentrism (CET)	.70	.14	-0.02	1.00		
Foreign Product Country Image (FPCI)	.12	.38	.76	.04	1.00	
Willingness to Buy (WTB)	.41	.63	.29	.36	.39	1.00

## Summary

The main goal of the pilot study was to test the adequacy of the measuring instruments. After collecting data through Amazon MTurk and removing those participants that did not pass the attention checks, an exploratory factor analysis (EFA) was completed. Unfortunately, one of the questions was removed from any further analysis during the process due to poor loadings. This reverse-coded question was part of the *Material Values Scale* and was the only significant change to the survey. The remaining items loaded on the expected constructs. The six (6) factors are *materialism (MVS)*, *consumer ethnocentrism (CET)*, *willingness to buy (WTB)*, *consumer cosmopolitanism (COS)*, *home product country image (HPCI)*, and *foreign product country image (FPCI)*. Preliminary analysis showed that each construct has a high level of internal consistency as measured by Cronbach's alphas and a high level of discriminant validity using the Fornell-Larcker criterion.

Due to the encouraging results of the EFA, a preliminary confirmatory factor analysis (CFA) was completed. This simplified version of the model was done to confirm the EFA results and test the adequacy of the model. The results of the CFA were adequate but promising, as measured by RMSEA, CFI, SRMR, and the chi-square/df ratio. The EFA and the CFA results provide enough validation to continue with the final study.

Table 5: *Factor loadings on 29 items (N = 413)*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)
It is very likely that I will buy a product Designed in [Product Label].						.83
I will purchase earphones Designed in [Product Label].						.87
I will definitely try earphones Designed in [Product Label] next time I need one.						.79
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]- Reliable:Not Reliable					.87	
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Innovative:Unoriginal					.83	
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-High Quality:Poor Quality					.90	
The position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Good Performance:Poor Performance					.92	
The position that best represents your feelings about brands/products ORIGINATING from the United States-Reliable:Not Reliable			.88			
The position that best represents your feelings about brands/products ORIGINATING from the United States-Innovative:Unoriginal			.83			
The position that best represents your feelings about brands/products ORIGINATING from the United States-High Quality:Poor Quality			.92			
The position that best represents your feelings about brands/products ORIGINATING from the United States-Good Performance:Poor Performance			.93			
I enjoy exchanging ideas with people from other cultures or countries.		.82				
I am interested in learning more about people who live in other countries.		.82				
I enjoy being with people from other countries to learn about their views and approaches.		.85				
I like to observe people from other countries, to see what I can learn from them.		.81				
I like to learn about other ways of life.		.80				
I find people from other cultures stimulating.		.81				
I admire people who own expensive homes, cars, and clothes.	.81					
The things I own say a lot about how well I'm doing in life.	.82					
I like to own things that impress people.	.86					
Buying things gives me a lot of pleasure.	.80					
I like a lot of luxury in my life.	.82					
My life would be better if I owned certain things I don't have.	.69					
I'd be happier if I could afford to buy more things.	.73					
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	.73					
Citizens from United States] should not buy foreign products because this hurts [United States]'s businesses and causes unemployment.				.89		
It is not right to purchase foreign products, because it puts citizens of [United States] out of jobs.				.87		
A real citizen from [United States] should always buy [United States]-made products.				.88		
We should purchase products manufactured in [United States] instead of letting other countries get rich off us.				.86		

#### *4.6 Final Study*

##### **Final Study Sample**

Data for the final study were collected during November and December through Amazon MTurk. All data were collected in the same manner as in the pilot study. The surveys were administered to U.S. participants, and only those MTurk workers that a lifetime approval rate of greater than 90% were allowed to participate. The surveys were published one at a time to avoid participants answering more than one survey version. Each survey was released in batches, and each initial batch allowed for 30 participants. If the initial batch did not result in at least 30 usable responses, it was administered again until the desired responses were obtained. Similar to the pilot study, those participants that did not answer the two attention check questions correctly were disqualified, and the responses were deemed unusable. Again, participants were only allowed to take a single survey and were barred from taking any subsequent versions.

A total of 963 completed responses were collected. Of which 822 or 85% were usable, approximately 30.4 usable responses for each survey version. There were no missing values in the data because all questions had to be answered before advancing to the next question. Of the 822 participants, 511 (62.2%) identified as male, 310 (37.7%) as female, and 1 (0.1%) as other. Fifty-five (55.6) percent of the participants were between 30 and 44 years old, 23.2% were between 18 and 29, 19.3% were between 45 and 64, and 1.8% were 65 or older. Thirty-one (31.1%) percent reported household income between 30 and 50 thousand dollars, 27.9% between 50 and 70, 14.1% between 70 and 90, 13.1% between 10 and 30, 11.4% over 90, and 2.2% reported less than 10

thousand in annual household income. Eighty-seven percent of the participants reported a bachelor's degree or higher. The demographics of the participants in the final study are similar to those in the pilot study. Table 6 provides the frequency and percentage of the final study sample.

Table 6: *Final Study Participant Demographical Information*

		Frequency	Percent
<i>Age</i>	18 to 29	191	23.2
	30 to 44	457	55.6
	45 to 64	159	19.3
	65 or Older	15	1.8
	Total	822	100.0
<i>Income</i>	Less than \$10,000	18	2.2
	\$10,000 to \$30,000	108	13.1
	\$30,001 to \$50,000	256	31.1
	\$50,001 to \$70,001	229	27.9
	\$70,001 to \$90,000	117	14.2
	Over \$90,001	94	11.4
	Total	822	100.0
<i>Education</i>	Less than High School	2	0.2
	High School Graduate	43	5.2
	Two-year degree/Some college	60	7.3
	Bachelor's degree or more	717	87.2
	Total	822	100.0
<i>Gender</i>	Male	511	62.2
	Female	310	37.7
	Other	1	0.1
	Total	822	100.0

## Exploratory Factor Analysis Results

As it was done with the pilot study, an exploratory factor analysis (EFA) was performed to test the adequacy of the measuring instruments against the sample population of the final study. It was expected that the outcome of the EFA would result in a *simple structure* as it did with the pilot study data. As a reminder, this study uses previously validated measuring instruments. The sections below describe the steps that

were taken to perform the EFA with the final study data. The analysis was performed using SPSS version 28, the same version as the pilot study.

#### Descriptive Statistics and Normality Assumptions

Detailed statistics were computed for each of the items in the survey. The complete statistics are in Appendix C. Univariate normality tests were performed for each item on the survey. The Kolmogorov-Smirnov tests on each of the items were statistically significant ( $p < .001$ ); these results indicate a deviation from the univariate normality assumption (Kyriazos, 2018; Massey, 1951).

#### Extraction Method

The adequacy of the instruments and the data were tested using the Kaiser-Meyer-Okin Measuring of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity (Kaiser, 1974). The overall KMO measure was 0.942, and the individual KMO measures in the anti-image correlation matrix were all above 0.909. According to Kaiser (1974), these values can be described as "meritorious" to "marvelous." Bartlett's Test of Sphericity also confirmed that the sample data is suitable for factor analysis,  $\chi^2(406) = 18,434.44$ ,  $p < .001$ . Finally, the communalities were above the 0.3 threshold, confirming that the data is well suited for factor analysis. Table 7 contains the individual KMOs and communalities for each retained item. The correlation matrix is shown in Appendix D.

A close to *simple structure* resulted from a Promax rotation (oblique) method and setting the fixed number of factors to six (6); this is the same rotation method used in the pilot study. This version of the EFA explained 67.26% of the total variance. As expected, the items loaded into the relevant factors except for the two factors that used the same measuring instrument with some cross-loadings between them. Those two factors are

home product country image (HPCI) and foreign product country image (FPCI). The only difference is that HPCI asks about the perception of the United States, and FPCI asks about the perception of the foreign country. The cross-loadings are significant since they were all above 0.30 (J. D. Brown, 2009; Kline, 2002, pp. 52–53). As a reminder, the six (6) factors are *materialism (MVS)*, *consumer ethnocentrism (CET)*, *willingness to buy (WTB)*, *consumer cosmopolitanism (COS)*, *home product country image (HPCI)*, and *foreign product country image (FPCI)*. Table 7 contains the factor loadings per item and the extracted communalities.

Table 7: *Factor Loadings and Communalities – Final Study Data*

*Factor loadings and communalities based on a principal axis factoring analysis with promax rotation on 29 items (N = 822)*

	Home Product Country Image (HPCI)	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Consumer Ethocentrism (CET)	Willingness to Buy (VTB)	Foreign Product Country Image (FPCI)	Communality	KMO
It is very likely that I will buy a product Designed in [Product Label].					.81		.68	.92
I will purchase earphones Designed in [Product Label].					.71		.61	.93
I will definitely try earphones Designed in [Product Label] next time I need one.					.69		.63	.94
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]- Reliable:Not Re	.48					.53	.72	.92
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Innovative:Unori	.45					.58	.73	.93
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-High Quality:Poc	.50					.58	.81	.92
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Good Performai	.55					.50	.78	.92
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-Reliable:Not Reliable	.86						.75	.92
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-Innovative:Unoriginal	.86						.75	.94
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-High Quality:Poor Qu	.91						.82	.93
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-Good Performance:f	.94						.84	.91
I enjoy exchanging ideas with people from other cultures or countries.			.62				.61	.95
I am interested in learning more about people who live in other countries.			.77				.66	.95
I enjoy being with people from other countries to learn about their views and approaches.			.80				.66	.94
I like to observe people from other countries, to see what I can learn from them.			.79				.63	.96
I like to learn about other ways of life.			.74				.61	.96
I find people from other cultures stimulating.			.81				.63	.95
I admire people who own expensive homes, cars, and clothes.		.76					.62	.94
The things I own say a lot about how well I'm doing in life.		.80					.63	.95
I like to own things that impress people.		.76					.66	.95
Buying things gives me a lot of pleasure.		.69					.57	.97
I like a lot of luxury in my life.		.82					.68	.95
My life would be better if I owned certain things I don't have.		.69					.56	.94
I'd be happier if I could afford to buy more things.		.72					.57	.96
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.		.71					.54	.95
Citizens from United States] should not buy foreign products because this hurts United States]'s businesses and causes unemployment.				.79			.72	.91
It is not right to purchase foreign products, because it puts citizens of United States] out of jobs.				.77			.70	.90
A real citizen from United States] should always buy United States]-made products.				.75			.69	.92
We should purchase products manufactured in United States] instead of letting other countries get rich off us.				.79			.67	.93

*Note:* Factor loadings <.4 are suppressed.



## Reliability and Validity Analysis

Reliability analysis was done on each of the six constructs. Each construct shows a high level of internal consistency, with all of them having Cronbach's alphas  $\geq 0.84$  (Bland & Altman, 1997; Cronbach, 1951). The reliability analysis confirmed that an increase in the Cronbach alpha could not be achieved by eliminating individual items from the constructs. The Fornell-Larcker criterion was used to test for discriminant validity among the constructs. Each construct's average variance extracted exceeded the squared correlations with the other constructs (Fornell & Larcker, 1981; Henseler et al., 2015). This result and the strong factor loadings suggest suitable discriminant and construct validity. Table 8 includes the correlation between factors, Cronbach's alpha for each factor, and the average variance extracted in the upper triangle of the matrix.

Table 8: *Factor Correlation Matrix, Average Variance Extracted, and Cronbach's Alphas*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)	Cronbach's Alpha	Number of Items	Mean	Std. Deviation
Materialism (MVS)	1.00	.56	.67	.58	.42	.55	.92	8	2.71	1.13
Consumer Cosmopolitanism (COS)	.58	1.00	.68	.59	.43	.56	.91	6	2.45	1.06
Home Product Country Image (HPCI)	.25	.47	1.00	.70	.55	.67	.94	4	3.01	1.67
Consumer Ethnocentrism (CET)	.68	.27	.07	1.00	.45	.57	.90	4	2.90	1.37
Foreign Product Country Image (FPCI)	.21	.36	.35	.14	1.00	.42	.93	4	3.28	1.65
Willingness to Buy (WTB)	.54	.65	.38	.37	.31	1.00	.84	3	2.61	1.20

## Confirmatory Factor Analysis

Based on the results of the previous EFA, a simplified version of the research model was tested using confirmatory factor analysis. The simplified version of the research model does not consider the moderating variables (age, gender, etc.) As part of the data screening process for the analysis, it was decided to remove the only record that had a value of "other" in the gender section. The record was removed to facilitate

subsequent analyses since gender became a binary variable after removal. Therefore, 821 records were used for the CFA versus 822 for the EFA. Version 4.1.2 of the R programming language and its Lavaan package (0.6-9) were used to perform the confirmatory factor analysis. Maximum likelihood (ML) was used to estimate the parameters, and a goodness-of-fit for the model was examined using  $RMSEA \leq 0.060$  (90%  $0.057 \leq CI \leq .063$ ),  $CFI > 0.94$ ,  $SRMR < 0.04$ , and the chi-square/df ratio  $\leq 4$  (Gaskin, 2021; Hu & Bentler, 1999; Kyriazos, 2018). The model showed an acceptable fit with factor loadings ranging from 0.720 to 0.911. Tables 9 and 10 for reliabilities coefficient, factor correlations, and factor loadings.

Table 9: *Confirmatory Analysis Reliability Coefficients and Factor Correlations*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)
Cronbach's Alpha	.92	.91	.94	.90	.93	.84
Omega 1 ( $\omega_1$ )	.92	.91	.94	.90	.93	.84
Omega 2 ( $\omega_2$ )	.92	.91	.94	.90	.93	.84
Omega 3 ( $\omega_3$ )	.92	.91	.94	.90	.93	.84
Avg. Variance Extracted	.59	.63	.79	.69	.76	.64
<i>Factor Correlations</i>						
Materialism (MVS)	1.00					
Consumer Cosmopolitanism (COS)	.61	1.00				
Home Product Country Image (HPCI)	.26	.47	1.00			
Consumer Ethnocentrism (CET)	.74	.33	.09	1.00		
Foreign Product Country Image (FPCI)	.29	.54	.80	.13	1.00	
Willingness to Buy (WTB)	.58	.74	.40	.40	.44	1.00

Table 10: *Factor loadings on 29 items (N = 821)*

Factor	Item	Estimate	Std.Err	z-value	P(> z )	Std.lv	Std.all
Willingness to Buy	It is very likely that I will buy a product Designed in [Product Label].	1.00				1.12	0.80
	I will purchase earphones Designed in [Product Label].	0.94	0.04	22.87	0.00	1.05	0.78
	I will definitely try earphones						
	Designed in [Product Label] next time	0.98	0.04	23.49	0.00	1.10	0.81
Foreign Product Country Image	Reliable: Not Reliable	1.00				1.54	0.84
	Innovative: Unoriginal	0.94	0.03	29.48	0.00	1.45	0.84
	High Quality: Poor Quality	1.08	0.03	33.52	0.00	1.66	0.90
	Good Performance: Poor	1.09	0.03	33.32	0.00	1.68	0.90
Home Product Country Image	Reliable: Not Reliable	1.00				1.56	0.86
	Innovative: Unoriginal	0.97	0.03	33.52	0.00	1.52	0.87
	High Quality: Poor Quality	1.07	0.03	36.15	0.00	1.67	0.91
	Good Performance: Poor	1.10	0.03	36.52	0.00	1.72	0.91
Consumer Cosmopolitanism	I enjoy exchanging ideas with people from other cultures or countries.	1.00				0.98	0.79
	I am interested in learning more about people who live in other countries.	1.04	0.04	25.34	0.00	1.02	0.81
	I enjoy being with people from other countries to learn about their views and approaches.	1.10	0.04	25.59	0.00	1.07	0.82
	I like to observe people from other countries, to see what I can learn from them.	1.04	0.04	24.53	0.00	1.01	0.79
	I like to learn about other ways of life.	1.03	0.04	24.21	0.00	1.01	0.78
	I find people from other cultures stimulating.	1.02	0.04	24.24	0.00	0.99	0.78
	I admire people who own expensive homes, cars, and clothes.	1.00				1.12	0.79
	The things I own say a lot about how well I'm doing in life.	0.98	0.04	24.69	0.00	1.09	0.79
Materialism	I like to own things that impress	1.12	0.04	25.61	0.00	1.25	0.81
	Buying things gives me a lot of	0.91	0.04	23.42	0.00	1.02	0.75
	I like a lot of luxury in my life.	1.09	0.04	25.78	0.00	1.23	0.81
	My life would be better if I owned certain things I don't have.	0.86	0.04	22.24	0.00	0.96	0.72
	I'd be happier if I could afford to buy more things.	0.89	0.04	22.35	0.00	1.00	0.73
	It sometimes bothers me quite a bit that I can't afford to buy all the things	0.90	0.04	22.09	0.00	1.00	0.72
	Citizens from [Field-Home_Country] should not buy foreign products because this hurts [Field-Home_Country]'s businesses and	1.00				1.35	0.85
	It is not right to purchase foreign products, because it puts citizens of [Field-Home_Country] out of jobs.	0.99	0.04	28.41	0.00	1.34	0.83
Consumer Ethnocentrism	A real citizen from [Field-Home_Country] should always buy [Field-Home_Country]-made	0.96	0.03	28.34	0.00	1.30	0.83
	We should purchase products manufactured in [Field-Home_Country] instead of letting other countries get rich off us.	0.87	0.03	27.19	0.00	1.18	0.81

## Outliers Discussion

Before continuing with the rest of the study results, it is prudent to discuss a concurrent analysis that was being done with a smaller subset of the data. Since the

results of the EFA were not as “clean” as it was achieved during the pilot study phase, it was decided to investigate whether outliers were influencing the results. Multivariate outliers, unlike univariate outliers, cannot be easily detected using graphical methods and usually cannot be identified when each item or variable is considered independently (Majewska, 2015). For these cases, the Mahalanobis distance (MD), which is the distance between two points in a multivariate space, can be used to detect said outliers. Unlike the Euclidean distance, the Mahalanobis distance considers the correlations between variables (Ghorbani, 2019; Mahalanobis, 1936; Masnan et al., 2015).

