Empirical Analysis of Bicultural Border College Students' Attitudes Toward Money

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The objectives of this study were to investigate bicultural border college business students' attitudes toward money, and to use the results to educate students about the possible impacts of their money attitude dimensions on their financial behavior patterns. A questionnaire survey using five-point Likert-type Money Attitude scale developed by Yamauchi and Templer (1982) was employed. Empirical results based on the K-means cluster analysis identified three groups of respondents. Statistical analyses revealed that there were significant differences between the money attitude dimensions with respect to cluster, gender and student classification.

INTRODUCTION

Money is not only an instrument of commerce; it also has a multidimensional psychological meaning. Money also can be treated as a symbol of status, prestige, power and value [Yamauchi and Templer, 1982]. The attitudes towards use of money may be influenced by demographic factors such as age, gender, income, education, cultural background, etc.

Since 2001, according to the U.S. Census Bureau, the Hispanic American population in the U.S. has grown at four times the rate of the general population. By 2020 their population is projected to be 60 million, accounting for 20 percent of the U.S. population. According to the 2010 Census, 308.7 million people resided in the United States, out of which 50.5 million (or 16 percent) were of Hispanic or Latino origin. The Mexican origin population increased by 54 percent between 2000 and 2010, and had the largest numeric change among the Hispanic groups, increasing from 20.6 million in 2000 to 31.8 million in 2010. According to the 2010 Census summary, the border city in south Texas where our study was conducted had a total population of 175,023 out of which 93.2 percent was Hispanic or Latino population.

The Hispanic American population was much younger with a median age of 27.2 years compared to the median age of the overall population of 36.2 years in 2005. Hispanic Americans are also the youngest population group in the United States: approximately one-third of the entire Hispanic American population is under 18 years of age, compared with one-fourth of the total population.

Hispanic American buying power in the United States continues to energize the nation's consumer market. Hispanic Americans controlled $978 billion in buying power in 2009 according to Selig Center projections [Humphreys, 2009]. In 2009, Hispanic Americans accounted for 9.1 percent of all U.S. buying power, up from 6.8 percent in 2000 and from 5 percent in 1990. According to market research publisher

Packaged Facts, "The Hispanic Market in the U.S.: A Generational View", Hispanic Americans annual buying power totals more than $980 billion [Brown & Washton, 2009]. This report [Brown & Washton, 2009] also mentioned that Hispanic Americans from ages 18-44 are particularly influential, because they control more than 60% of all Hispanic American buying power.

Considering projections by the U.S. Census Bureau that place Hispanics as the largest minority group in the United States (about 60 million by 2020), understanding money attitudes among Hispanic consumers and Mexican-Americans in particular, should continue to be the focus of study by financial counseling and education providers, money managers, and professional financial planners.

The main motivation of this study was to obtain a better understanding of bicultural, US-Mexico border college students' attitudes toward money, and to educate students to appreciate the link between their money attitudes and financial behavior patterns. The conceptual framework of examining money attitudes designed by Yamauchi and Templer [1982] was employed to guide this study. Specifically, the objectives of this study were to employ the Money Attitude Scale (MAS); to measure attitudes toward money among bicultural border college business students; to identify specific clusters among the college business students that exhibit common patterns of responses; and to examine the differences among money attitude dimensions of the college business students for each variable specified, namely gender and student classification. The results of the money attitudes dimensions of bicultural border college students could be very useful in educating students about the possible impact of these attitudes on their financial behavior.

This study has both theoretical and practical implications. Employing the well-developed conceptual framework of the MAS among young bicultural border Hispanic American students, this study contributes to existing money attitude research literature. The results could provide more evidence of validity and robustness of this framework or provide suggestions for modifying this framework to understand consumer groups across different cultural backgrounds. The study may provide practical financial strategies and implications for both students and business organizations by proposing effective ways to understand and address this consumer segment based on their money attitudes. The findings in our paper may be able to bridge an important gap in the financial education process of students by introducing the need to educate students to develop smart money attitudes. These attitudes may influence their financial behaviors during their working life after graduation.

