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Explaining Financial Management Behavior for Koreans Living in the United States

Using a cross-cultural conceptualization with a targeted sample of Americans and Koreans, it was noted that Koreans exhibited more responsible financial management behavior than Americans after controlling for locus of control, financial knowledge, and income interactions. Overall, financial knowledge was positively related to responsible financial behavior. No direct effects on financial management behavior were noted for locus of control or household income. Locus of control was found to mediate the effect of financial knowledge on financial behavior for Koreans. Being Korean did moderate between financial knowledge and financial behavior.

Cross-cultural explorations of human behavior have been studied since the 19th century. Segall et al. (1990), in their introductory text on cross-cultural psychology, justified culturally based research by stating the following: "Given the complexities of human life and the importance of culture as a behavioral determinant, it obviously behooves psychologists to test the cross-cultural generality of their principles before considering them established" (37). According to Weber and Hsee (1999), "considerable benefits can be derived from a fresh advocacy for comparative cross-cultural investigations of individual and group differences in perceptions, values, attitudes, and behaviors" (612). This is particularly true in relation to the roles locus of control, financial knowledge, and socioeconomic status play in shaping and explaining financial management behavior. The continued shifting of global commerce and finance away from Europe and the United States toward East Asia is just one reason cross-cultural research in the personal finance area is needed. Understanding saving, investment, and debt decision differences across cultures can help explain wealth disparities around the globe. Furthermore, it is important for those who make financial decisions to use a reliable base of knowledge. The decision-making process

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can be strengthened by better understanding cultural similarities and differences among those who engage in financial management behavior. If it turns out that individuals from Asia act differently than those in the United States, in part based on cultural differences, this information can be used to better understand the context of decision making. Moreover, if cultural differences are found to be one of the factors that affect financial management behavior, and if it is assumed that behavior ultimately influences financial well-being, cultural studies can be used to help establish the initial steps toward enhancing financial well-being among various constituencies.

Perry and Morris (2005) examined consumers' willingness to save, budget, and control spending using a dual psychosocial and cultural conceptual perspective. They noted that financial management behavior tends to be associated with a person's perceived control over spending outcomes. Perry and Morris found that a person's locus of control has an important role to play in shaping financial management behavior, with those exhibiting an internal locus of control being more financially responsible. They also established that a person's level of financial knowledge and financial resources play a role in shaping financial management behavior. Locus of control was found to mediate the relationship between knowledge and resources, suggesting "individuals may not take full advantage of their knowledge or financial resources unless they feel that they control their own destiny" (310). While their findings, in and of themselves, were interesting, what made their study noteworthy was the inclusion of cultural background as a potential moderating factor related to the way people manage their financial management behavior. Perry and Morris asserted that the way in which people manage their financial management behavior may vary depending on culturally contextual issues. They concluded that African Americans and Hispanics/Latinos who exhibit an external locus of control are "more likely to engage in responsible financial management behavior than white or Asian externals" (310).

Of particular interest in the Perry and Morris (2005) study were the generally nonsignificant differences between Asians and non-Hispanic whites in terms of financial management behavior and interactions with external locus of control, income, and knowledge in the context of consumer financial management behavior. Perry and Morris did note a moderately significant difference between Asians and non-Hispanic whites, with Asians being more responsible in terms of financial management; however, much of the statistical difference was due to the large sample size ($n = 11{,}862$) used in their study. In all other situations, being Asian did not moderate findings related to locus of control, income, or financial knowledge. In effect, Asians and non-Hispanic whites were similar.

Whether or not Asians differ from Americans when exhibiting consumer and personal finance behavior is a question of broad interest. Consider research published by Hsee and Weber (1999). They noted that Chinese and Americans differ in terms of risk tolerance (i.e., Chinese being more risk tolerant) and risk-taking financial management behavior (i.e., Chinese more willing to take investment risks). Hsee and Weber attributed some of these differences to specific cultural dissimilarities between Mainland China and the United States. Weber, Ames, and Blais (2004) described the distinction this way: "… American-Chinese differences in the relative balance struck between individualism and collectivism in social interactions" (92) may explain cross-cultural differences in risk taking. Hsee and Weber hypothesized that the higher likelihood of receiving collectivist help from society and family within China, if a financial decision results in an individual loss—a cultural difference—likely influences financial management behavior. They termed this phenomenon the cushion hypothesis. In effect, Hsee and Weber hypothesized that cultural bias in favor of collectivist action and support helps cushion Chinese against outcomes associated with loss (Weber and Hsee 1998).

Whether or not the cushion hypothesis can be extended beyond Chinese-American situations, and whether Perry and Morris's (2005) findings can be generalized more broadly are questions yet unanswered. The purpose of this research was to further examine, by replicating Perry and Morris's study with a different sample, the role locus of control, self-assessed financial knowledge, and income—and interactions between and among these variables—have on financial management behavior for Koreans and Americans. Among the various Asian cultural groups, Koreans were selected for the following reasons. First, nearly all Asian cultural studies have focused exclusively on China as a representative collectivist culture. Examining the cushion hypothesis using a targeted sample of Koreans, as a nationality that is positioned between traditional collectivist China and a more individualistic western tradition, can help verify the cushion hypothesis. Second, among the various East Asian countries, Korea has experienced dramatic financial progress and wealth fluctuations. Within Korean, the concept of personal financial management has emerged in recent years and permeated throughout the entire population. Examining the financial management behavior of Koreans could shed light on behavioral implications within this traditionally collectivist culture. As suggested by Gutter and Fontes (2006), findings from this and similar studies of financial management behavior based on cultural background can help illustrate the importance that cultural similarities and differences play in shaping various financial decision-making processes. Additionally, research reported here

adds to the existing body of knowledge by expanding on the work conducted by Weber and Hsee (1998, 1999) and Perry and Morris.

BACKGROUND REVIEW

Cultural Conceptualization of Financial Decision Making

Differences in financial decision-making styles can generally be conceptualized using either an external or a cultural orientation. The external argument focuses on the role discrimination plays in a societal context. Choudhury (2001) used the external conceptualization to explain differences in financial management behavior among racial groups in the United States. Choudhury argued that minority groups in the United States have been given, historically, limited access to financial services, financial information, and more generally, education that would allow a person to navigate successfully through the financial marketplace (see also Perry 2008). One result, as conceptualized in the literature, is a wide-ranging skepticism and negative perception of the factors associated with positive financial decision making among people who are not non-Hispanic white (Gutter and Fontes 2006; Williams 1999).

