HISPANICS' INFORMATION SEARCH AND PATRONAGE INTENTIONS ONLINE

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ABSTRACT

In the last decade, the Hispanic population of the United States has grown exponentially. The purchasing power of Hispanics in the United States exceeds \$870 billion. However, little is known about Hispanics' information-seeking and online-purchase behaviors. This study attempts to fill the gaps in the existing literature. We develop a model of Hispanics' online information seeking and purchase behaviors using the Model of Online Pre-Purchase Intentions (MOPI) and test the new model via LISREL. As suggested by MOPI, the results confirm that Hispanics' intentions to search for information online and their prior purchase experience lead to intentions to purchase online. The study, based on a sample of Hispanic Americans, confirms that ethnic identification, perceived behavioral control, prior purchase experience, and household income play important roles in affecting Hispanics' online information seeking also suggest that online stores should concentrate on young, affluent, and educated Hispanic Americans with high degrees of ethnic identification because they are more likely to purchase online. Conclusions and implications are discussed.

Keywords: Hispanic American, information search online, patronage online, e-tailing, ethnic identification

1. Introduction

The Hispanic-American population constitutes 15% of the U.S. population; it is younger and growing six times faster than the rest of the population [U.S. Census Bureau 2008]. The size of this burgeoning market segment is also reflected in its buying power, which is increasing at a much faster rate than non-Hispanics' buying power [Interactive Advertising Bureau, 2006] and exceeds \$870 billion [Dodson 2007]. Furthermore, Hispanic Americans are surfing the Internet to buy products and services and/or to acquire information in record numbers. According to Fox and Livingston [2007], in 2006 more than 24 million or 53% of Hispanic Americans were Internet users. In addition, 77% of Hispanic-American Internet users surf the Internet to learn about brands, 75% to learn about specific features, and 72% to check prices [eMarketer 2006]. A recent study by media giant, Yahoo! Telemundo, also suggests that the Internet usage of Hispanic Americans is multifaceted [Contacto Magazine 2007]. In 2001, the average Hispanic American made six purchases online, spending a total of \$547 per year [Valenzuela 2007].

Finally, Ambicultural [2008] reports that Hispanic-American Internet shoppers spend 7% more than the average non-Hispanic shopper. Clearly, the Web presents businesses with excellent opportunities to pursue the online Hispanic-American market. Still, little published research investigates the factors associated with online information search and online patronage of this important market. In addition, online behavioral differences caused by the level of identification with Hispanic culture remain under researched. Hispanic Americans, though they share a cultural background, are not a monolithic group; they display behavioral differences related to their identification with Hispanic values and beliefs [e.g., Desphande et al. 1986; Romero 2004; Telles and Ortiz 2008; Webster 1992]. While the countries of origin of Hispanic Americans are diverse, their level of adaptation to the U.S. mainstream culture, as displayed by their identification with the Hispanic culture, is a more important predictor of Hispanic Americans' consumer behavior [Kara and Kara 1996]. Additionally, significant differences on information search

[Webster 1992] and behavioral intentions [Villareal and Peterson 2008] have been found between strong and weak Hispanic identifiers.

This study fills the gap in the existing literature by applying MOPI [Shim et al. 2001] while controlling for ethnic identification and certain demographic variables to understand online information search and the online patronage intentions of a national sample of Hispanic-American shoppers (see Figure 1). The following section reviews the relevant literature and states the hypotheses tested in the study.

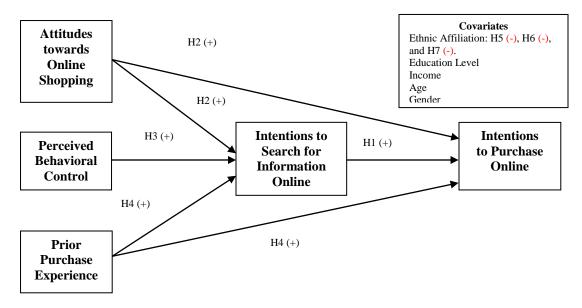


Figure 1.Hispanics' Information Search and Patronage Intentions Online Model of Online Pre-Purchase Intentions (MOPI); developed by Shim et al. [2001]

2. Background and Hypotheses

Practitioners and researchers alike are interested in understanding Hispanic-American consumer behavior because it is the fastest growing consumer market both in size and buying power in the United States. The Hispanic-American population, in comparison with non-Hispanic whites, tends to be younger, have more children, marry within their ethnic group, maintain stronger family ties, have strong Roman Catholic roots, live in urban areas, have lower incomes, be less likely to own a computer and have internet access at home, be less prone to take risks, be more conservative and traditional in their values and behavior, display more brand loyalty, and use more nationally advertised products [e.g., Cartagena 2005; Ono and Zavodny 2002; Valdes and Seoane 1995; Webster 1991]. The behavior of Hispanic Americans is influenced by their culture (i.e., beliefs, norms, values, traditions) and/or behavioral patterns (e.g., dress code, food consumption, language usage) [e.g., Olmedo 1979; Wallendorf and Reilly 1983]. However, within immigrant ethnic groups, such as Hispanic Americans, attitudinal and behavioral differences may be exhibited because the degree of retention of the culture of origin and the acquisition of the host culture may vary among different members of the group [e.g., Webster 1994].

Two acculturation perspectives have been used to explain consumer-behavior differences within immigrant groups: the assimilation perspective and the multicultural perspective [e.g., Laroche et al. 1998]. The assimilation process is dubbed the "melting pot," and the multicultural process is called the "salad bowl." From the assimilation perspective, acculturation is a zero-sum game; as the host culture is adopted, retention of the culture of origin is diminished or lost [e.g., Penaloza 1994]. In the multicultural perspective, acculturation is not a zero-sum game; adoption of the host culture and retention of the culture of origin coexist [Kim et al. 1989; Laroche et al. 1998]. For example, individuals can display a high level of adoption of the host culture in their public life (e.g., at work) and a high level of retention of the culture of origin or ethnic identification in their private life (e.g., relating to their family and/or friends) [e.g., Stayman and Deshpande 1989]. This suggests that ethnic identification may exert a greater influence on personal or private situations, such as using the Internet. This study adopts the multicultural perspective, which is currently the more accepted of the two perspectives in the study of consumer purchase decisions [e.g., Ogden et al. 2004]. Adoption of the host culture and ethnic identification are believed to be important influences on behavior and to explain behavioral consumption decision differences within immigrant

groups [e.g., Kim et al. 1989]. In both perspectives, similar indicators, such as language, referent group influence, food preference, and adherence to norms, have been used to measure adoption of the host culture and ethnic identification [e.g., Webster 1994]. Research on the multidimensional measures of acculturation suggests the predominance of language in the process of measuring the retention and influence of culture of origin on consumer decisions [e.g., Kim et al. 1989; Laroche et al. 1998]. Adoption of the host culture is required to function in society, but retention of the culture of origin is a choice. Thus, retention of the culture of origin, signified by the preference to use the language of origin, may vary more among members of an ethnic group than does adoption of the host culture.