LITERATURE REVIEW

Although spending and other money related aspects have been studied extensively [Wallace et al., 2005], the study of money attitudes is relatively new. Wiseman [1974] observed that psychological aspects of money suffered from lack of standardized assessment instruments. In 1982, Yamauchi and Templar developed and quantified specific money attitude scales.

There have been a number of psychometrically based attempts to measure money attitudes among people in general. Yamauchi and Templer [1982] constructed the Money Attitude Scale (MAS) from an original set of 62 items, of which 34 emerged, defining five factors. More precisely, items loading on the factor for Power-Prestige pointed to the use of money as a symbol of success to impress and influence others. Items loading on the factor for Retention-Time correspond to careful spending behavior and meticulous planning of monetary resources to get a sense of security. Gutter et al. [2010] obtained results that showed significant relationships existed between financial behaviors and social learning opportunities and attitudes. Students who budgeted and saved scored higher on the social learning opportunities index score. Items loading on two of the remaining factors pertain more clearly to emotion laden aspects. The factor titled Distrust was interpreted as reflecting suspicion and doubt in situations involving money, and the other factor entitled Anxiety reflected distress and worry over money matters. Roberts and Jones [2001] found that money attitude factors, namely, power-prestige, distrust, and anxiety had a strong relation with compulsive buying and overspending. Hanley and Wilhelm [1992] used the Rosenberg's Self-Esteem scale to support their model that compulsive spenders had lower self esteem, thereby displaying more anxiety, than 'normal' consumers. The fifth factor related to the consumer attitude of

paying a higher price to get the desired quality. As Yamauchi and Templer dropped the latter factor, since all the items in the 'quality' factor had been on the original Power-Prestige dimension that was already reflected in the factor for Power-Prestige (factor 1), the final scale consisted of 29 items. Their scale has been employed in several papers [Gresham and Fontenot, 1989; Medina, et al., 1996; Roberts and Sepulveda, 1999; Yang and Lester, 2002] and has been found to have acceptable reliability.

Although Furnham's [1984] money beliefs and behavior scale (MBBS) appears more comprehensive, problems with psychometric attributes and cross-cultural issues persist [Bailey, et al., 1993; Yang and Lester, 2002]. Additionally, Tang's [1992] money ethic scale (MES) does not include an "anxiety" dimension identified in Yamauchi and Templer's [1982] work. As noted previously, reliability and validity of the Yamauchi and Templer [1982] instrument suggests a psychometrically sound measure.

Attitudes will predict behavior when there is a high correspondence between the attitude, object and the behavioral option [Ajzen and Fishbein, 1977]. A person's attitudes about money are influenced by culture and individual differences [Mitchell and Mickel, 1999] including personal values [Medina et al., 1996; Gbadamosi and Joubert, 2005]. Demographic factors such as family life cycle [Tang, 1993], age [Furnham, 1984; Tang, 1993; Tang and Gilbert, 1995; Roberts and Sepulveda, 1999], gender [Hanashiro et al., 2004; Masuo, et al., 2004; Roberts and Sepulveda, 1999], income [Roberts and Sepulveda, 1999], educational level [Roberts and Sepulveda, 1999], and occupation [Roberts and Sepulveda, 1999] are also important determinants of money attitudes. Roberts and Sepulveda [1999] used the MAS of Yamauchi and Templer [1982] to measure the effects of demographic factors on the money attitudes among young adults in Mexico. Using five separate regression, they showed that each of the demographic measures, mentioned above, had a significant relation to one or more of the five identified money attitude factors.

Cultural background is another source of difference in people's attitudes towards money [Medina et al., 1996; Roberts and Sepulveda, 1999; Hanashiro, et al., 2004; Masuo, et al., 2004; Burgess, et al., 2005; Özgen and Bayoğlu, 2005; Engelberg and Sjöberg, 2006; Bonsu, 2008; Fünfgeld and Wang, 2009]. Medina et al. [1996] conducted a study employing the MAS factors of Yamauchi and Templer [1982] to compare money attitudes between Mexican-American and Anglo-American consumers. Mexican-American consumers were found to have lower scores on the Retention-time factor and the Quality dimension relating to the power-prestige factor compared to the Anglo-American consumers. Peñaloza and Gilly [1986] noted the influence of cultural traits on Hispanic-American consumers by suggesting that "there may be cultural differences in the symbolic nature and perceived value of goods and services".