While there certainly may be discrimination issues at play cross-nationally, when assessing cross-cultural similarities and differences in financial decision making, the analysis of this phenomenon most often is conducted within a cultural context. Weber et al. (2004) defined culture "as the set of long-standing values, attitudes, beliefs, social structures and institutions which have been shaped by local conditions that include geography, climate, history, economics and politics as a way of coping with these conditions" (92). Cultural differences are known to influence financial management behaviors and the level of one's confidence when making decisions (Tigges et al. 2000; Yates, Lee, and Bush 1997).

One theoretical hypothesis that is often used to explain culturally based financial behavior differences is the "cushion hypothesis." According to Hsee and Weber (1999, 165), the cushion hypothesis states that people who share a cultural belief in society- and household-based collectivism "are more likely to receive financial help if they are in need (i.e., they could be "cushioned" if they fell)." In keeping with this hypothesis, people from collectivist cultures should have different financial decision-making styles compared to people from individualistic cultures, such as the United States.

This research examined the effects of locus of control, knowledge, and income on financial management behavior using a cultural conceptual context. Specifically, differences and similarities were reviewed for

Koreans living in the United States and Americans. This research tested eight hypotheses, which were re-identified from the Perry and Morris (2005) study. The following section reviews germane literature on culturally based differences in financial management behavior, locus of control, and other factors connected to financial management behavior as related to each hypothesis.

Locus of Control and Financial Management Behavior

Rotter (1966) was among the first to document and explain the psychosocial phenomenon known as locus of control. Locus of control is best conceptualized as a person's perception of their place in the world. More specifically, locus of control is a measure of an individual's belief about cause and effect within their life. Locus of control has two extremes—external and internal. Someone, for instance, who has an external locus of control believes or perceives that outside forces and events dictate their actions, decisions, and behavior. Often, *externals* have a strong conviction that factors such as fate, luck, and chance are the primary determinants of life events. Those with an external viewpoint are more likely to feel that powerful others—sometimes anonymous and frequently known—construct barriers that limit one's accomplishments. Someone with an internal locus of control tends to view the world differently. *Internals* generally believe or perceive that they possess the skills, abilities, and knowledge to dictate outcomes experienced in their lives. Those with an internal locus of control perspective are apt to be goal driven and more often than not, they exhibit responsible financial decision-making skills. It is possible that an internal locus of control perspective increases a person's perceptions about opportunities while decreasing concerns over threats (Krueger and Dickson 1994), which might influence an individual's perception of control over the outcome of a financial situation.

In their study, Perry and Morris (2005) hypothesized that there is a negative relationship between external locus of control and responsible financial management behavior. Their research findings supported this hypothesis. Although the beta coefficient was not large, they nonetheless concluded that external locus of control has a negative relationship with responsible financial management behavior. In describing their findings, Perry and Morris noted that a person's inclination to control spending, save, and budget is dependent, to some extent, on the amount of perceived control they have over financial outcomes. The more control someone feels they have when making financial decisions the higher the probability of

demonstrating sound financial management behavior. It is reasonable to extend their argument by concluding that financial management behavior may vary by cultural background differences. Perry and Morris found a positive interaction among Hispanic/Latinos and African Americans and external locus of control. Those fitting this description were, overall, more financially responsible than similar non-Hispanic whites and Asians. These findings suggest that not only might locus of control significantly impact the way in which consumers make financial decisions, there may also be an interaction between locus of control and cultural background that plays a role in shaping financial management behavior. In relation to this possibility, the following locus of control hypothesis was tested in this study:

H1: There is a negative relationship between external locus of control and responsible financial management behavior.

Financial Knowledge, Income, and Financial Management Behavior

Perry and Morris (2005) developed a number of additional hypotheses related to the way in which consumers develop and manage financial management behavior. In addition to a locus of control association, they hypothesized that "there is a positive relationship between financial knowledge and responsible financial management behavior" (301). While acknowledging that financial knowledge can be obtained through formal education, informal sources, and negative personal experiences, they concluded that, in the final analysis, financial knowledge is positively associated with responsible financial management behavior. Others have also noted that individuals who are more knowledgeable about personal finance topics and issues are more likely to exhibit responsible financial behavior, such as saving and investing (Perry 2008), changing asset allocation compositions when appropriate (Morrin et al. 2008), or more generally when making financial decisions (Hilgert, Hogarth, and Beverly 2003; Howlett, Kees, and Kemp 2008; Lusardi and Mitchell 2007; Mansfield and Pinto 2008). In this study, the following hypothesis was tested:

H2: There is a positive relationship between financial knowledge and responsible financial management behavior.

A hypothesized positive relationship between income and responsible financial management behavior has also been noted in the literature (Hilgert et al. 2003). This stems from the literature showing a strong positive association between resource availability and acting responsibly in a

personal finance context. As might be expected, Perry and Morris (2005) determined that those who exhibited positive financial management behavior tended to report having higher incomes. Specifically, in their study, they noted that those with incomes exceeding $35,000 were more responsible than others. The overall effect size for income ($\beta = .14$) was on par with locus of control ($\beta = -.13$) but lower than the effect of financial knowledge ($\beta = .23$). As such, a third hypothesis was re-identified for this study as follows:

H3: There is a positive relationship between income and responsible financial management behavior.

Possible Variable Interactions

In addition to direct effect hypotheses related to locus of control, financial knowledge, and income, it is reasonable to hypothesize possible interactions between financial knowledge and locus of control and income and locus of control on financial management behavior. Perry and Morris (2005) theorized that locus of control may act as a mediating variable, with knowledge and income influencing financial management behavior indirectly through locus of control. "That is, the ways in which individuals apply their knowledge will depend on whether they believe that they have control over outcomes" (302). Using a variable mediation test, they found an indirect effect of knowledge on behavior through locus of control. They also tested for indirect effects of income on financial management behavior. They found support for the hypothesis showing a relationship between income and responsible financial management behavior being mediated by external locus of control. As such, this study re-identified the two hypotheses as follows:

H4: The relationship between financial knowledge and responsible financial management behavior is mediated by external locus of control.

H5: The relationship between income and responsible financial management behavior is mediated by external locus of control.