Using the MD criterion, 59 observations (7.2%) were identified as possible outliers reducing the observations to 763. All the analysis was redone using the new subset of the data. Please refer to the appendix for the frequency distributions of the subset of data. A simple structure was achieved using the same rotation method (Promax) as in the pilot and the previous analysis using the complete data set and fixing the number of factors to six (6). The overall KMO measure was 0.947, and the individual KMO measures in the anti-image correlation matrix were all above 0.91. Bartlett’s Test of Sphericity also confirmed that the sample data is suitable for factor analysis,  $\chi^2(406) = 19,155.95$ ,  $p < .001$ . Finally, the communalities were above the 0.3 threshold, confirming that the data is well suited for factor analysis. The total variance explained in this iteration was 70.85% versus 67.26% using the complete data set. Table 11 contains each item's individual KMOs, communalities, and loadings.

Table 11: *Factor Loading and Communalites – Excluding Outliers*

*Factor loadings and communalities based on a principal axis factoring analysis with promax rotation on 29 items (N = 763)*

	Materialism (MVS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Willingness to Buy (WTB)	Consumer Cosmopolitanism (COS)	Foreign Product Country Image (FPCI)	Communality	KMO
It is very likely that I will buy a product Designed in [Product Label].				0.82			0.72	.91
I will purchase earphones Designed in [Product Label].				0.71			0.66	.94
I will definitely try earphones Designed in [Product Label] next time I need one.				0.69			0.65	.94
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Reliable:Not Reliable						-0.78	0.73	.93
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Innovative:Unoriginal						-0.87	0.76	.93
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-High Quality:Poor Quality						-0.91	0.85	.93
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from that country [Foreign]-Good Performance:Poor Performance						-0.78	0.81	.92
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-Reliable:Not Reliable			0.82				0.77	.93
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-Innovative:Unoriginal			0.85				0.80	.92
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-High Quality:Poor Quality			0.91				0.84	.94
Please place an "X" against the position that best represents your feelings about brands/products ORIGINATING from the United States-Good Performance:Poor Performance			0.93				0.86	.92
I enjoy exchanging ideas with people from other cultures or countries.					0.56		0.64	.95
I am interested in learning more about people who live in other countries.					0.68		0.69	.95
I enjoy being with people from other countries to learn about their views and approaches.					0.70		0.68	.95
I like to observe people from other countries, to see what I can learn from them.					0.73		0.66	.96
I like to learn about other ways of life.					0.67		0.64	.97
I find people from other cultures stimulating.					0.72		0.66	.96
I admire people who own expensive homes, cars, and clothes.	0.74						0.68	.94
The things I own say a lot about how well I'm doing in life.	0.76						0.67	.95
I like to own things that impress people.	0.71						0.68	.96
Buying things gives me a lot of pleasure.	0.68						0.63	.98
I like a lot of luxury in my life.	0.79						0.73	.96
My life would be better if I owned certain things I don't have.	0.73						0.64	.95
I'd be happier if I could afford to buy more things.	0.73						0.61	.96
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	0.71						0.59	.95
Citizens from [United States] should not buy foreign products because this hurts [United States]'s businesses and causes unemployment.			0.81				0.72	.91
It is not right to purchase foreign products, because it puts citizens of [United States] out of jobs.			0.86				0.75	.91
A real citizen from [United States] should always buy [United States]-made products.			0.79				0.73	.94
We should purchase products manufactured in [United States] instead of letting other countries get rich off us.			0.84				0.70	.94

*Note:* Factor loadings <.4 are suppressed

## Reliability and Validity Analysis

Reliability analysis was repeated on each of the six constructs. Each construct shows a high level of internal consistency, with all of them having Cronbach's alphas  $\geq 0.86$  (Bland & Altman, 1997; Cronbach, 1951). The reliability analysis confirmed that an increase in the Cronbach alpha could not be achieved by eliminating individual items from the constructs. The Fornell-Larcker criterion was used to test for discriminant validity among the constructs. Each construct's average variance extracted exceeded the squared correlations with the other constructs (Fornell & Larcker, 1981; Henseler et al., 2015). This result and the strong factor loadings suggest suitable discriminant and construct validity. Table 12 includes the correlation between factors, Cronbach's alpha for each factor, and the average variance extracted in the upper triangle of the matrix.

Table 12: *Factor Correlation Matrix, Average Variance Extracted, and Cronbach's Alphas*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)	Cronbach's Alpha	Number of Items	Mean	Std. Deviation
Materialism (MVS)	1.00	0.50	0.65	0.61	0.62	0.54	0.93	8	2.67	1.13
Consumer Cosmopolitanism (COS)	0.51	1.00	0.61	0.57	0.58	0.50	0.92	6	2.38	1.01
Home Product Country Image (HPCI)	0.20	0.42	1.00	0.72	0.73	0.66	0.95	4	2.98	1.68
Consumer Ethnocentrism (CET)	0.68	0.24	0.06	1.00	0.69	0.61	0.91	4	2.87	1.36
Foreign Product Country Image (FPCI)	-0.24	-0.40	-0.78	-0.15	1.00	0.62	0.94	4	3.22	1.65
Willingness to Buy (WTB)	0.48	0.57	0.33	0.39	-0.38	1.00	0.86	3	2.54	1.16

## Confirmatory Factor Analysis

The simplified version of the research model was tested using the subset of the data without outliers. The only record with an "other " value in the gender section for this part of the analysis was removed. Therefore, 762 records were used for the CFA versus 763 for the EFA. Version 4.1.2 of the R programming language and its Lavaan package (0.6-9) were used to perform the confirmatory factor analysis. Maximum likelihood (ML)

was used to estimate the parameters, and a goodness-of-fit for the model was examined using  $RMSEA \leq 0.064$  ( $90\% 0.060 \leq CI \leq 0.067$ ),  $CFI > 0.94$ ,  $SRMR < 0.04$ , and the chi-square/df ratio  $\leq 5$  (Gaskin, 2021; Hu & Bentler, 1999; Kyriazos, 2018). The model showed an acceptable fit with factor loadings ranging from 0.746 to 0.924. Please refer to tables 13 and 14 for reliabilities coefficient, factor correlations, and factor loadings.

Table 13: *Confirmatory Analysis Reliability Coefficients and Factor Correlations*

	Materialism (MVS)	Consumer Cosmopolitanism (COS)	Home Product Country Image (HPCI)	Consumer Ethnocentrism (CET)	Foreign Product Country Image (FPCI)	Willingness to Buy (WTB)
Cronbach's Alpha	.93	.92	.95	.91	.94	.86
Omega 1 ( $\omega_1$ )	.93	.92	.95	.91	.94	.86
Omega 2 ( $\omega_2$ )	.93	.92	.95	.91	.94	.86
Omega 3 ( $\omega_3$ )	.93	.92	.95	.91	.94	.86
Avg. Variance Extracted	.64	.66	.82	.72	.79	.67
<i>Factor Correlations</i>						
Materialism (MVS)	1.00					
Consumer Cosmopolitanism (COS)	.62	1.00				
Home Product Country Image (HPCI)	.24	.49	1.00			
Consumer Ethnocentrism (CET)	.74	.37	.08	1.00		
Foreign Product Country Image (FPCI)	.29	.52	.82	.15	1.00	
Willingness to Buy (WTB)	.58	.75	.38	.43	.43	1.00

Table 14: *Factor loadings on 29 items (N = 761)*

Factor	Item	Estimate	Std.Err	z-value	P(> z )	Std.lv	Std.all
Willingness to Buy	It is very likely that I will buy a product Designed in [Product Label].	1.00				1.10	0.82
	I will purchase earphones Designed in [Product Label].	0.94	0.04	24.30	0.00	1.03	0.81
	I will definitely try earphones						
	Designed in [Product Label] next time	0.97	0.04	24.73	0.00	1.07	0.83
Foreign Product Country Image	Reliable: Not Reliable	1.00				1.54	0.85
	Innovative: Unoriginal	0.95	0.03	30.90	0.00	1.46	0.86
	High Quality: Poor Quality	1.09	0.03	34.81	0.00	1.67	0.92
	Good Performance: Poor	1.12	0.03	34.73	0.00	1.72	0.92
Home Product Country Image	Reliable: Not Reliable	1.00				1.59	0.87
	Innovative: Unoriginal	0.98	0.03	35.67	0.00	1.56	0.90
	High Quality: Poor Quality	1.06	0.03	37.14	0.00	1.68	0.92
	Good Performance: Poor	1.09	0.03	37.95	0.00	1.73	0.92
Consumer Cosmopolitanism	I enjoy exchanging ideas with people from other cultures or countries.	1.00				0.95	0.81
	I am interested in learning more about people who live in other countries.	1.03	0.04	26.30	0.00	0.97	0.83
	I enjoy being with people from other countries to learn about their views and approaches.	1.06	0.04	26.37	0.00	1.00	0.83
	I like to observe people from other countries, to see what I can learn from them.	1.01	0.04	25.22	0.00	0.95	0.80
	I like to learn about other ways of life.	1.03	0.04	25.36	0.00	0.98	0.80
	I find people from other cultures stimulating.	1.02	0.04	25.25	0.00	0.96	0.80
	I admire people who own expensive homes, cars, and clothes.	1.00				1.13	0.82
	The things I own say a lot about how well I'm doing in life.	0.98	0.04	26.71	0.00	1.11	0.82
Materialism	I like to own things that impress	1.09	0.04	27.12	0.00	1.23	0.83
	Buying things gives me a lot of	0.93	0.04	25.37	0.00	1.05	0.79
	I like a lot of luxury in my life.	1.09	0.04	28.18	0.00	1.23	0.85
	My life would be better if I owned certain things I don't have.	0.87	0.04	24.09	0.00	0.98	0.76
	I'd be happier if I could afford to buy more things.	0.87	0.04	23.56	0.00	0.99	0.75
	It sometimes bothers me quite a bit that I can't afford to buy all the things	0.89	0.04	23.47	0.00	1.00	0.75
	Citizens from [Field-Home_Country] should not buy foreign products because this hurts [Field-Home_Country]'s businesses and	1.00				1.34	0.85
	It is not right to purchase foreign products, because it puts citizens of [Field-Home_Country] out of jobs.	1.01	0.03	29.68	0.00	1.35	0.86
Consumer Ethnocentrism	A real citizen from [Field-Home_Country] should always buy [Field-Home_Country]-made	0.96	0.03	29.32	0.00	1.29	0.85
	We should purchase products manufactured in [Field-Home_Country] instead of letting						
	other countries get rich off us.	0.89	0.03	27.93	0.00	1.19	0.83

### Comparison Between Both Data Sets

After reviewing the EFA and CFA for both data sets, it can be inferred that excluding the outliers did not yield any significant difference in results. Removing the multivariate outliers did not significantly improve the measures of sampling adequacy. The KMO statistics on both data sets are over 0.90, confirming that both data sets are



adequate for factor analysis and the Barlett test is significant for both. There was a slight improvement in the total variance (3.6%) between both data sets; this was expected since removing the outliers resulted in a more homogenous sample. Similar outcomes are present with the CFAs. Both CFAs show a good fit, and not much of a difference exists between the results of the two data sets.

The 59 records that were identified as outliers using the Mahalanobis distance methodology were reviewed, and it was determined that they were all valid records and should not be removed. Furthermore, there was no evidence that these records were entered in error or that the participants sped through the questions. Therefore, the decision was made that only the full data set would be considered for all subsequent analyses.

Table 15: *EFA and CFA Comparison Between Both Data Sets*

		Complete Data	Excludes Outliers
Exploratory Factor Analysis	N	822	763
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.942	0.947
	Bartlett's Test of Sphericity	Approx. Chi-Square	18,434.44
		df	19,155.95
		Sig.	406
			p<=.001
	Total Variance Explained	67.26%	70.85%
	Cronbach's Alpha	Materialism (MVS)	0.92
		Consumer Cosmopolitanism (COS)	0.93
		Home Product Country Image (HPCI)	0.91
		Consumer Ethnocentrism (CET)	0.92
		Foreign Product Country Image (FPCI)	0.94
		Willingness to Buy (WTB)	0.90
	Mean	Materialism (MVS)	0.93
		Consumer Cosmopolitanism (COS)	0.94
		Home Product Country Image (HPCI)	0.95
		Consumer Ethnocentrism (CET)	0.90
		Foreign Product Country Image (FPCI)	0.91
		Willingness to Buy (WTB)	0.94
Confirmatory Factor Analysis	N	821	762
	Chi-Square Test	Test Statistic	1,425.79
		Degrees of Freedom (df)	1,475.50
		P-Value	362
		Chi-Square/DF Ratio	362
	Root Mean Square Error of Approximation	RMSEA	3.94
		90% Confidence Interval - Lower	4.08
		90% Confidence Interval - Upper	0.060
		P-Value RMSEA <=0.05	0.057
	Standardized Root Mean Square Residual	SRMR	0.063
		Comparative Fit Index	0.067

## 5 Results

### *5.1 Structural Equation Model*

The next step in the analysis was to test the hypotheses by establishing the relationships between the latent constructs. The study and the path diagrams were completed using version 4.1.2 of the R programming language and its Lavaan and semPlot packages. The first step was to convert the original CFA model into an SEM by specifying the relationships between the latent variables. The hypothesized relationships between consumer ethnocentrism, materialism, consumer cosmopolitanism, home and foreign country images, and willingness to buy were added to the CFA model. The base SEM without the moderating variables is shown in figure 4.

In the model below, the circles represent the latent constructs consumer ethnocentrism (CTE), materialism (MVS), consumer cosmopolitanism (COS), home (HCI), and foreign (FCI) product country images, and willingness to buy (WTB). The squares represent the measured items in the surveys with their residuals. The arrows between the latent constructs and the measured items are the standardized loadings for the item on the construct. The dashed line indicates that the estimated loading for the item was fixed at one (1). The rest are the standardized regression paths between the latent construct. Table 16 includes the survey questions (items) and their corresponding data elements. As expected, the items loaded well on their related latent constructs. However, some of the relationships between the constructs are not as expected. Notably, the relationships between CET and HCI and FCI and COS and MVS are not as expected.