The literature suggests that Hispanic Americans are one of the least acculturated minorities in the United States [see Wilson 2007] with about 8% belonging to the category of mostly acculturated [Synovate 2008]. The acculturation process is manifested in the frequent use of Spanish, which reinforces Hispanic Americans' identification with Hispanic culture and behavior [e.g., Greenberg et al. 1983; Telles and Ortiz 2008]. For example, although the majority of Hispanic Americans are born in the United States and are native English speakers, only a small percentage (28%) of Hispanic Americans prefer to speak only English at home [U.S. Census Bureau 2008].

Empirical findings indicate that ethnic identification influences Hispanic-American consumers' behavior [e.g., Valencia 1989], including their search for information [e.g., Webster 1992]. Information search is an important component of consumer behavior, as identified by most consumer behavior models, because it is a precursor to the final purchase. The information search leads to evaluations, which in turn influence the pre-purchase and purchase decision. One of the main differences between the online and offline environment is the relative ease of acquiring information online, which allows shoppers to compare products, brands, and prices on their own with minimal effort [e.g., Detlor et al. 2003]. Therefore, information search online plays a crucial role in influencing purchase decisions, including determining whether to shop online or offline [Joines et al. 2003; Levin et al. 2005; Shim et al. 2001]. Shim et al. [2001] developed and tested MOPI to understand the influence of information search online on intentions to purchase online. MOPI provides the basis from which we test the relationship between Hispanic Americans' information search and intentions to purchase online. In the following sections, we next discuss MOPI, the Interaction Model of Information Search (IMIS), and the Theory of Planned Behavior (TPB). 2.1. MOPI, IMIS, and TPB

MOPI posits that information search is dependent on attitudes, subjective norms, perceived behavioral control, and purchase experience; behavioral intentions are dependent on information search and purchase experience [Shim et al. 2001]. MOPI is based on IMIS [Klein 1998] and TPB [Ajzen 1991].

Empirical evidence suggests that MOPI is a good predictor of intentions to search for information as well as intentions to purchase online. All hypothesized paths, with the exception of the subjective norms, have been validated. Though not initially conceptualized in MOPI, subsequent empirical results indicated that attitudes also influenced online purchase intentions. Based on these findings, Shim et al. [2001] recommend modifying MOPI to include a path from attitudes to purchase intentions and to delete the path from subjective norms to intentions to search for information online. Additionally, Shim et al. [2001] suggest including demographic variables. We adopt these recommendations (see Figure 1) because (1) the direct influences of attitudes on intentions to search for information and on intentions to purchase have been empirically validated [Seock and Norton 2007]; (2) the influence of subjective norms on computer usage behavior may be captured by beliefs that influence attitudes [e.g., Davis et al. 1989]; (3) the effect of ethnic identification may be influenced by demographic variables, such as income [e.g., Singh et al. 2008]; and (4) demographic variables, such as income, may influence Hispanic consumer behavior online [e.g., Porter and Donthu 2006]. Next we briefly explain the basis of MOPI, IMIS, and TPB, and then discuss the relationship among the variables tested in the Figure 1.

IMIS is based on Information Search Economic Theory, which posits that information search is influenced by the trade-off between the cost of an additional search and the benefits obtained from that search [e.g., Stigler 1961]. IMIS asserts that decision-making behavior, such as purchasing, is influenced by information search. Information search, in turn, is influenced by media attributes and consumer characteristics, such as attitudes towards online shopping [Klein 1998]. Klein [1998] argues that information search is more relevant online than offline because information is more easily available and less expensive to acquire online than offline. On this basis, IMIS posits that because of the greater availability and the lower cost of acquiring information online, consumers may search for information more and/or longer online than offline; thus, information search online may have a greater influence on purchase decisions, such as intentions to purchase online versus offline [Klein 1998]. Additionally, IMIS proposes that media attributes (e.g., credibility, flow, interactivity) and consumer characteristics (e.g., attitude towards shopping, social influences, prior experience) also influence information search.

On this basis, MOPI adopted, tested, and validated the relationship between information search online and online intentions. MOPI also adopted, tested, and validated the relationship between consumer characteristics, such

as attitudes towards shopping online and intentions to search for information online. Because MOPI is developed for one medium—the Internet—media attributes were not incorporated into the model.

The IMIS propositions adopted by MOPI have been validated by other studies. For example, Jepsen [2007] found that perceived low search cost and the availability of information, among other variables, influence information search online. Joines et al. [2003] and Levin et al. [2005] found that the availability of information online influences online behavior.

TPB is an extension of the Theory of Reasoned Action, which posits that behavioral intentions are dependent on attitudes towards the behavior and subjective norms [e.g., Fishbein and Ajzen 1975]. Behavioral intentions measure the motivation or effort a person will exert to perform a behavior. Attitudes measure positive and negative evaluations of performing a behavior based on beliefs regarding the outcome of performing such a behavior. Subjective norms, based on normative beliefs, measure the perceived approval of referents towards performing a behavior.

To capture the nonvolitional aspect of behavior, in addition to attitudes and subjective norms, TPB includes perceived behavioral control as a predictor of behavior [Ajzen 1991]. Perceived behavioral control captures the perceptions of ease or difficulty in performing a behavior and is related to the perceptions of possessing the required resources and opportunity to perform the behavior in question [Ajzen 1991]. Empirical evidence indicates that the addition of perceived behavioral control improves the prediction of intentions [Ajzen 1991]. Additionally, perceived behavioral control over accessing and using the Internet influences intentions to search online, because information searches online are dependent on computer and Internet access, and the cost of searching for information online is negatively related to the perceived ease of accessing and using the Internet [Alba et al. 1997]. Thus, TPB provides support for MOPI's conceptualization that attitudes, subjective norms, and perceived behavioral control influence pre-purchase information search intentions. Next we present our hypotheses.

