

The Influence of Ethnic Identification in Digital Advertising

How Hispanic Americans' Response

To Pop-Up, E-Mail, and Banner Advertising

Affects Online Purchase Intentions

ENRIQUE P. BECERRA

Texas State University
eb25@txstate.edu

PRADEEP K. KORGAONKAR

Florida Atlantic University
korgaonk@fau.edu

Hispanic Americans' purchasing power and Internet usage are on the rise, but published research on the influence of Web advertising on their purchase intentions online is still scarce. This study explores Hispanic-American attitudes toward banner, e-mail, pop-up advertising, and purchase intentions and accounts for ethnic identification (i.e., strength of association to the Hispanic culture) and selected demographics. The results vary among the three types of online advertising and indicate that attitudes toward online advertising and purchase intentions online are significantly related to ethnic identification... but not in the expected direction. The major findings and their implications are discussed.

INTRODUCTION

The U.S. Hispanic population represents 15 percent of the total U.S. population, and it is expected to more than double, from approximately 44 million in 2007 to 102 million by 2050 (U.S. Census Bureau, 2008). U.S. Hispanic purchasing power also is increasing rapidly, and a large portion is spent online (Interactive Advertising Bureau, 2006). According to various reports, about half of Hispanic Americans use the Internet (Fox and Livingston, 2007), and 68 percent believe that the Internet is the best source to make final purchase decisions (eMarketer, 2006).

Firms have taken notice of the importance of Hispanic Americans in the U.S. market and have started to target them (Wentz, 2008), including offering online content in Spanish (Terra.com; Telemundo.yahoo.com). In addition, online advertising targeting Hispanic Americans has increased from \$10 million in 2002 (Cox, 2004) to more than \$132 million in 2006 (RTOonline.com, 2006). Research suggests that Hispanic Americans value advertisements as a useful source of information

(Interactive Advertising Bureau, 2006). In addition, advertising aimed at Hispanic Americans has a higher correlation with sales gains than advertising targeted to non-Hispanic Americans (Torres and Gelb, 2002). However, despite the importance of this subgroup of the U.S. population, published research on Hispanic Americans and online advertising is scarce.

Hispanic Americans share a common cultural background, but their strength of identification with the Hispanic culture varies (Villarreal and Peterson, 2008). Hispanic Americans' attitudes and behavior are influenced by the Hispanic culture (i.e., Hispanic beliefs, values, and norms), but they may also vary as a result of differences in the strength of association with the Hispanic culture (i.e., ethnic identification; Romero, 2004; Wilson, 2007).

Ethnic identification differences within an ethnic subgroup are due to different degrees of assimilation or acculturation to the host culture. This acculturation rate is not linear and may vary among members of an immigrant ethnic group, explaining

the differences between and within ethnic groups (Lerman, Maldonado, and Luna, 2009; Wilson, 2007). Members of an ethnic subgroup may opt to maintain parts of their ethnic culture while embracing parts of the host culture (Berry et al., 1989). Maintenance of the ethnic group's culture is captured by ethnic identification. Strength of ethnic identification has been found to influence portrayals of the target audience in advertisements (Lee and Joo, 2005), their attitudes toward advertising, the language used to communicate the message (Wilson, 2006), and online behavior (Business Wire, 2006).

Hispanic Americans are the least acculturated ethnic group in the United States, though the majority of Hispanic Americans were born in the United States and consider English their native language (Synovate, 2008; U.S. Census Bureau, 2008; Wilson, 2007). The strength of identification with the Hispanic culture has been found to influence Hispanic Americans' attitudes and behavior (Slate, Manuel, and Brinson, 2002), including shopping behavior (Allen and Friedman, 2005), and attitudes toward advertising (Torres and Briggs, 2007) and the Web (Singh et al., 2008).

Little is known, however, about the relationship between Hispanic Americans' ethnic identification and their attitudes toward three types of popular Web advertising: banner, e-mail, and pop-up advertising. In addition, little is known about the influence of Hispanic Americans' attitudes toward Web advertising on their online purchase intentions. As Plummer et al. point out in *The Online Advertising Playbook* (2007, p. 32), "The more information you have on customers or potential customers, the more innovative, cost effective, and successful your targeting strategies can be."

The current study attempts to fill these gaps. The purpose of this study is twofold:

- To understand Hispanic Americans' attitudes toward the three types of online advertising.
- To study the influence of Hispanic Americans' attitudes on their online purchase intentions.

The authors study these relationships while accounting for the influence of ethnic identification and selected demographics.

Although several prior studies have analyzed various aspects of Hispanic Americans' consumer behavior, the literature on Hispanic Americans and Web advertising is limited (except for Korgaonkar, Silverblatt, and O'Leary, 2001). The study, therefore, draws from past literature on Hispanic Americans' consumption behavior in areas other than online, and literature regarding advertising and purchasing online in general.