METHODS

Using a relatively homogeneous group such as undergraduate and graduate students, we minimize random error that might occur by using a heterogeneous sample such as the general public [Calder, et al., 1981]. In most of the studies conducted and published in leading journals on MAS to date, non-probability sampling technique was used. Although the results of the studies conducted on such samples cannot be generalized, since the common aim of these studies were to test the transferability of the inventory to different environments, therefore, non-probability sampling techniques were found to be appropriate.

This study was used to describe bicultural border Hispanic American college business students' attitudes toward money as well as to provide an understanding of differences in money attitudes due to gender, student classifications based on year of study, and clusters based on students' spending behavior. The 29-item MAS [Yamauchi and Templer, 1982] was chosen because the subscales on the survey represent attitudinal factors that appropriately reflect students' attitudes towards money. Also, MAS has been used in previous research and its reliability and validity indices have been empirically documented. The questionnaire was constructed in a Likert-type scale ranging from 1 to 5 (1= strongly disagree, 3 = neither disagree nor agree, 5 = strongly agree).

The survey (as shown in the Appendix) was conducted among students who enrolled in an introductory statistics, macroeconomics, and microeconomics course at a university with predominantly (more than 90 percent) Hispanic American students in South Texas during the fall semester 2009 and the

spring semester 2010. The analysis examined the psychometric properties of the original 29-item MAS. First, the dimensionality of MAS was assessed by examining the factor solution followed by Yamauchi and Templer [1982]. Then, the *t*-test and one-way ANOVA were employed to compare gender difference and other variables specified in this study among the factors identified. Descriptive statistics of the 29-item MAS in this sample are shown in Table 1.

TABLE 1
DESCRIPTIVE STATISTICS OF HISPANIC AMERICAN COLLEGE BUSINESS STUDENTS' MONEY ATTITUDES

Money Attitude Item	Mean	S.D.	Communalities
Power-Prestige			
I use money to influence other people to do things for me.	2.20	1.23	0.55
I must admit that I purchase things because I know they will impress others.	2.38	1.20	0.78
In all honesty, I own nice things in order to impress others.	2.16	1.14	0.71
I behave as if money were the ultimate symbol of success.	2.23	1.14	0.61
I must admit that I sometimes boast about how much money I make.	1.81	0.98	0.56
People I know tell me that I place too much emphasis on the amount of money a person has as a sign of his success.	1.79	1.00	0.56
I seem to find that I show more respect to people with more money than I have.	1.94	1.06	0.58
Although I should judge the success of people by their deeds, I am more influenced by the amount of money they have.	1.86	0.98	0.54
I often try to find out if other people make more money than I do.	2.21	1.16	0.35
Retention-Time			
I do financial planning for the future.	3.71	1.13	0.53
I put money aside on a regular basis for the future.	3.37	1.19	0.67
I save now to prepare for my old age.	2.91	1.26	0.46
I keep track of my money.	3.92	1.02	0.60
I follow a careful financial budget.	3.12	1.15	0.69
I am very prudent with money.	3.10	1.02	0.60
I have money available in the event of another economic depression.	2.76	1.19	0.51
Distrust			
I argue or complain about the cost of things I buy.	3.02	1.15	0.62
It bothers me when I discover I could have got something for less elsewhere.	3.82	1.09	0.72
After buying something, I wonder if I could have got something for less elsewhere.	3.46	1.05	0.67
I automatically say, "I can't afford it" whether I can or not.	2.65	1.12	0.52
When I buy something, I complain about the price I paid.	2.46	0.99	0.67
I hesitate to spend money, even on necessities.	2.45	1.12	0.58
When I make a major purchase, I have the suspicion that I have been taken advantage of.	2.63	1.13	0.65
Anxiety			
It's hard for me to pass up a bargain.	3.21	1.17	0.78
I am bothered when I have to pass up a sale.	2.89	1.19	0.77
I spend money to make myself feel better.	2.64	1.26	0.49
I show signs of nervousness when I don't have enough money.	3.03	1.24	0.73
I show worrisome behavior when it comes to money.	2.90	1.13	0.70
I worry I will not be financially secure.	3.41	1.25	0.69