Cross-Cultural Factors and Financial Management Behavior

A growing area of consumer research involves the examination of cross-cultural similarities and differences in the way people perceive issues of control in their lives. Cross-cultural differences in financial management

behavior may best be described by the concepts of collectivism and individualism. Hsee and Weber (1999) described collectivism as an orientation of socially collectivist culture. Examples include China, the former East Germany, and Korea. In these cultures, it is expected that family, similar in-group members, and governmental agencies will "step in to help out any group member who encounters a large and possibly catastrophic loss after selecting a risky option" (Weber and Hsee 1998, 1208). Individualistic cultures are marked by the expectation that a person who makes a risk decision that results in a significant loss should personally, rather than collectively, "bear the (possibly adverse) consequences of their decisions" (Weber and Hsee, 1208). The cushion hypothesis, as advanced by Hsee and Weber, suggests that within collectivism social diversification mitigates personal risks. In other words, people who share a cultural belief in society- and household-based collectivism "are more likely to receive financial help if they are in need (i.e., they could be 'cushioned' if they fell), and consequently, they are less risk averse than those in an individualistic society such as the USA" (165).

Social identity theory can be used to help explain the personal collectivist perspective. This theory hypothesizes that a person's social identity emerges from his or her perception and knowledge gained from membership within a group. This results in a self-concept linked to "the value or emotional significance attached to that membership" (Tajfel 1978, 63). Those who grow up and immerse themselves within a collectivist culture most often adopt a collectivist outlook and self-concept. That is, the way in which they approach decisions becomes influenced by their self-concept (Chen, Brockner, and Katz 1998). Chen et al. noted that people in collectivist cultures "define themselves mainly on the basis of their group memberships" (1491). Those with a collectivist cultural tendency "are less motivated by the desire for personal self-enhancement relative to individual-primacy persons" (1491).

To date, nearly all cross-cultural research using a collectivist–individualist conceptualization has compared American residents with Mainland Chinese residents. The reason for this approach is obvious. China is the world's largest collectivistic culture, whereas the United States is the leading individualistic culture. This does not mean, however, that all collectivist-oriented cultures are necessarily similar to China.

Consider the case of South Korea. According to the U.S. Department of State (2008), "Korea's population is one of the most ethnically and linguistically homogenous in the world. Except for a small Chinese community (about 20,000), virtually all Koreans share a common cultural and linguistic heritage." Although Christianity and Buddhism comprise the most

practiced religions in Korea, Korean culture is highly imbued with Confucian values and beliefs (U.S. Department of State 2008). Confucianism-based public policies ensure that even though South Korea is the 13th largest economy in the world, the culture is still oriented toward collectivism. Yang and Rosenblatt (2008), when discussing Korea, observed that "Confucian values are strongly inculcated throughout society—in families, schools, films and television drama, the mass media, and religious institutions. Those values remain a strong force in society" (572). A basic premise of Confucianism is that the individual should defer one's self to others with more status. Junior members of society are expected to be respectful to society's elders, while the elders are presumed to provide communal support for family and society.

The role of Confucianism in South Korean culture goes beyond public policy and family interaction (Na and Loftus 1998; Yang and Rosenblatt 2008). The collectivist culture of Confucianism results in behavioral intentions among Koreans that can be described using the American and European concept of internal–external locus of control. A Confusionist cultural outlook is akin to having an external locus of control (Lin and Ding 2003). Bjorck, Lee and Cohen (1997) described the phenomenon this way: "Eastern cultures stress the value of external/secondary control through cooperation with authority structures and acceptance of fate" (63). Na and Loftus concluded that locus of control is an important culture-dependent variable that most likely mediates attitudes toward behavior.

The published research to date shows that in individualistic cultures, such as the United States, an internal locus of control perspective tends to dominate decision making. In collectivists' cultures, such as China and South Korea, "individuals' self-concepts tend to be defined primarily on the basis of their relationships with other people comprising their in-groups" (Brockner and Chen 1996, 603). In South Korea, there is, in effect, only one in-group; that is, South Koreans themselves. This often leads to an external locus of control perspective such that individuals in South Korea and similar cultural contexts alter their behavior in a way that is "to a large extent organized by what the actor perceives to be the thoughts, feelings, and action of others in the relationship" (Markus and Kitayama 1991, 227). In other words, it is reasonable to hypothesize that those living in a collectivist culture will exhibit an external locus of control viewpoint. Furthermore, literature on the cultural aspects of behavior generally leads to the conclusion that it is possible that interactions between and among cultural background and personal and psychosocial factors, such as locus of control, may exist. In addition, it should not be arbitrarily assumed that a psychosocial factor like locus of control is homogenous across cultures—a person's cultural

background may moderate the inferences that can be made about measurements and behavior (Ghorpade, Hattrup, and Lackritz 1999).

Perry and Morris (2005) concluded their study by testing three cultural hypotheses related to relationships between locus of control, income, and knowledge and responsible financial management behavior. They hypothesized that race/ethnicity moderates the relationship between locus of control, income, and financial knowledge and responsible financial management behavior. The nature of these interactions was premised on associations among these factors reported in the literature. Results from their study were mixed. Without an interaction, compared to non-Hispanic whites, African American and Hispanic/Latinos, holding other factors constant, were less likely to engage in responsible financial management behavior. Both findings were significant at the $p < .05$ level. Asians, on the other hand, were found to engage in more responsible financial management behavior than non-Hispanic whites ($p < .05$). The interaction of African American and locus of control and Hispanic-Latino and locus of control was significantly positive. No significant interaction was noted between Asian and locus of control. Findings linked to interactions between cultural background and income also were mixed. A significant negative interaction was noted between African American and income, whereas the interaction was negative and nonsignificant for Hispanics-Latinos and positive but not significant for Asians. Finally, the cultural interaction with knowledge was only significant for Hispanics-Latinos. In this case, the association was positive, suggesting that Hispanics-Latinos with more knowledge were more likely to exhibit responsible financial management behavior compared to knowledgeable non-Hispanic whites. The Asian and African American interactions were not significant.

Overall, Perry and Morris (2005) found mixed results in terms of cultural background as a moderating variable, primarily due to knowledge, income, and locus of control differences among non-Hispanic whites, African Americans, Hispanic/Latinos, and Asians. They did, however, state that financial management behavior may vary by culture, with locus of control having a distinct effect for different groups. Their conclusions were noteworthy because Perry and Morris documented differences primarily between and among non-Hispanic whites, African Americans, and Hispanic/Latinos, not Asians.