LITERATURE REVIEW AND HYPOTHESES

Hispanic Americans' countries of origin are diverse, but they share a common cultural background, which influences their behavior (Romero, 2004). Hispanic culture is traditional and authoritative; is uncomfortable with ambiguity, uncertainty, and/or risk; has strong family ties; is susceptible to the influence of family and close friends; and has strong Catholic roots (Romero, 2004; Telles and Ortiz, 2008; Wilson, 2007).

Although many Hispanic Americans—including third- or fourth-generation U.S.-born Hispanic Americans—maintain some level of Hispanic ethnic identification, others do not identify with Hispanic culture and traditions (Telles and Ortiz, 2008). In general, Hispanic Americans can opt to (1) maintain the Hispanic culture and reject the U.S. culture; (2) embrace the U.S. culture and give up the Hispanic culture; or (3) maintain part of the Hispanic culture as they embrace the U.S. culture. Empirical findings confirm that the level

of identification with the Hispanic culture influences attitudes, including attitudes toward advertising (Villarreal and Peterson, 2008) and behavior (including online behavior; Singh et al., 2008).

On average, Hispanic Americans with a strong ethnic identification—or "strong Hispanic identifiers" (as compared to "weak Hispanic identifiers")—share some common characteristics (Chattaraman, Rudd, and Lennon, 2009; Dimofte, Forehand, and Deshpande, 2004; Korzenny and Korzenny, 2005; La Ferle and Lee, 2005; Lokpez-Cobo, 2008; Miyazaki, Lassar, and Taylor, 2007; Ogden, 2005; Singh et al., 2008; Villarreal and Peterson, 2008):

- They prefer more traditional media (print).
- They favor more Spanish-language advertising or advertising that is congruent with Spanish culture and traditions.
- They have similar positive views of advertising but rely more on advertising for information.
- They depend on personal interaction and contact; are more susceptible to the influence of family and friends.
- They have more limited access to the Internet.
- They are less risk-prone.
- They prefer to socialize and marry more within the group.

These tendencies suggest that Hispanic Americans' attitudes toward advertising and behavior online are influenced by the following:

- The language used in the ad
- The medium, including its ability to provide personal interaction
- Perceptions of risk
- Reference group influence
- Access to the Internet.

To test for these influences while controlling for the level of ethnic identification, this study adopts the theory of planned behavior (TPB), which posits that behavior is influenced by attitude toward the behavior, subjective norms regarding reference group influence on the behavior, and perceived behavioral control or ease with which the behavior could be performed (Ajzen, 1985, 1991).

TPB is an extension of the theory of reasoned action (TRA; Ajzen and Fishbein, 1980). According to Ajzen (1991), TPB predicts behavioral intentions more realistically than TRA, given that many behaviors, such as computer usage in today's economy, are largely not volitional (Workman, 2005). Thus, TPB especially is useful in studying Hispanic American consumers because of the higher significance of subjective norms and perceived behavioral control characterizing this ethnic subgroup.

For example, Hispanic Americans tend to have less access to computers and/or the Internet (i.e., less perceived behavioral control) than other Americans (Fox and Livingston, 2007; Gamboa, 2007; Porter and Donthu, 2006; Singh et al., 2008) and tend to be susceptible to the influence of referents on information search and purchase behavior (Wilson, 2007).

This study also controls for demographic characteristics, such as income, education, gender, and age, which are correlated with Hispanic Americans' Internet usage (Dupagne and Salwen, 2005; Lassar, Manolis, and Nicholls, 2005; National Telecommunications and Information Administration [NTIA], 2004; Pena-Purcell, 2008; Singh et al., 2008). This study does not capture the influence of ad language preference and perceived risk on attitudes and behavior online.

Next, we explain each hypothesized linkage advanced by TPB and the

covariates and, concomitantly, present the hypotheses.

HISPANIC AMERICANS' ADVERTISING ATTITUDES AND BEHAVIOR

Studies suggest that consumers' perceptions of advertising's usefulness influence their attitudes toward an ad (Gallagher, Foster, and Parsons, 2001) and behavior toward an advertised product (Burns and Lutz, 2006). Hispanic Americans have positive attitudes toward advertising in general and specifically toward direct marketing, including Web advertising (Manchanda et al., 2006), and their attitudes toward Web advertising are influenced by perceptions of informativeness, irritation, and entertainment (Korgaonkar et al., 2001).

Findings about the behavioral effectiveness of advertising—including Web advertising—are mixed, but most suggest a positive relationship between advertising and behavior or behavioral intentions (Burns and Lutz, 2006; Manchanda et al., 2006; Martin et al., 2003; McCoy et al., 2007; Wilson, 2007).

For example, using six different types of Web ads, Burns and Lutz in 2006 wrote in the pages of the *Journal of Advertising* that perceptions of Web advertising influence attitudes toward Web ad format. This response, in turn, may elicit a positive behavioral response (click-through frequency or Web site visits). In 2007 McCoy et al. found that certain kinds of Web ads (banner, pop-up, and pop-under ads) were intrusive, reduced intentions to return to the hosting site, and interfered with people's ability to remember the hosting site's content.

