

Antecedents and Consequences of Risky Credit Behavior among College Students: Application and Extension of the Theory of Planned Behavior

Jing Jian Xiao, Professor
Department of Human Development and Family Studies
University of Rhode Island
(401) 874-2547; xiao@uri.edu

Chuanyi Tang, Post-doctoral Associate
Warrington College of Business Administration
University of Florida
(352) 392-7166; chuanyi.tang@warrington.ufl.edu

Joyce Serido, Assistant Research Professor
Norton School of Family & Consumer Sciences
University of Arizona
(520) 621-5820; jserido@email.arizona.edu

Soyeon Shim, Professor and Director
Norton School of Family & Consumer Sciences
University of Arizona
520) 621-7147; shim@ag.arizona.edu

Acknowledgement: This study is funded by the National Endowment of Financial Education.

Antecedents and Consequences of Risky Credit Behavior among College Students:
Application of the Theory of Planned Behavior

Abstract

The Credit Card Act (2009) reflects increased public policy concern about the risky credit behaviors of young adults. This law increases the responsibility of parents and implies that young adults will have to acquire financial knowledge and practice responsible financial behaviors. This study addresses this public issue by investigating the psychological processes underlying young adults' risky credit card behaviors and the role that parents and financial knowledge play in the financial behavior of young adults. A conceptual model based on an extension of the Theory of Planned Behavior was proposed. Data were collected from a sample of first-year students at a major public university. Results showed that both parental norm and parental socioeconomic status are important factors influencing students' risky credit behaviors. Furthermore, subjective financial knowledge does more to prevent risky credit behaviors than does objective financial knowledge. Finally, behavioral intention is the most important factor in preventing risky credit behaviors and credit card debt accumulation. We draw on our findings to provide public policy implications.

Keywords: Credit Card Debt, Financial Behavior, Financial Knowledge, Risky Credit Behavior, Theory of Planned Behavior

Over the past several decades, credit card use has become common among college students in the U.S. A survey conducted in 2009, for example, found that 84% of undergraduate college students possessed at least one credit card, and half of those students were found to own four or more. Furthermore, 82% of the students surveyed carried a credit card balance that averaged \$3,173 (Sallie Mae 2009). Risky credit behaviors, such as keeping a credit card balance of over \$1,000, are associated with such unhealthy behaviors as eating poorly, abusing drugs and alcohol, engaging in unsafe sex, and driving recklessly (Adams and Moore 2007; Nelson, Lust, Story, and Ehlinger 2008). Heavy credit card debt among college students is also associated with financial stress (Grable and Joo 2006), compulsive buying (Roberts and Tanner 2000), poorer academic achievement (Pinto, Parente, and Palmer 2001), and, in some extreme cases, even suicide (Manning 2000). Conversely, engaging in responsible financial behaviors, including prudent borrowing practices, increases life satisfaction and sense of well-being in several life domains, including academics, physical health, and mental health (Shim, Xiao, Barber, and Lyons 2009; Xiao, Tang, and Shim 2009).

The federal government has long been concerned about the extent and implications of credit card use among college students (GAO 2001). A new credit card law, signed by President Obama in May 2009, includes specific measures to protect young adults against credit card misuse. For example, any adult under 21 who applies for a credit card must find an older adult to co-sign the application (Detweiler 2009). Additional protection and education measures aimed at young adults are also currently proposed before Congress. The Young Adults Financial Literacy Act, proposed in 2009, seeks to establish a grant program in the Department of the Treasury to fund “centers of excellence” to support research, development, and implementation on the effectiveness of financial literacy education programs for young adults aged 15-24 years old (H.

R. 3147 2009). To provide a better understanding of young adults' financial behaviors and to lay out a firm foundation for current and future public policymaking, our study sought to identify parental SES, financial knowledge, and other factors related to the risky credit behaviors of college students with the intention of describing implications of public policies that encourage young adults to use consumer credit sensibly.