2.2. Hypotheses

Purchase decision process models indicate that consumers search for information, internally or externally, to determine how to proceed (e.g., where to purchase) when faced with a purchase situation (e.g., ran out of milk, car broke down). The literature indicates that consumers' objectives, such as making a purchase, are subject to a sequential hierarchy of events: In the purchase process, information search precedes purchase evaluations and decisions [e.g., Rowley 2000; Shim et al. 2001]. Similar to other consumers, Hispanic Americans' purchase decisions are influenced by information search, but their choice of medium used to search for information may be affected by their ethnic identification [e.g., Webster 1992], which will be discussed later in the study.

The nature of the information source consulted and the cost to search for information have been found to affect the purchase decision [e.g., Hoque and Lohse 1999; Klein 1998, Seock and Norton 2007]. Given the lower cost to search for information online compared with offline [e.g., Jepsen 2007; Klein 1998], an increase in information search online may affect the purchase decision, including where to purchase [e.g., Levin et al. 2005; Shim et al. 2001] Shim et al. [2001] and Seock and Norton [2007] provide evidence that online information search influences purchase intentions online. The majority of Hispanics online—about 68%—believe that the Internet is the best source of information for final purchase decisions [eMarketer 2006]. Additionally, Hispanic Americans' intentions to purchase online are influenced by the ease of finding product information [Korgaonkar et al. 2004]. Hence, we offer the following hypothesis:

H1: Intention to search for information online will positively affect Hispanic Americans' intentions to purchase online.

Empirical findings support the conceptualization that shopping attitude influences information search and that information search, in turn, influences intentions to purchase. Attitudes have been found to influence shopping centers' patronage [Evans et al. 1996], intentions to purchase [Zhou et al. 2007], and information search [Anderson et al. 1979; Duncan and Olshavsky 1982]. Chen et al. [2002], Seock and Norton [2007], and Watchravesringkan and Shim [2003] show that attitudes towards Web stores influence online information search and purchase behavior. Similarly, studies on Hispanic-American behavior suggest that attitudes influence behavior and information search [e.g., Deshpande et al. 1986; Korgaonkar et al. 2000; Korgaonkar et al. 2001; Webster 1992]. Therefore, we offer the following hypothesis:

H2: Attitudes towards online shopping will positively influence Hispanic Americans' (a) intentions to search for information and (b) intentions to purchase online.

Searching for information online requires computer skills and access to a computer with an Internet connection [Shim et al. 2001]. Computer ownership may make it easier to develop computer skills and to access the Internet at any time. Hispanic Americans and African Americans find it more difficult to access the Internet than other Americans because they have lower incomes and cannot afford computers or Internet access at home [Ono and Zavodny 2002; Porter and Donthu 2006; Slate et al. 2002]. Additionally, the Hispanic-American population has less

Internet connectivity and broadband Internet access than the non-Hispanic white and non-Hispanic black U.S. population segments [NTIA 2004]. These findings suggest that Hispanic Americans, in general, may have difficulty accessing and using the Internet, which may influence their intentions to search for information online. Slate et al. [2002] suggest that Hispanic students who speak Spanish at home also have less access to computers at home, explaining their low levels of Internet usage. Similarly, a lack of transportation to visit stores has been found to negatively influence information search [Avery 1996], suggesting an association between perceived behavioral control and information search online. Perceptions of ease in accessing and using the Internet have been found to influence Hispanic Americans' usage of the Internet [Porter and Donthu 2006]. Thus:

H3: Perceived behavioral control over accessing and using the Internet will positively influence Hispanic Americans' intentions to search for information online.

MOPI, supported by the literature, incorporates prior experience as a predictor of intentions. For example, attitude–behavior consistency models [see Bentler and Speckart 1979; Sutton and Hallett 1989] improve their prediction of behavior by including prior behavior as predictor of intentions. Prior experience online [Zhou et al. 2007] has been found to influence intentions to purchase online. Similarly, prior purchase experience of a product has been found to influence Hispanic Americans' intentions to purchase it online [Korgaonkar et al. 2004]. Shim et al. [2001] found that prior online purchase experience was the best predictor of intentions to search for information online and the second best predictor of intentions to purchase online. Accordingly, we offer the following hypothesis:

H4: Increased prior Internet experience will positively influence Hispanic Americans' (a) intentions to search for information and (b) intentions to purchase online.

Next we discuss the covariate pertaining to the Hispanic-American culture.

Culture as manifested in beliefs, norms, and/or traditions, including behavioral patterns (e.g., dress code, food consumption, language usage), influences behavior [e.g., Massey and Mullan 1984; Wallendorf and Reilly 1983]. Ethnic identification, on the one hand, captures the commitment and strength of association to a particular ethnic culture and reflects the individual's beliefs about his/her cultural reality [Deshpande et al. 1986]. Ethnicity, on the other hand, is the objective measure of a person's ethnic origin and/or background [Chung and Fisher 1999]. Behavioral differences within immigrant ethnic groups, such as Hispanics, occur because of differing levels of ethnic identification [e.g., Olmedo 1979]. Since language is the most common form of cultural expression, the usage of an ethnic group's language or mode of expression reflects a person's association and commitment to that group [e.g., Kim et al. 1989; Laroche et al. 1998; Olmedo 1979]. Hispanic-American studies suggest that Hispanic identification, as reflected by the preference to use the Spanish language, influences Hispanic-American behavior [e.g., Deshpande et al. 1986]. Deshpande et al. [1986] and Kara and Kara [1996] found behavioral differences between Hispanic Americans who use the Spanish language and those who don't; they also found that Hispanic Americans with low levels of Hispanic ethnic identification are similar to non-Hispanic whites. Similarly, Webster [1992] found differences in information search, influence of referents, and purchase behavior between Hispanic-American steakers who use the Spanish language and those who only use English.

Research on the influence of ethnic identification on the Hispanic-Americans' online information search and purchase intentions is scant. Hispanic culture is believed to be conservative, traditional in its values and behavior, and less prone to risk taking, such as trying new brands or adopting new ideas [e.g., Cartagena 2005; Valdes and Seoane 1995]. The existing literature on Hispanic Americans points to a preference for searching for information in Spanish and in traditional media. Hispanic Americans who speak Spanish at home may have less positive attitudes towards the Internet than those who speak English at home. This is because they have lower incomes and must access the Internet outside the home [Slate et al. 2002]. Additionally, Hispanic Americans who identify with Hispanic culture expect Web sites to communicate in Spanish and/or to behave in accordance with Hispanic culture (e.g., formal greetings), but Web sites of popular U.S. retail stores, such as Wal-Mart, and of popular shopping bots, such as MySimmon.com, are only in English and lack Hispanic cultural cues [Singh et al. 2008].