RESULTS AND IMPLICATIONS

The sample consisted of 224 bicultural border Hispanic American college students majoring in Business Administration. Of the total sample, 113 (50.4%) were female and 111 were male (49.6%). The majority of respondents were Junior (n = 98, 43.8%), followed by Sophomore (n = 79, 35.3%), Senior (n = 27, 12.1%), Freshman (n = 13, 5.8%), and Graduate students (n = 7, 3.1%). Approximately 28% of the total participants reported that they had shopped at department stores at least once a week, 29% shopped once every two weeks, 26% shopped once a month, 13% shopped once every three months, and 4% shopped once a year. Approximately 39% of the total participants reported that they had shopped online once a year, 30% once every three months, 19% once a month, 5% once every two weeks, 6% at least once a week, and 1% never shopped online. Approximately 67% and 92% of the total participants reported that they had owned credit cards and debit cards, respectively.

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.79 which met the fundamental requirements for factor analysis. The Bartlett's test of Sphericity showed that nonzero correlations exist at the significance level of 0.001. Reliability of the MAS, as measured by coefficient alpha, was reported as 0.77 which was acceptable. Reliability coefficients for the four subscales of the final MAS: Power-Prestige, Retention-Time, Distrust, and Anxiety were reported as 0.84, 0.85, 0.79, and 0.75 respectively (Table 2).

TABLE 2
DESCRIPTIVE STATISTICS AND RELIABILITY OF THE FOUR IDENTIFIED SUBSCALES

	Mean	S.D.	Sample Cronbach's Alpha	Original Cronbach's Alpha	Dimension Items	Dimension Range
Overall			0.77	0.77	29	
Power-Prestige	18.58	6.55	0.84	0.81	9	9 ~ 45
Retention-Time	22.89	5.78	0.85	0.78	7	7 ~35
Distrust	20.47	5.08	0.79	0.73	7	7 ~ 35
Anxiety	18.07	4.86	0.75	0.69	6	6 ~ 30

In order to classify respondents through their attitudinal dimensions, cluster analysis was utilized. Cluster analysis techniques assign objects to groups so that there is as much similarity within groups, and difference between groups, as possible [Churchill, Jr., & Iacobucci, 2005]. It has been referred to as typology construction. Factor scores of the money attitude dimensions were used to cluster bicultural border Hispanic American college business students. As a cluster analysis technique, K-means cluster analysis was performed. A three-cluster solution was agreed upon. The clusters were labeled as Confident Consumers, Conscious Planners, and Careless Spenders groups (Table 3).

Confident Consumers cluster is the largest group, comprising of approximately 40.6% of the respondents, named after the low mean factor scores association with Power-Prestige, Distrust and Anxiety factors, but the high mean factor score with Retention-Time factor. The 'Confident' consumers seem to have more self-esteem reflected in their lower scores for power-prestige, anxiety and distrust. Also, they seem to more confident based on their inclination to budget and keep track of their finances as shown on their higher scores for the retention-time factor. The second cluster, classified Conscious Planners cluster with 32.6% of the respondents, is named because of the high factor score associated with Retention-Time factor and Distrust factor among these respondents. The Retention-Time factor included items relating to financial planning for the future, saving on a regular basis, budgeting and keeping track of money. The Retention-Time factor items emphasize careful budgeting and being prudent with spending money. The Distrust factor relates to this cluster as it includes items concerning hesitation to spend

money, even on necessities, looking for bargain purchases, and complaints regarding cost of things purchased. Finally, the Careless Spenders cluster is the smallest group comprising of approximately 26.8% of the respondents. These respondents put more emphasis on Power-Prestige and Anxiety factors with the high mean factor scores. The Power-Prestige factors includes items relating to careless, compulsive spending such as using money for consumption purposes in order to impress or influence other people. The Anxiety factor correlates with items emphasizing impulsive spending such as being bothered at passing up a sale or bargain, and feeling better after spending money.