CONCEPTUAL MODEL AND HYPOTHESES

A conceptual model in accordance with principles set forth by the Theory of Planned Behavior (Ajzen 1991) guides the study. To our knowledge, this is the first study to use this theory to explain the risky credit behavior of college students. Because we wanted to link the empirical literature concerning students' financial behaviors to that concerning financial well-being, we extended the original model by including parental socioeconomic status (SES) and financial knowledge, as two external factors that would affect the planned behavior model, and credit card debt, an outcome variable (Figure 1). As has been done in previous studies (e.g. Guo, Xiao, and Tang 2009; Hrubes, Ajzen, and Daigle 2001; Shim, et al. 2001), we modified the original theory, using two factors (parental norm and friends' norm) to represent subjective norms, and in place of perceived control we used two factors that circumscribe financial self-efficacy (perception of internal ability) and controllability (perception of external constraints). Our conceptual model delineates the psychological processes through which parental SES and financial knowledge affect college students' risky financial behavior and well-being. This influence is exerted mainly through the internalization and mediating effects of these planned behavior variables: attitudes, subjective norm, perceived control, and behavioral intention.

Generally, psychologists agree that parental influence is the most consistent socialization agent across age groups (Moore et al. 2002) and that this influence produces long-term effects

(Vandell 2000). Accordingly, children learn “consumption necessities” or “rational” consumption from their parents (Ward 1974). Most parents also actively attempt to teach their children consumer skills (Moschis and Churchill 1978), and parental involvement typically induces offspring to practice more prudent credit card use when they leave home to attend college (Palmer, Pinto, and Parente, 2001). However, a review of 25 years of consumer socialization research concluded that family influence stems more from indirect influence rather than direct parental instruction (John 1999). Several studies consider parental socioeconomic status (which includes such variables as mother’s education and parental home ownership) to be a possible factor (Carlson and Grossbart 1988; Lyons 2008). Therefore, we propose the following hypotheses:

Hypothesis 1: Students whose parents have a higher SES should: a) have more favorable attitudes toward positive financial behaviors; b) hold stronger beliefs about their own ability to manage their finances; c) feel more strongly that their finances are controllable; d) be more likely to meet their parents’ expectations regarding money management; and e) be less likely to meet their friends’ expectations regarding money management.

Previous studies have found evidence of a positive relationship between financial education and financial behaviors (Borden et al. 2005; Hayhoe et al. 2005; Lyons 2008; but see Hayhoe et al. 1999 for an exception). The positive influence that financial education (or financial knowledge) has on financial behavior may result from its effects on an individual’s attitudes, perceived control, and subjective norm. Because subjective knowledge and objective knowledge may have unique effects on consumers’ decision-making and behaviors (Ellen 1994; Raju, Lonial and Mangold 1995), we divided the financial knowledge factor into two sub-factors: subjective and objective. We formed the following hypotheses:

Hypothesis 2: Students with more financial knowledge, both subjective and objective, should: a) have more favorable attitudes towards positive financial behaviors; b) be more confident in their ability to manage their finances; c) feel more strongly that their finances are controllable; d) be more likely to meet their parents' expectations concerning money management; and e) be less likely to meet their friends' expectations concerning money management.

Based on the extended model of planned behavior, several factors, which we have labeled "planned behavior factors," contribute to financial behaviors. These include *attitudes*, *self-efficacy*, *controllability*, *parental norm*, and *friends' norm*. As Ajzen (1991) contends, all of these except for *friends' norm* should negatively correlate with risky credit behaviors. Other previous studies also conclude that peers can negatively affect the positive financial behavior of college students (Xiao et al. 2008). Risky credit behaviors include a wide range of behaviors and because a specific behavior cannot sufficiently represent the domain of risky credit behaviors, we conceptualized risky credit behaviors into two behavior categories (risky paying behavior and risky borrowing behavior), with each category representing multiple acts with a central theme (Ajzen and Fishbein 1980). For example, the category that circumscribes risky borrowing behavior includes such behaviors as "borrowing money from credit cards" and "maximizing credit card limit." We further propose that positive financial behavioral intention should reduce risky credit behavior. Based on these assumptions, we formed the following hypotheses:

Hypotheses 3: Students should have a stronger intention toward performing positive financial behaviors if they: a) hold a favorable attitude toward positive financial behaviors; b) possess a higher level of self-efficacy toward money management; c) feel more strongly that they

can control their finances; d) rate more highly their parents' approval of positive financial behavior; and e) rate lower their friends' approval of positive financial behavior.