Hispanic Americans prefer print advertisements in Spanish to English TV and/or radio [La Ferle and Lee 2005]. Spanish advertisements on Spanish TV programs are more effective on Hispanic Americans than English advertisements on English TV programs [Roslow and Nicholls 1996]. Deshpande et al. [1986] and Torres and Briggs [2007] found that advertisements with Hispanic cues (e.g., Hispanic model) that are targeted to strong Hispanic identifiers are more effective for low-involvement products than for high-involvement products.

As a result, we speculate that Hispanic Americans who have strong Hispanic ethnic identifications will display negative relationships with intentions to search for information online and intentions to purchase online because of (1) their desire to obtain information in Spanish, (2) their tendency to avoid risks, and (3) the minimal availability of U.S. Web sites in Spanish and/or with Hispanic cultural cues. Additionally, we speculate that because Hispanic Americans who speak Spanish at home may have less favorable attitudes towards the Internet, Hispanic Americans

with strong Hispanic identifications will exhibit negative relationships with attitudes towards online shopping. Consequently, we offer the following hypotheses:

H5: Increased Hispanic ethnic identification will negatively affect Hispanic Americans' (a) intentions to search for information online and (b) intentions to purchase online.

H6: Increased Hispanic ethnic identification will negatively affect Hispanic Americans' attitudes towards online shopping.

Perceived behavioral control has been found to influence Hispanic Americans' usage of the Internet because they have less computer and Internet access at home than most Americans [Porter and Donthu 2006]. Moreover, Slate et al. [2002] suggest that Hispanic Americans who speak Spanish at home have less computer and Internet access in the home than those who speak English at home. Although lacking a computer and Internet access may not prevent computer and Internet usage, it may make it more difficult and less frequent [e.g., Shim et al. 2001]. Consequently, we offer the following hypotheses:

H7: Increased Hispanic ethnic identification will negatively affect Hispanic Americans' (a) perceived behavioral control and (b) prior online purchase experience.

Behavioral differences within and/or between ethnic groups may also arise because of demographic differences, such as income, gender, education level, and age, rather than because of cultural differences [e.g., Porter and Donthu 2006; Singh et al. 2008; Wallendorf and Reilly 1983]. Therefore, the influence of demographic variables on behavior must be controlled to understand the influence of ethnic identification. Additionally, demographic variables (e.g., income, gender, education level, age) have been found to correlate with Internet shopping [Donthu and Garcia 1999; GUV 1998; Joines et al. 2003; Porter and Donthu 2006; Zhou et al. 2007]. Studies reporting Hispanic Americans' use of the Internet suggest that young [Burns 2005], male [Slate et al. 2002], educated [Fox and Livingston 2007] and high income [Legatt 2007] Hispanic Americans are more likely to use the Internet. As a result, we control for age, gender, education level, and income level.

3. Methodology and Results

3.1. Data and Sample Characteristics

The model hypotheses were tested using structural equation modeling (LISREL8.72). Prior to the main study, we pretested a convenience sample of Hispanic-American students to validate the scales and general shopping attributes and to select products that were acceptable to the subjects. In pretests, subjects ranked the likelihood of searching for information on and purchasing 30 different products in the next 12 months. The top five products/services chosen by the subjects in the pretest were selected for the main study (digital cameras, travel, movies, computer software, and cars). A recognized national marketing firm with access to a national sample of Hispanic Americans provided the sample for the main study. Subjects received an e-mail, with a link to the pretested questionnaire, inviting them to participate in the study. Of the 700 Hispanic Americans with access to the Internet, 611 partook in the main study. Next we report demographic profile of the respondents.

The subjects were a representative sample of the U.S. Hispanic-American population in terms of gender (54.2% male compared to 51.7% for the U.S. Hispanic-American population). They were second- or older-generation Hispanic Americans (79.3% born in the United States compared to 60% for the U.S. Hispanic-American population), considered English (versus Spanish) their first language (74.2%), preferred to speak a combination of English and Spanish (51.1%) at home versus speaking only English (45.5%) or only Spanish (3.4%), and varied in age with the majority (56.4%) ranging from 26 to 45 years old (compared to the median age of the U.S. Hispanic-American population of 27.6). Subjects were highly educated, with 47% holding a four-year college degree or higher (versus 13% for the U.S. Hispanic-American population), and 34% holding a vocational or two-year college degree (compared to 46.9% for the U.S. Hispanic-American population). Respondents worked mostly in white collar or professional occupations (70% versus 41% for the U.S. Hispanic-American population, excluding business owners) and had total household incomes of \$40,000 or more (compared to \$36,700 median income for the U.S. Hispanic-American population). The majority of the respondents accessed Web sites in English only (59%) versus Web sites in Spanish only (2%), but a large portion accessed Web sites in both languages (39%). Subjects lived in all areas of the United States with the greatest percentage in the South (33.4%) followed by the West (32.6%), Midwest (18%), and Northwest (16%), reflecting a comparable distribution to the U.S. Hispanic population [U.S. Census Bureau 2006; 2008].

3.2. Measurement

The scales, validated during pretests, were developed from previous research (e.g., Kim et al. 1989; Korgaonkar et al. 2004; Shim et al. 2001). Next we discuss each scale used.

The likelihood that respondents would search for information online or offline for each of the selected five products was assessed using a seven-point semantic differential scale (1 = entirely offline, 7 = entirely online).

Similarly, the likelihood that respondents would purchase each of the five products online or offline was assessed using a seven-point semantic deferential scale (1 =entirely offline, 7 =entirely online) [Shim et al. 2001].

Twenty general shopping attributes (see Appendix C) that were derived from the literature on store and Internet shopping choice [e.g., Berman and Evans 2007; Korgaonkar and Wolin 1999; Liao and Cheung 2001; Lynch et al. 2001] encompassed attitude towards online shopping. Attitude was measured using an expectancy-value model (e.g., $A = e_i b_i$) in which the subjects' evaluation of each attribute was weighted by his/her belief that online shopping will provide that attribute. Subjects were asked to indicate on a seven-point Likert scale (1 = not important at all, 7 = extremely important) how important (e_i) each attribute was when choosing where to shop. In another section of the questionnaire, subjects were asked to indicate on a seven-point Likert scale (1 = very unlikely, 7 = very likely) how likely it was that the Internet would provide (b_i) each of the 20 attributes.