TABLE 3
MEAN FACTOR SCORES OF THE FOUR IDENTIFIED SUBSCALES FOR CLUSTER

	Confident Consumers	Conscious Planners	Careless Spenders	Median Factor Score
Power-Prestige	13	21	24	25
Retention-Time	25	26	16	20
Distrust	18	24	19	20
Anxiety	15	20	21	17.5
Number of Cases	91	73	60	(N = 224)
Percentage	40.6%	32.6%	26.8%	

Results of the cluster analysis were tested for accuracy using the multiple discriminant analysis. This can be employed as a useful complement to cluster analysis and is used primarily to predict membership in two or more mutually exclusive groups. In this case, the null hypothesis of equal population covariance matrices was rejected significantly (Box's M = 35.738; $F = 1.739$; $p = 0.021$), and Wilk's Lambda scores were 0.158 ($\chi^2 = 405.111$; $df = 8$; $p = 0.000$) and 0.512 ($\chi^2 = 147.153$; $df = 3$; $p = 0.000$) for both discriminant functions, respectively, indicating that group means were significantly different. The canonical correlation results were 0.831 and 0.699, supporting that there were strong relationships between the discriminant score and the cluster membership.

The Table 4 presents the correlation matrix. It also analyzes the multicollinearity of the constructs. It means that constructs with correlation above ± 0.85 [Kline, 1985] can be considered the same. As shown in Table 4, no correlation above this value was found. The strongest correlation found was between Power-Prestige and Anxiety. Both the Power-Prestige and Anxiety factors include items in the Money-Attitude Scale relating to careless and impulsive spending by the college students. Lower self-esteem and impulsive spending of consumers is reflected in both power-prestige and anxiety dimensions of money attitudes. Power-Prestige was correlated positively with Anxiety and negatively with Retention-Time. This is consistent the MAS items classified under each factor. The Power-Prestige factor emphasizes more conspicuous spending in order to impress others, while the Retention-Time factor correlates with financial planning and budgeting. Power-Prestige has a low correlation with Distrust factor, since this factor is more consistent with consumers searching for bargain purchases. Similarly, Retention-Time was negatively correlated with Anxiety, while having a low positive correlation with Distrust. Retention-time emphasizes budgeting, while Anxiety factor correlates with impulsive spending habits. Both Retention-Time and Distrust factors discourage overspending, but Distrust factor does not include financial planning and budgeting which is a major characteristic of the Retention-Time factor. The Distrust factor was positively correlated to the Anxiety factor. The items in the Distrust factor such as hesitancy to spend, complaints about cost of things bought correlate positively with items in the Anxiety factor such as signs of nervousness and worrisome behavior with money matters and financial insecurity.

TABLE 4
CORRELATION AMONG THE FOUR IDENTIFIED SUBSCALES

	Power-Prestige	Retention-Time	Distrust	Anxiety
Power-Prestige	1			
Retention-Time	-0.224**	1		
Distrust	0.095	0.110	1	
Anxiety	0.373**	-0.302**	0.332**	1

** Correlation is significant at the 0.01 level (2-tailed)

Since one of the purposes of the study is to compare the differences in money attitudes between female and male students, the factor score of the four subscales was saved for further statistical analysis. In order to test the significant difference between the two samples, *t*-test is performed with the four-subscale scores. Gender only had significant differences in Anxiety at the 0.10 level, but no significant differences in Power-Prestige, Retention-Time, and Distrust. The results showed that female students felt more worrisome and more anxious with money in terms of financial insecurity than their male counterparts. Also, female students may find it harder to pass up a bargain sale compared to the male students. (t = -1.88, p = 0.061). Males had no significant differences in money attitudes than females in Power-Prestige (t = 1.37, p = 0.172); Retention-Time (t = -0.279, p = 0.780); and Distrust (t = -0.777, p = 0.439) as shown in (Table 5).