By contrast, other studies find that banner ads increase purchase intentions (Cho, Lee, and Tharp, 2001), that e-mail ads—if perceived as useful—influence consumers either to purchase the product or to visit the store to view the product (Martin et al.,

2003), and that banner ads click-through decreases with ad exposure, questioning the effectiveness of banner advertising online (Sherman and Deighton, 2001). Again, in contrast, one study finds that banner advertising positively influences purchase intentions, particularly for existing customers (Manchanda et al., 2006).

We expect Hispanic Americans to exhibit the following:

- H1: Attitudes toward each type of Web advertising have a positive relationship with Hispanic Americans' behavioral online purchase intentions.

HISPANIC AMERICANS' OBJECTIVE NORMS, PERCEIVED BEHAVIORAL CONTROL, AND BEHAVIOR

Hispanic culture is collectivistic and differs from mainstream American culture, which is individualistic and tends to adopt new technologies more quickly (Davila, 2001; Porter and Donthu, 2006).

The literature on the influence of referents on Hispanic American behavior indicates that the opinion of family and friends influences behavior (Davila, 2001; Gomez, 2003). For example, referents often influence the usage of antidepressants by Hispanic Americans (Cabassa and Zayas, 2007), the exercise patterns of Mexican-American children (Martin, Oliver, and McCaughy, 2007), and Hispanic Americans' purchase behavior (Kim and Kang, 2001). In the context of online behavior, referents influence purchasing behavior, though their influence may vary with the type of retailing channel (Jones and Vijayarathy, 1998; Shim and Drake, 1990).

We hypothesize the following:

- H2: Subjective norms have a positive, significant influence on Hispanic Americans' behavioral online purchase intentions.

Hispanic culture is collectivistic and differs from mainstream American culture, which is individualistic and tends to adopt new technologies more quickly.

Perceived control over access to the Internet—and computers in general—influences behavioral intentions online (Pavlou and Fygenon, 2006; Porter and Donthu, 2006). For Hispanic Americans, lack of access to the Internet (or to a computer) at home may reduce their ability to purchase online (Fox and Livingston, 2007). Overall, Hispanic Americans' ownership of computers and access to the Internet has lagged behind that of other Americans (NTIA, 2004; Gamboa, 2007). The Pew Hispanic Center and the Pew Internet and American Life Project report that only 52 percent of Latinos have access to the Internet at home, whereas 71 percent of whites and 55 percent of blacks have access to the Internet at home (Livingston, Parker, and Fox, 2009). And Hispanic college students with less access to computers and the Internet at home have lower Internet usage even in college, where computers are available to every student (Slate et al., 2002).

Therefore, we hypothesize the following:

- H3: Perceived behavioral control has a positive, significant influence on Hispanic Americans' behavioral online purchase intentions.

HISPANIC AMERICANS' ATTITUDES, BEHAVIOR, AND ETHNIC IDENTIFICATION

Behavioral differences between ethnic groups may be due to differences in their cultures and/or differences in their income (Porter and Donthu, 2006; Singh et al., 2008). As with other ethnic groups, Hispanic Americans' behavior is influenced by their level of identification with

their culture—beliefs, traditions, and/or behavioral patterns (dress code, food consumption, language usage; Romero, 2004).

For example, although the majority of Hispanic Americans were born in the United States and are native English speakers, only a small percentage of Hispanic Americans (28 percent) prefer to speak only English at home (U.S. Census Bureau, 2008). The commitment to (and strength of association with) an ethnic group's culture is captured by ethnic identification. Ethnic identification reflects a person's beliefs about his or her cultural reality (Romero, 2004). By contrast, ethnicity captures only a person's ethnic origin and/or background (Wilson, 2007).

Because language is the primary medium of cultural communication, Hispanic-American studies suggest that preference to use the Spanish language reflects the level of identification with the Hispanic culture, and use of the Spanish language influences behavior (Korzenny, 2008; Lerman et al., 2009). Strong Hispanic identifiers prefer to communicate in Spanish, whereas weak Hispanic identifiers prefer to communicate in English (Wilson, 2007). Strong Hispanic identifiers also have different attitudes and purchasing behavior than weak Hispanic identifiers (Chattaraman et al., 2009; Sierra, Hyman, and Torres, 2009).

Ethnic identification, via the preference for the Spanish language, influences Hispanic Americans' use of advertising. For example, many Hispanic Americans watch television and listen to radio in English but prefer to read print advertisements in Spanish (Le Ferle and Lee, 2005).