Figure 4: *Base Structural Equation Model*

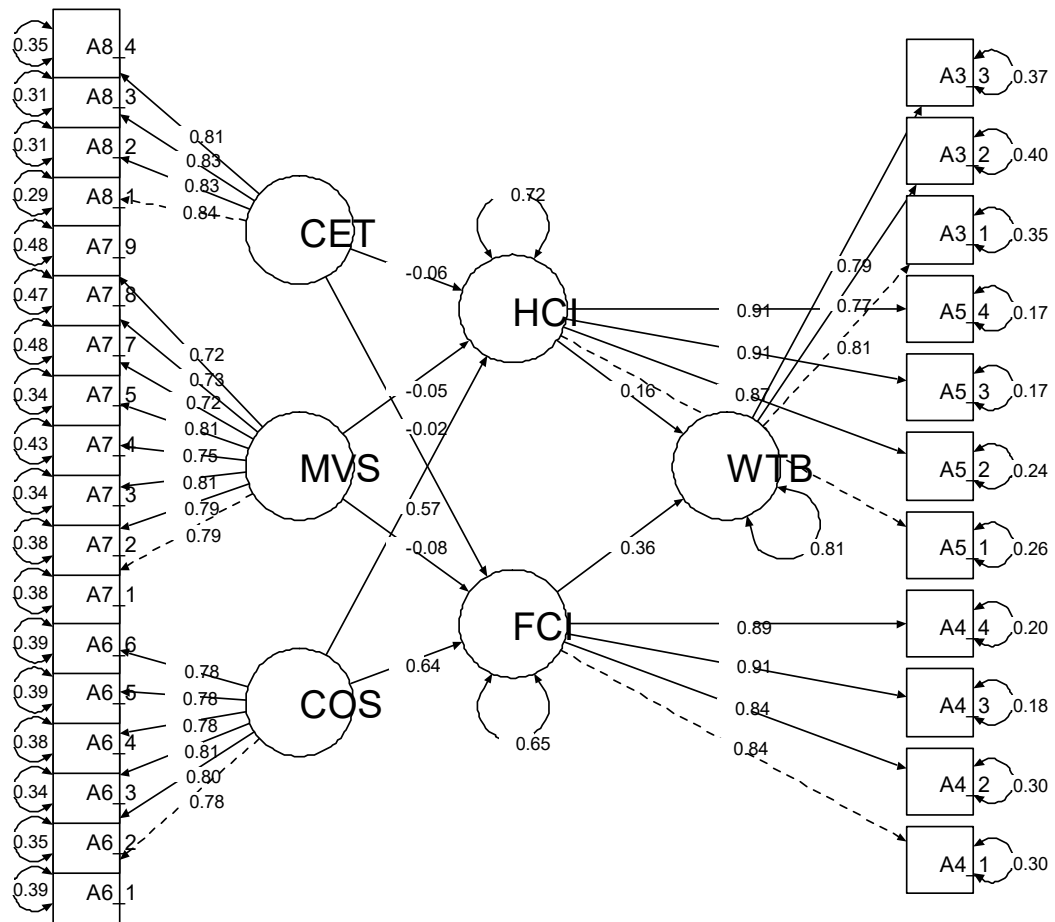


Table 16: *Base SEM Factor Loadings and Path Coefficients*

<i>Latent Variables:</i>		Estimate	Std.Err	z-value	P(> z )	Std.lv	Std.all
Willingness to Buy (WTB)	A3_1: It is very likely that I will buy a product Designed in [Product Label].	1.00				1.11	0.81
	A3_2: I will purchase earphones Designed in [Product	0.92	0.04	21.10	0.00	1.02	0.77
	A3_3: I will definitely try earphones Designed in [Product						
	Label] next time I need one.	0.96	0.05	21.37	0.00	1.07	0.79
Foreign Product Country Image (FPCI)	A4_1: Reliable: Not Reliable	1.00				1.54	0.84
	A4_2: Innovative: Unoriginal	0.94	0.03	29.50	0.00	1.45	0.84
	A4_3: High Quality: Poor Quality	1.08	0.03	33.45	0.00	1.67	0.91
	A4_4: Good Performance: Poor Performance	1.08	0.03	32.65	0.00	1.67	0.89
Home Product Country Image (HPCI)	A5_1: Reliable: Not Reliable	1.00				1.56	0.86
	A5_2: Innovative: Unoriginal	0.97	0.03	33.08	0.00	1.52	0.87
	A5_3: High Quality: Poor Quality	1.07	0.03	35.94	0.00	1.68	0.91
	A5_4: Good Performance: Poor Performance	1.10	0.03	36.12	0.00	1.72	0.91
Consumer Cosmopolitanism (COS)	A6_1: I enjoy exchanging ideas with people from other cultures or countries.	1.00				0.97	0.78
	A6_2: I am interested in learning more about people who live in other countries.	1.04	0.04	24.85	0.00	1.01	0.80
	A6_3: I enjoy being with people from other countries to learn about their views and approaches.	1.10	0.04	25.15	0.00	1.07	0.81
	A6_4: I like to observe people from other countries, to see what I can learn from them.	1.04	0.04	24.15	0.00	1.01	0.78
	A6_5: I like to learn about other ways of life.	1.04	0.04	24.05	0.00	1.01	0.78
	A6_6: I find people from other cultures stimulating.	1.02	0.04	23.97	0.00	0.99	0.78
Materialism (MVS)	A7_1: I admire people who own expensive homes, cars, and clothes.	1.00				1.12	0.79
	A7_2: The things I own say a lot about how well I'm doing in life.	0.97	0.04	24.65	0.00	1.09	0.79
	A7_3: I like to own things that impress people.	1.12	0.04	25.63	0.00	1.25	0.81
	A7_4: Buying things gives me a lot of pleasure.	0.91	0.04	23.41	0.00	1.02	0.75
	A7_5: I like a lot of luxury in my life.	1.09	0.04	25.77	0.00	1.22	0.81
	A7_7: My life would be better if I owned certain things I don't have.	0.86	0.04	22.23	0.00	0.96	0.72
	A7_8: I'd be happier if I could afford to buy more things.	0.89	0.04	22.38	0.00	1.00	0.73
	A7_9: It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	0.90	0.04	22.12	0.00	1.00	0.72
Consumer Ethnocentrism (CET)	A8_1: Citizens from [Field-Home_Country] should not buy foreign products because this hurts [Field-Home_Country]'s businesses and causes unemployment.	1.00				1.35	0.84
	A8_2: It is not right to purchase foreign products, because it puts citizens of [Field-Home_Country] out of jobs.	0.99	0.04	28.33	0.00	1.34	0.83
	A8_3: A real citizen from [Field-Home_Country] should always buy [Field-Home_Country]-made products.	0.96	0.03	28.29	0.00	1.30	0.83
	A8_4: We should purchase products manufactured in [Field-Home_Country] instead of letting other countries get rich off us.	0.87	0.03	27.19	0.00	1.18	0.81
<i>Regressions</i>							
Foreign Product Country Image (FCI)	Consumer Cosmopolitanism (COS)	1.02	0.08	12.87	0.00	0.64	0.64
	Consumer Ethnocentrism (CET)	-0.02	0.06	-0.35	0.73	-0.02	-0.02
	Materialism (MVS)	-0.11	0.09	-1.16	0.25	-0.08	-0.08
Home Product Country Image (HPCI)	Consumer Cosmopolitanism (COS)	0.92	0.08	11.46	0.00	0.57	0.57
	Consumer Ethnocentrism (CET)	-0.07	0.07	-1.00	0.32	-0.06	-0.06
	Materialism (MVS)	-0.07	0.10	-0.71	0.48	-0.05	-0.05
Willingness to Buy (WTB)	Foreign Product Country Image (FCI)	0.26	0.03	8.90	0.00	0.36	0.36
	Home Product Country Image (HPCI)	0.11	0.03	3.99	0.00	0.16	0.16

## *5.2 Hypotheses Testing*

### **Consumer Cosmopolitanism**

Due to the inherent characteristics of highly cosmopolitan consumers, open-mindedness, appreciation for diversity, and the willingness to consume products from various countries, it was hypothesized that cosmopolitanism would be positively related to foreign product country image (H1) and home product country image (H2).

The results show a positive and significant path between foreign product country image and cosmopolitanism,  $\beta = 0.64$  ( $p < .001$ ). This result indicates that one standard deviation change in cosmopolitanism is associated with a 0.64 standard deviation change in foreign product country image. This result provides support for H1 since individuals that perceived themselves as highly cosmopolitan also had a positive perception of products originating from a foreign country. Similar results are found between cosmopolitanism and home product country image,  $\beta = 0.57$  ( $p < .001$ ). The results indicate that a one standard deviation change in COS results in a change of 0.57 in home product country image; this result supports H2 as highly cosmopolitan consumers also had a positive view of products originating from their home country. These results indicate that highly cosmopolitan consumers may be open to trying products from various countries.

### **Consumer Ethnocentrism**

The literature states that highly ethnocentric consumers will prefer locally-made products even though foreign-made products may be of superior value. In addition, these consumers believe that buying foreign-made products is unpatriotic and hurts the local economy (Balabanis et al., 2001; Cleveland et al., 2009). For these reasons, it was

hypothesized that consumer ethnocentrism is negatively related to foreign product country image (H3) and positively related to home product country image (H4). However, the results indicate that although there is a negative relationship between consumer ethnocentrism and foreign product country image,  $\beta = -0.02$  ( $p < .729$ ) is not strong enough to support hypothesis three. Surprisingly, a similar negative relationship was found between CET and home product country image. It was hypothesized that there would be a significant and positive relationship between both constructs since ethnocentric consumers prefer locally manufactured products, but that was not the case,  $\beta = -0.06$  ( $p < .316$ ). Therefore, the results do not support hypothesis four.

#### Consumer Materialism

Highly materialistic consumers place the acquisition of possessions as a source of happiness and satisfaction. However, their success depends on how their possessions are seen as status symbols and therefore tend to prefer imported goods. For this reason, it was hypothesized that materialism would be positively related to foreign product country image (H5) and negatively related to home product country image (H6).

Hypothesis five predicted a positive relationship between materialism and foreign product country image since highly materialistic consumers view imported products as higher quality and therefore highly desirable, but this was not the case,  $\beta = -0.08$  ( $p < .247$ ). The result suggests that a change in standard deviation in materialism results in a small but negative change in foreign product country image. Hypothesis six was not supported either. The data suggest that a change in one standard deviation in materialism results in a  $-0.05$  ( $p=.476$ ) standard deviation change in home product country image.

## Product Country Image

When there is a lack of familiarity with a product, consumers will rely on what they know about the country of origin. In this case, the consumer relied on their knowledge about the countries presented on the production label, i.e., made in *home country* made in *foreign country*, etc. Since each participant was shown one of the 27 versions of the product label, some were presented with a congruent condition, and others saw an incongruent one. A congruent condition exists when a participant sees a product label where home and foreign country perceptions match. It was expected that a congruent condition would strengthen the relationship between product country image and willingness to buy, and an incongruent one would weaken it. Therefore, it was hypothesized that foreign (H7) and home (H8) product country image would positively relate to a consumer's willingness to buy.

Hypothesis seven predicted a positive relationship between foreign product country image and willingness to buy. The result shows a positive and significant path coefficient of  $\beta = 0.36$  ( $p < .001$ ) between the two constructs; this indicates that one standard deviation change in foreign product country image is associated with a 0.36 standard deviation change in willingness to buy; this lends support to hypothesis seven. Hypothesis eight also predicted a positive relationship between home product country image and consumers' willingness to buy. Consistent with expectations, the results show a positive and significant path coefficient of  $\beta = 0.16$  ( $p < 0.001$ ) between the two constructs; the results support hypothesis eight. Both results suggest that a positive product country image is associated with an increased willingness to buy a product, with the relationship being more robust for the foreign country.

## Age

In the research model, age, gender, education, and country development status are moderating variables that were hypothesized to affect the latent constructs. Therefore, it was necessary to group the participants and test for equivalency between them to test these effects. In the case of age, participants were grouped into two (2): younger consumers were composed of participants between 18 and 44 years of age, and older consumers were those aged 45 and older. Unfortunately, this led to having unbalanced groups as the younger group was composed of 647 participants compared to only 174 participants for the older group.

Before being able to test for any effects caused by the moderating variables on the relationships between the latent constructs, it is necessary to establish measurement invariance. Multi-group measurement invariance is a statistical technique that considers the constructs' equivalence across groups. In this case, it was required to verify invariance between the two age groups before making any conclusions about the effect of age on the other constructs. It is essential to know that the SEM model holds across the two (2) groups. If this cannot be established (measurement noninvariance), then the constructs have different structures or meanings across groups and, therefore, cannot be tested, and conclusions of the effects cannot be construed (Putnick & Bornstein, 2016).

Various steps are needed for establishing measurement invariance. The first step is to establish configural invariance. Establishing invariance at the configural level signifies that the same items measure the latent constructs across both age groups. More specifically, it means that the factor structure across both groups is the same, and it does not impose any constraints on factor loading, intercepts, or residuals (Geiser et al., 2014).



As the configural model is the base model, only the overall model fit is assessed to test whether configural invariance has been achieved. For the case of age as a moderator, the configural model was significant,  $\chi^2 (732, N=821) = 2,816.38, p < .01$ .

Once configural invariance has been established, the next step is to test for metric or weak invariance. This test builds on configural invariance by constraining the factor loadings to be equal across the groups. Establishing metric invariance means that each item contributes to the constructs similarly and that the constructs have the same meaning for both groups. Metric invariance is assessed by comparing the model's fit against the configural model using the  $\chi^2$  difference test. If the difference is not significant, it suggests that the constructs have the same meaning across both groups. In this case, metric invariance was significant  $\Delta\chi^2 (23, N=821) = 36.74, p = .03$ . Since full metric invariance could not be established, it was decided to release or unconstrain the factor loadings one at a time. A univariate score test identified the parameters that impact the model fit ( $p < 0.05$ ) and should be unconstrained to establish partial measurement invariance. The one with the highest impact was released first, and so forth, until partial measurement invariance was achieved. On this occasion, that indicator path was between COS and item A6\_5 ("I like to learn about other ways of life."). Releasing this constraint and retesting it against the configural model established partial metric invariance,  $\Delta\chi^2 (22, N=821) = 28.17, p = .17$ . Partially invariance is commonly accepted because obtaining full measurement invariance is often not supported (Putnick & Bornstein, 2016). As long as most of the items on a factor are invariant, it is acceptable to continue the analysis with partial measurement invariance (Steenkamp & Baumgartner, 1998; Vandenberg & Lance, 2000).

The next step in the analysis is to test for scalar (strong) invariance or equivalence of intercepts. This test builds upon the previous model (metric) by constraining the intercepts to be equal across both groups. If the model fit is not worse than the metric invariance model, it suggests that constraining the intercepts across groups “does not significantly affect the model fit” (Putnick & Bornstein, 2016), and comparing means of the latent constructs is justified. In the case of age, scalar invariance was achieved,  $\Delta\chi^2(23, N=821) = 22.43, p = .50$ . The last step in establishing measurement invariance is to test for residual (strict) invariance. Residual invariance is tested by constraining the item residuals to be equal across both groups while leaving all other constraints in the scalar invariance model. The residual invariance model’s fit is compared to the previous model (scalar), and if the overall fit is not significantly different, residual invariance is supported. For the case of age as a moderator, residual invariance was supported,  $\chi^2(806, N=821) = 2902.90, p = .18$ . Since the Chi-square test is sensitive to sample size, other fit measures were also used to verify invariance. Specifically, the changes in CFI, RMSEA, and SRMR were evaluated. The following criterion was used for the most restrictive invariant models:  $\Delta CFI < 0.01$ ,  $\Delta RMSEA < 0.015$ , and  $\Delta SRMR < 0.01$  (Chen, 2007).

It was hypothesized that age moderates the relationship between COS, CET, MAT, FPCI, and HPCI in the following ways:

H1a: The relationship between consumer cosmopolitanism and foreign product country image will be stronger for younger consumers than for older consumers.

H2a: The relationship between consumer cosmopolitanism and home product country image will be stronger for younger consumers than for older consumers.

H3a: The relationship between consumer ethnocentrism and foreign product country image will be stronger for older consumers than for younger consumers.

H4a: The relationship between consumer ethnocentrism and home product country image will be stronger for older consumers than for younger consumers.

H5a: The relationship between consumer materialism and foreign product country image will be stronger for younger consumers than for older consumers.

H6a: The relationship between consumer materialism and home product country image will be stronger for younger consumers than for older consumers.

To test the hypotheses, it was necessary to compare the path coefficients between the latent constructs by creating a fifth model built upon the residual invariance model. This model constrained the regression paths to be equal among both age groups and retained all constraints of the residual invariance model. Unlike the previous iterations, where it was desired for the model fit not to be significantly worse, it was expected that the difference in  $\chi^2$  between the residual invariance model and this new regression model was significant. If this were achieved, it would mean that at least one of the coefficient paths between the constructs is different between the age groups. However, this was not achieved as the overall model fit was not significantly worse,  $\chi^2$  (814, N=821) = 8.71,  $p$  = 0.37. The results suggest no difference in the path coefficients of the constructs between both groups. Therefore, the six hypotheses above are not supported. Table 17 shows the fit statistics for the partial invariant models. Figures five and six show the loadings, measurement residuals, and regression paths for the younger (participants between 18 and 44 years of age) and older (respondents older than 45) groups.

Even though the hypotheses were not supported, it would be detrimental to the purpose of this study not to report on the latent means of the constructs. Mean comparisons of the latent constructs can be compared when scalar or partial scalar invariance has been established (Meredith, 1993; Sass, 2011). The latent means were compared by setting the latent mean to zero for the younger group and allowing it to vary for the older group. After allowing for partial invariance, older consumers are more materialistic than younger consumers by 0.25 units ( $p=.02$ ). Older consumers also have a less positive (negative) image of products originating from their home country (HPCI) by -0.24 units ( $p=.04$ ). There were no discernable differences between the two groups for CET, FPCI, COS, and WTB. Table 18 contains the estimates and significance for the latent construct mean differences.

Table 17: *Measurement Invariance (Partial) Models - Age*

Model	Df	$\Delta$ Df	Akaike (AIC)	Bayesian (BIC)	$\chi^2$	$\Delta \chi^2$	Pr(> $\chi^2$ )	RMSEA	$\Delta$ RMSEA	SRMR	$\Delta$ SRMR	CFI	$\Delta$ CFI
Configural	732		70,674	71,597	2,816.40			0.083		0.123		0.887	
Metric (Partial)	754	22	70,658	71,477	2,844.50	28.17	.17	0.082	-0.001	0.123	0.000	0.887	0.000
Scalar (Partial)	777	23	70,634	71,345	2,867.00	22.43	.49	0.081	-0.001	0.123	0.000	0.887	0.000
Residual (Partial)	806	29	70,612	71,187	2,902.90	35.90	.18	0.080	-0.001	0.123	0.000	0.887	0.000
Regression (Partial)	814	8	70,605	71,142	2,911.60	8.71	.37	0.079	-0.001	0.124	0.001	0.886	-0.001

Table 18: *Latent Construct Mean Differences – Age*

Construct	Estimate	Std.Err	z-value	P(> z )
Foreign Product Country Image	-0.01	0.11	-0.12	0.91
Home Product Country Image	-0.24	0.12	-2.02	0.04
Willingness to Buy	0.03	0.09	0.28	0.78
Consumer Cosmopolitanism	0.14	0.09	1.58	0.11
Materialism	0.25	0.11	2.32	0.02
Consumer Ethnocentrism	0.13	0.12	1.05	0.29

Figure 5: *Configural Structural Equation Model – Younger Group (N=647)*

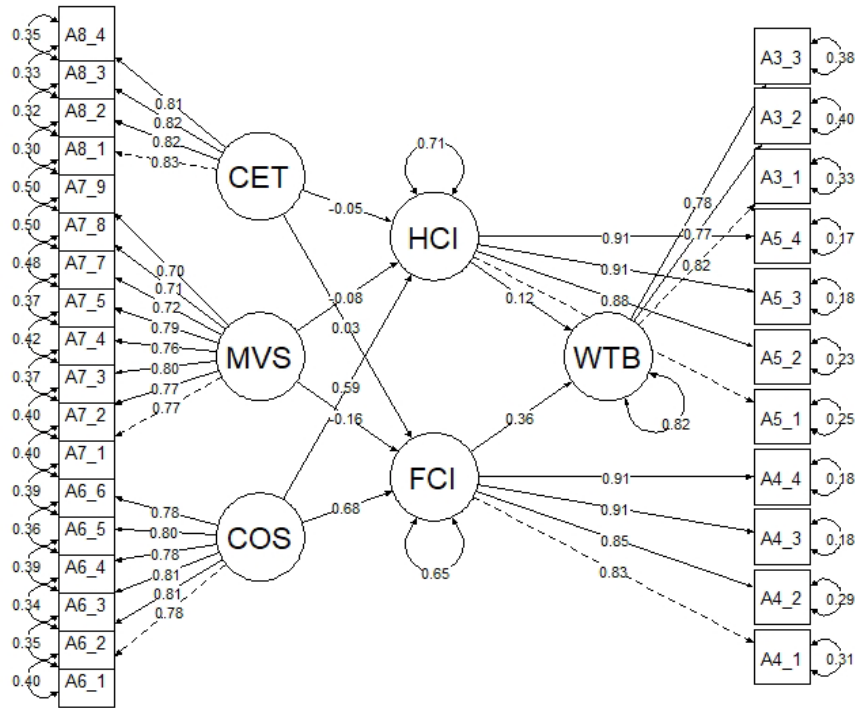
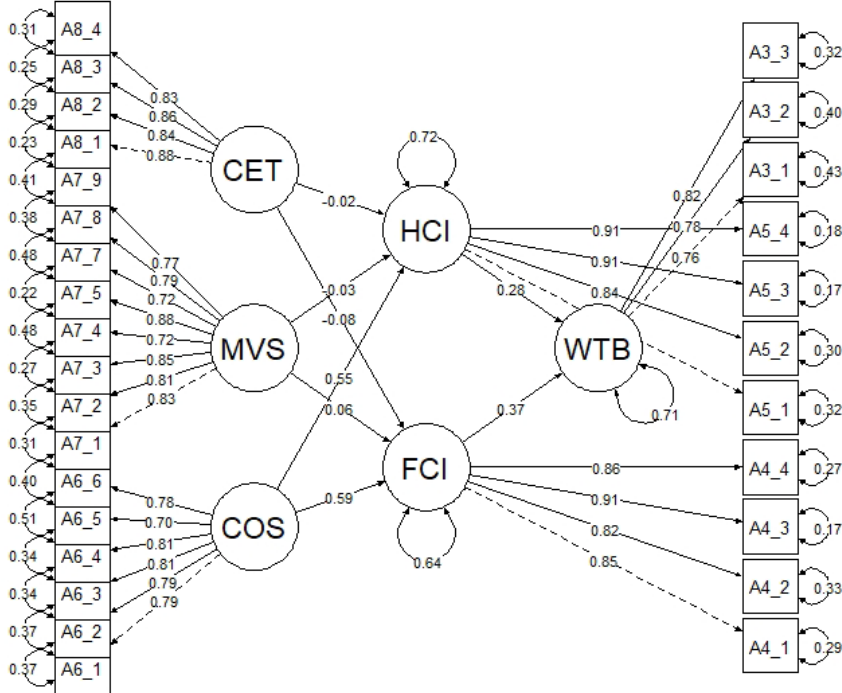


Figure 6: *Configural Structural Equation Model – Older Group (N=174)*



## Gender

It was hypothesized that a woman's more nurturing dispositions would allow them to see across cultural differences and therefore exhibit a higher degree of cosmopolitanism than males. More specifically, it was hypothesized that the relationship between consumer cosmopolitanism and both foreign (H1b) and home (H2b) country images would be accentuated in females.