Perceived behavioral control was measured using a four-item, seven-point Likert scale (1 = very easy, 7 = very difficult). The four items were the ease of online information search, ease of online shopping, ease of Web surfing, and ease of accessing the Internet. Prior Internet purchase experience was measured using a seven-point ordinal scale (1 = 0, 7 = 6 or more), indicating the number of online purchases participants made for each of the five products during the past 12 months.

Following the recommendations of Kim et al. [1989], ethnic identification was conceptualized as language preference (Spanish vs. English) in different situations. We did not follow the recommendation by Kim et al. [1989] to measure ethnic self-identification because the subjects had previously self-identified as Hispanic Americans to the national marketing firm that provided the sample. The subjects' language preference was measured using a five-item, seven-point semantic differential scale (1 = entirely in English, 7 = entirely in Spanish). Subjects were asked to indicate their preferred language when communicating at home, communicating with friends, using the Internet, watching TV, and listening to music. Subjects also indicated their household income (1 = \$20,000 or less; 6 = \$100,000 or more), age (1 = less than 20, 9 = 60 or more), education level (1 = high school, 5 = post graduate), and gender (1 = male, 2 = female).

3.3. Results

We conducted a preliminary analysis to determine the structure of the 20 attitude items before testing the hypotheses. A principal component factor analysis with varimax rotation, using SPSS 14.0, was conducted, yielding three factors that explain 70% of the variance (see Appendix C). The first factor, *Merchandising and Safety*, includes the following items: product guarantees, low cost, assortment of brands, safety, easy to shop, easy to find, carries brand I like, and access to all type of payments. The second factor, *Comfort*, includes the following items: fun place, sales assistance, after sales assistance, can touch product, can try product, people like me shop there, and social place The third factor, *Location*, deals with the distance from home. To better understand the influence of attitudes on Hispanic Americans' intentions to search for information and to purchase online, the three attitude factors were included in the analysis. The mean for the *Comfort* attitude component (19.66 out of 49) (see Appendix C) suggests a negative attitude towards online shopping, perhaps, because of the Hispanic cultural hesitancy to take risks, which may derive from either the inability to try and/or touch product online, and/or Hispanic Americans' belief that the Internet cannot provide them *Comfort*.

Confirmatory factor analysis was conducted for all variables and indicators. Indicators with low (< .40) square multiple correlations and/or factor loadings that were not significant were eliminated, and the parameters were reestimated. The goodness-of-fit statistics for the measurement model are within acceptable ranges (see Table 1) (Chi-Square = 2,305.64, significant at p < .001, as expected for a large sample [Hair et al. 1998]), with 604 degrees of freedom for a 3.8 ratio (RMSEA = 0.069; GFI = 0.83; AGFI = 0.79; and CFI = 0.93), indicating that the model was slightly adequate. The composite reliability and average variance explained for all constructs was adequate except for product experience (see Table 1).

A structural equation model was used to test the hypothesis. The goodness-of-fit statistics are within acceptable ranges (Chi-Square = 2,967.65, significant at p < .001, as expected for a large sample [Hair et al. 1998]), with 684 degrees of freedom for 4.3 ratio (RMSEA = 0.075, GFI = 0.80, AGFI = 0.77, and CFI= 0.91), indicating a slightly adequate fit between the model and the data. Results are presented in Tables 1, 2, and 3. The model explains 67% of the variance of intentions to purchase online, with 18% explained by the covariates, and 37% of the variance of intentions to search for information online, with 15% explained by the covariates. We describe results next. Direct and total effects are reported in Table 2.

Table 1. Measurement Model Results

Completely Standardize Factor Loadings	Completely Standardize Standard Error	ť	Construct Reliability	Average Variance Explained
			.80	.47
	.27			
.83	.31	23.78^{*}		
.69	.53	18.46^{*}		
.48	.77	11.91^{*}		
.49	.76			
			.91	.58
.70	.52	^a		
.57	.62	13.40^{*}		
^c	c	^c		
.82	.32	19.09^{*}		
.66	.56	15.57^{*}		
c	c	c		
.86	.26	19.84^{*}		
c	^c	c		
c	c	c		
.07	.24	20.12	04	.84
с	с	с	.94	.84
L	L	L		
⁰	⁰	0		
			.94	.74
.87	.24			
.92	.16	27.56^{*}		
.86	.26	25.19^{*}		
.85	.28	24.60^{*}		
			.87	.70
.89	.20	^a		
.75	.43	21.85^{*}		
c	c	c		
.87	.25	26.11*		
			.54	.20
.62	.62			
		7.44^{*}		
		2	.81	.55
91	18		.01	.55
b				
			+	
b				
^b				
^b				
	Factor Loadings .85 .83 .69 .48 .49 .70 .57 .85 .82 .66	Standardize Factor Loadings Standard Error .85 .27 .83 .31 .69 .53 .48 .77 .49 .76 .70 .52 .57 .62 c° c° .82 .32 .66 .56 c° c° c°	Standardize Factor Loadings Standard Error .85 .27 ^a .83 .31 23.78° .69 .53 18.46° .48 .77 11.91° .49 .76 12.33° .70 .52 ^a .57 .62 13.40° .82 .32 19.00° .66 .56 15.57° ^c	Standardize Factor Loadings Standardize Standard Error Reliability 85 .27 * .80 85 .27 * .80 85 .27 * .80 85 .27 * .80 .69 .53 18.46° * .49 .76 12.33 * .48 .77 11.91° * .48 .77 13.40° * .70 .52 * * .71 .52 * * .72 * * * .70 .52 * * .72 * * * .73 .52 * * .73 .50 19.54° * .75 * * * .74 * * * .75 * * *

Fit indices: $\chi^2 = 2,305.64$ with 604 degrees of freedom (p = 0.0), RMSEA = 0.69, NFI = 0.91, NNFI = 0.92, CFI = 0.93, GFI = 0.83 and AGFI 0.79.

Becerra & Korgaonkar: Hispanics' Information Search and Patronage Intentions Online

^aLambda path set to 1; no t test computed.

^bLambda path set to 1 and error term set to 0; no SE, t test, composite reliability and/or AVE computed.

^c Items deleted.