Hypothesis 4: Students should be less likely to engage in risky credit behaviors if they: a) have stronger intention toward performing positive financial behaviors; b) possess a higher level of self-efficacy toward money management; and c) feel more strongly that they can control their finances.

A number of previous studies focused on identifying factors associated with risky credit behaviors (e.g., credit card balances of \$1,000 or more) (Hayhoe et al. 1999; 2005; Lyons 2004; 2008) and the potential effects that credit card use and debts have on buying behavior (Roberts and Jones 2001). However, no previous research has linked risky credit behaviors directly to credit card debt. We therefore examined this association and tested the following hypothesis:

Hypothesis 5: Students who engage more often in risky credit behaviors are likely to accumulate more credit card debt.

METHOD

Data were collected from 2,098 first-year students, representing 32% of the 2007 first year cohort at a major state university. The majority (85.7%) of the respondents completed the online survey, while the remaining 14.3% completed the paper version of the survey. For the purpose of this study, we selected only those students who owned credit cards (N=1,242). Of those, 60% were female and 65% were from in-state. About two thirds (66%) were white , 14% Hispanic, 10% Asian and 10% all others. Sixty-nine percent of the sample reported possessing only one credit card, with the mean of number of credit cards owned being 1.45 for the whole sample. Approximately 33% had balances on their credit cards, with the average credit card debt being \$202. There were no significant differences regarding GPA, ethnicity, and

parental SES between those students who owned credit cards and those who did not. A higher percentage of male students owned at least one credit card.

The measures and reliabilities for all study constructs appear in Table 1. *Subjective financial knowledge* was measured using two self-reported items. The correlation between the two items is .43 ($p < .01$). *Objective financial knowledge* was measured by summing correct responses to eight credit-related quiz questions adapted from Hilgert et al. (2003). *Parental socioeconomic status (SES)* was measured using parents' education and parental income, an approach similar to that recommended by Coleman (1983). *Financial attitude* was measured using three items asking respondents how they felt about positive financial activities related to budgeting, credit and saving. *Financial self-efficacy* was measured by means of a single item designed to ascertain how confident the respondents felt about their ability to manage their own finances. *Financial controllability* was measured using one item asking respondents how easy or difficult it was to stick to their plans when actually managing their money. *Parental norm* was assessed using three measures. Each measure is the product of a multiplication of parental expectation and the students' motivation to comply, a measure suggested by Fishbein and Ajzen (1980). *Friends' norm* was measured using the same approach. *Financial behavioral intention* was measured according to how readily the respondents might engage in positive financial activities related to budgeting, credit and saving within the next 12 months. *Risky credit behavior* was measured using five items drawn from previous research (Lyons 2004). It has two dimensions: risky paying behavior (two items) and risky borrowing behavior (three items). The correlation between the two items of risky paying behavior is .57 ($p < .01$). *Credit card debt* was a continuously measured variable based on the respondents' outstanding monthly credit card debt.