The sample was split into two groups composed of 511 males and 310 females. Configural, metric, and scalar measurement invariances were confirmed following the methodology outlined above. The fit measures and their differences are in table 19. Partial residual measurement invariance was achieved by unconstraining the equality of covariances on items A6\_3 ("I enjoy being with people from other countries to learn about their views and approaches."), A7\_9 ("It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like."), A8\_2 ("It is not right to purchase foreign products, because it puts citizens of [Field-Home\_Country] out of jobs."), and A4\_3 ("High Quality: Poor Quality [FCI]"). The condition of equality of intercepts had to be released for items A5\_3 ("High Quality: Poor Quality [HCI]") and A6\_6 ("I find people from other cultures stimulating.").

Similarly to age as a moderator, the path coefficients were constrained to test the relationship between COS, FPCI, HPCI, and gender. In addition, the model was compared to the residual invariance model. The difference in fit was not significant, suggesting no significant difference in path coefficients between both groups. Therefore, the hypotheses were not supported; figures seven and eight show the loadings, measurement residuals, and regression paths for males and females. However, after

analyzing the difference in the means of the latent constructs, there is evidence that females are more materialistic,  $\beta=0.21$  ( $p=.013$ ), and ethnocentric,  $\beta=0.39$  ( $p<.01$ ). Table 20 shows the estimates and significance for the latent construct mean differences.

Table 19: *Measurement Invariance (Partial) Models – Gender*

Model	Df	$\Delta$ Akaike Bayesian		$\chi^2$	$\Delta \chi^2$	Pr(> $\chi^2$ )	$\Delta$ RMSEA		$\Delta$ SRMR		CFI	$\Delta$ CFI	
		Df	(AIC)				(BIC)	RMSEA	RMSEA	SRMR			SRMR
Configural	732		70,637	71,560	2,747.30		0.082		0.123		0.890		
Metric	755	23	70,610	71,425	2,767.00	19.75	.66	0.081	-0.001	0.123	0.000	0.891	0.001
Scalar	778	23	70,592	71,298	2,794.30	27.25	.25	0.079	-0.002	0.123	0.000	0.890	-0.001
Residual (Partial)	801	23	70,579	71,177	2,827.90	33.66	.07	0.079	0.000	0.123	0.000	0.890	0.000
Regression (Partial)	809	8	70,568	71,129	2,832.80	4.83	.78	0.078	-0.001	0.124	0.001	0.890	0.000

Table 20: *Latent Mean Differences - Gender*

Construct	Estimate	Std.Err	z-value	P(> z )
Foreign Product Country Image	0.03	0.10	0.35	0.73
Home Product Country Image	-0.09	0.10	-0.89	0.37
Willingness to Buy	0.12	0.08	1.43	0.15
Consumer Cosmopolitanism	0.02	0.07	0.28	0.78
Materialism	0.21	0.09	2.50	0.01
Consumer Ethnocentrism	0.39	0.11	3.75	0.00

Figure 7: *Configural Structural Equation Model – Males (N=511)*

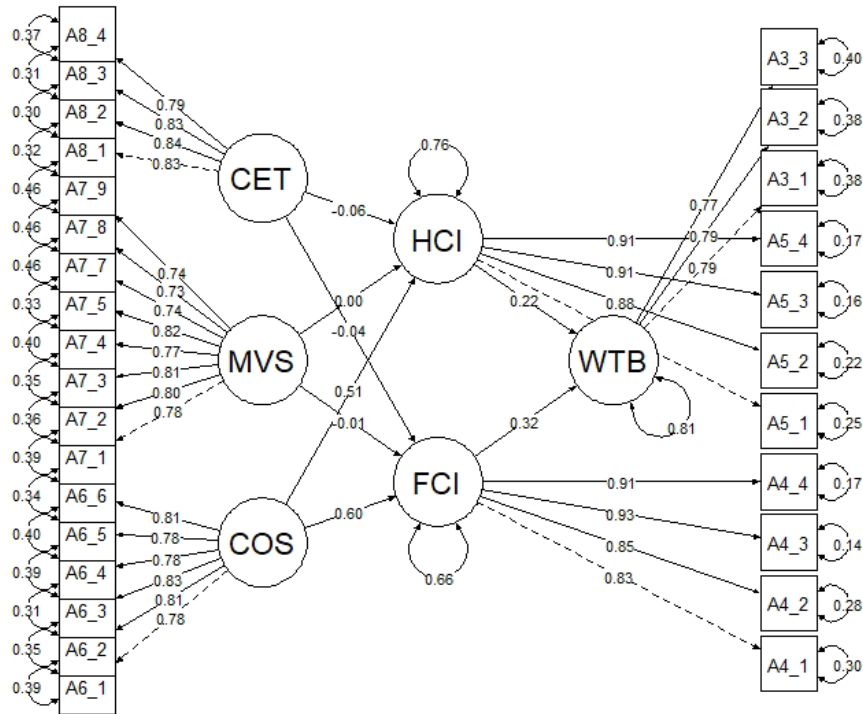
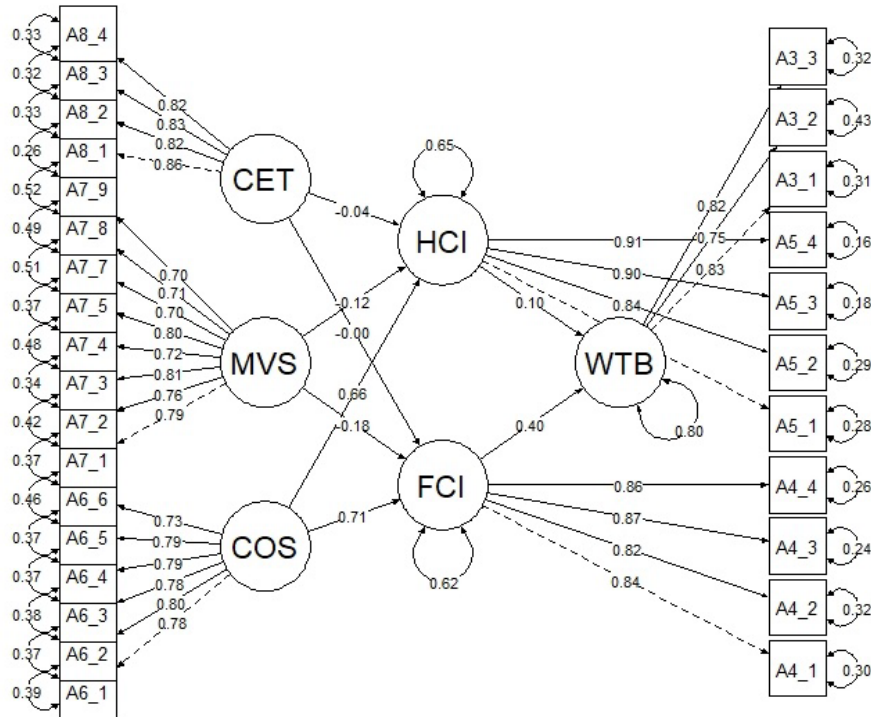


Figure 8: *Configural Structural Equation Model – Females (N=310)*





## Education

It was hypothesized that education encourages contact with foreign cultures, and a highly educated consumer will also show higher cosmopolitan tendencies. Since COS and CET are thought to be different faces of the same coin, lower educated consumers will also exhibit higher ethnocentric tendencies. More specifically, it was hypothesized that the relationship between consumer cosmopolitanism and foreign (H1c) and home (H2c) product country images would be stronger for highly educated consumers. On the other hand, it was hypothesized that the relationship between consumer ethnocentrism and foreign (H3c) and home (H4c) product country images would be stronger for less-educated consumers.

Configural and metric invariances were established between highly educated (N=717) consumers and lower educated (N=104). Highly educated consumers are those participants reporting having at least completed a bachelor's degree. In addition, partial scalar and residual invariance were established after releasing the items in table 21.

Table 21: *Released Items to Establish Partial Scalar and Residual Invariance*

Model	Left Hand Side	Operator	Operator Type	Right Hand Side	Construct
Scalar	A7_7	~~	Covariance	A7_7	Materialism
	A7_7	~	Intercept	1	Materialism
	MVS	==	Indicator	A7_5	Materialism
Residual	A7_2	~~	Covariance	A7_2	Materialism
	MVS	==	Indicator	A7_7	Materialism
	A7_1	~~	Covariance	A7_1	Materialism
	A7_4	~	Intercept	1	Materialism
	A8_3	~~	Covariance	A8_3	Consumer Ethnocentrism
	A4_4	~~	Covariance	A4_4	Foreign Product Country Image
	A6_6	~~	Covariance	A6_6	Consumer Cosmopolitanism
	MVS	==	Indicator	A7_2	Materialism
	A7_5	~~	Covariance	A7_5	Materialism
	A8_1	~~	Covariance	A8_1	Consumer Ethnocentrism
	A6_3	~~	Covariance	A6_3	Consumer Cosmopolitanism

Measurement invariance for the latent materialism construct could not be established since the intercepts and covariances for five of the eight items that measure it had to be released. A new model was created by constraining the regressions of the residual invariance model. This model was significant, suggesting that at least one of the regression paths between the two groups is different. The fit measures of all models and their differences are in table 22. Figures nine and ten show the loadings, measurement residuals, and regressions paths for highly educated (completed a bachelor's degree or more) and less educated (less than a completed bachelor's degree) consumers.

Table 22: *Measurement Invariance (Partial) Models – Education*

Model	Df	$\Delta$ Df	Akaike (AIC)	Bayesian (BIC)	$\chi^2$	$\Delta \chi^2$	Pr(> $\chi^2$ )	RMSEA	$\Delta$ RMSEA	SRMR	$\Delta$ SRMR	CFI	$\Delta$ CFI
Configural	732		70,298	71,221	2,791.30			0.083		0.117		0.889	
Metric	755	23	70,283	71,098	2,822.30	31.03	.12	0.082	-0.001	0.118	0.001	0.889	0.000
Scalar (Partial)	775	20	70,270	70,991	2,849.50	27.18	.13	0.081	-0.001	0.118	0.000	0.888	-0.001
Residual (Partial)	791	16	70,261	70,906	2,872.20	22.71	.12	0.080	-0.001	0.118	0.000	0.888	0.000
Regression (Partial)	799	8	70,292	70,899	2,918.90	46.68	.00	0.080	0.000	0.131	0.013	0.886	-0.002

Figure 9: *Configural Structural Equation Model – Highly Educated (N=717)*

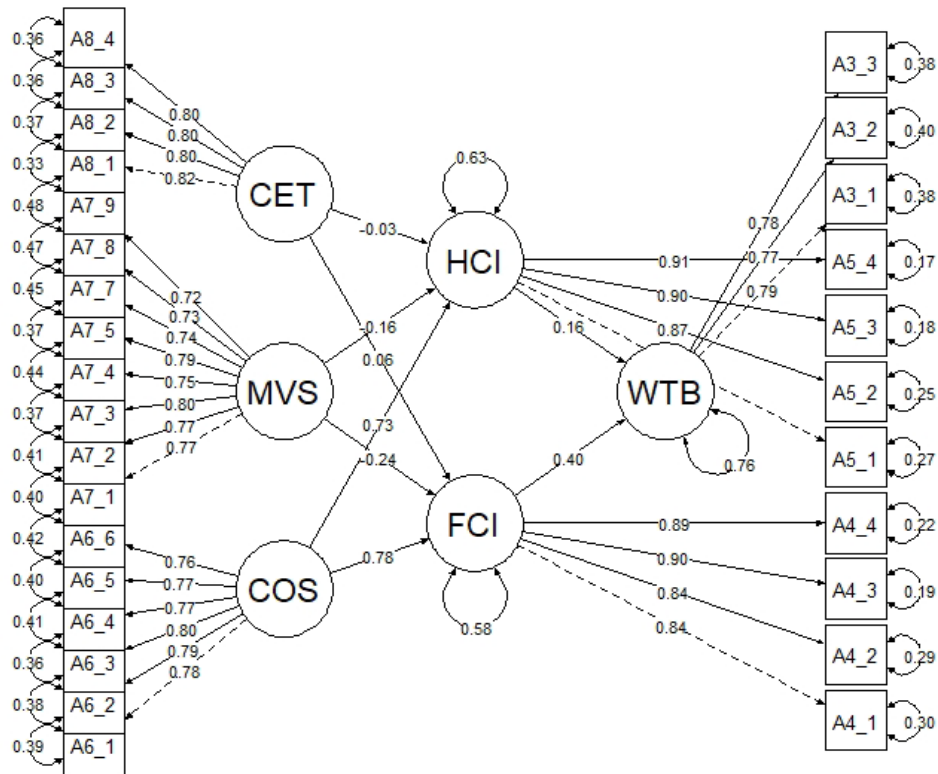
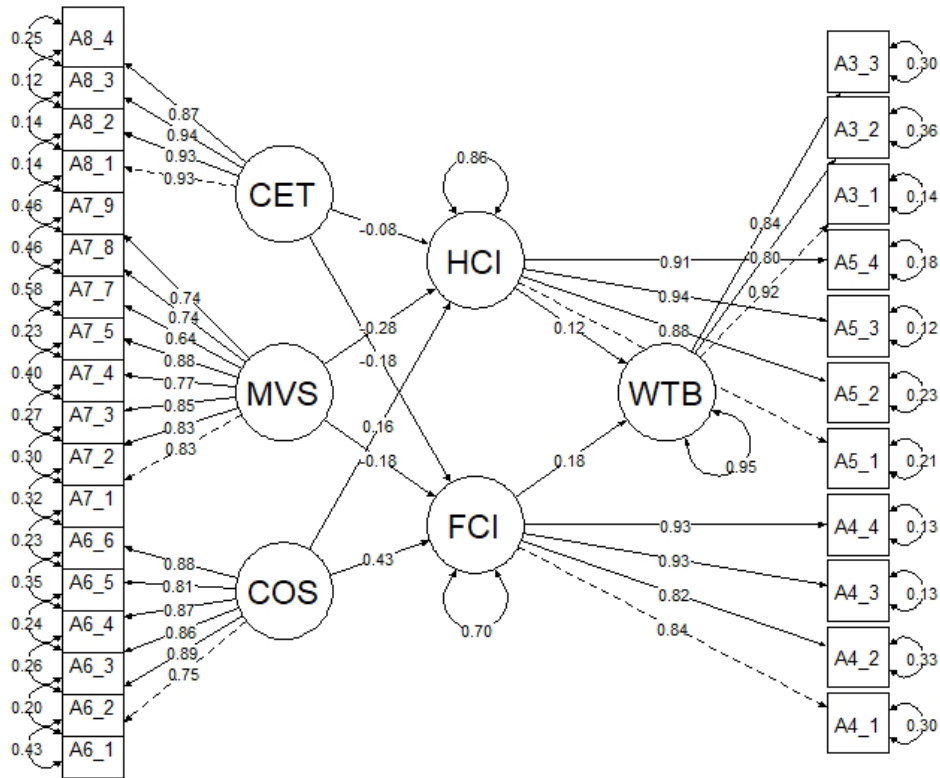


Figure 10: *Configural Structural Equation Model – Less Educated (N=104)*



To test hypothesis H2c, a new model was created where all regression paths were released except for the path that was being tested. In this case, it was the path between COS and HPCI. This new model was compared against the partial residual invariance model to ensure that it was still significant. The overall fit of the model was still acceptable,  $\chi^2 (792, N=821) = 2,892.74, p < .01$ , CFI=0.89, RMSEA = 0.080, and SRMR=0.123. The model differed significantly from the residual model,  $\Delta\chi^2 (1, N=821) = 20.52, p < .01$ . The standardized coefficients were compared, and the values were 0.56 and 0.48 for the educated and less educated groups, respectively. The values suggest that the relationship between consumer cosmopolitanism and home product country image is stronger for more educated consumers; therefore, hypothesis H2c is supported.

The same procedure was repeated to test the moderating effect of education on CET and HPCI. The overall fit of the model remained acceptable,  $\chi^2$  (792, N=821) = 2,872.27,  $p < .01$ , CFI=0.89, RMSEA = 0.080, but was not significantly different than the residual partial invariance model,  $\Delta\chi^2$  (1, N=821) = 0.05,  $p = .83$ . Therefore, hypothesis H4c was not supported.

The model to test the moderating effect on the relationship between COS and FPCI was acceptable,  $\chi^2$  (792, N=821) = 2,882.75,  $p < .01$ , CFI=0.88, RMSEA = 0.080, and significantly different than the partial residual invariance model,  $\Delta\chi^2$  (1, N=821) = 10.52,  $p < .01$ . The standardized coefficients were compared, and the values were 0.65 and 0.60 for the educated and less educated groups, respectively. The values suggest that the relationship between consumer cosmopolitanism and foreign product country image is stronger for more educated consumers; therefore, hypothesis H1c is supported. The result suggests that education might strengthen the positive perception of a foreign country for respondents that perceive themselves as cosmopolitan.