And some Spanish-language advertisements are more effective with Hispanic Americans than comparable English-language pieces (Faura, 2004; Nevaer, 2004). Advertisements with Hispanic cues—for instance, Hispanic models—targeted to strong Hispanic identifiers are more effective for low-involvement products than for high-involvement products (Torres and Briggs, 2007). Even with these shared advertising preferences, however, there is considerable differentiation within Hispanic Americans. In the *Journal of Advertising Research* (2008), Villarreal and Peterson identified four Hispanic segments, based on identification with the Hispanic culture (ranging from strong Hispanic to weak Hispanic), with different media preferences and behaviors.

Strong Hispanic identifiers often have higher purchase intentions for products advertised in Spanish (Wilson, 2007). Compared with weak Hispanic identifiers, strong Hispanic identifiers expect Web sites to communicate and to behave in accordance with the Hispanic culture (Singh et al., 2008). These findings suggest that attitude toward advertising among Hispanic Americans may be related to the language used in an ad (English versus Spanish) and may vary with ethnic identification.

As the studies we have discussed suggest, there is a preference for Spanish-language advertising among strong identifiers. The majority of the Web sites and online advertising in the United States, however, are in English, which may have a negative effect on strong Hispanic identifiers who prefer to speak and read Spanish (Fox and Livingston, 2007). In addition, the main Web sites of many large and popular companies—Wal-Mart and Target, to name two—are delivered in English.

Given the lower availability of Web sites in Spanish or with Hispanic cues, we hypothesize the following:

H4a: Ethnic identification has a negative relationship with Hispanic Americans' attitudes toward each type of Web advertising.

H4b: Ethnic identification has a negative relationship with Hispanic Americans' behavioral online purchase intentions.

HISPANIC AMERICANS' DEMOGRAPHICS AND BEHAVIOR

In general, the literature on advertising and Internet usage suggests that demographics—such as gender, age, education, ethnicity, and income—affect attitudes toward advertising and Internet usage (Porter and Donthu, 2006), and there have been similar findings about attitudes toward Web advertising and behavior online (Phillip and Suri, 2004), including among Hispanic Americans (Burns, 2005; Fox and Livingston, 2007; Korgaonkar et al., 2001; Lassar et al., 2005; Leggatt, 2007). For example, Hispanic Americans' attitudes toward Web advertising often vary with income and education levels (Korgaonkar et al., 2001). Other studies argue that Hispanic Americans who use the Internet tend to be younger (Burns, 2005), educated (Fox and Livingston, 2007), male, and have a higher income (Leggatt, 2007).

Therefore, we hypothesize the following:

H5: Income has a positive relationship with Hispanic Americans' attitude toward each type of Web advertising and behavior online purchase intentions.

H6: Education has a positive relationship with Hispanic Americans' attitude toward each type of Web advertising and behavior online purchase intentions.

H7: Age has a positive relationship with Hispanic Americans' attitude toward each type of Web advertising and behavior online purchase intentions.

H8: Hispanic-American men have a more positive attitude toward each type of Web advertising and behavior online purchase intentions than Hispanic-American females.

The influence of these demographic variables must be statistically controlled to fully understand the impact of ethnic identification on behavioral intentions.

METHODOLOGY

Data and Subjects' Characteristics

To validate advertising perceptions and attitudes and to select products acceptable to the participants, we conducted a pretest using a convenience sample of 60 adults. In the pretest, participants were asked to rank—from a list of 30 products and services—the likelihood of purchasing each product or service in the next 12 months.

Ten products and services were selected for the study (digital cameras, travel, video games, movies, computer software, clothing, shoes, cars, wristwatches, and books). The data for the main study were obtained from a U.S. national panel of adult English-speaking Hispanic Americans with access to the Internet. A national firm collected the data. Seven hundred panel members received an e-mail, with a link to the questionnaire, inviting them to participate in the study. The survey was completed by 512—a response rate of 73 percent.

The majority of the participants were men (54.2 percent), were second-generation (or older) Americans (79.3 percent born in the United States.), considered English (versus Spanish) their

first language (74.2 percent), and ranged in age from 26 to 45 years (56.4 percent). Participants were well educated, with 47 percent holding a 4-year college degree or higher and 34 percent holding a vocational or 2-year college degree. Participants mostly worked in white-collar or professional occupations (70 percent) and had a total household income of \$40,000 or more. They reflected the geographical distribution of the Hispanic population in the United States, with the south having the greatest percentage (33.4 percent) followed by the west (32.6 percent), the midwest (18 percent), and the northwest (16 percent; U.S. Census Bureau, 2006).

Measurement

We derived all scales from published literature on advertising, online attitude/behavior, and Hispanic Americans.

Online purchase intentions. We assessed the likelihood that respondents would purchase each of the 10 selected products online or offline using a semantic 7-point differential scale (1 = "entirely offline," 7 = "entirely online"; Shim et al., 2001).