 $p^* < .01.$

Intentions to search for information, as expected, have a significant direct effect (p < .01) and total effect (p < .01) on intentions to purchase online, supporting H1. Attitude towards online shopping related to *Merchandising and Safety* has a significant direct effect (p < .01) and total effect (p < .01) on intentions to search for information online (p < .01); its direct effect on intentions to purchase online is not significant and negative, and its total effect is positive but not significant (see Table 2, and Appendix A and B for results).

Table 2. Structural Wodel Results			
Hypothesis	Total Effect ^a	Direct Effect ^a	Indirect Effect ^a
H1: Increased intentions to search for information online will			
positively affect intentions to purchase online.	.67**	.67**	
H2a: Increased attitudes towards online shopping will positively			
affect Hispanic Americans' intentions to search for information			
online.			
Merchandising Attitude	.12**	.12**	
Comfort Attitude	18**	18**	
Location attitude	.07*	.07*	
H2b: Increased attitudes towards online shopping will positively			
affect Hispanic Americans' intentions to purchase online.			
	0.5	02	00**
Merchandising Attitude	.06	02	.08**
Comfort Attitude	07	.05	12**
Location attitude	.05	.0	.05*
H3: Increased perceived behavioral control over accessing and			
using the Internet will positively affect Hispanic Americans'	27**	27**	
intentions to search for information online.	.27**	.27**	
H4a: Increased prior Internet experience will positively affect	10**	10**	
Hispanic Americans' intentions to search for information online.	.40**	.40**	
H4b: Increased prior Internet experience will positively affect	- 4 - 1- 1-	0 ()))	27.1.1
Hispanic Americans' intentions to purchase online.	.51**	.24**	.27**
H5a: Increased Hispanic ethnic identification will negatively affect			
Hispanic Americans' intentions to search for information online.	.21**	.28**	01
H5b: Increased Hispanic ethnic identification will negatively affect			
Hispanic Americans' intentions to purchase online.	.27**	.04	.23**
H6: Increased Hispanic ethnic identification will negatively affect			
Hispanic Americans' attitudes towards online shopping.			
Merchandising Attitude	04	04	
Comfort Attitude	.37**	.37**	
Location attitude	02	02	
H7a: Increased Hispanic ethnic identification will negatively affect			1
Hispanic Americans' perceived behavioral control.	.24**	.24**	
H7b: Increased Hispanic ethnic identification will negatively affect			1
Hispanic Americans' prior Internet purchase experience.	.30**	.30**	

Table 2. Structural Model Results

Fit indices: $\chi^2 = 2,967.65$ with 684 degrees of freedom (p = 0.0), RMSEA = 0.75, NFI = 0.89, NNFI = 0.90, CFI = 0.91, GFI = 0.80 and AGFI = 0.76.

 R^2 : intentions to purchase online = 69%; intentions to search for information online = 37%.

^a Standardized results

*p < .05

 $p^{**} < .01$

The *Comfort* component of attitude has a significant, negative direct effect (p < .01) and total effect (p < .01) on intentions to search for information online. Its direct effect on intentions to purchase is positive but not significant, and its total effect is negative and also not significant. Hispanic Americans' attitude towards the *Comfort* of online shopping is low (mean = 19.66, on a scale from 1 to 49) (see Appendix C), reflecting concerns about the ability of online stores to provide comfort and explaining its negative influence on intentions to search for information online. Attitude towards the *Location* component of online shopping has a significant direct effect (p < .05) and total effect (p < .05) on intentions to search for information online, but it does not have a direct effect on intentions to search or search or search for information online, and its total effect is not significant. These findings support the influence of attitudes on intentions to search

for information online, but they do not support the influence of attitudes on intentions to purchase online, providing partial support for H2.

Perceived behavioral control has a significant direct effect (p < .01) and total effect (p < .01) on intentions to search for information, supporting H3. Perceived behavioral control has a significant positive total effect on intentions to purchase online (p < .01), which was not expected. Purchase experience has a significant direct effect (p < .01) and total effect (p < .01) on intentions to search for information, and a significant direct effect (p < .01) and total effect (p < .01) on intentions to purchase online, providing credence to H4.

Ethnic identification has a significant, positive direct effect (p < .01) and total effect (p < .01) on intentions to search for information. Its direct effect on intentions to purchase online is positive but not significant, while its total effect is positive and significant (p < .01). These results do not support H5. The findings suggest that Hispanic Americans with strong ethnic identifications have increased intentions to search for information online and to purchase online than Hispanic Americans with weak ethnic identification. Ethnic identification has a significant, negative direct and total effect on perceived behavioral control (p < .01), supporting H7a. A decrease in perceived behavioral control (p < .01), but its effect on the *Merchandising and Safety* and *Location* attitude components, though negative, is not significant, refuting H6. Hispanic Americans in general do not believe online stores can provide them *Comfort*, but Hispanic Americans with high levels of ethnic identification have a higher *Comfort* attitude component than Hispanic Americans with low levels of ethnic identification.

Ethnic identification has a significant direct and total effect on prior purchase experience (p < .01), refuting H7b. Thus, Hispanics with high levels of ethnic identification have more product-purchase experience online than Hispanics with low levels of ethnic identification, which was not expected because Hispanics with high ethnic identification may have less access to the Internet [Slate et al. 2002] than Hispanics with low ethnic identification.

The higher online purchase experience of strong Hispanic identifiers may explain why they have a stronger belief that online shopping can provide them *Comfort* than weaker Hispanic identifiers. The results also point to differences among Hispanic Americans in the other two attitude components. Ethnic identification has a negative but not significant direct and total effect on the *Merchandising and Safety* and *Location* attitude components. In the following section, we discuss the results for the control variables (see Appendix B).

The direct and total effect of education level on intentions to search for information is not significant; its direct effect on intentions to purchase is not significant, but its total effect is significant (p < .01). Additionally, education level has a significant direct and total effect on the *Location* attitude component (p < .01) and a significant direct and total effect on prior purchase experience (p < .01). This suggests that, similar to non-Hispanic Americans, Hispanic Americans' *Location* attitude component and purchase experience increase with education level.

Income has a significant direct and total effect (p < .01) on intentions to search for information; its direct effect on intentions to purchase is not significant, but its total effect is significant (p < .01). Additionally, income has a significant, negative direct and total effect (p < .01) on the *Comfort* attitude component and a significant, positive direct and total effect on perceived behavioral control (p < .01) and prior online experience (p < .01). Thus, Hispanic Americans' *Comfort* attitude component varies inversely with income, while perceived behavioral control and prior purchase experience vary directly with income.