The regression model to test the moderating effect on the relationship between CET and FPCI was acceptable,  $\chi^2$  (792, N=821) = 2,874.44,  $p < .01$ , CFI=0.89, RMSEA = 0.080, but was not significantly different than the partial residual invariance model,  $\Delta\chi^2$  (1, N=821) = 2.21,  $p = 0.01$ . Hypothesis 3c predicted that the relationship between CET and FPCI would be stronger for less-educated consumers, but the data does not support it. The result suggests that education may not moderate the relationship between consumer ethnocentrism and foreign product country image.

Partial scalar invariance was achieved by releasing three (3) out of the eight (8) items related to the materialism construct. However, since most of the constraints on the

items for the construct were retained, it is still appropriate to analyze latent construct means in the partially invariant scalar model (Steenkamp & Baumgartner, 1998; Vandenberg & Lance, 2000). After analyzing the difference in the means of the latent constructs, there is evidence that less-educated consumers are more materialistic,  $\beta=0.60$  ( $p<.01$ ) and ethnocentric,  $\beta=0.53$  ( $p<.01$ ) compared to higher educated consumers. The difference in means for FPCI was also significant,  $\beta=0.80$  ( $p<.01$ ). Table 24 contains the latent mean differences for education as a moderator.

Table 23: *Participants by Educational Level and Country Version*

Educational Group	Country Version			Total
	Most Familiar	Somewhat Familiar	Least Familiar	
Less than Bachelor's Degree	45	26	33	104
Completed Bachelor's	227	248	242	717
Total	272	274	275	821

Table 24: *Latent Mean Differences - Education*

Construct	Estimate	Std.Err	z-value	P(> z )
Foreign Product Country Image	0.80	0.17	4.85	0.00
Home Product Country Image	0.35	0.19	1.87	0.06
Willingness to Buy	-0.05	0.14	-0.34	0.74
Consumer Cosmopolitanism	-0.16	0.12	-1.35	0.18
Materialism	0.60	0.15	4.11	0.00
Consumer Ethnocentrism	0.53	0.19	2.79	0.01

### Country Development Status

A country's development status may influence how consumers view its products. For example, imported goods from developed countries are seen as status symbols and are thought to be of higher quality than those originating from an emerging economy. This is especially true for highly materialistic consumers (C. M. Han & Terpstra, 1988; Kilbourne et al., 2005; P. Sharma, 2011). For these reasons, it is hypothesized that the development status of the foreign country will moderate the relationship between consumer materialism and foreign product country image so that the relationship will be

stronger for developed markets and weaker for emerging countries (H5d). In addition, it was hypothesized that the development status of the home country would moderate the relationship between consumer materialism and home product country image so that the relationship will be stronger for developed markets and weaker for emerging countries (H6d).

The same methodology as previously outlined was used to test the moderating effect on the relationship between MVS and FPCI. First, Configural and metric measurement invariance was established between the two groups. The two groups were participants whose foreign country selection was a developed or advanced economy (N=645) and those economies that are considered emerging or least developed (N=176). Partial scalar invariance was achieved by unconstraining the relationship between MVS and item A7\_8 (“I’d be happier if I could afford to buy more things.”). Partial residual invariance was achieved by releasing the constraint that residuals had to be equal for items A3\_1 (“It is very likely that I will buy a product Designed in [Product Label].” and A7\_3 (“I like to own things that impress people.”). The fifth model, or the regression model, where all path coefficients are constrained, was significantly different than the partial residual invariance model,  $\Delta\chi^2(8, N=821) = 62.05, p < .01$ . Table 25 contains the fit indices and their differences for the various models. Figures 11 and 12 show the loadings, measurement residuals, and regression paths for emerging and developed economies.

Table 25: *Measurement Invariance (Partial) Models – Foreign Country Development Status*

Model	Df	$\Delta$ Df	Akaike (AIC)	Bayesian (BIC)	$\chi^2$	$\Delta \chi^2$	Pr(> $\chi^2$ )	RMSEA	$\Delta$ RMSEA	SRMR	$\Delta$ SRMR	CFI	$\Delta$ CFI
Configural	732		70,612	71,535	2,781.00			0.083		0.116		0.889	
Metric	755	23	70,594	71,409	2,808.70	27.70	.23	0.081	-0.002	0.117	0.001	0.889	0.000
Scalar (Partial)	777	22	70,582	71,293	2,840.60	31.90	.08	0.080	-0.001	0.117	0.000	0.889	0.000
Residual (Partial)	804	27	70,564	71,148	2,877.20	36.59	.10	0.079	-0.001	0.117	0.000	0.888	-0.001
Regression (Partial)	812	8	70,610	71,157	2,939.30	62.05	.00	0.080	0.001	0.126	0.009	0.885	-0.003

Figure 11: *Configural Structural Equation Model – Emerging Economy Group (N=176)*

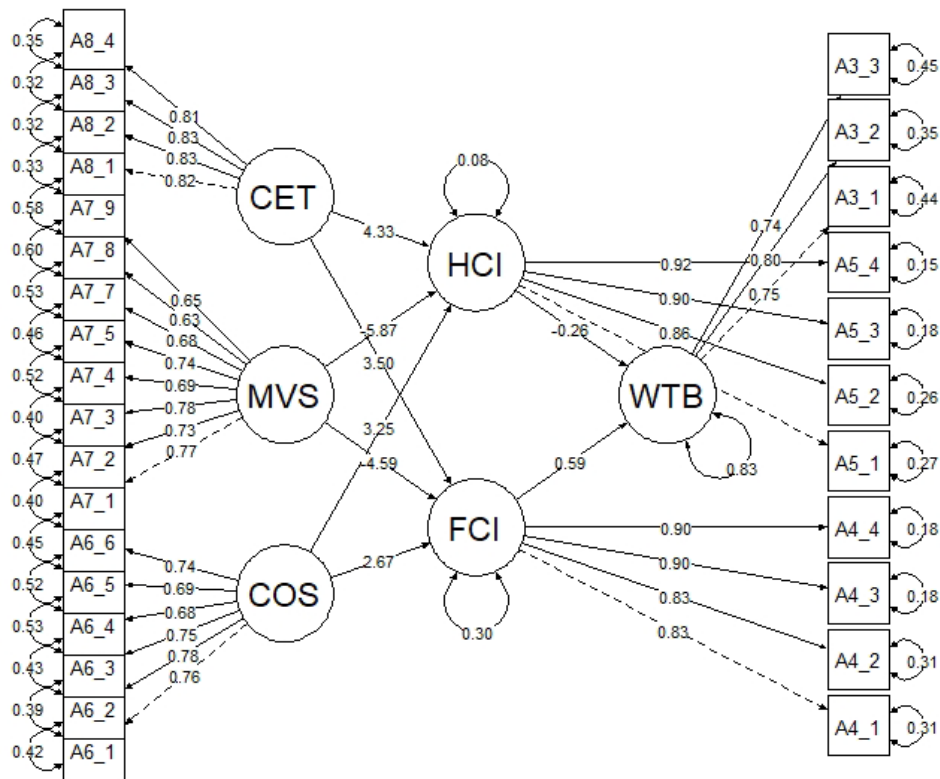
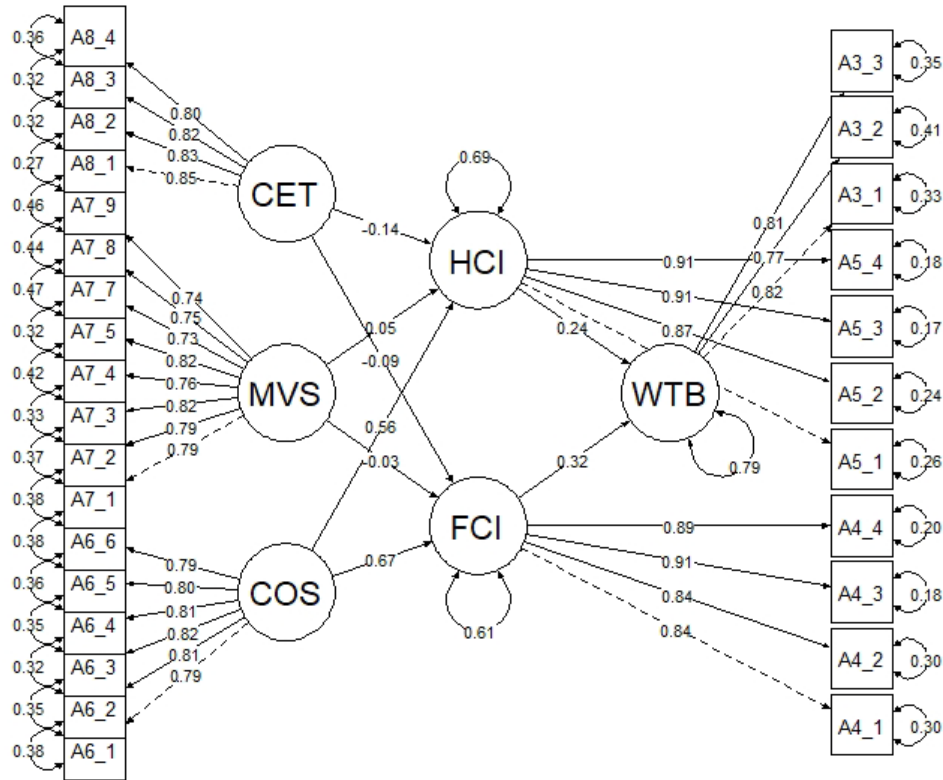




Figure 12: *Configural Structural Equation Model – Developed Economy Group (N=645)*



To test hypothesis H5d, a new model was created where all regression paths were released except for the path that was being tested. In this case, it was the path between MVS and FPCI. This new model was compared against the partial residual invariance model to ensure that it was still significant. The overall fit of the model was still acceptable,  $\chi^2(805, N=821) = 2,916.70, p < .01$ , CFI=0.89, RMSEA = 0.080, and SRMR=0.123. The model differed significantly from the residual model,  $\Delta\chi^2(1, N=821) = 39.49, p < .01$ . The standardized coefficients were compared, and the values were -0.095 and -0.096 for the emerging economy and developed economy groups, respectively. The values suggest that the relationship between materialism and foreign

product country image is not significantly stronger or weaker between the two groups of consumers; therefore, hypothesis H5d is not supported.

A lack of a comparison group prevented the testing of hypothesis H6d. The hypothesis predicted that the development status of the home country would moderate the relationship between materialism and home product country image in a way that it would be more robust for developed economies and weaker for emerging countries. At least two comparison groups were needed to test the hypothesis, but unfortunately, it was not feasible. Significant effort and time were placed on obtaining data from participants in Mexico, but unfortunately, there aren't enough Amazon MTurk workers. Recall that the home country is defined as the country where a participant resides, and unfortunately, there weren't enough participants willing to respond to the survey that lived in Mexico. Therefore, an emerging economy group could not be established for the home country, preventing comparing those participants living in the United States and those that do not.

Having established partial scalar measurement invariance between emerging and developed economies for foreign country development status, the means of the latent constructs were reviewed, and none showed any significant differences. Please refer to table 26.

Table 26: *Latent Mean Differences – Foreign Country Development Status*

Construct	Estimate	Std.Err	z-value
Foreign Product Country Image	-0.33	0.12	-2.71
Home Product Country Image	-0.11	0.13	-0.82
Willingness to Buy	-0.03	0.10	-0.25
Consumer Cosmopolitanism	0.07	0.08	0.86
Materialism	-0.01	0.09	-0.05
Consumer Ethnocentrism	0.08	0.12	0.66

### 5.3 Analysis of Variance

#### Three-Way Interaction

A three-way analysis of variance (ANOVA) in SPSS v28 was used to test the main effects and interactions of foreign country versions (e.g., most familiar, somewhat familiar, and least familiar), country of design, and country of manufacture (made) countries and their effect on a participant's willingness to buy (WTB). The variable WTB was created by averaging the three questions that measured the construct. The scale has acceptable internal consistency, as measured by Cronbach alpha, 0.839. Recall that each participant was presented with a single version of the 27 product label combinations. Table 27 contains the definitions of the variables and the possible values that will be discussed below.

Table 27: *Variable Definitions*

Variable	Possible Values	Definition
Country_Version	Most Familiar Somewhat Familiar Least Familiar	This is the version of the foreign country chosen for the experiments. The participants were asked to rank the nine (9) countries presented from most familiar to least familiar. The selections may have been shown to the participants depending on the specific combination of product label they saw. For example, they could have seen a label that stated the product was designed in the United States [home country] made in Germany [foreign country], but Germany could have been their least familiar country or their most familiar, or their somewhat familiar depending on which group the participant fell.
Designed_Country_Lbl (label)	Home Country (U.S.A.) Foreign Country (1 of the 9 possible foreign countries) No Label (Null Group)	The country in the <b>designed in</b> part of the product label. Participants could have been shown a product label with designed in the United States or designed in [Foreign Country], or just a simple label that said made in [Home Country or Foreign Country]. The participants that did not see a designed country in the label is the null group.
Made_Country_Lbl (label)	Home Country (U.S.A.) Foreign Country (1 of the 9 possible foreign countries) No Label (Null Group)	The country in the <b>made in</b> part of the product label. Participants could have been shown a product label with made in the United States or made in [Foreign Country], or just a simple label that said designed in [Home Country or Foreign Country]. The participants that did not see a made country in the label is the null group.

The test for normality using the Shapiro-Wilk test indicated that the data were not normally distributed for most combinations; refer to table 29 for normality results.

However, the decision was made to continue the analysis since ANOVAs are robust to deviations from normality. The assumption of homogeneity of variances for willingness

to buy was not established. Still, since non-normality was already established, it is best to use a robust estimate of central location rather than the mean (M. B. Brown & Forsythe, 1974). Table 28 shows Levene's test for homogeneity based on various approaches. In this case, the test for homogeneity of variance was not significant, Levene  $F(26,794) = 1.465, p=0.064$  based on the median.

Table 28: *Levene's Test of Equality of Error Variances<sup>a,b</sup>*

		Levene			
		Statistic	Df1	Df2	Sig.
Willingness to Buy	Based on Mean	2.077	26.000	794.000	0.001
	Based on Median	1.465	26.000	794.000	0.064
	Based on Median and with adjusted df	1.465	26.000	639.709	0.065
	Based on trimmed mean	1.931	26.000	794.000	0.004

a. Dependent variable: Willingness to Buy

b. Design: Intercept + Made\_Country\_Lbl + Designed\_Country\_Lbl + Country\_Version + Made\_Country\_Lbl \* Designed\_Country\_Lbl + Made\_Country\_Lbl \* Country\_Version + Designed\_Country\_Lbl \* Country\_Version + Made\_Country\_Lbl \* Designed\_Country\_Lbl \* Country\_Version

Table 29: *Tests of Normality:3-Way ANOVA*

Foreign Country Version	Part of the Product Label	Country inMade Part of the Product Label	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
			Statistic	Df	Sig.	Statistic	Df	Sig.
Most Familiar	No Label	No Label	0.204	29	0.003	0.826	29	0.000
		Home Country	0.209	30	0.002	0.881	30	0.003
		Foreign Country	0.150	30	0.082	0.923	30	0.032
	Home Country	No Label	0.122	30	0.200*	0.931	30	0.051
		Home Country	0.136	31	0.155	0.949	31	0.146
		Foreign Country	0.180	31	0.012	0.931	31	0.046
	Foreign Country	No Label	0.170	30	0.026	0.921	30	0.028
		Home Country	0.201	31	0.003	0.887	31	0.003
		Foreign Country	0.134	30	0.179	0.955	30	0.231
Somewhat Familiar	No Label	No Label	0.162	30	0.042	0.929	30	0.045
		Home Country	0.168	30	0.030	0.914	30	0.019
		Foreign Country	0.182	31	0.010	0.933	31	0.053
	Home Country	No Label	0.143	30	0.123	0.922	30	0.030
		Home Country	0.196	31	0.004	0.851	31	0.001
		Foreign Country	0.176	30	0.018	0.890	30	0.005
	Foreign Country	No Label	0.137	30	0.160	0.921	30	0.028
		Home Country	0.174	31	0.018	0.837	31	0.000
		Foreign Country	0.124	31	0.200*	0.955	31	0.217
Least Familiar	No Label	No Label	0.222	30	0.001	0.869	30	0.002
		Home Country	0.210	31	0.001	0.894	31	0.005
		Foreign Country	0.161	31	0.039	0.931	31	0.046
	Home Country	No Label	0.194	30	0.005	0.800	30	0.000
		Home Country	0.194	33	0.003	0.910	33	0.010
		Foreign Country	0.139	30	0.146	0.956	30	0.237
	Foreign Country	No Label	0.201	30	0.003	0.865	30	0.001
		Home Country	0.137	30	0.158	0.946	30	0.132
		Foreign Country	0.194	30	0.006	0.928	30	0.042

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

There was no statistically significant three-way interaction between foreign country versions, designed country label, and made country label  $F(8,794)=1.611$ ,  $p=.118$ . In addition, there was no significant two-way interaction between foreign country version and designed country,  $F(4,794)=0.460$ ,  $p=0.765$ . And no statistically significant interaction between foreign country version and made country,  $F(4,794)=2.079$ ,  $p=0.082$ , nor between designed country and made country,  $F(4,794)=1.883$ ,  $p=.111$ . There was a main effect for design country and made country, but not for foreign country version. Table 30 contains the estimated marginal means, standard error, and lower and upper limits for willingness to buy for all 27 possible combinations of the product label. Table 31 contains the between-subject effects of the 3-way ANOVA.

Figure 13 contains the interaction plots for the 3-way ANOVA. This plot compares the interaction effect across foreign country versions, country in designed and made part of the product label. Based on the plot, there is some interaction between foreign country version and country in the made part of the product label. Each plot is different at various foreign country versions suggesting a 3-way interaction, even though it is not statistically significant.