The general similarity, in the context of interaction terms, between non-Hispanic whites and Asians, as documented by Perry and Morris (2005), is puzzling. Much of the literature that directly compares Asians with other cultural groups indicates that differences in financial attitudes and behavior ought to be apparent (Bjorck and Lee 1997; Brockner and Chen 1996; Fan

and Xiao 2006; Na and Loftus 1998). Using either an external or cultural conceptual framework as a guide, it is surprising that Perry and Morris did not report a more significant Asian difference in responsible financial management behavior when accounting for income, knowledge, and locus of control. If Fan and Xiao (2006), Weber and Hsee (1998), and Hsee and Weber (1999) are correct, one would expect Asians to differ from others with a dissimilar cultural background. Given that this was not the case, additional research, using a cross-cultural sample, is warranted to further examine the Asian findings.

Additionally, the possibility of not finding an interaction between cultural background and external locus of control for Koreans is intriguing. On the one hand, one would expect a locus of control–Korean interaction. On the other hand, self-esteem and self-construal psychological research tends to show that the interactions between psychosocial characteristics and cultural background may only be observed among those who hold an internal locus of control perspective. Research conducted by Brockner and Chen (1996), although not dealing directly with locus of control, indicated that interactions of the type Perry and Morris (2005) hypothesized, "should be less likely to emerge in cultures in which people have less independent self-construals (e.g., the People's Republic of China) than in cultures in which they construe themselves independently (e.g., the United States)" (604). In their study, Brockner and Chen found that interactions among nationality and psychosocial concepts such as self-esteem were statistically significant only in the United States, not in China. They did note that among Chinese who exhibited independent self-construals, however, interactions were apparent. Because Perry and Morris failed to report mean locus of control score comparisons for the cultural groups tested, it is difficult to know how much mean score variation there was among the groups. It is possible that the Asians in the Perry and Morris sample, given the demographic restrictions of the data set, simply did not represent the general cultural tendencies displayed by traditional populations of Asians. It is also possible that the Asians had significantly higher external locus of control scores than others in the sample.

Based on findings reported by Perry and Morris (2005) and the review of literature related to the cultural determinants of behavior, the following three hypotheses were re-identified:

> H6: Being Korean moderates the relationship between locus of control and responsible financial management behavior; thus, Korean externals are more likely to exhibit responsible financial management behavior.

H7: Being Korean moderates the relationship between income and responsible financial management behavior; thus, high income Koreans are expected to exhibit responsible financial management behavior.

H8: Being Korean moderates the relationship between financial knowledge and responsible financial management behavior; thus, more knowledgeable Koreans are expected to exhibit responsible financial management behavior.

METHOD

This research replicated the Perry and Morris (2005) study in terms of data analysis. However, the sample used here differed from the Freddie Mac Consumer Credit Survey sample employed by Perry and Morris. Given restrictions in the data set, they had to exclude respondents who indicated having incomes equal to or greater than $75,000 in 1999. Perry and Morris acknowledged that this limitation might have disproportionately affected results reported by non-Hispanic whites and Asians, primarily because individuals in these two groups are more likely than African Americans or Hispanics-Latinos to have higher income. Perry and Morris did not report the demographic and socioeconomic profile of their sample, but it is reasonable to assume that the age and income characteristics of respondents were lower than the national average.

Data for this study were collected in 2007 from a targeted sample of convenience consisting of native-born Americans (primarily non-Hispanic whites) and South Koreans who were living nonpermanently in the United States at the time of data collection. The sample ($n = 153$) was specifically designed to overrepresent Koreans ($n = 91$) as a proxy for a non-Chinese homogenous collectivist nationality. Potential respondents, both Americans and Koreans, were recruited from churches, educational institutions, community centers, and libraries in one midwestern U.S. state. Koreans who were either permanent residents or U.S. citizens were excluded from the analysis. Because surveys were administered through personal interactions the response rate (82%) was higher than had a mail survey been used. Unlike the household income restriction in the Freddie Mac Consumer Credit Survey, individuals in this study were not excluded based on their household income. Those who participated in this study were asked to indicate their usual monthly income, before taxes, over the past year. The mean, median, and standard deviation monthly household income for respondents was $4,351, $2,800, and $10,755, respectively. Koreans reported mean, median, and standard deviation household income of $3,585, $3,000, and $2,306, respectively. Americans reported

mean, median, and standard deviation household income of $5,467, $2,300, and $16,647. Although the mean reported income differences between Koreans and Americans was large, *t*-tests indicated no statistically significant differences between the two groups.

The sample was somewhat overrepresented by well-educated females (58%) and those who were married (59%). The average respondent was 36.52 years of age (SD = 11.90 years), with 59.5 percent of respondents being of Korean background. The remainder were non-Hispanic white (37 percent) and African American or of another racial/ethnic background (4 percent). As was the case with the Perry and Morris (2005) study, it was possible that a generalizability bias might exist due to the voluntary nature of the respondent pool; however, the sample was deemed appropriate for the purpose of this study, which was to better understand any differences between Koreans and non-Koreans in terms of explaining consumer financial management behavior (Table 1).

Outcome Variable

Responsible financial management behavior was the outcome variable of interest in this study. Financial management behavior was measured using a 5-item scale of self-assessed budget, money saving, and spending control abilities. Perry and Morris (2005) described the measure as follows: "These responsible financial behaviors include controlling spending, paying bills on time, planning for one's financial future, saving money, and providing for one's self and family" (304). Response categories included (1) poor, (2) fair, (3) okay, (4) good, and (5) excellent. Conceptually, it is possible that self-reported behavior may not equate to actual financial management behavior. Behavioral scores were calculated by summing each question into a scale score. Scores could range from 5 to 25, with higher scores be indicative of more responsible financial management behavior. The Cronbach's reliability for the scale was estimated to be .71. This reliability estimate was lower than the reliability approximation reported by Perry and Morris (i.e., .83) but still acceptable. Scores for respondents showed a mean of 17.76 with a standard deviation of 3.62. This compares to a mean of 16.05 and a standard deviation of 5.45 for participants in the Perry and Morris study. Table 2 shows the questions, response categories, and descriptive statistics for each item split for the entire sample, Koreans, and Americans separately.