The direct effect of age on intentions to search for information online, though negative, is not significant, but its total effect is significant (p < .01) and negative. It does not have a direct effect on intentions to purchase, but its total effect is significant (p < .01) and negative. In addition, age has a negative significant direct and total effect on prior purchase experience (p < .01). This suggests that Hispanic Americans' online purchase intentions and Internet purchase experience are inversely related to age.

Gender's direct and total effect on intentions to search for information online, though negative, is not significant. Its direct and total effect on intentions to purchase is significant (p < .05) and negative. This suggests a difference between Hispanic males and females: Hispanic males show greater intentions to purchase online than Hispanic females. Gender also has a significant positive direct and total effect (p < .05) on the *Location* attitude component. This suggests that Hispanic females have a higher level of the *Location* attitude component than Hispanic males. Next we discuss the results.

4. Conclusions

4.1. Discussion

As MOPI suggests, our results confirm that Hispanic Americans' intentions to search for information online and prior purchase experience lead to intentions to purchase online. Contrary to expectations, however, attitudes towards online shopping do not directly influence intentions to purchase online. Additionally, ethnic identification exerts an unexpected positive influence on intentions to purchase online. Intentions to search for information online, followed by prior purchase experience, ethnic identification, and household income exert the most influence on intentions to purchase online. Prior purchase experience, followed by perceived behavioral control, attitudes towards online shopping, income, and ethnic identification exert the most influence on Hispanic Americans' intentions to search for information online.

Contrary to expectations, the results suggest that Hispanic Americans with high levels of ethnic identification, despite perceiving less control over accessing the Internet, have greater intentions to search for information and to purchase online than Hispanic Americans with low levels of ethnic identification. This could be explained by the differences in prior purchase experience and in attitudes towards online shopping between the two groups. The difference in prior online purchase experience may be explained by language preference. Because strong Hispanic identifiers prefer to speak Spanish, they may prefer to conduct purchases in the comfort of their homes without having to speak English. This may also be explained by their high level of brand loyalty. They may use the Internet to purchase brands that are not easily accessible in their area of residence. Nevertheless, prior purchase experience information and exerts the second highest influence, after intentions to search for information, on intentions to purchase online. Thus, more past online purchase experience may lead Hispanic Americans with strong ethnic identifications to have increased intentions online.

The attitude towards *Comfort*, the component that exerts the most influence on intentions, increases with ethnic identification. The results suggest that Hispanic Americans, in general, do not believe online shopping can provide them enjoyment and/or allow them to touch/try products. Additionally, the results indicate that prior online purchase experience increases with income. Given that prior online purchase experience increases with ethnic identification, we speculate that the combination of income and purchase experience may explain the increase in intentions online and the higher level of *Comfort* shown in Hispanic Americans with strong ethnic identification. An additional explanation is the suggestion by Wallendorf and Reilly [1983] that immigrants may adopt their internalized concept of the American way life, which may include making purchases online and thus explains the increased purchases online by strong Hispanic identifiers. Further research, however, must be conducted to validate these explanations.

The results also indicate that Hispanic Americans with high levels of ethnic identification have lower perceptions of control over Internet access than Hispanic Americans with low levels of ethnic identification. This perceived lack of control over Internet access, however, does not deter Hispanic Americans with strong ethnic identification from having greater behavioral intentions online than Hispanic Americans with low levels of ethnic identification. Perhaps, the lack of control over Internet access the Internet access their intentions to use it, similar to pent-up demand, which may subside once they can easily access the Internet. Or, as previously stated, they may prefer to use the Internet because it does not require them to speak English.

Online stores, as this study's results reflect, must account for ethnic identification and demographics when creating strategies to reach Hispanic Americans. The study confirms that young Hispanic-American males with higher income and education levels have greater intentions to search for information and to purchase online than older Hispanic Americans with lower income and education levels. Additionally, the results indicate that e-tailers must understand the differences among Hispanic Americans on attitudes towards online shopping and behavioral intentions online. Hispanic Americans with less ethnic identification have lower expectations of online *Comfort*, while they have slightly higher expectations of *Merchandising and Service* and *Location* than Hispanic Americans with strong ethnic identifications.

The findings suggest that online stores attempting to reach the Hispanic-American population should concentrate on young, affluent, and educated Hispanic Americans with high levels of ethnic identification because these online shoppers have more intentions to search for information and to purchase online. Thus, e-tailers need to develop different strategies to reach Hispanic Americans with different levels of ethnic identification. For example, e-tailers could develop online stores in Spanish or with Hispanic cultural cues (e.g., formal greetings), as suggested by Singh et al. (2008), to cater to Hispanic Americans with strong ethnic identification. Additionally, e-tailers could provide more vivid product information and/or Web sites to increase the perceptions of *Comfort* among Hispanic Americans, especially those with weak ethnic identification.

In this study, contrary to the findings of Shim et al. [2001], attitudes do not exert a significant direct and/or total effect on intentions to purchase online. The difference may be explained by the attitudes included in each study, the nature of the subjects, and the covariates used. Because the purpose of Shim et al.'s [2001] study was to test and validate MOPI, they only included the attitudes with the highest proportion of variance explained or attitudes towards online shopping's *Merchandising and Safety* component, as defined in this study, while we include all attitude components. The difference in subjects may also explain the difference in results. The majority of Shim et al.'s [2001] respondents were non-Hispanic white (76%), whereas our study is made up of only Hispanic Americans.

Additionally, this study controls for age, gender, income, and education level, whereas Shim et al.'s [2001] did not control for demographic variables and considered it a limitation of their findings. Our findings suggest that ethnic identification and demographics (e.g., age) must be taken into account when using attitude-behavior models to determine Hispanic Americans' information search intentions as well as online purchase intentions. The results validate Shim et al.'s [2001] conclusion that information search in a medium translates into purchases in the same medium.

The current study adds to the literature by demonstrating the influence of attitudes on online shopping, prior experience, perceived behavioral control, and ethnic identification on Hispanic Americans' behavioral intentions online. The study also points out the importance of accounting for ethnic identification when studying ethnic behavior. Next we discuss the study's limitations and implications for future research.