RESULTS

To test the conceptual model and investigate the hypothesized relationships, we used the two-step, structural-equation modeling procedure proposed by Anderson and Gerbing (1988). For the single item constructs such as objective financial knowledge and financial controllability, we set the variance of each single-item construct equal to 1, constrained the error of its indicator as zero, and freely estimated its loadings. After the insignificant paths had been eliminated and the model had been modified according to the modification indices, the results of our test of the final model fit were $\chi^2_{(266)} = 1738.006$, $p=0.000$, CFI= .934, NFI= .924, NNFI= .920, and RMSEA= .0734. These indices were acceptable (Figure 2). Results indicated that H1a, H1d, H1e, H2a, H3a, H3b, H3c, H3d, H4a, and H5 were supported; H2b, H2c, H2d, H4b, and H4c were partially supported; H1b, H1c, H2e, and H3e were rejected. Also, new paths were added to the proposed structural model as suggested by modification indices: parental SES had a direct negative effect on credit card debt; subjective financial knowledge was positively associated with credit card debt; objective financial knowledge was negatively associated with risky borrowing behavior and positively associated with credit card debt; and intention had a direct negative effect on credit card debt.

DISCUSSION AND IMPLICATIONS FOR PUBLIC POLICIES

We undertook this study as an effort to identify the antecedent factors and the potential psychological process that leads to the risky credit behaviors practiced by many college students today, and the negative outcomes of those behaviors. Our results showed that our proposed extended model of planned behavior was a good fit for explaining the process through which young adults develop risky financial behaviors and accumulate credit card debt. The planned behavior variables fully mediated the relationships between the external variables (parental SES

and financial knowledge) and risky paying behavior, and they partially mediated the relationships between external variables and the students' risky borrowing behavior and accumulation of credit card debt. Furthermore, our total-effect analysis showed that all but one of the planned behavior factors (i.e., friends' norm), worked to prevent students from engaging in risky financial behaviors and accumulating credit card debt. In particular, behavioral intention played the most important role in the process, and this finding clearly indicates the importance of instilling positive attitudes, reinforcing parental norm, and enhancing perceived control in order to deter students from engaging in risky credit behavior. This finding also suggests that financial education, which is currently encouraged by law makers, should be a systematic effort targeting multiple psychological processes that lead to changes in attitude and the enhancement of self-confidence. The core objective of any financial education program should be to develop the student's positive financial intentions or behaviors. Therefore, we believe that financial education programs, rather than aiming to merely distribute information should seek to promote positive behavior change. For example, in addition to direct teaching, educators might ask students to create, on a regular basis, plans for conducting activities associated with personal finances, and then follow-up with students to encourage them to stick to their plans and to provide feedback about their performance.

Our results suggest that parents significantly influence their children's financial behaviors and well-being. The parents' role is reflected in two aspects: parental norm and parental SES. Parental norm helps to prevent students from engaging in risky credit behavior and accruing credit card debt indirectly via behavioral intentions. Parental SES influences risky credit behaviors indirectly via the mediating effects of the planned behavior variables. This factor also works both directly and indirectly to reduce the amount of credit card debt an offspring accrues,

and its direct effect ($\beta = -.121$) is larger than its indirect effect ($\beta = -.043$). The relatively weak indirect effect suggests that affluent parents may be providing more instrumental support, perhaps by paying off their child's credit card debt rather than by influencing the development of their children's responsible financial behaviors.

The significant influence that parents have on their children's financial behavior and well-being provides direct evidence to support the new credit card law's requirement that an older adult (most often one of the young adult's parents) should be directly involved when the young adult (defined as anyone under 21) seeks to acquire a credit card. However, policy makers should understand that regulations and new credit policies will be more effective if both parents and their children clearly understand the pitfalls as well as the benefits of possessing and using credit cards. Providing separate documentation to the young adult and the cosigner during the application process, each document written in accessible language and highlighting the respective rights and responsibilities of each signer, would be a good starting point. Moreover, public policy makers should understand that parents do not promote offspring's responsible borrowing behavior by paying off the child's credit card debt. It is more reasonable to assume that such an action would actually encourage bad behaviors, and thus the documentation aimed at parents as co-signers would discourage this sort of action. Public policy should encourage parents to engage in the financial education of their children by establishing clear parental norm, by role modeling, and by providing direct instruction. Education programs might be more effective when designed to teach parents how to engage young adults in discussions about responsible financial behaviors at the same time they educate young adults.