TABLE 1
Descriptive Sample Characteristics (n = 153)

Personal Characteristic	Frequency
Nationality (%)	
Korean	59.5
American	40.5
Gender (%)	
Female	58.0
Male	42.0
Age	Mean = 36.5
	SD = 11.9
Marital status (%)	
Married	58.8
Never married	28.1
Significant relationship	1.3
Separated, divorced, or widowed	11.8
Educational status	Mean = 14.5
	SD = 6.1
Household income (%)	
$20,000 or less	4.0
$20,001–$30,000	12.1
$30,001–$40,000	11.3
$40,001–$50,000	14.5
$50,001–$60,000	13.9
$60,001–$70,000	13.9
$70,001–$80,000	11.7
$80,001–$90,000	7.1
$90,001–$100,000	4.2
More than $100,000	7.1
Racial/ethnic background of American respondents (%)	
Non-Hispanic white	92.4
African American	1.6
Hispanic/Latino	2.2
Asian	1.0
Other	2.8

Independent Variables

A total of seven independent variables were used in this study. Locus of control was assessed using a 7-item version of the Rotter (1975) locus of control scale (Table 3). Response categories included (1) almost never, (2) seldom, (3) sometimes, (4) often, and (5) almost always. Scores were created by summing the seven individual items. Scores could range from 7 to 35, with higher scores indicating a tendency toward an external locus of control perspective. In this study, the average score was 15.10 with a standard deviation of 4.54. Participants in the Perry and Morris (2005) study had a mean and standard deviation score of 9.72 and 6.61, respectively.

TABLE 2
Responsible Financial Management Behavior Items

Question: How Do You Grade Yourself in the Following Areas?	Entire Sample Descriptives (Mean/SD)	Korean Subsample Descriptives (Mean/SD)	American Subsample Descriptives (Mean/SD)
Controlling my spending	3.49/0.97	3.47/1.00	3.52/0.94
Paying my bills on time	4.31/1.01	4.26/1.07	4.39/0.91
Planning for my financial future	3.32/1.08	3.23/1.01	3.45/1.17
Providing for myself and my family	3.6/1.05	3.42/1.17	3.92/0.75
Saving money	3.02/1.19	2.87/1.17	3.24/1.20
Overall score	17.76/3.62	17.25/3.62	18.52/3.52

Note: $t_{1,151} = -2.14$, $p < .05$, two-tailed.

Respondents participating in this research were much more likely to exhibit an external locus of control perspective than those in the Perry and Morris study. The scale's Cronbach's alpha was .76. This was lower than originally reported by Perry and Morris (i.e., .87).

TABLE 3
External Locus of Control Items

Question: Please Indicate Your Level of Agreement with the Following Statements:	Entire Sample Descriptives (Mean/SD)	Korean Subsample Descriptives (Mean/SD)	American Subsample Descriptives (Mean/SD)
There is really no way I can solve some of my problems	2.18/0.94	2.25/0.96	2.08/0.91
I am being pushed around in my life	2.31/1.12	2.63/1.10	1.85/0.97
There is little that I can do to change the important things in my life	2.34/1.07	2.54/1.11	2.05/0.95
I can do anything I set my mind to[a]	2.16/0.87	2.38/0.87	1.84/0.77
I am helpless in dealing with the problems of life	2.02/1.05	2.29/1.09	1.63/0.85
What happens to me in the future depends on me[a]	1.81/0.96	1.99/1.02	1.55/0.80
I have little control over the things that happen to me	2.27/1.06	2.42/1.06	2.06/1.02
Overall score	15.10/4.54	16.55/4.37	13.00/3.941

Note: $t_{1,145} = 5.03$, $p < .01$, two-tailed.
[a]Items reverse coded.

TABLE 4
Self-Perceived Financial Knowledge Items

Question: How Much Do You Know About the Following?	Entire Sample Descriptives (Mean/SD)	Korean Subsample Descriptives (Mean/SD)	American Subsample Descriptives (Mean/SD)
Interest rates, finance charges, and credit terms	3.67/1.09	3.53/1.07	3.887/1.09
Credit ratings and credit files	3.37/1.02	3.27/0.99	3.52/1.04
Managing finances	3.51/1.05	3.20/0.99	3.97/0.97
Investing money	3.05/1.14	2.88/1.08	3.30/1.19
What is on your credit report	3.17/1.26	2.91/1.20	3.54/1.26
Overall score	16.76/4.52	15.79/4.17	18.20/4.68

Note: $t_{1,149} = -3.32$, $p < .01$, two-tailed.

Financial knowledge was measured through the use of a summated self-rating scale consisting of 5 items (Table 4). Response categories included (1) nothing, (2) very little, (3) some, (4) a fair amount, and (5) a lot. Scores ranged from a low of 5 to a high of 25. On average, respondents scored 16.76 (SD = 4.52), suggesting that respondents had at least some self-perceived financial knowledge. This compares to a mean score in the Perry and Morris (2005) study of 15.42 (SD = 7.40). The reliability estimate of the summated scale was .87 using Cronbach's alpha. This compares closely to the reliability estimate of .91 in the Perry and Morris study.

Household income was measured using a 9-point measure. Respondents were asked to mark a box that matched their household income level. Categories started at under $15,000 (coded 1) and increased in $9,999 increments with over $100,000 being the maximum income (coded 9). The variable was coded dichotomously to match the method used by Perry and Morris (2005). Those with an income greater than $35,000 were coded 1, otherwise 0. Perry and Morris reported that 51 percent of their participants reported incomes greater than $35,000. In this study, slightly more than 54 percent of respondents had household income greater than $35,000.

Three interaction variables were included to account for the possibility that being Korean might interact with locus of control, financial knowledge, and household income. In order to account for this possibility, the sample was coded 1 for Koreans and otherwise 0. Given the cultural background of the sample, nearly all of the other respondents were non-Hispanic white Americans, which was similar to the omitted category in the Perry and Morris (2005) study as well.

Data Analysis

Several data analysis procedures, as originally used by Perry and Morris (2005), were incorporated into this study. To begin with, correlations between and among the independent variables were estimated. Second, *t*-tests comparing Korean and American financial management behavior, locus of control, and financial knowledge scores were conducted. Third, a regression model was employed to regress financial management behavior on external locus of control, financial knowledge, household income, and the interaction variables. This was followed by a Sobel test of mediation to determine if locus of control mediated between (1) financial knowledge and responsible financial management behavior and (2) household income and responsible financial management behavior. The regression and Sobel test analyses were used to evaluate the hypotheses.