Attitudes. Attitude toward a number of different types of Web advertising (e-mail, banner, and pop-up) encompassed 12 general ad attributes, which we derived from the literature on attitude toward advertising (Ducoffe, 1996; Korgaonkar et al., 2001; Schlosser, Shavitt, and Kanfer, 1999) and measured using an expectancy/value model ($A = e \cdot b_i$) in which participants' evaluation of each attribute was weighted by his or her belief that each type of Web advertising would provide that attribute.

Participants indicated on a 7-point Likert scale (1 = "not important at all," 7 = "extremely important") how important (e_i) each attribute was to them. The attributes include "provides product information," "provides up-to-date information,"

"reflects social values," "reflects my beliefs," "entertaining," "makes me feel good," "invades my privacy," "increases standard of living," "good for the economy," "helpful in shopping decision," "helpful in choosing brands," and "trustworthy." In another section of the questionnaire, participants indicated on a 7-point Likert scale (1 = "very unlikely," 7 = "very likely") how likely they believed each type of Web advertising was to possess (b) each of the 12 attributes.

Subjective norms and perceived behavioral control. We measured participants' subjective norms using a 4-item 7-point Likert scale (1 = "not important," 7 = "very important"). They indicated the importance of referents (i.e., family and friends) in approving their use of the Internet for shopping or information search. Perceived behavioral control was measured using a 4-item 7-point Likert (1 = "very easy," 7 = "very difficult") and measured the ease of online information search, shopping, surfing, and accessing the Internet (Shim et al., 2001).

Ethnic identification and demographics. We conceptualized ethnic identification as language preference for Spanish or English (Massey and Mullan, 1984; Olmedo, 1979; Webster, 1992). We measured language preference using a 5-item 7-point semantic differential scale (1 = "entirely in English," 7 = "entirely in Spanish"). Participants indicated their preferred language in multiple situations, such as when communicating at home and with friends, using the Internet, watching television, and listening to music. They also indicated their household income on a 6-point scale (1 = "\$20,000 or less," 6 = "\$100,000 or more"); age on a 9-point scale (1 = "less than 20," 9 = "60 or more"); education level on a 5-point scale (1 = "high school," 5 = "post-graduate"); and gender on a 2-point scale (1 = "male," 2 = "female").

RESULTS

The Relationship among Attitudes toward Web Advertising, Ethnic Identification, and Demographics

We analyzed the relationships among attitudes toward the three types of Web

advertising, ethnic identification, and demographics via analysis of covariance. To test the differences due to ethnic identification, we split the data for language preference into three levels: strong identification (sum scores greater than 5; 6.0 percent of responses), medium identification (sum scores between 3 and 5; 30.2 percent of responses), and weak identification (sum scores less than 3; 63.8 percent of responses).

We ran an analysis of covariance for attitudes toward each type of Web advertising, including a comparison among the factor levels with Bonferroni statistical correction, with age, income, gender, and education level as covariates. The factor-covariate interaction was not significant, suggesting that the covariates can be used in the analysis.

The results indicate that ethnic identification is strongly and positively related to attitudes toward each type of Web advertising (Table 1). Strong Hispanic identifiers had the most positive, significant ($p < 0.001$) attitudes toward e-mail, banner, and pop-up advertising, followed by medium Hispanic identifiers, who also had significant,

TABLE 1
Influence of Ethnic Identification and Demographics on Attitudes

Factor and Covariates	E-mail (F/eta^2) ^a	Banner (F/eta^2) ^b	Pop-Up (F/eta^2) ^c
Ethnic identification (language preference)	23.07***/8.3 percent	41.98***/14.2 percent	39.15***/13.4 percent
Income	6.06*/1.2 percent	3.25/0.6 percent	3.83/0.8 percent
Gender	1.95/0.4 percent	0.04/0 percent	0.22/0 percent
Age	10.85**/2.1 percent	1.72/0.3 percent	0.12/0 percent
Education level	0.70/0.1 percent	0.47/0.1 percent	0.26/0.1 percent
Mean			
<i>Ethnic Identification</i>			
Strong identification	32.30 ^d	31.34 ^d	27.86 ^d
Medium identification	24.81 ^d	22.20 ^d	16.96 ^d
Weak identification	20.44 ^d	16.25 ^d	12.92 ^d

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

^a R^2 adjusted: 8.7 percent.

^b R^2 adjusted: 14.1 percent.

^c R^2 adjusted: 14.1 percent.

^dStrong Hispanic identifiers have more positive attitudes than medium identifiers, who in turn have more positive attitudes than weak identifiers; $p < 0.05$, Bonferroni adjusted.

positive attitudes toward each type of advertising ($p < 0.001$). Weak Hispanic identifiers had the least positive (though still significant [$p < 0.001$], attitudes.

These results do not support H4a regarding the predicted negative relationship between ethnic identification and Hispanic Americans' attitudes toward Web ads.

Regarding the influence of demographics on the attitudes toward the three types of Web advertising, only attitude toward e-mail advertising was significantly and positively influenced by two demographic variables: age ($p < 0.01$), and income ($p < 0.05$). Gender was not significantly related to any of the three types of Web advertising attitudes.