4.2. Limitations and Directions for Future Research

The study is cross-sectional in nature; in the future, longitudinal trends should be studied to explain Hispanic-American behavior online. The ethnic identification measure used is supported by the literature [e.g., Kim et al. 1989], but a multidimensional ethnic identification measure, such as the Multigroup Ethnic Identity Measure, may be more appropriate. Additionally, given the different product-purchase frequencies, adapting the measure for the prior purchase experience of each product-purchase frequency may be more appropriate. A wider number of products might also help explain Hispanic behavior online further. Future studies may also consider exploring different product attributes, such as experience versus search attributes, because product attributes may influence the decision of whether to purchase a product online or offline. Additionally, online stores' congruency with Hispanic culture must be addressed in future research to understand its influence on Hispanics' behavior online.

The influence of Hispanic Americans' concerns towards online shopping, reflected in their low level of *Comfort*, could be explored further. For example, future studies may explore Hispanic Americans' trust towards the Internet and/or online shopping, while accounting for ethnic identification, to determine how to increase their confidence in the online environment. As suggested by IMIS, future research may also explore the influence of different characteristics of the Internet and Web sites, such as flow or loading time, on Hispanic online behavior. Additionally, future studies may explore other steps of the purchase decision-making process that exert influence on online behavior. The current study only captures the influence of information and consumer characteristics on intentions to purchase online. Future studies may research the relationship between information search online and purchase evaluations to determine the reasons for purchasing online or offline.

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Dependent Variable	Intentions to Search for Information Online ^a	Merchandising and Safety Attitude ^a	Comfort Attitude ^a	Location Attitude ^a	Perceived Behavioral Control ^a	Prior Purchase Experience ^a
Intentions to	.67 ^{b**}	.06 ^b	07 ^b	.05 ^b	.16 ^{b**}	51 ^{b**}
Purchase	.67 ^{c**}	02 ^c	.05°	0.0°	0.0°	.24 ^{c**}
Online	^d	$.08^{d^{**}}$	$12^{d^{**}}$	$.05^{d^*}$.16 ^{d**}	.27 ^{d**}
Intentions to		.12 ^{b**}	18 ^{b**}	$.07^{b^*}$.27 ^{b**}	.40 ^{b**}
Search for		.12 ^{c**}	18 ^{c**}	$.07^{c^{*}}$.27 ^{c**}	.40 ^{c**}
Information		^d	^d	^d	^d	^d

APPENDIX A Structural Model Results

Fit indices: $\chi^2 = 2,967.65$ with 684 degrees of freedom (p = 0.0), RMSEA = 0.75, NFI = 0.89, NNFI = 0.90, CFI = 0.91, GFI = 0.80 and AGFI = 0.76.

 \mathbb{R}^2 : intentions to purchase online = 69%; intentions to search for information online = 37%.

^aStandardized results

^bTotal effect

^cDirect effect ^dIndirect effect

 $p^* < .05$ $p^* < .01$

Dependent	Ethnic	Age ^a	Income ^a	Gender ^a	Education
Variable	Identification ^a	-			Level ^a
Intentions to	.27 ^{b**}	18 ^{b**}	.20 ^{b**}	09 ^{b*}	.11 ^{b**}
Purchase	.04 ^c	04 ^c 14 ^{d**}	01 ^c	07 ^{c*}	.02 ^c
online	.23 ^{d**}	$14^{d^{**}}$	$.21^{d^{**}}$	02 ^d	.09 ^{d**}
Intentions to	.21 ^{b**}	14 ^{b**}	.26 ^{b**}	03 ^b	.08 ^b
Search for	.28 ^{c**}	04 ^c	.14 ^{c**}	04 ^c	02 ^c
Information	01 ^d	10 ^{d**}	$.12^{d^{**}}$.02 ^c	.10 ^{d**}
Merchandising	04 ^{b, c}	$0.0^{b, b}$.06 ^{b, c}	.03 ^{b, c}	03 ^{b, c}
and Safety					
Attitude					
Comfort	.37 ^{b, c**}	.00 ^{b, c}	14 ^{b, c**}	05 ^{b, c}	03 ^{b, c}
Attitude					
Location	02 ^{b, c}	02 ^{b, c}	04 ^{b, c}	.10 ^{b, c*}	.12 ^{b, c**}
Attitude					
Perceived	24 ^{b, c**}	09 ^{b, c}	.09 ^{, c*}	.02 ^{b, c}	.06 ^{b, c}
Behavioral					
Control					
Prior	.30 ^{b, c**}	20 ^{b, c**}	.18 ^{b, c**}	01 ^{b, c}	.19 ^{b, c**}
Purchase					
Experience					

APPENDIX B Structural Model Results

R²: intentions to purchase online = 18%; intentions to search for information online = 15%. ^aStandardized results ^bTotal effect

^cDirect effect

^dIndirect effect

p < .05p < .01

	Factor	Perceptions (e_i)	Online Shopping	Attitude
	Loadings ^a	(mean) ^b	Provides (b _i)	$(\mathbf{A}=\boldsymbol{e}_{i}\boldsymbol{b}_{i})$
			(mean) ^c	(mean)
Merchandising and Safety		5.75	5.30	31.12^4
Attitude				
Product guarantees	.720	5.57	5.32	30.22
Low cost	.613	5.72	5.51	32.11
Assortment of brands	.828	5.65	5.48	31.56
Assortment of products	.835	5.81	5.54	32.83
Safety	.617	5.66	4.93	28.40
Return policy	.705	5.90	4.95	29.77
Easy to shop	.835	5.95	5.49	33.19
Privacy policy	.691	5.46	5.05	28.15
Fast to in/out	.678	5.66	5.32	30.58
All type of payment	.707	5.82	5.62	33.41
Find what I want	.750	5.91	5.05	30.45
Brands I like	.822	5.93	5.43	39.96
Comfort		4.95	3.68	19.66 ^d
Attitude				
Fun place	.707	4.50	4.05	19.55
Sales assistance	.713	5.15	4.12	22.02
After sale assistance	.663	5.23	4.27	29.77
Can touch product	.889	5.62	2.91	16.50
Can try product	.884	5.45	3.10	17.34
Social place	.894	4.13	3.08	14.66
People like me shop	.693	4.53	4.24	20.56
Location Attitude				
Distance from home	.748	5.51	5.07	29.40^{d}

APPENDIX C Hispanics' Attitudes towards Online Shopping: Analysis

^aPrincipal Component Analysis with varimax rotation; 69.8% of the variance extracted. ^bScale range from 1 = not important, to 7 = very important. ^cScale range from 1 = very unlikely, to 7 = very likely. ^dAverage mean