RESULTS

Correlation Results

Table 5 shows the Pearson correlation coefficients between the independent variables and financial management behavior. Perry and Morris (2005) noted that all of the coefficients in their study were significant; however, this was likely due to the large sample size used in their study ($n = 11{,}862$). Results from this paper's correlation analysis showed that external locus of control was negatively associated with financial knowledge and financial management behavior and positively related with being Korean. The knowledge and behavior associations confirmed what Perry and Morris found in their study. Specifically, those with an external locus

TABLE 5
Pearson Correlation Coefficients (n = 153)

	Financial Management Behavior	External LOC	Financial Knowledge	Income	Korean
Financial management behavior	1.000				
External LOC	−0.272**	1.000			
Financial knowledge	0.326**	−0.200*	1.000		
Income	0.085	0.160	0.177*	1.000	
Korean	−0.172*	0.386**	−0.262**	0.033	1.000

LOC = locus of control.
*$p < .05$, **$p < .01$.

of control had less knowledge. They were also less likely to engage in responsible financial management behavior. No significant relationship was noted between locus of control and income. This finding differed from the one reported by Perry and Morris. In this study, a person's income had no association with their financial behavior. Being Korean was negatively associated with financial management behavior and financial knowledge but positively related with external locus of control. These findings were not surprising. As described in the review of literature, many collectivist Asian cultures have a strong belief system in psychosocial constructs such as luck and chance. Because of other cultural predispositions Koreans may also be likely to perceive their financial knowledge and behavioral tendencies to be below others, even if when measured objectively this may not be the case (Hsee and Weber 1999).

t-Test Results

Results from *t*-tests showed that the Koreans and Americans in the sample differed significantly in terms of financial management behavior, locus of control, and financial knowledge. Koreans scored slightly lower (mean = 17.25) than Americans (mean = 18.52) in terms of financial management behavior ($t_{1,151} = -2.14$, $p < .05$, two-tailed). Significant differences were noted in terms of locus of control. Koreans were more likely to report an external locus of control perspective (mean = 16.55) than were the Americans (mean = 13.00) ($t_{1,145} = 5.03$, $p < .01$, two-tailed). Significant differences were also noted between Koreans and Americans in terms of financial knowledge. Koreans had overall lower levels of knowledge (mean = 15.79) compared to the Americans (mean = 18.20) ($t_{1,149} = -3.32$, $p < .01$, two-tailed).

Regression Results

The regression model showing responsible financial management behavior regressed on external locus of control, financial knowledge, income, and Korean nationality is given in Table 6. Similar to the Perry and Morris (2005) study, this regression also included interactions between locus of control, knowledge, and income greater than $35,000, and Korean nationality. The overall *F* value for the model was 4.69, which was significant at the .001 level. The R^2 was .19, indicating that the amount of explained variance was somewhat greater than what Perry and Morris reported with a much larger sample size; however, the amount of explained variance suggests that other important variables, including gender and

TABLE 6
Regression Model of Responsible Financial Management Behavior

Variable	Parameter Estimate	Standard Error	*T* Value	pr > |*t*|	Standardized Estimate
Constant	12.597	2.729	4.616	.000	0
External LOC	−0.010	0.116	−0.090	.928	−.013
Financial knowledge	0.343	0.099	3.465	.001	.430
Income over $35,000	−0.033	0.876	−0.037	.970	−.004
Korean	6.684	3.365	1.986	.049	.903
Korean × external LOC	−0.241	0.144	−1.672	.097	−.583
Korean × income > $35,000	1.431	1.177	1.215	.226	.185
Korean × knowledge	−0.260	0.134	−1.938	.055	−.599

Note: Overall $F = 4.694$; $P = .001$; $R^2 = .192$; adjusted $R^2 = .151$; $N = 153$.
LOC = locus of control.

direct measures of educational attainment, ought to be incorporated into follow-up studies as a way to increase the R^2 value.

The regression model was used to assess the first three hypotheses. Perry and Morris (2005) found that external locus of control was negatively associated with financial management behavior. No such relationship, when controlling for other factors, was noted in the present study, and as such, the first hypothesis was not confirmed. Support was found for the second hypothesis. As shown in Table 6, financial knowledge was positively associated with responsible behavior. The variable's effect size, as measured by the partial coefficient, was of moderate size (pr = .27). As illustrated by the standardized coefficient, financial knowledge explained the greatest amount of variance in financial management behavior. Findings from the regression add partial support to the Perry and Morris (2005) assertion that their proposed framework can be used to help explain financial management behavior. Perry and Morris found the largest direct effect of financial knowledge on financial management behavior. The same direct relationship was noted in this study. Perry and Morris reported a standardized coefficient of .23 compared to standardized coefficients of .14 and −.13 for income and external locus of control, respectively. The coefficient size difference was even larger in this study, with financial knowledge having a standardized coefficient of .43, compared to −.01 and −.00 for locus of control and income, respectively.

Perry and Morris also hypothesized that those with household incomes greater than $35,000 should exhibit better financial management behavior. No such relationship was noted in this study. A confirmation test was conducted by replacing the dichotomously coded income variable with monthly household income. The interaction term was also changed to account for monthly household income. Even after this change was made,

no direct or interaction income effect was noted. Hypothesis 3 was not confirmed. High-income respondents were just as likely to note their financial management behavior as being either positive or negative as lower income respondents.