Table 30: *Estimated Marginal Means*

						95% Confidence Interval	
Foreign Country Version	Country in Designed Part of the Product Label	Country in Made Part of the Product Label	N	Mean	Std. Error	Lower	Upper
						Bound	Bound
Most Familiar	No Label	No Label	29	2.747	0.218	2.319	3.175
		Home Country	30	2.167	0.214	1.746	2.587
		Foreign Country	30	2.556	0.214	2.135	2.976
	Home Country	No Label	30	2.156	0.214	1.735	2.576
		Home Country	31	2.720	0.211	2.307	3.134
		Foreign Country	31	3.151	0.211	2.737	3.564
	Foreign Country	No Label	30	2.678	0.214	2.257	3.099
		Home Country	31	2.871	0.211	2.457	3.285
		Foreign Country	30	2.900	0.214	2.479	3.321
	Total		272				
Somewhat Familiar	No Label	No Label	30	2.533	0.214	2.113	2.954
		Home Country	30	2.411	0.214	1.990	2.832
		Foreign Country	31	2.333	0.211	1.919	2.747
	Home Country	No Label	30	2.356	0.214	1.935	2.776
		Home Country	31	2.505	0.211	2.091	2.919
		Foreign Country	30	2.267	0.214	1.846	2.687
	Foreign Country	No Label	30	2.767	0.214	2.346	3.187
		Home Country	31	2.323	0.211	1.909	2.737
		Foreign Country	31	2.731	0.211	2.317	3.145
	Total		274				
Least Familiar	No Label	No Label	30	2.267	0.214	1.846	2.687
		Home Country	31	2.559	0.211	2.145	2.973
		Foreign Country	31	2.720	0.211	2.307	3.134
	Home Country	No Label	30	2.367	0.214	1.946	2.787
		Home Country	33	2.505	0.204	2.104	2.906
		Foreign Country	30	3.411	0.214	2.990	3.832
	Foreign Country	No Label	30	2.578	0.214	2.157	2.999
		Home Country	30	2.900	0.214	2.479	3.321
		Foreign Country	30	2.844	0.214	2.424	3.265
	Total		275				
Total			821				

Table 31: *Three-Way ANOVA: Test of Between Subject Effects*

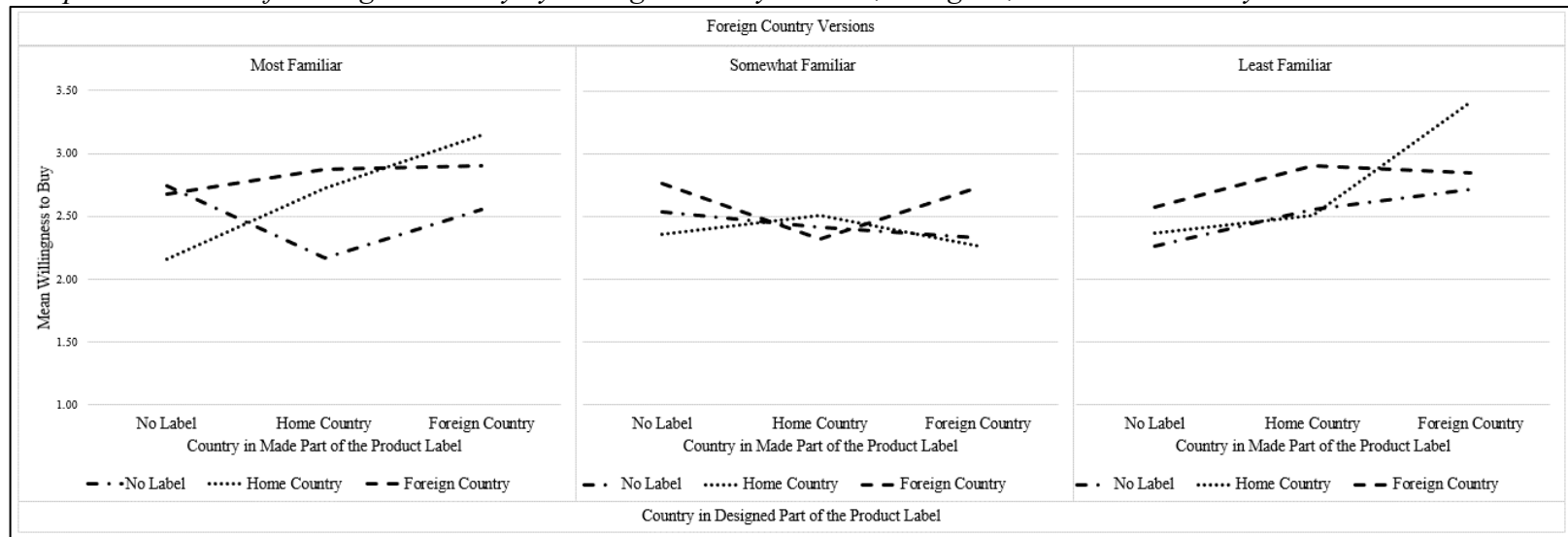
	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	69.81 <sup>a</sup>	26	2.68	1.948	0.003
Intercept	5,566.09	1	5,566.09	4,038.003	0.000
Country_Version	7.56	2	3.78	2.741	0.065
Designed_Country_Lbl	8.88	2	4.44	3.221	0.040
Made_Country_Lbl	11.40	2	5.70	4.135	0.016
Country_Version * Designed_Country_Lbl	2.54	4	0.63	0.460	0.765
Country_Version * Made_Country_Lbl	11.46	4	2.87	2.079	0.082
Designed_Country_Lbl * Made_Country_Lbl	10.38	4	2.60	1.883	0.111
Country_Version * Designed_Country_Lbl * Made_Country_Lbl	17.77	8	2.22	1.611	0.118
Error	1,094.47	794	1.38		
Total	6,733.67	821			
Corrected Total	1,164.28	820			

a. a. R Squared = .060 (Adjusted R Squared = .029)

**Dependent Variable:** Willingness to Buy

Figure 13: *Three-Way Interaction Graph*

*Multiple Line Mean of Willingness to Buy by Foreign Country Version, Designed, and Made Country Labels*



## Two-Way Interaction

Although a statistically significant two-way interaction between the variables could not be established, it was decided to examine further the two marginally non-significant interactions. First, the interactions between foreign country versions and made country label and finally design country and made country label were tested and followed up with simple main effects.

A two-way ANOVA was run on the interaction between foreign country versions and made country label, and as expected, there was no statistically significant interaction between them,  $F(4,812)=2.025, p=.089$ . However, there was a statistically significant difference in willingness to buy between foreign country version, and the group that saw the foreign country in the made part of the production label (made country),  $F(2,812)=5.365, p=.005$ , but not for the group that saw the home country, or the null group (no label). Table 32 contains the results for each of the simple main effects of country in the made part of the product label. All simple pairwise comparisons between groups were made with a Bonferroni adjustment. The mean willingness to buy was 2.872 units ( $SE=0.124$ ) for the group that saw the most familiar foreign country in the made part of the product label and 2.446 ( $SE=0.123$ ) for the group that saw the somewhat familiar foreign country, a statistically significant difference of 0.426, 95% CI [0.007, 0.845],  $p=0.045$ . Willingness to buy was also statistically significantly higher in the least familiar group ( $M = 2.989, SE = 0.124$ ) than in the somewhat familiar foreign country, with a mean difference of 0.543 units, 95% CI [0.124, 0.962],  $p=0.006$ . There was no statistically significant difference between the most and least familiar groups,  $p=1.000$ .



Table 33 shows the mean estimates of WTB for each combination between foreign country version and country in the made part of the product label. This table clearly shows a higher mean for WTB when the foreign country is the manufacturing country but only when said country is the most and least familiar; the same cannot be deduced when the consumer is somewhat familiar with the foreign manufacturing country. Table 34 contains the pair-wise comparisons between foreign country versions by manufacturing country; the two statistically significant mean differences occur when the foreign country is the manufacturing country.

Table 32: *Univariate Tests: Country in the Made Part of the Product Label*

Country in Made Part of the Product Label		Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
No Label	Contrast	1.12	2	0.56	0.400	0.671	0.001
	Error	1,133.97	812	1.40	0.000	0.000	0.000
Home Country	Contrast	2.80	2	1.40	1.001	0.368	0.002
	Error	1,133.97	812	1.40	0.000	0.000	0.000
Foreign Country	Contrast	14.98	2	7.49	5.365	0.005	0.013
	Error	1,133.97	812	1.40	0.000	0.000	0.000

Each F tests the simple effects of Foreign Country Version within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

**Dependent Variable:** Willingness to Buy

Table 33: *Mean Estimates*

Foreign Country Version	Country in Made Part of the Product Label	N	Mean	95% Confidence Interval		
				Std. Error	Lower Bound	Upper Bound
Most Familiar	No Label	89	2.524	0.125	2.278	2.770
	Home Country	92	2.591	0.123	2.349	2.832
	Foreign Country	91	2.872	0.124	2.629	3.115
	Total	272				
Somewhat Familiar	No Label	90	2.552	0.125	2.307	2.796
	Home Country	92	2.413	0.123	2.171	2.655
	Foreign Country	92	2.446	0.123	2.204	2.687
	Total	274				
Least Familiar	No Label	90	2.404	0.125	2.159	2.648
	Home Country	94	2.649	0.122	2.410	2.888
	Foreign Country	91	2.989	0.124	2.746	3.232
	Total	275				
Total		821				

Table 34: *Pairwise Comparison: Foreign Country Version*

Country in Made Part of the Product Label	(I) Foreign Country Version	(J) Foreign Country Version	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for Difference <sup>b</sup>	
						Lower Bound	Upper Bound
No Label	Most Familiar	Somewhat Familiar	-0.028	0.177	1.000	-0.451	0.396
		Least Familiar	0.121	0.177	1.000	-0.303	0.544
	Somewhat Familiar	Most Familiar	0.028	0.177	1.000	-0.396	0.451
		Least Familiar	0.148	0.176	1.000	-0.274	0.571
	Least Familiar	Most Familiar	-0.121	0.177	1.000	-0.544	0.303
		Somewhat Familiar	-0.148	0.176	1.000	-0.571	0.274
Home Country	Most Familiar	Somewhat Familiar	0.178	0.174	0.926	-0.240	0.596
		Least Familiar	-0.058	0.173	1.000	-0.474	0.357
	Somewhat Familiar	Most Familiar	-0.178	0.174	0.926	-0.596	0.240
		Least Familiar	-0.236	0.173	0.522	-0.652	0.180
	Least Familiar	Most Familiar	0.058	0.173	1.000	-0.357	0.474
		Somewhat Familiar	0.236	0.173	0.522	-0.180	0.652
Foreign Country	Most Familiar	Somewhat Familiar	0.426 <sup>*</sup>	0.175	0.045	0.007	0.845
		Least Familiar	-0.117	0.175	1.000	-0.537	0.303
	Somewhat Familiar	Most Familiar	-0.426 <sup>*</sup>	0.175	0.045	-0.845	-0.007
		Least Familiar	-0.543 <sup>*</sup>	0.175	0.006	-0.962	-0.124
	Least Familiar	Most Familiar	0.117	0.175	1.000	-0.303	0.537
		Somewhat Familiar	0.543 <sup>*</sup>	0.175	0.006	0.124	0.962

Based on estimated marginal means

<sup>\*</sup>. The mean difference is significant at the .05 level.<sup>b</sup>. Adjustment for multiple comparisons: Bonferroni.**Dependent Variable:** Willingness to Buy

There was a statistically significant difference in mean willingness to buy between the least familiar foreign country version and foreign country presented in the made part of the product label,  $F(2,812)=5.603$ ,  $p=.004$ , but not for the other two groups. Table 35 contains the results for each of the simple main effects of foreign country version. The mean willingness to buy was 2.404 units ( $SE=0.125$ ) for the null group (no label in the made part of the label) of the least familiar foreign country group, a statistically significantly lower difference of -0.585, 95% CI [-1.007, -0.164],  $p=.003$  than the group that saw the least familiar foreign country, ( $M = 2.989$ ,  $SE = 0.124$ ). There was no statistically significant difference between the null and home country groups and foreign country and home country,  $p=1.000$ . Table 36 contains the pair-wise comparisons of the manufacturing country by foreign country version; the only statistically significant mean differences occur when the foreign country is the least familiar.

Table 35: *Univariate Tests: Foreign Country Version*

Foreign Country Version		Sum of	Mean			Partial	
		Squares	Df	Square	F	Sig.	Eta Squared
Most Familiar	Contrast	6.16	2	3.08	2.206	0.111	0.005
	Error	1,133.97	812	1.40	0.000	0.000	0.000
Somewhat Familiar	Contrast	0.96	2	0.48	0.342	0.710	0.001
	Error	1,133.97	812	1.40	0.000	0.000	0.000
Least Familiar	Contrast	15.65	2	7.83	5.603	0.004	0.014
	Error	1,133.97	812	1.40	0.000	0.000	0.000

Each F tests the simple effects of Country in Made Part of the Production Label within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

**Dependent Variable:** Willingness to Buy

Table 36: *Pairwise Comparison: Country in Made Part of the Product Label*

Foreign Country Version	(I) Country in Made Part of the Product Label	(J) Country in Made Part of the Product Label	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence	
						Lower Bound	Upper Bound
Most Familiar	No Label	Home Country	-0.066	0.176	1.000	-0.488	0.355
		Foreign Country	-0.347	0.176	0.147	-0.770	0.075
	Home Country	No Label	0.066	0.176	1.000	-0.355	0.488
		Foreign Country	-0.281	0.175	0.324	-0.700	0.138
	Foreign Country	No Label	0.347	0.176	0.147	-0.075	0.770
		Home Country	0.281	0.175	0.324	-0.138	0.700
Somewhat Familiar	No Label	Home Country	0.139	0.175	1.000	-0.281	0.559
		Foreign Country	0.106	0.175	1.000	-0.314	0.527
	Home Country	No Label	-0.139	0.175	1.000	-0.559	0.281
		Foreign Country	-0.033	0.174	1.000	-0.451	0.385
	Foreign Country	No Label	-0.106	0.175	1.000	-0.527	0.314
		Home Country	0.033	0.174	1.000	-0.385	0.451
Least Familiar	No Label	Home Country	-0.245	0.174	0.479	-0.663	0.173
		Foreign Country	-0.585*	0.176	0.003	-1.007	-0.164
	Home Country	No Label	0.245	0.174	0.479	-0.173	0.663
		Foreign Country	-0.340	0.174	0.152	-0.757	0.077
	Foreign Country	No Label	0.585*	0.176	0.003	0.164	1.007
		Home Country	0.340	0.174	0.152	-0.077	0.757

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

**Dependent Variable:** Willingness to Buy

A second two-way ANOVA was run on the interaction between the country in the designed part of the product label and the country in the made part of the product label. As expected, there was no statistically significant interaction between the two independent variables,  $F(4,812)=1.858$   $p=.116$ . However, there was a statistically significant difference between the group that saw the home country in the designed part of the label product,  $F(2,812)=6.945$ ,  $p<0.001$ , but not for the groups that saw the foreign country or the null group (no designed country in the product label). Table 37 contains the results for each of the simple main effects of country in the designed part of the product label.

The mean willingness to buy was 2.945 units ( $SE=0.124$ ) for the group that saw the product label as designed in [home country] made in [foreign country] versus 2.293

( $SE=0.125$ ) for the group that saw designed in [home country] as the product label (no made in part of the product label), a statistically significant difference of 0.652, 95% CI [0.231, 1.074],  $p<.001$ . Table 38 shows the mean estimates of WTB for each country combination in the designed and made parts of the product label. The table below shows a higher mean for WTB when the designed country is the home country and the manufacturing country is the foreign country and the lowest when there is no “designed in” as part of the product label (null group).

No statistically significant difference was found between the groups that saw product labels with no country of manufacture (null group) and made in the home country,  $p=0.312$ . Nor between those that saw product labels as made in [home country] and made in [foreign country],  $p=0.100$ . All other combinations were not statistically significant,  $p=1.000$ . Table 39 contains the pair-wise comparisons between manufacturing country by designed country; the only statistically significant mean differences occur when the designed country is the home country and a foreign manufacturing country.

Table 37: *Univariate Tests: Country in the Designed Part of the Product Label*

Country in the Designed Part of the Product Label		Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
No Label	Contrast	1.28	2	0.64	0.458	0.633	0.001
	Error	1,133.58	812	1.40	0.000	0.000	0.000
Home Country	Contrast	19.39	2	9.69	6.945	0.001	0.017
	Error	1,133.58	812	1.40	0.000	0.000	0.000
Foreign Country	Contrast	1.20	2	0.60	0.429	0.652	0.001
	Error	1,133.58	812	1.40	0.000	0.000	0.000

Each F tests the simple effects of Country in Made Part of the Product Label within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal

**Dependent Variable: Willingness to Buy**

Table 38: *Mean Estimates*

Country in Designed Part of the Product Label	Country in Made Part of the Product Label	N	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
No Label	No Label	89	2.513	0.125	2.267	2.759
	Home Country	91	2.381	0.124	2.138	2.624
	Foreign Country	92	2.536	0.123	2.294	2.778
	Total	272				
Home Country	No Label	90	2.293	0.125	2.048	2.537
	Home Country	95	2.575	0.121	2.337	2.813
	Foreign Country	91	2.945	0.124	2.702	3.188
	Total	276				
Foreign Country	No Label	90	2.674	0.125	2.430	2.919
	Home Country	92	2.696	0.123	2.454	2.937
	Foreign Country	91	2.824	0.124	2.581	3.067
	Total	273				
Total		821				

Table 39: *Pairwise Comparison: Country in Designed Part of the Product Label*

Country in Designed Part of the Product Label	(I) Country in Made Part of the Product Label	(J) Country in Made Part of the Product Label	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for Difference <sup>b</sup>	
						Lower Bound	Upper Bound
No Label	No Label	Home Country	0.132	0.176	1.000	-0.290	0.555
		Foreign Country	-0.023	0.176	1.000	-0.445	0.398
	Home Country	No Label	-0.132	0.176	1.000	-0.555	0.290
		Foreign Country	-0.155	0.175	1.000	-0.574	0.264
	Foreign Country	No Label	0.023	0.176	1.000	-0.398	0.445
		Home Country	0.155	0.175	1.000	-0.264	0.574
Home Country	No Label	Home Country	-0.283	0.174	0.312	-0.700	0.134
		Foreign Country	-0.652*	0.176	0.001	-1.074	-0.231
	Home Country	No Label	0.283	0.174	0.312	-0.134	0.700
		Foreign Country	-0.370	0.173	0.100	-0.785	0.046
	Foreign Country	No Label	0.652*	0.176	0.001	0.231	1.074
		Home Country	0.370	0.173	0.100	-0.046	0.785
Foreign Country	No Label	Home Country	-0.022	0.175	1.000	-0.442	0.399
		Foreign Country	-0.150	0.176	1.000	-0.571	0.271
	Home Country	No Label	0.022	0.175	1.000	-0.399	0.442
		Foreign Country	-0.129	0.175	1.000	-0.548	0.291
	Foreign Country	No Label	0.150	0.176	1.000	-0.271	0.571
		Home Country	0.129	0.175	1.000	-0.291	0.548

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

**Dependent Variable:** Willingness to Buy

There was no statistically significant difference in willingness to buy for the country in the designed part of the product label for each level of the country in the made part of the label. Table 40 shows the simple effects and their non-significant results. Table 41 contains the pair-wise comparisons of the designed country by manufacturing country. Based on the previous results, it was expected that the combination of “made in” foreign country and “designed in” the home country would be statistically significant. Still, the combination did generate the most considerable absolute difference at 0.409.