TABLE 5
GENDER DIFFERENCE WITH THE FOUR IDENTIFIED SUBSCALES

	Gender	N = 224	Mean	S.D.	*P*-value (2-tailed)
Power-Prestige	Male	111	19.19	6.60	0.172
	Female	113	17.99	6.48	
Retention-Time	Male	111	22.78	5.92	0.780
	Female	113	23.00	5.67	
Distrust	Male	111	20.21	5.48	0.439
	Female	113	20.73	4.66	
Anxiety	Male	111	17.46	4.70	0.061
	Female	113	18.67	4.95	

In addition, a one-way ANOVA test was performed to examine the effects of student classification on the four subscales identified (as seen in Table 6). Those of significant difference were Distrust (F(4, 219) = 2.644, p = 0.035), and Anxiety (F(4, 219) = 2.115, p = 0.080); but no significant difference on Power-Prestige (F(4,219) = 0.431, p = 0.786), and Retention-Time (F(4,219) = 0.674, p = 0.611). This shows that hesitancy to spend and concerns about cost of purchases changes as the students mature from their first year of college studies to their final year of studies. In terms of conspicuous consumption to impress others (Power-Prestige factor), and financial planning and budgeting (Retention-Time factor), there were no significant differences in money attitudes among students in different student classifications based on the years of study. Also, there were no significant differences between credit card and debit card ownerships on money attitudes under the four subscales identified.

TABLE 6
STUDENT CLASSIFICATION DIFFERENCES WITH THE FOUR IDENTIFIED SUBSCALES

		df	*F*	*P*-value
Power-Prestige	Between Groups	4	0.431	0.786
	Within Groups	219		
Retention-Time	Between Groups	4	0.674	0.611
	Within Groups	219		
Distrust	Between Groups	4	2.644	0.035
	Within Groups	219		
Anxiety	Between Groups	4	2.115	0.080
	Within Groups	219		

The results also showed that significant differences with department store shopping behavior were found among the four subscales (shown in Table 7). Those of significant difference was Anxiety ($F(4, 219) = 2.601$, $p = 0.037$); but no significant difference on Power-Prestige ($F(4, 219) = 0.423$, $p = 0.792$), Retention-Time ($F(4,219) = 0.878$, $p = 0.478$); and Distrust ($F(4,219) = 0.638$, $p = 0.636$). Department store shopping may be influenced strongly by anxiety in passing up a bargain or sale vis-a-vis other shoppers in the same store.

TABLE 7
DEPARTMENT STORE SHOPPING BEHAVIOR WITH THE FOUR IDENTIFIED SUBSCALES

		df	*F*	*P*-value
Power-Prestige	Between Groups	4	0.423	0.792
	Within Groups	219		
Retention-Time	Between Groups	4	0.878	0.478
	Within Groups	219		
Distrust	Between Groups	4	0.638	0.636
	Within Groups	219		
Anxiety	Between Groups	4	2.601	0.037
	Within Groups	219		

Similarly, significant differences with online shopping behavior were found among the four dimensions. Those of significant difference was Power-Prestige ($F(5, 218) = 2.048$, $p = 0.073$); but no significant difference on Retention-Time ($F(5,218) = 0.845$, $p = 0.519$); Distrust ($F(5,218) = 1.562$, $p = 0.172$), and Anxiety ($F(5, 218) = 0.627$, $p = 0.680$). Online shopping (as seen in Table 8) may be correlated strongly with the Power-Prestige dimension, as online purchases may reduce search time and allow the students to purchase items relatively faster in order to impress others.

By examining how independent variables influence some patterning of response on the dependent variables, a multivariate analysis of variance (MANOVA) was employed (shown in Table 9). The independent variables studied were the identified cluster, gender, student classification, frequencies of department store and online shopping behaviors, ownership of credit and debit cards. The dependent variables considered in this study were: Power-Prestige, Retention-Time, Distrust, and Anxiety.