Next, we evaluate and study the components of attitudes toward each three types of Web advertising.

Attitudes toward Banner, E-mail, and Pop-Up Advertising

The overall mean for attitude toward each of the Web advertising types, including the

The most important ad attributes to the Hispanic-American participants were up-to-date information, followed by product information and trustworthiness.

mean for each item of the attitude measure, indicates that—with the exception of the item “invades my privacy”—perceptions of e-mail advertising were higher than perceptions of the other two types of advertising (Tables 2 and 3). The test of means indicates that attitudes toward e-mail advertising were the most positive ($p < 0.001$) and that attitudes toward banner advertising were more positive than attitudes toward pop-up advertising ($p < 0.001$), which was perceived as invading privacy the most.

The most important ad attributes to the Hispanic-American participants were up-to-date information, followed by product information and trustworthiness.

The Influence of Attitudes toward Web Advertising, Subjective Norms, Perceived Behavioral Control, Ethnic Identification, and Demographics on Hispanic Americans' Purchase Intentions Online

We ran a linear regression to test the relationship between attitudes toward each type of Web advertising, subjective norms, and perceived behavioral control and purchase intentions online while controlling for ethnic identification, education level, age, gender, and income (Table 4). The influence of attitudes toward e-mail and banner ads on purchase intentions was not significant, whereas the influence of attitudes toward pop-up ads is significant ($p < 0.05$). These results provide some evidence

TABLE 2

Importance of Ad Attributes and Perceptions of Each Web Ad Providing these Attributes

Ad Attribute	Importance of Attribute (e)	Perceptions of E-mail Providing Attribute (b _e)	Perceptions of Banner Providing Attribute (b)	Perceptions of Pop-Up Providing Attribute (b)
Product information	5.86	4.85	3.98	3.17
Up-to-date information	5.94	4.99	4.09	3.23
Reflect social values	4.51	3.87	3.45	2.79
Reflect my beliefs	4.59	3.80	3.27	2.70
Entertaining	4.70	4.07	3.59	2.84
Makes me feel good	4.80	3.91	3.51	2.66
Invades privacy	4.12	4.58	4.46	4.58
Increases standards	4.90	3.91	3.31	2.73
Good for economy	5.20	4.24	3.58	2.88
Helpful in making decisions	5.16	4.36	3.53	2.88
Helpful in choosing brands	5.19	4.32	3.57	2.84
Trustworthy	5.83	4.20	3.44	2.75

TABLE 3
Attitudes toward Web Advertising

Ad Attribute	E-mail Ads	Banner Ads	Pop-Up Ads
	Attitude ($A = e, b$) Mean	Attitude ($A = e, b$) Mean	Attitude ($A = e, b$) Mean
Overall mean	22.57 ^a	18.97 ^a	15.09 ^a
Product information	29.70	23.86	18.74
Up-to-date information	30.65	24.90	19.47
Reflect social values	19.36	17.18	13.71
Reflect my beliefs	19.31	16.41	13.57
Entertaining	20.64	18.13	14.22
Makes me feel good	20.57	17.25	13.66
Invades privacy (R) ^b	14.34	14.35	13.60
Increases standards	20.89	17.65	14.37
Good for economy	23.36	19.60	15.48
Helpful in making decisions	23.90	19.16	15.51
Helpful in choosing brands	23.85	19.50	15.43
Trustworthy	25.20	20.32	16.09

^aE-mail ads attitudes > banner ads attitudes > pop-up ads attitudes; $p < 0.05$, Bonferroni adjusted.

^bMean for reverse scale (does not invade privacy).

TABLE 4
Web Ad Influence on Online Purchase Intentions

Independent Variables and Covariates	E-mail ^a	Banner ^b	Pop-Up ^c
	Standardized Coefficient	Standardized Coefficient	Standardized Coefficient
Attitude	-0.021	0.031	0.115*
Subjective norms	1.05*	0.079	0.066
Perceived behavioral control	0.152***	0.149***	0.159***
Ethnic identification	0.351***	0.329***	0.315***
Education level	0.075	0.087*	0.067
Income	0.178***	0.170***	0.177***
Age	-0.076	-0.089*	-0.083
Gender	-0.070	-0.083*	-0.80

^aR² adjusted 22.1 percent.

^bR² adjusted 21.6 percent.

^cR² adjusted 23.1 percent.

* $p < 0.05$.

*** $p < 0.001$.

that attitudes toward Web advertising influence Hispanic Americans' online purchase intentions, in partial support of H1.

Perceived behavioral control ($p < 0.001$), ethnic identification ($p < 0.001$), and income ($p < 0.001$) significantly influenced online purchase intentions for all three types of Web advertising, in support of H3.

The influence of ethnic identification on Hispanic Americans' online purchase intentions was significant (H4b) but, contrary to expectations, it was in a positive direction.