Table 40: *Univariate Tests: Country in Made Part of the Product Label*

Country in Made Part of the Production Label		Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
No Label	Contrast	6.60	2	3.30	2.364	0.095	0.006
	Error	1,133.58	812	1.40	0.000	0.000	0.000
Home Country	Contrast	4.61	2	2.31	1.652	0.192	0.004
	Error	1,133.58	812	1.40	0.000	0.000	0.000
Foreign Country	Contrast	8.08	2	4.04	2.895	0.056	0.007
	Error	1,133.58	812	1.40	0.000	0.000	0.000

Each F tests the simple effects of Country in Designed Part of the Production Label within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

**Dependent Variable:** Willingness to Buy



Table 41: *Pairwise Comparison: Country in Designed Part of the Product Label*

Country in MadePart of the Product Label	(I) Country in Designed Part of the Product Label	(J) Country in Designed Part of the Product Label	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence	
						Lower Bound	Upper Bound
No Label	No Label	Home Country	0.221	0.177	0.637	-0.203	0.644
		Foreign Country	-0.161	0.177	1.000	-0.585	0.263
	Home Country	No Label	-0.221	0.177	0.637	-0.644	0.203
		Foreign Country	-0.381	0.176	0.092	-0.804	0.041
	Foreign Country	No Label	0.161	0.177	1.000	-0.263	0.585
		Home Country	0.381	0.176	0.092	-0.041	0.804
Home Country	No Label	Home Country	-0.194	0.173	0.786	-0.610	0.221
		Foreign Country	-0.315	0.175	0.216	-0.734	0.104
	Home Country	No Label	0.194	0.173	0.786	-0.221	0.610
		Foreign Country	-0.120	0.173	1.000	-0.535	0.294
	Foreign Country	No Label	0.315	0.175	0.216	-0.104	0.734
		Home Country	0.120	0.173	1.000	-0.294	0.535
Foreign Country	No Label	Home Country	-0.409	0.175	0.059	-0.828	0.010
		Foreign Country	-0.288	0.175	0.299	-0.707	0.131
	Home Country	No Label	0.409	0.175	0.059	-0.010	0.828
		Foreign Country	0.121	0.175	1.000	-0.299	0.541
	Foreign Country	No Label	0.288	0.175	0.299	-0.131	0.707
		Home Country	-0.121	0.175	1.000	-0.541	0.299

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

**Dependent Variable:** Willingness to Buy

#### 5.4 Summary

The analysis of the data yielded some interesting results. First, it seems that consumer cosmopolitanism has a positive influence on both home and foreign product country image. The results confirm previous studies that highly cosmopolitan consumers will consume foreign products while not neglecting locally-sourced products (Zeugner-Roth et al., 2015). Previous studies have examined the negative relationship between cosmopolitanism and age (Carpenter et al., 2013; Cleveland et al., 2009). It was predicted that age would moderate the relationship between COS and home and foreign product



country image to be stronger for younger consumers. Unfortunately, the results obtained did not align with expectations.

Previous studies have established a positive relationship between females and cosmopolitanism (Cleveland et al., 2009, 2011). Based on this evidence, it was believed that the relationship between COS and both HPCI and FPCI would be stronger for females than for males. Unfortunately, both notions were not supported. Additionally, it was predicted that education would positively influence the relationship between COS and both HPCI and HPCI; the higher the education level, the more substantial the relationship. Evidence supports the notion that the relationship between COS and HPCI is positively moderated by education, as the standard coefficient was higher for the highly educated group (those participants with at least a bachelor's degree) and the lower educated group. Similar results were found in the relationship between education, COS, and FPCI.

Since highly ethnocentric consumers view their home country as superior and reject all other cultures that are different, it was predicted that consumer ethnocentrism would negatively affect foreign product country image and positively affect home product country image (Kaynak & Kara, 2002). However, the analysis did not support the notion that ethnocentrism influences home product image or foreign product country image. Age is understood to positively correlate with consumer ethnocentrism (Balabanis et al., 2001; Cleveland et al., 2009). Therefore, it was predicted that age would moderate the relationship between CET and home and foreign product country image to be stronger for older consumers. Unfortunately, the results did not confirm previous studies.

However, the data suggest that females are more ethnocentric and materialistic than males.

It was predicted that education would strengthen the relationship between CET and FPCI for the less educated group. In other words, it was expected that there would be an inverse relationship between CET and FPCI and that said relationship would be stronger for less-educated consumers, but the data did not support this hypothesis. In addition, the data did not support the notion that the relationship between CET and HPCI would be stronger for the less-educated either. However, the data supported that lesser-educated consumers are more ethnocentric and materialistic than highly educated consumers. Curiously, the mean latent difference in the FPCI construct between both groups was 0.80 ( $p < .01$ ). The results suggest that the lesser educated consumers tend to view foreign countries more favorably.

Highly materialistic consumers view imported products as symbols of a higher level of achievement. Therefore, they tend to prefer imported products, especially those originating from developed economies, because they are perceived to be of higher quality (Jin et al., 2020; Kilbourne et al., 2005; P. Sharma, 2011). For this reason, it was predicted that materialism would positively influence foreign product country image and a negative influence on home product country image. However, the results did not provide support for these predictions.

A consumer's materialistic tendencies are thought to weaken with age (Belk, 1985; Cleveland et al., 2009; Richins & Dawson, 1992). For this reason, it was predicted that the relationship between MAT and HPCI, and FPCI would be stronger for younger consumers. Unfortunately, both of these notions were not supported by the data. In

addition, it was hypothesized that the development status of the foreign country would moderate the relationship between materialism and FPCI in a way that it would be stronger for developed economies and weaker for emerging economies; but no evidence was found that supported this notion. Testing the same moderating of development status between materialism and HPCI was not feasible due to a lack of data.

Previous studies have established that a positive national image may positively influence consumers' perception of products manufactured in the country (G. (Kevin) Han & Wang, 2015). Furthermore, when no other information is available, consumers base their product evaluations on what they know about the country (Essoussi & Merunka, 2007). Based on this information, it was predicted that both home and product country image would positively influence willingness to buy. The results supported both hypotheses.

The three-way analysis of variance that tested the interaction between foreign country version, country of design, and country of manufacture and their effect on willingness to buy was not significant. In addition, there was no significant two-way interaction between foreign country version and designed country. And no statistically significant interaction between foreign country version and made country, nor between designed country and made country.

Even though it was not statistically significant, further analysis was done on the two-way interactions between the foreign country version and made country label. The pair-wise comparisons between foreign country versions (most, least, and somewhat familiar) and countries in the made label (null, home, foreign) yielded interesting results. The data suggests that the most significant difference in willingness to buy occurs

between least familiar and somewhat familiar foreign country versions, 0.543, and between most familiar and somewhat familiar, 0.426, when the foreign country is in the made part of the product label. In other words, the highest willingness to buy was observed when the manufacturing country was the least familiar foreign country ( $M = 2.989$ ) and when it was the most familiar ( $M=2.872$ ).

The additional analysis on the interaction between countries in the designed and made parts of the product label suggests that the greatest willingness to buy occurs when the home country designs the product and a foreign country manufactures ( $M = 2.945$ ) and when the foreign country designs it and manufactures it ( $M = 2.824$ ). The result suggests value in providing additional information on the product's origin. The most significant difference occurs when the participant saw a label with the home country as the designed country and a foreign manufacturing country compared to when they saw just the home country as the design country and no information on which country made it.

## 6 Discussion

### 6.1 Findings

The original idea for this study stemmed from fortuitously seeing an Apple iPhone and realizing that the product label stated, “Designed by Apple in California Assembled in China.” The immediate question that followed this realization was why? Why would Apple spend money on this kind of label? Apple must gain some benefit from this additional information on the label. Could it be a competitive advantage since most other manufacturers use a simple product label stating where it was made? Could adding the country of design in the label appeal to ethnocentric consumers and openly displaying that Apple is a global company by saying that the iPhone is assembled in China create an appeal to those consumers who perceive themselves as being cosmopolitan? And finally, could adding “by Apple” to the label evoke some emotional response in highly materialistic consumers? Yes, probably, but do the countries that designed the product and finally made it add to a consumer’s desire to purchase it, and does it just apply to Apple?

The preliminary assumption was that placing a compound label on the product afforded some benefits to Apple because otherwise, why would they do it? Of course, Apple is unique because of its brand value, but it is not so special that other companies cannot mimic its strategy. The focus of the study then shifted to whether a multinational company can utilize this strategy to minimize its *liability of foreignness* or its implicit costs of doing business in an unfamiliar environment (Hymer, 1960). For many companies, cost is the primary driver that dictates where to manufacture a product. And

they usually place the design studios in their home countries because they want to exert control over the research and development of the product. But what if the company could gain a competitive advantage by locating one or both locations in the target country? Previous studies have already established the importance of product labels on consumers' perceptions, but not as a source of competitive advantage (Dunning, 1977). Previous studies have also demonstrated that the perception of the country of origin may influence how consumers view a product from that country (Lotz & Hu, 2001; Nagashima, 1970). How customers view products originating from a country (product country image) is dependent on national and economic characteristics.

For this reason, consumer-specific factors such as cosmopolitanism, ethnocentrism, and materialism are treated as antecedents to product country image and gender, age, education, and country development status as moderators. Specifically, this study sought to answer the following questions:

- How do product country images, its antecedents, and moderators influence consumers' willingness to buy a product?
- Can an organization utilize the reputational image of the country or countries where the product was designed and manufactured as a tool to counter the *liability of foreignness* of entering a foreign market?

In this chapter, the significant findings as they relate to the antecedents, moderators, and their influence on product country image, and finally on willingness to buy the product are discussed. The findings should help multinational enterprises decide on product labeling to minimize their *liability of foreignness* when entering a new market. In addition, the study's limitations and suggestions for future research are discussed.

The most significant results of the study came from the analysis of variance. Running the various tests resulted in a deeper understanding of the relationship between the countries that designed and made the products and its effect on willingness to buy. The first significant result from the study is that it appears that there is value in adding additional information to the product label. By comparing the multiple combinations of countries in the made and designed part of the product label, it was evident that the highest mean estimates for willingness to buy occurred when the participants were presented with information on both the designed and made country. The data suggest that the greatest willingness to buy occurs when the home country designs the product and a foreign country manufactures it ( $M = 2.945$ , 95% CI [2.702, 3.188]) and when the foreign country designs it and manufactures it ( $M = 2.824$ , 95% CI [2.581, 3.067]). The difference between them is not statistically significant, 0.121 (95% CI [-0.299, 0.541],  $p=1.000$ ).

The difference in mean WTB compared to the group that did not see a designed part of the label, i.e., they only saw the “made in” part of the label, is 0.409 (95% CI [-0.010, 0.828],  $p=.059$ ) for the group that saw the home country as the design country and 0.288 (95% CI [-0.131, 0.707],  $p=.299$  for those that saw the foreign country. Although not statistically significant, it suggests that it may be advantageous for a company to show the design country, especially when the product was designed in the home country. Furthermore, the results are consistent with previous studies that have concluded that the country of design (COD) for technologically complex products is a strong predictor of a favorable product evaluation (Ahmed et al., 2002; Chao, 2001).

Keeping home as the designed country constant and comparing the three other possible combinations in the made part of the label shows that the mean difference is higher by 0.652 (95% CI [0.231, 1.074],  $p < .001$ ) for the foreign country compared to the null group and 0.370 (95% CI [-0.046, 0.785],  $p = .100$ ) for the home country. The results suggest that consumers prefer foreign-made products when the home country is the designed country.

Participants who saw the foreign country as manufacturing the product were divided into three groups that saw the least, somewhat, and most familiar foreign country in the label. The interaction between the foreign country version and the foreign country in the product label resulted in both the most familiar and least familiar countries having the most significant mean differences compared to the somewhat familiar group. Compared to the somewhat familiar group, there was a statistically significant difference of 0.426 (95% CI [0.007, 0.845],  $p = .045$ ) for the most familiar foreign country and 0.543 (95% CI [0.124, 0.962],  $p = .006$ ) for the least familiar. There was no statistically significant mean difference between most and least familiar foreign countries, .117 (95% CI [-0.303, 0.537],  $p = 1.000$ ).

The results provide insights into a few phenomena. First, adding the “designed in” to the product label adds value, suggesting that respondents used the additional information to influence their desire to purchase the product. And their willingness to buy the product was highest when it was designed in the home country and manufactured in a foreign country. Although not statistically significant (0.409, 95% CI [-0.010, 0.828],  $p = .059$ ) compared to the null group, it can be considered a significant difference in absolute terms; further research is needed to prove this phenomenon statistically. Interestingly,



there was no statistically significant difference whether the country that designed it was the home or the foreign country; adding the additional information was enough to increase the willingness to buy.

Secondly, analyzing the groups of participants that saw the home country as the designed country shows that it is not enough to show the country of design. The participants had a higher WTB when the “made in” part was presented than the group that only saw “designed in.” This was true for both home and foreign countries in the made part of the product label. It is important to note that the difference was more significant when the foreign country was the manufacturing country than the home country. Although not statistically significant, 0.370 (95% CI [-0.046, 0.785],  $p=.100$ ), the difference warrants further research. The results suggest that participants may prefer foreign-made products to those made in the United States, the home country in the study.

There could be various reasons for this phenomenon, including how familiar the participants are with the foreign country, but that was not conclusively proven in this group of participants. For the group that saw the foreign country as the manufacturing country, the highest mean WTB occurred when it was the least familiar ( $M = 2.989$ ,  $SE = 0.124$ ) and most familiar ( $M = 2.872$ ,  $SE = 0.124$ ). A possible explanation for the result could be the country’s reputation. A consumer may or may not be personally familiar with a country but may be aware of its manufacturing quality or lack thereof. In this case, the United Kingdom was the country most represented in the study comprising 17.1% of the total responses. It was the most familiar ( $N = 79$ ) and the second least familiar ( $N = 41$ ); the Czech Republic was the least familiar with 45. The country’s historical

reputation as a manufacturing powerhouse could have influenced the results. Appendix D includes the frequency of foreign countries by foreign country version.

Although much work remains to be done, the data suggests that an MNE may gain an advantage and reduce its *liability of foreignness* by providing additional information on the origin of the product. Ideally, the MNE may want to design the product in the home country and manufacture it abroad, as this was the combination that resulted in the highest willingness to buy. The conclusion is supported since there is a positive and significant relationship between WTB and home and foreign product country images. Furthermore, the results support what is already known about the influence of country image on product evaluations (Bilkey & Nes, 1982; Essoussi & Merunka, 2007; G. (Kevin) Han & Wang, 2015).

The study also supports past research on consumer cosmopolitanism. Consumers who perceive themselves as highly cosmopolitan transcend cultural boundaries without abandoning their cultural ties (Cannon & Yaprak, 2002; Cleveland et al., 2009; Riefler & Diamantopoulos, 2009; Zeugner-Roth et al., 2015). The relationship between COS and country image was supported; every standard deviation change in COS results in a 0.64 change in foreign product country image and 0.57 in home product country image. The results support the notion that highly cosmopolitan consumers are open to trying products from various countries.

The study did not support previous research on age as a moderator for COS. Previous studies have found a negative relationship between age and COS (Carpenter et al., 2013; Cleveland et al., 2009; Riefler & Diamantopoulos, 2009). Unfortunately, this study found a positive relationship between age and COS. It is possible that since 78.8% of the

participants were considered part of the younger group, there weren't enough participants in the older group to compare accurately. Similar contradictory results were found in gender as a moderator of COS. Based on the literature, it was expected that females would positively influence the relationship (Cleveland et al., 2011). However, there was no statistically significant difference between gender. This was unexpected but plausible. Since most of the sample was young, it could be that the younger generation is more culturally open than they were 10 or 15 years ago when the previous studies were done. Education continues to positively influence COS (Riefler et al., 2012). This was expected as the sample in the study was highly educated, and creating an open mind in students has long been an aim for educators (Russell, 1939).

The study also supported the notion that education has a negative relationship with consumer ethnocentrism (0.53 ( $p < .01$ )) and that less-educated consumers tend to be more materialistic (0.60,  $p < .01$ ) (Balabanis et al., 2001). The results suggest that lesser-educated consumers view foreign countries more favorably. This is an unexpected result since the literature has established a negative relationship between FPCI and education (Balabanis et al., 2001; Cleveland et al., 2009). However, this can be explained by the materialistic tendencies of the sample. Highly materialistic consumers will place a higher value on imported goods (Kilbourne et al., 2005; P. Sharma, 2011).

## *6.2 Limitations and Weaknesses*

Despite the positive results from this study, it is not without limitations. The biggest threat to internal validity is that the study relied on self-reported data. The study relied on the honesty and reflective ability of the participants. It also assumed that the

participants interpreted the questions as intended, which may not be the case. There are also limitations with the generalizability of the study to the population.