Sobel Test Results

Perry and Morris (2005) also speculated that external locus of control mediates the relationship between financial knowledge and financial management behavior and the relationship between income and financial management behavior. In effect, Perry and Morris argued that locus of control can influence the direct role financial knowledge and income has on financial management behavior. Their hypotheses fit with Baron and Kenny's (1986) definition of variable mediation. That is, a variable functions as a mediator when "variations in levels of the independent variable significantly account for variations in the presumed mediator…, and variations in the mediator significantly account for variations in the dependent variable," and when the independent and mediator variables are controlled, "a previous significant relation between the independent and dependent variables is no longer significant…" (1176). A Sobel test is typically conducted to assess mediation. Perry and Morris used two separate Sobel tests to investigate their hypotheses. According to Baron and Kenny, at least three regressions are needed to test for mediation. First, the mediator should be regressed on the independent variable. Second, the dependent variable should be regressed on the independent variable, and third, the dependent variable should be regressed on both the independent and mediator variables. "To establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation" (Baron and Kenny 1986, 1177). For the replication purposes of this study, the same Sobel procedure employed by Perry and Morris (2005) was used. In the first regression, financial knowledge was utilized to predict external locus of control. The second regression measured the effect of financial knowledge on financial management behavior in the absence of locus of control. The third regression, added by Perry and Morris, used the mediator (i.e., locus of control) to predict financial management behavior. The last regression measured the effect of financial knowledge and external locus of control (i.e., mediating variable) on financial management behavior. Mediation was evidenced by the significance of the coefficients on the independent variables in each of the models, and by the coefficients for the independent variables in the fourth regression being smaller than the

TABLE 7
Sobel Regression Analysis of Financial Management Behavior as a Function of Knowledge and External Locus of Control

	Independent Variables	Dependent Variables	Coefficients
Regression 1	Knowledge	Locus of Control	−.199*
Regression 2	Knowledge	Financial management behavior	.262**
Regression 3	Locus of control	Financial management behavior	−.218**
Regression 4	Knowledge	Financial management behavior	.220**
	Locus of control		−.175**

*$p < .05$, **$p < .01$.

coefficients in the second and third regressions. That is, the knowledge coefficient in the last regression was smaller, but still statistically significant, when compared to the knowledge coefficient in the second regression. Similarly, the coefficient for locus of control in the fourth regression was both statistically significant and smaller than the coefficient in the third regression.

Table 7 shows the results from the first Sobel test. Support was provided for the fourth hypothesis, which asserted that the indirect effect of financial knowledge on financial management behavior through external locus of control would be significantly different than zero ($F = 12.446$, $p < .001$). That is, locus of control was found to mediate the effect of financial knowledge on responsible financial management behavior.

A similar Sobel test was conducted to test the fifth hypothesis, which stated that external locus of control should mediate the relationship between household income and responsible financial management behavior. Table 8 shows the results from the Sobel test. Findings from the analysis ran counter to both what Perry and Morris (2005) hypothesized and concluded. External locus of control was not found to mediate the relationship between income and financial management behavior in this study. As such, the fifth hypothesis was not confirmed. This result is not necessarily surprising given that household income did not have a significant direct effect on financial management behavior in the regression.

TABLE 8
Sobel Regression Analysis of Financial Management Behavior as a Function of Household Income and External Locus of Control

	Independent Variables	Dependent Variables	Coefficients
Regression 1	Income > $35,000	Locus of control	1.449*
Regression 2	Income > $35,000	Financial management behavior	0.612
Regression 3	Locus of control	Financial management behavior	−0.218**
Regression 4	Income > $35,000	Financial management behavior	0.917
	Locus of control		−0.234**

*$p < .05$, **$p < .01$.

Interaction Regression Results

In the final model, as shown in Table 6, no significant interactions were noted between Korean and external locus of control or Korean and income greater than $35,000. As such, findings failed to confirm hypothesis 6 or 7. Hypothesis 8, however, was partially confirmed. A negative interaction was observed between Korean and knowledge. Although the statistical significance was $p = .055$, the effect size (pr $= -.16$) was similar to the partial correlation noted for the Korean direct effect, suggesting that the significance of the interaction, although greater than $p < .05$ but less than $p < .10$, was indicative of a meaningful relationship. This negative interaction indicated that the most knowledgeable Koreans exhibited less responsible financial management behavior compared to their American counterparts. This finding adds support to the cushion hypothesis (Weber and Hsee 1998, 1999) by hinting at the possibility that financially knowledgeable Koreans might be willing to engage in nonresponsible financial management behavior with the awareness that potential negative outcomes associated with such behavior will be minimized through cultural and family financial support.

Another finding, although not directly related to one of the research hypotheses, was the positive direct effect being Korean had on responsible financial management behavior. Koreans were found to exhibit more responsible behavior than the Americans in the sample when interaction effects were included in the model. This direct effect result differed from the correlation analysis that showed a negative association between being Korean and financial management behavior. A confirmatory hierarchical regression was used to further examine this issue. A negative association between being Korean and financial management behavior was initially noted in the hierarchical regression. Although the relationship was negative, the relationship was not statistically significant when locus of control, financial knowledge, and income were added to the model. The relationship between Korean and responsible financial management behavior became positive when the interaction term between being Korean and locus of control was added, even though the relationship was still not significant. Only when the Korean–knowledge interaction term was added to the full model did the direct effect of being Korean on responsible financial management behavior become significantly positive. The effect size was modest but reasonable given the sample size (pr $= .16$). These results lead to the following observations. First, external locus of control appears to influence Korean financial management behavior indirectly. Koreans with an external locus of control exhibited worse behavior. Even though the interaction was not statistically significant, the moderation effect was large enough to change

the direction of the Korean regression coefficient. Second, knowledge appears to also act as a moderating variable, so that when the interaction between external locus of control and knowledge was accounted for, Koreans emerged from the analysis as exhibiting more responsible financial management behavior. Had a larger sample been used it is likely that both interaction terms would have been significant.

CONCLUSIONS AND IMPLICATIONS

The primary purpose of this study was to replicate the tests employed by Perry and Morris (2005) to further examine their conclusions in a Korean cultural context in order to determine if their findings were unique to the sample used or more generalizable across regional and cultural contexts. Table 9 shows how the results from this study compared to findings originally reported by Perry and Morris. Overall, findings were in general concurrence with the original study; specifically, "consumers' propensity to save, budget, and control spending depends on their level of perceived control over outcomes as well as knowledge and financial resources" (310).

Findings from this study suggest that being Korean, in general, positively relates to responsible financial management behavior when

TABLE 9
Comparison of Findings Between Perry and Morris and Current Study

Key Findings (Perry and Morris 2005)	Support for Findings from Current Study
Asians more financially responsible	No (bivariate) Yes (multivariate)
External locus of control negatively associated with responsible financial management behavior	No
Financial knowledge positively associated with responsible financial management behavior	Yes
Income positively associated with responsible financial management behavior	No
Locus of control mediates between financial knowledge and financial management behavior	Yes
Locus of control mediates between income and financial management behavior	No
Being Asian does not moderate between locus of control and financial management behavior	Yes
Being Asian does not moderate between income and financial management behavior	Yes
Being Asian does not moderate between financial knowledge and financial management behavior	No

controlling for locus of control, financial knowledge, and income interactions. This finding may be an indicator of a cultural orientation that values thrift. In the United States, savings rates were near zero at the time of the survey, whereas in South Korea the savings rate was significantly higher. Furthermore, it was shown that locus of control mediates between financial knowledge and financial management behavior. However, it was noted that being Korean did not moderate between locus of control and financial management behavior or income and financial management behavior. These findings lend support to the assertion that Koreans may be more similar to other Asians, such as Chinese, than they are to other racial groups.