The results also supported the influence of income (H5) on Hispanic Americans' online purchase intentions.

The influence of subjective norms on online purchase intentions (H2) was significant for e-mail advertising only, partially supporting H2.

The influence of education (H6), age (H7), and gender (H8) on Hispanic Americans' online purchase intentions was significant for banner advertising only, providing partial support for H6, H7, and H8.

CONCLUSIONS

The study results indicate that the influence of the independent variables studied varies on the basis of the type of Web advertising and the dependent variable.

- Hispanic Americans have the most positive attitudes toward e-mail advertising, followed by banner advertising and then pop-up advertising.
- All three types of Web advertising received positive evaluations for their information value, and negative marks for invading privacy.
- Pop-up advertising is the least favored type of Web advertising and received the lowest evaluations for each of the 12 advertising attributes.
- Attitudes toward pop-up advertising are significantly related to purchase

intentions. The relationship is not significant for banner advertising and email advertising.

- The influence of subjective norms on online purchase intentions is significant for e-mail advertising only. The relationship is not significant for banner advertising and pop-up advertising.
- The demographic factors of education and gender are significantly related, and age is negatively related to purchase intentions for banner advertising only.
- Behavioral control, ethnic identification, and income are significantly related to the purchase intentions for all three types of Web advertising.
- Ethnic identification is also significantly related to attitudes toward each of the three types of Web advertising.
- Age and income are significantly related to attitude toward e-mail advertising only.

Discussion and Implications

The study confirms that to understand the relationship between the three types of Web advertising and Hispanic Americans' behavioral online purchase intentions, ethnic identification must be taken into account. The influence of ethnic identification is significant for attitudes toward each type of Web advertising and also toward online purchase intentions, with strong (weak) ethnic identification having the highest (lowest) attitudes and the highest (lowest) purchase intentions.

The results also indicate that Hispanic Americans' online behavioral intentions are influenced by perceived behavioral control and income across all types of online ads. Contrary to TPB, attitudes toward the ad (except for pop-up ads) and subjective norms (except for e-mail ads) do not influence Hispanic Americans' online behavioral intentions.

The findings for subjective norms can be explained by the results for ethnic

identification. The influence of the Hispanic culture—such as being dependent on others and susceptible to the influence of family and/or friends (i.e., referent groups)—is captured by the ethnic identification construct. Strong Hispanic identifiers are influenced more by referent groups than weak identifiers. Because strong Hispanic identifiers had higher online behavioral intentions than weak identifiers, ethnic identification partially captures the influence of subjective norms. Still, subjective norms for e-mail ads are significant, demonstrating the influence of referent groups on Hispanic Americans' online behavioral intentions. This suggests that Web ads targeting Hispanic Americans, specifically strong identifiers, should use influential Hispanic spokespeople or endorsements to be effective.

It is possible that attitude toward the ad influences Hispanic Americans' online behavior, as TPB suggest, but this influence is not operationalized in the test of behavioral intentions; to capture it, actual online behavior must be measured. Another explanation, which limits the findings and generalizability of these results, is that behavioral intentions toward specific products are influenced by attitudes toward ads for these products and not by the general attitude toward the ad, as in the case of this study.

This does not explain, however, why attitudes toward pop-up ads significantly influence online behavioral intentions. Perhaps Hispanic Americans' purchase intentions online are influenced only by online ads that significantly disrupt online browsing, such as pop-up ads. Further research is needed to explore and validate these explanations.

Nevertheless, the study corroborates that attitude toward pop-up ads, perceived behavioral control over accessing the Internet, and subjective norms—through ethnic identification—influence Hispanic

Americans' online purchase intentions, validating the usefulness of TPB when studying Hispanic Americans' online behavior.

It also confirms the important role of income in Hispanic Americans' online behavior and implies that income influences Internet access, as the literature has suggested (Singh et al. 2008); specifically, as Hispanic Americans' income increases, perceived behavioral control over accessing computers and the Internet may increase. Because the income of Hispanic Americans is increasing, an increase in the ownership of computers and access to the Internet also should increase, which, in turn, should increase Hispanic Americans' online purchase intentions. This supports the notion that there is a significant online sales growth potential for the Hispanic American population.

The study confirms that Hispanic Americans prefer less visual and more "print" (i.e., e-mail) advertising (Gallagher et al., 2001). It also demonstrates that the study participants valued informational attributes and trustworthiness more than entertainment and social values.

Thus, advertisers planning to woo this segment might focus on creating factual, information-laden ads rather than "cute" or entertaining ads. Having more positive attitudes toward a type of Web advertising alone, however, does not necessarily translate into purchase intentions; attitudes toward e-mail advertising are higher than attitudes toward the other two types of advertising, but its influence on Hispanic Americans' online purchase intentions is not significant.