TABLE 8
ONLINE SHOPPING BEHAVIOR WITH THE FOUR IDENTIFIED SUBSCALES

		df	*F*	*P*-value
Power-Prestige	Between Groups	5	2.048	0.073
	Within Groups	218		
Retention-Time	Between Groups	5	0.845	0.519
	Within Groups	218		
Distrust	Between Groups	5	1.562	0.172
	Within Groups	218		
Anxiety	Between Groups	5	0.627	0.680
	Within Groups	218		

Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was a statistically significant difference among three respondent cluster groups on the combined dependent variables: Pillai's Trace =1.18, $F(8, 438) = 78.745$, $p = 0.000$; Wilk's Lambda = 0.158; partial eta squared = 0.590. When the results for the dependent variables were considered separately, all the dependent variables reached statistical significance among these three groups.

Similarly, for gender, Pillai's Trace=0.04, $F(4, 219) = 2.255$, $p = 0.064$; Wilks' Lambda = 0.960; partial eta squared = 0.040, for student classification, $F(16, 876) = 1.159$, $p = 0.296$; Wilks' Lambda = 0.919; partial eta squared = 0.021, for the frequency of department store shopping behavior, Pillai's Trace=0.111, $F(16, 876) = 1.557$, $p = 0.074$; Wilks' Lambda = 0.8929; partial eta squared = 0.028, for the frequency of online shopping behavior, Pillai's Trace= 0.111, $F(20, 872) = 1.245$, $p = 0.209$; Wilks' Lambda = 0.892; partial eta squared = 0.028, for credit card ownership, Pillai's Trace=0.006, $F(4, 219) = 0.327$, $p = 0.859$; Wilks' Lambda = 0.994; partial eta squared = 0.006, and for debit card ownership, Pillai's Trace=0.012, $F(4, 219) = 0.648$, $p = 0.629$; Wilks' Lambda = 0.988; partial eta squared = 0.012. Cluster, Gender and the frequency of Department Store Shopping behavior showed statistically significant differences on the combined dependent variables, respectively, at the 0.10 level.

TABLE 9
SIGNIFICANT MULTIVARIATE EFFECTS ON THE FOUR IDENTIFIED SUBSCALES (MANOVA)

Variable	Pillai's Trace	*F*	*df*	Error *df*	*P*-value
Cluster	1.180	78.745	8	438	0.000
Gender	0.040	2.255	4	219	0.064
Student Classification	0.083	1.159	16	876	0.296
Department Store Shopping	0.111	1.557	16	876	0.074
Online Shopping	0.111	1.245	20	872	0.209
Credit Card Ownership	0.006	0.327	4	219	0.859
Debit Card Ownership	0.012	0.648	4	219	0.629

CONCLUSION

As the Hispanic American population grows and matures, its structure is changing in almost every way, from educational levels and labor force composition to household characteristics and accumulation of wealth. It is these evolving factors that are driving the increasing influence of Hispanic Americans in

U.S. consumer markets. Multiple studies have compared the generalizability of the money attitudes across different cultural populations. However, no systematic study has been conducted on understanding young Hispanic American consumers from a money attitude perspective and specifically on addressing these groups of consumers using the MAS approach of Yamauchi and Templer [1982]. In this regard, the factor analysis using the four subscales explained 48.24 % of the total variance in our sample, considerably more than that explained in earlier studies. The reliability coefficients (alpha) for each of the subscales in our sample was improved compared to the original Cronbach's alpha scores. As seen in Table 2, the alphas for the four factors, namely power-prestige, retention-time, distrust, and anxiety were 0.84, 0.85, 0.79, and 0.75 respectively. It was encouraging to find that the MAS scale that was developed in the United States would retain much of its original structure when administered in a bicultural, border setting as in our paper.