Support for the hypothesis that financial knowledge plays an important role in shaping responsible financial management behavior was established. The most statistically significant factor associated with financial management behavior, in this study, was a person's level of financial knowledge. Those with high financial knowledge exhibited more responsible financial management behavior. It is important to note that additional research is needed to delve into the causation of this effect. For instance, "self-assessed financial knowledge and self reported financial management behavior may be similar in the minds of respondents" (Perry and Morris 2005, 310). Nonetheless, the fact that those with increased levels of perceived knowledge also were likely to be more responsible with their financial situation adds support to the general importance knowledge plays in shaping consumer behavior. Those with the highest levels of financial knowledge should be less likely to fall prey to consumer rip-offs, such as payday loans, high interest rate debt, investment scams, and other financial pitfalls that can lead to loan defaults, reductions in credit scores, and restrictions in the ability to obtain future financing for the achievement of financial goals and objectives. Overall, the knowledge findings from this study lend support to Yao, Gutter, and Hanna's (2005) call for policy makers, government agencies, and financial educators to promote financial education to culturally diverse groups in order to promote better consumer finance choices for financial goals.

Although findings were generally supportive of conclusions presented by Perry and Morris (2005), there were several areas in which results were markedly different. From the perspective of a simple correlational association, having an external locus of control perspective was found to be related to less responsible financial management behavior. However, when viewed in a multivariate framework, the direct effect of locus of control on financial management behavior disappeared. It seems as if locus of control may have a more important indirect effect on influencing perceptions of behavior, primarily as a mediating factor with financial knowledge on

responsible financial management behavior. From a cultural perspective, it is possible that Koreans' high level of external locus of control accounts for much of the financial management behavioral differences between Koreans and Americans identified in this study. Koreans' proclivity to control spending, save, and budget may depend, to a great extent, on their level of perceived control over financial outcomes, at least when compared directly to Americans.

Other differences include the finding that showed no direct income association with responsible financial management behavior. In this respect, Koreans were similar to Americans. An interaction was noted between being Korean and financial knowledge. The more knowledgeable Koreans in the sample exhibited less responsible financial management behavior than their American counterparts. This finding differed from the early report. This may be the result of cultural differences between Koreans and Americans. Financially knowledgeable Koreans, for example, may be less sensitive to changes in employment and financial markets. That is, Koreans who fit this profile may be exhibiting behavior that supports the cushion hypothesis (Weber and Hsee 1998, 1999). The more knowledgeable Koreans, as residents of a collectivist culture but temporarily living in the United States, may feel insulated against losses from financial decisions (Weber and Hsee 1998) because they can rely on the support of family, close in-group connections, and government assistance if they incur a loss due to a financial decision.

The results from this study add to the existing literature in several ways. First, findings confirm what Tigges et al. (2000) concluded, namely, "cultural and subcultural or subgroup differences should generally be taken into consideration" (133) within research and practice management situations. Cultural attributes do appear to affect financial management behavior. Second, results from this paper help explain "how psychological differences between people from varying cultural backgrounds shape their beliefs and behaviors" (Brockner and Chen 1996). Even so, certain limitations inherent in the methodology ought to be considered. To begin with, this research was a replication of a previous study. There is the possibility that the conceptualization of responsible financial management behavior, as measured by the scale instrument, could be misconstrued by respondents. No specific steps were taken beyond what Perry and Morris (2005) reported to address this potential limitation. Furthermore, the sample itself, while acceptable as a means for comparing Koreans living in the United States with Americans, may not generate results that are generalizable to Koreans who have not and will not live outside of South Korea. Also, the convenience nature of the sample limits the potential generalizability of findings more broadly to

non-Korean Asians. Specifically, because the sample was designed to over-represent Koreans it is possible that had Asians from other nations participated in the study, dissimilar results might have been noted. Furthermore, it is possible that the intervening years between the data collection period for the Perry and Morris study and the survey used in this study might have resulted in uncontrolled impacts of economic and social changes in South Korea and the United States. Still, while generalizability limitations in the sample, in terms of size and diversity, need to be acknowledged, findings add to what Weber and Hsee (1999) called a "cross-cultural research mosaic" (615). The literature devoted to cross-cultural similarities and differences in relation to financial attitudes and behaviors is growing but limited. The few studies that do address this important consumer issue tend to compare Americans to Chinese or compare subgroups of Americans to each other. The existing literature suggests that cultural differences have an impact on the financial knowledge, attitudes, and behaviors of people. However, as of this writing, there is still a need for additional evidence of cross-cultural similarities and disparities, employing diverse statistical methods, including structural equation models and nonparametric classification and decision trees, in order for a "knowledge base of reliable cross-cultural differences in perceptions, beliefs, or modes of information processing" (Weber and Hsee, 612) to emerge. This research adds to the growing mosaic of such a knowledge base. Finally, results suggest that Koreans are similar to other Asian groups, primarily Chinese, in terms of financial management behavior and the role locus of control and knowledge play in shaping behavior.

In summary, the results from this study help to validate the claim that consumer financial knowledge and locus of control have an important role to play in shaping financial management behavior. Perry and Morris (2005) concluded that "financial knowledge has a significant effect on financial outcomes, suggesting that devoting resources to consumer financial education may be worthwhile" (p. 311). The findings reported here add support to their assertion. The major diversion in results was found in relation to the role locus of control plays in shaping consumer financial management behavior. No direct locus of control effects were noted in this study; however, external locus of control was found to act as a mediating factor between financial knowledge and responsible financial management behavior. Additional research is needed to better understand the antecedents of financial knowledge. Furthermore, as the population of the global economy becomes more interrelated and cultural diversity more prominent, future studies, similar to this one, that look at cultural differences in financial attitudes, knowledge, and behavior will be needed to help

shape policy in such a way that consumers, from all backgrounds, have the tools and techniques available to make responsible financial management decisions.

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