Are the roles of e-mail and banner advertising different than that of pop-up advertising? In 2001, writing in the *Journal of Interactive Marketing*, Sherman and Deighton reported a poor relationship between banner ads and click-through rates. Perhaps e-mail and banner

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advertising are more useful for creating awareness and knowledge, whereas pop-up advertising is more suited for generating sales (Diao and Sundar, 2004). If this is the case, it is important for advertisers planning to use pop-ups to take measures to improve the evaluations of their pop-up advertisements. As we noted previously, pop-up advertising fared poorly on all 12 attributes.

Contrary to expectations, attitudes toward Web advertising and online purchase intentions vary positively, not negatively, with ethnic identification. This suggests that though strong Hispanic identifiers prefer ads in Spanish, they have higher positive perceptions of Web ads and are influenced more by Web ads than weak Hispanic identifiers. Hispanic Americans value advertisements as a source of information (Manchada et al., 2006), and the findings suggest that the language used in Web ads—English or Spanish—does not diminish their effectiveness on strong Hispanic identifiers.

One explanation for this finding is that the majority of Hispanic Americans were born in the United States and consider English their native language, even though they use Spanish to communicate at home and often with friends. In other words, strong Hispanic identifiers are comfortable in both cultures, and their desire to maintain their Hispanic culture does not prevent them from being influenced by English-language ads. Further research is needed to corroborate this.

The findings suggest that firms advertising online should use pop-up ads when

targeting the Hispanic American population, especially when targeting strong Hispanic identifiers. In addition, firms advertising online and targeting Hispanic Americans should concentrate on providing product information, up-to-date information, and having trustworthy Web ads because these are the aspects that influence the Hispanic Americans' attitudes toward Web advertising the most.

The findings on the influence of income, age, gender, and education level on attitudes are mixed; the influence of these factors is not significant on attitude toward Web ads, except for attitude toward e-mail advertising.

In addition to ethnic identification and perceived behavioral control, Hispanic Americans' online purchase intentions increase with income for all types of Web ads, it decreases with age, and it is greater for men for banner ads. These results suggest that the Hispanic Americans' online purchase intentions increase with ethnic identification and perceived behavioral control, and it is higher for Hispanic Americans with strong ethnic identification and perceived behavioral control who are younger and more educated, have a higher income, and are female.

To conclude, the study contributes to the literature on advertising to Hispanic Americans by increasing the understanding of the relationship among Hispanic Americans, the three types of Web advertising, and online behavior intentions. Given the growing importance of Hispanic Americans in the U.S. economy, assessing their attitudes toward the three types

of Web advertising is critical because the three forms compete to attract Hispanic American audiences and deliver them to potential advertisers.

The study documents the strengths and weaknesses—and the influences of factors such as ethnic identification and demographics—for three types of Web advertising. The findings should be interesting to firms advertising online because they suggest the type of Web advertising that is more effective in reaching and influencing Hispanic Americans. Based on a national sample of Hispanic Americans, the results show the influence of a variety of factors unique to the Hispanic culture and the usefulness of TPB in studying online advertising and purchase intentions.

Limitations and Suggestions for Further Research

Though the study used a national sample of Hispanic Americans, the response rate of strong Hispanic identifiers—compared with that of medium and weak Hispanic identifiers—was relatively low (6 percent versus 30.2 percent and 63.8 percent, respectively). A more evenly distributed sample of Hispanic American respondents could validate and increase the generalizability of the findings. In addition, further research could investigate the influence of Spanish and/or Hispanic cues in Web ads on strong versus weak Hispanic identifiers.

Further research also could explore whether strong Hispanic identifiers value ads in general more than weak Hispanic identifiers, and whether the desire to maintain the Hispanic culture interferes with the influence of English ads on strong Hispanic identifiers. Given that perceptions of risk are negatively related to online purchase intentions (Pavlou and Fygenon, 2006), further research could explore the influence of perceived online risk on Hispanic Americans' online

purchase intentions and its relationship with Hispanic ethnic identification. **JAR**

ENRIQUE P. BECERRA is an assistant professor in the Department of Marketing at Texas State University-San Marcos. His research deals with consumer behavior and advertising, pricing, trust, and cultural/ethnicity influences. His research has been published in different journals including the *European Journal of Marketing*, *Journal of Electronic Commerce Research*, *Journal of Retailing and Consumer Services*, *Journal of Computer Mediated Communications*, *Journal of Virtual Worlds Research*, and *International Journal of Electronic Marketing and Retailing*.

PRADEEP K. KORDAONKAR is a professor of marketing at Florida Atlantic University. His research has been published in numerous journals including *European Journal of Marketing*, *Journal of Advertising*, *Journal of Business Research*, *Journal of Computer Mediated Communications*, *Journal of Current Issues and Research in Advertising*, *Journal of Internet Research*, *Journal of Retailing*, *Journal of Retailing and Consumer Services*, and *Journal of Marketing Research*, among others.

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