Three consumer segments were formed using cluster analysis on the four identified subscales in the MAS scale. The clusters were classified as Confident Consumers, Conscious Planners, and Careless Spenders groups. Statistical analyses revealed that there were significant differences among the money attitude dimensions of the bicultural, border college business students with respect to gender, student classification, identified clusters, department store and online shopping behaviors. Gender only had significant difference in the Anxiety subscale at the 0.10 level, as shown in Table 5. Female students felt more worrisome and more anxious with money in terms of financial insecurity than their male counterparts. Also, female students may find it harder to pass up a bargain sale. The result could be used to educate female students about the pitfalls of their anxiety dimension, and how such an attitude may be influencing their spending patterns. Student classification had significant differences in the Distrust and Anxiety dimensions as seen in Table 6. This indicates that inclinations to spend and concerns about cost of purchases change as the students mature from their first year of college studies to their final year of studies. Students in different levels (i.e. freshman, juniors, etc) could be enlightened about the distrust and anxiety dimensions of money attitudes, and how these dimensions may affect their financial behaviors, in terms of their inclinations to spend and the effects on their savings and net cash flows.

In terms of conspicuous consumption to impress others (Power-Prestige factor), and financial planning and budgeting (Retention-Time factor), there were no significant differences in money attitudes among students based on their years of study. As shown in Table 7, Department store shopping seems to be influenced strongly only by the Anxiety factor that may arise as a result of passing up a bargain or sale to other shoppers in the same store. Students could be informed how the anxiety dimension may affect their department store shopping behavior, and have negative impacts on their net cash flows. Online shopping, as seen in Table 8, is correlated strongly with the Power-Prestige dimension, as online purchases may reduce search time and allow the students to purchase items relatively faster in order to impress others, Students could be educated on the effects of being overly influenced by the power-prestige dimension resulting in more online shopping behavior. By examining how independent variables (gender, student classification, identified clusters, department store and online shopping behaviors, credit card and debit card ownership) influence some patterning of response on the dependent variables, a multivariate analysis of variance (MANOVA) was employed. According to the results, as illustrated in Table 9, gender, identified clusters and the department store shopping behavior showed statistically significant differences on the combined dependent variables, i.e., power-prestige, retention time, distrust, and anxiety, at the 0.10 level.

Future studies on money attitudes of Hispanic Americans should take into account the adult market. Furthermore, the differentiation among the dimensions could be evaluated through additional demographic variables such as age, income, educational level and occupation.

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APPENDIX
(Money Attitude Scale)

This data will be used to evaluate money attitudes. Please answer each question by selecting the answer you think BEST describes your honest attitudes, beliefs, and practices.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I use money to influence other people to do things for me.					
I must admit that I purchase things because I know they will impress others.					
In all honesty, I own nice things in order to impress others.					
I behave as if money were the ultimate symbol of success.					
I must admit that I sometimes boast about how much money I make.					
People I know tell me that I place too much emphasis on the amount of money a person has as a sign of his success.					
I seem to find that I show more respect to people with more money than I have.					
Although I should judge the success of people by their deeds, I am more influenced by the amount of money they have.					
I often try to find out if other people make more money than I do.					
I do financial planning for the future.					
I put money aside on a regular basis for the future.					
I save now to prepare for my old age.					
I keep track of my money.					
I follow a careful financial budget.					
I am very prudent with money.					
I have money available in the event of another economic depression.					
I argue or complain about the cost of things I buy.					
It bothers me when I discover I could have gotten something for less elsewhere.					
After buying something, I wonder if I could have gotten something for less elsewhere.					
I automatically say, "I can't afford it" whether I can or not.					
When I buy something, I complain about the price I paid.					
I hesitate to spend money, even on necessities.					
When I make a major purchase, I have the suspicion that I have been taken advantage of.					
It's hard for me to pass up a bargain.					
I am bothered when I have to pass up a sale.					
I spend money to make myself feel better.					
I show signs of nervousness when I don't have enough money.					
I show worrisome behavior when it comes to money.					
I worry I will not be financially secure.					

On average how often do you shop at department stores?
☐ at least once a week ☐once every two weeks ☐once a month ☐once three month ☐once a year
On average how often do you shop online?
☐ at least once a week ☐once every two weeks ☐once a month ☐once three month ☐once a year
Do you have your own credit card(s) (that is not used primarily as a debit card)? ☐ Yes ☐No
Do you have your own debit card(s)? ☐ Yes ☐No
Your gender is ☐ Male ☐Female
You are a ☐ Freshman ☐Sophomore ☐Junior ☐Senior ☐Graduate Student