Considering that the survey was conducted through Amazon MTurk, a large portion of the sample consisted of highly educated participants ( $N = 717$ , 87.2%) who were relatively young ( $N = 648$ , 78.9%), which threatens external validity. In addition, males were disproportionally represented in the sample ( $N = 511$ , 62.2%). The analysis also assumes that the participants associate themselves with the United States as their home country. A portion of participants may be immigrants that live in the United States but associate themselves with their country of birth; that country of birth could have been one of the nine countries presented in the study.

There are also limitations with the data collection procedure. Because of a large number of participants needed, the data collection relied on an electronic survey administered through Amazon MTurk. Although previous studies have established MTurk to be suitable for data collection (Buhrmester et al., 2011), the participants attracted to this particular survey were not representative of the general population. Although the sample size ( $N = 821$ ) was sufficient for statistical analyses, the responses used for the study represent a static measure of the participants' beliefs at the time the survey was completed, and response bias cannot be ignored. There is a possibility that participants responded with what they thought the researchers were expecting.

The study concentrated on the participants' willingness to buy earphones from an unknown brand. A fictitious brand was created to control any effects that brand image may elicit on the participants, but unless additional questions are asked, there is no way to know if the brand elicited a positive or negative response from the participants.

### *6.3 Suggestions for Further Research*

Several recommendations for future research are offered in this section. First, further research on the topic should obtain a more representative sample of the general population. Even if MTurk workers are used, additional filters could ensure that the right proportion of males to females, education levels, geographic regions, and age is represented. This could be achieved by splitting the data collection process into even smaller micro-batches than were initially used. Additional detail should be obtained on the age of the participants; instead of asking for a range, every effort should be made to collect the actual age. This will allow further segmentation of the data in the analysis. Additional questions should be added to distinguish immigrants and disqualify them if their native country matches any foreign country.

The study's results suggest that it may be advantageous for a company to incorporate the design country in the product label. As such, this phenomenon merits additional investigation. Notably, the combination of “designed in” home country and “made in” a foreign country. Due to the numerous combinations of product labels tested in the study, it was impractical to increase the sample size to obtain additional respondents in each combination. However, now that the significant combinations have been identified, it would be valuable to continue the study by concentrating on those promising combinations.

The study should also include other foreign countries, especially other countries from emerging and developing economies. While participants in a developed economy may prefer products designed locally, it may not be accurate for those in emerging economies. They may prefer products designed in a more developed economy and

manufactured locally. Finally, further research should incorporate different product types, not just earphones. Testing additional product types, such as necessity versus luxury goods, will add to the generalizability of the results.

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## Appendices

## Appendix A

*Foreign Country*

Please rank from 1 – Most Familiar to 9 - Least Familiar

- ☐ Germany
- ☐ Malaysia
- ☐ Italy
- ☐ Czech Republic
- ☐ Belgium
- ☐ United Kingdom
- ☐ Vietnam
- ☐ France
- ☐ Netherlands

Taking the country that you have ticked from Question \_\_, please place an “X” against the position that best represents your feelings about brands/products ORIGINATING from that country. For example, if you feel that brands/products made from the country are inexpensive, place an “X” in the place nearest to the right.

**Reliable**      □      □      □      □      □      □      □      **Not reliable**

Innovative      □      □      □      □      □      □      □      Unoriginal

High quality      □      □      □      □      □      □      □      Poor quality

Good performance  Poor performance

## Home Country

Please select your home country. This is the country where you currently reside or hold permanent residence.

- ☐ United States
- ☐ Mexico
- ☐ Nicaragua

*Home Product Country Image* (Z. Jin et al., 2015)

Please place an “X” against the position that best represents your feelings about brands or products ORIGINATING FROM YOUR HOME COUNTRY. For example, if you feel that brands/products made from your home country are inexpensive, place an “X” in the place nearest to the right.

Reliable      □      □      □      □      □      □      Not reliable

Innovative      □      □      □      □      □      □      □      Unoriginal

High quality    □    □    □    □    □    □    □    Poor quality

Good performance      □    □    □    □    □    □    □    Poor performance

***Willingness to Buy – Purchase Intention Scale*** (Putrevu & Lord, 1994)

Unless stated, all questions are measured on a seven (7)-point Likert scale ranging from 1- strongly disagree to 7 – strongly agree.

Label: Designed in [Home Country] Made in [Home Country]

1. It is very likely that I will buy a product Designed in [Home Country] Made in [Home Country].
2. I will purchase a set of earphones Designed in [Home Country] Made in [Home Country] next time I need one.
3. I will definitely try earphones Designed in [Home Country] Made in [Home Country].

Label: Designed in [Foreign Country] Made in [Foreign Country]

1. It is very likely that I will buy a product Designed in [Foreign Country] Made in [Foreign Country].

2. I will purchase a set of earphones Designed in [Foreign Country] Made in [Foreign Country] next time I need one.
3. I will definitely try earphones Designed in [Foreign Country] Made in [Foreign Country].

Label: Designed in [Home Country] Made in [Foreign Country]

1. It is very likely that I will buy a product Designed in [Home Country] Made in [Foreign Country].
2. I will purchase a set of earphones Designed in [Home Country] Made in [Foreign Country] next time I need one.
3. I will definitely try earphones Designed in [Home Country] Made in [Foreign Country].

Label: Designed in [Foreign Country] Made in [Home Country]

1. It is very likely that I will buy a product Designed in [Foreign Country] Made in [Home Country].
2. I will purchase a set of earphones Designed in [Foreign Country] Made in [Home Country] next time I need one.
3. I will definitely try earphones Designed in [Foreign Country] Made in [Home Country].

Unless stated, all questions are measured on a seven (7)-point Likert scale ranging from 1- strongly disagree to 7 – strongly agree.

***Material Values Scale (Materialism)*** (Richins, 2004)

1. I admire people who own expensive homes, cars, and clothes.
2. The things I own say a lot about how well I'm doing in life.

3. I like to own things that impress people.
4. I try to keep my life simple, as far as possessions are concerned.
5. Buying things gives me a lot of pleasure.
6. I like a lot of luxury in my life.
7. My life would be better if I owned certain things I don't have.
8. I'd be happier if I could afford to buy more things.
9. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.

***Cosmopolitism (COS)*** (Cleveland et al., 2009)

1. I enjoy exchanging ideas with people from other cultures or countries.
2. I am interested in learning more about people who live in other countries.
3. I enjoy being with people from other countries to learn about their views and approaches.
4. I like to observe people from other countries, to see what I can learn from them.
5. I like to learn about other ways of life.
6. I find people from other cultures stimulating.

***Consumer Ethnocentrism (CET) – Short Version of CETSCALE*** (Cleveland et al., 2009)

1. People from [home country] should not buy foreign products, because this hurts [home country's] businesses and causes unemployment.
2. It is not right to purchase foreign products, because it puts workers from [home country] out of jobs.
3. A real person from [home country] should always buy [home country]-made products.

4. We should purchase products manufactured in [home country] instead of letting other countries get rich off us.

*Demographical Information*

**Age**

18 to 29

30 to 44

45 to 64

65 or older

**Education**

Less than high school

High school graduate

Two-year degree/Some college

Bachelor's degree or more

**How do you identify as?**

Male

Female

Other

### Pilot Study Correlation Matrix

## Appendix C

### Final Study Item Statistics

Scale	Item	Full Data			Excluding Outliers		
		Statistic	Std. Error		Statistic	Std. Error	
Willingness to Buy	It is very likely that I will buy a product Designed in [Product Label].	Mean	2.59	0.05	2.51	0.05	
		95% Confidence Interval for Mean	Lower Bound	2.49	2.42		
			Upper Bound	2.68	2.61		
		Variance	1.97		1.80		
		Std. Deviation	1.41		1.34		
	I will purchase earphones Designed in [Product Label].	Mean	2.61	0.05	2.55	0.05	
		95% Confidence Interval for Mean	Lower Bound	2.52	2.46		
			Upper Bound	2.70	2.64		
		Variance	1.81		1.62		
		Std. Deviation	1.35		1.27		
	I will definitely try earphones Designed in [Product Label] next time I need one.	Mean	2.63	0.05	2.56	0.05	
		95% Confidence Interval for Mean	Lower Bound	2.54	2.47		
			Upper Bound	2.72	2.65		
		Variance	1.88		1.69		
		Std. Deviation	1.37		1.30		
Product Country Image	Reliable: Not Reliable (Foreign Product Country Image)	Mean	3.23	0.06	3.14	0.07	
		95% Confidence Interval for Mean	Lower Bound	3.11	3.02		
			Upper Bound	3.36	3.27		
		Variance	3.40		3.29		
		Std. Deviation	1.84		1.81		
	Innovative: Unoriginal (Foreign Product Country Image)	Mean	3.31	0.06	3.25	0.06	
		95% Confidence Interval for Mean	Lower Bound	3.19	3.13		
			Upper Bound	3.43	3.37		
		Variance	2.99		2.88		
		Std. Deviation	1.73		1.70		
	High Quality: Poor Quality (Foreign Product Country Image)	Mean	3.25	0.06	3.19	0.07	
		95% Confidence Interval for Mean	Lower Bound	3.12	3.06		
			Upper Bound	3.38	3.32		
		Variance	3.39		3.30		
		Std. Deviation	1.84		1.82		
	Good Performance: Poor Performance (Foreign Product Country Image)	Mean	3.33	0.07	3.30	0.07	
		95% Confidence Interval for Mean	Lower Bound	3.21	3.17		
			Upper Bound	3.46	3.43		
		Variance	3.48		3.40		
		Std. Deviation	1.86		1.87		
	Reliable: Not Reliable (Home Product Country Image)	Mean	2.97	0.06	2.94	0.07	
		95% Confidence Interval for Mean	Lower Bound	2.84	2.81		
			Upper Bound	3.09	3.07		
		Variance	3.31		3.32		
		Std. Deviation	1.82		1.82		
	Innovative: Unoriginal (Home Product Country Image)	Mean	2.97	0.06	2.94	0.06	
		95% Confidence Interval for Mean	Lower Bound	2.85	2.82		
			Upper Bound	3.09	3.06		
		Variance	3.04		3.01		
		Std. Deviation	1.74		1.73		
	High Quality: Poor Quality (Home Product Country Image)	Mean	3.02	0.06	2.99	0.07	
		95% Confidence Interval for Mean	Lower Bound	2.90	2.86		
			Upper Bound	3.15	3.12		
		Variance	3.40		3.37		
		Std. Deviation	1.84		1.84		
	Good Performance: Poor Performance (Home Product Country Image)	Mean	3.08	0.07	3.05	0.07	
		95% Confidence Interval for Mean	Lower Bound	2.95	2.91		
			Upper Bound	3.21	3.18		
		Variance	3.57		3.50		
		Std. Deviation	1.89		1.87		
Cosmopolitanism	I enjoy exchanging ideas with people from other cultures or countries.	Mean	2.41	0.04	2.34	0.04	
		95% Confidence Interval for Mean	Lower Bound	2.32	2.26		
			Upper Bound	2.49	2.43		
		Variance	1.54		1.36		
		Std. Deviation	1.24		1.17		
	I am interested in learning more about people who live in other countries.	Mean	2.37	0.04	2.32	0.04	
		95% Confidence Interval for Mean	Lower Bound	2.29	2.23		
			Upper Bound	2.46	2.40		
		Variance	1.58		1.38		
		Std. Deviation	1.26		1.18		
	I enjoy being with people from other countries to learn about their views and approaches.	Mean	2.47	0.05	2.39	0.04	
		95% Confidence Interval for Mean	Lower Bound	2.38	2.30		
			Upper Bound	2.56	2.47		
		Variance	1.73		1.46		
		Std. Deviation	1.31		1.21		
	I like to observe people from other countries, to see what I can learn from them.	Mean	2.48	0.04	2.39	0.04	
		95% Confidence Interval for Mean	Lower Bound	2.39	2.31		
			Upper Bound	2.56	2.48		
		Variance	1.65		1.42		
		Std. Deviation	1.29		1.19		
	I like to learn about other ways of life.	Mean	2.44	0.04	2.38	0.04	
		95% Confidence Interval for Mean	Lower Bound	2.35	2.30		
			Upper Bound	2.53	2.47		
		Variance	1.66		1.47		
		Std. Deviation	1.29		1.21		
	I find people from other cultures stimulating.	Mean	2.52	0.04	2.46	0.04	
		95% Confidence Interval for Mean	Lower Bound	2.43	2.37		
			Upper Bound	2.61	2.55		
		Variance	1.62		1.45		

Scale	Item			Full Data		Excluding Outliers	
				Statistic	Std. Error	Statistic	Std. Error
Material Values Scale	I admire people who own expensive homes, cars, and clothes.	Std. Deviation		1.27		1.20	
		Mean		2.69	0.05	2.64	0.05
		95% Confidence Interval for Mean	Lower Bound	2.59		2.55	
			Upper Bound	2.79		2.74	
		Variance		2.04		1.91	
	The things I own say a lot about how well I'm doing in life.	Std. Deviation		1.43		1.38	
		Mean		2.67	0.05	2.63	0.05
		95% Confidence Interval for Mean	Lower Bound	2.58		2.53	
			Upper Bound	2.77		2.73	
		Variance		1.95		1.86	
	I like to own things that impress people.	Std. Deviation		1.40		1.36	
		Mean		2.79	0.05	2.73	0.05
		95% Confidence Interval for Mean	Lower Bound	2.69		2.62	
			Upper Bound	2.90		2.83	
		Variance		2.41		2.23	
	Buying things gives me a lot of pleasure.	Std. Deviation		1.55		1.49	
		Mean		2.69	0.05	2.67	0.05
		95% Confidence Interval for Mean	Lower Bound	2.60		2.57	
			Upper Bound	2.79		2.76	
		Variance		1.83		1.77	
	I like a lot of luxury in my life.	Std. Deviation		1.35		1.33	
		Mean		2.73	0.05	2.69	0.05
		95% Confidence Interval for Mean	Lower Bound	2.62		2.59	
			Upper Bound	2.83		2.80	
		Variance		2.27		2.12	
	My life would be better if I owned certain things I don't have.	Std. Deviation		1.51		1.46	
		Mean		2.75	0.05	2.71	0.05
		95% Confidence Interval for Mean	Lower Bound	2.66		2.62	
			Upper Bound	2.84		2.80	
		Variance		1.77		1.66	
	I'd be happier if I could afford to buy more things.	Std. Deviation		1.33		1.29	
		Mean		2.58	0.05	2.55	0.05
		95% Confidence Interval for Mean	Lower Bound	2.49		2.45	
			Upper Bound	2.68		2.64	
		Variance		1.88		1.74	
	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	Std. Deviation		1.37		1.32	
		Mean		2.78	0.05	2.73	0.05
		95% Confidence Interval for Mean	Lower Bound	2.68		2.63	
			Upper Bound	2.87		2.82	
		Variance		1.94		1.81	
Consumer Ethnocentrism (CETSCALE)	Citizens from [Field-Home_Country] should not buy foreign products because this hurts [Field-Home_Country]'s businesses and causes unemployment.	Std. Deviation		1.39		1.35	
		Mean		2.92	0.06	2.88	0.06
		95% Confidence Interval for Mean	Lower Bound	2.81		2.77	
			Upper Bound	3.03		2.99	
		Variance		2.57		2.49	
	It is not right to purchase foreign products, because it puts citizens of [Field-Home_Country] out of jobs.	Std. Deviation		1.60		1.58	
		Mean		2.95	0.06	2.93	0.06
		95% Confidence Interval for Mean	Lower Bound	2.84		2.81	
			Upper Bound	3.06		3.04	
		Variance		2.63		2.48	
	A real citizen from [Field-Home_Country] should always buy [Field-Home_Country]-made products.	Std. Deviation		1.62		1.58	
		Mean		2.87	0.05	2.83	0.05
		95% Confidence Interval for Mean	Lower Bound	2.77		2.72	
			Upper Bound	2.98		2.94	
		Variance		2.47		2.30	
	We should purchase products manufactured in [Field-Home_Country] instead of letting other countries get rich off us.	Std. Deviation		1.57		1.52	
		Mean		2.86	0.05	2.83	0.05
		95% Confidence Interval for Mean	Lower Bound	2.76		2.73	
			Upper Bound	2.97		2.94	
		Variance		2.16		2.10	
Demographics	Age	Std. Deviation		1.47		1.45	
		Mean		2.00	0.02	2.00	0.03
		95% Confidence Interval for Mean	Lower Bound	1.95		1.95	
			Upper Bound	2.05		2.05	
		Variance		0.50		0.50	
	Income	Std. Deviation		0.71		0.70	
		Mean		3.73	0.04	3.75	0.05
		95% Confidence Interval for Mean	Lower Bound	3.65		3.66	
			Upper Bound	3.82		3.84	
		Variance		1.56		1.55	
	Education	Std. Deviation		1.25		1.24	
		Mean		3.82	0.02	3.82	0.02
		95% Confidence Interval for Mean	Lower Bound	3.78		3.78	
			Upper Bound	3.85		3.86	
		Variance		0.27		0.26	
	Gender	Std. Deviation		0.52		0.51	
		Mean		1.38	0.02	1.38	0.02
		95% Confidence Interval for Mean	Lower Bound	1.35		1.34	
			Upper Bound	1.42		1.41	
		Variance		0.25		0.25	
		Std. Deviation		0.50		0.50	



### Final Study Correlation Matrix

[illegible]

# Appendix F

Foreign Country	Foreign Country Version					Total	%
	Most Familiar	Rank	Somewhat Familiar	Least Familiar	Rank		
Belgium	17	9	41	27	5	85	10.4%
Czech Republic	36	2	23	45	1	104	12.7%
France	24	5	25	25	7	74	9.0%
Germany	20	7	28	25	7	73	8.9%
Italy	18	8	37	20	9	75	9.1%
Malaysia	27	3	36	32	4	95	11.6%
Netherlands	27	3	40	27	5	94	11.4%
United Kingdom	79	1	20	41	2	140	17.1%
Vietnam	24	5	24	33	3	81	9.9%
Total	272		274	275		821	100.0%

## VITA

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