It is perhaps not surprising that an individual is apparently more likely to engage in risky credit behaviors if his/her parents lack resources, as these young adults may turn to more risky

sources for funding their college education. If so, this condition presents another problem for offspring entering college during the present economic recession, with the costs of financing a college education increasing (Baum and Ma 2009). To mitigate this problem, special help in understanding the available options for financing an education, as well as the benefits of investing in a college education, could be given to families of lower socioeconomic standing. For this reason, policy makers should consider expanding access to free financial educational resources (e.g., mymoney.gov, GAO 2006) by including information about college financing options. Working in concert with college financial aid administrators, policy makers could increase the likelihood that the young people most in need of this information gain access to it.

Our study found that financial knowledge influences risky credit behaviors and credit card debt in such complex ways that acquiring such knowledge could be a double-edged sword—that is, the effects can be both direct and indirect and both positive and negative at the same time. In general, both objective financial knowledge and subjective financial knowledge significantly affect students' practice of risky credit behaviors but do not influence the accumulation of credit card debt. This study found that financial knowledge influences a student's credit behaviors mainly when that financial knowledge has been internalized and incorporated into the student's positive financial attitude and his/her perception of parental norm, financial self-efficacy, and financial controllability. Our results also showed that subjective financial knowledge plays a more important role in the process than does objective financial knowledge, and this finding is consistent with the findings of previous studies on other behaviors (e.g., Ellen 1994; Raju, Lonial, and Mangold 1995). This result indicated that what students believe they know (rather than what they actually know) more strongly influences their decision-making and outcome behaviors. Policy makers should be made aware of these complex

relationships when they endorse financial education programs for young adults. Financial education for young adults should be specific to the personal finance issues these young adults face, such as managing debt and credit responsibly. In addition to rules and regulations, young adults need to understand how to analyze available information to make good financial decisions to build confidence in their ability to manage their personal finances. At the same time, action-oriented teaching approaches, incorporating the technologies that appeal to this age group may help young adults understand how to responsibly make use of new and emerging programs offered by financial services providers, such as cell-phone banking. Otherwise, the information delivered could actually induce young adults to engage in more risky credit behaviors.

References

Adams, Troy, and Monique Moore (2007), "High-risk Health and Credit Behavior among 18- to 25-year-old College Students," *Journal of American College Health*, 56(2), 101-108.

Ajzen, Icek (1991), "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Process*, 50(2), 179-211.

Ajzen, Icek, and Martin Fishbein (1980), *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.

Anderson, James C. and David W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-step Approach," *Psychological Bulletin*, 103(3), 411-423.

Baum, Sandra and Jennifer Ma. (2009), "Trends in College Pricing," (accessed May 16, 2010), [available at <http://www.collegeboard.com/html/trends/>].

Borden, Lynne M., Sun-A Lee, Joyce Serido, and Dawn Collins (2008), "Changing College Students' Financial Knowledge, Attitudes, and Behavior through Seminar Participation," *Journal of Family and Economic Issues*, 29(1), 23-40.

Carlson, Les and Sanford L. Grossbart (1988), "Parental Style and the Consumer Socialization of Children," *Journal of Consumer Research*, 15 (1), 77-94.

Coleman, Richard P. (1983), "The Continuing Significance of Social Class to Marketing," *Journal of Consumer Research*, 10(3), 265-280.

Detweiler, Gerri (2009), "Understanding the Credit Card Accountability Responsibility and Disclosure Act," (accessed March 19, 2010), [available at http://www.credit.com/credit_information/credit_law/understanding_the_credit_card_accountability_responsibility_and_disclosure_act.jsp].

Ellen, Pam Scholder (1994), "Do We Know What We Need to Know? Objective and Subjective Knowledge Effects on Pro-ecological Behaviors," *Journal of Business Research*, 30(1), 43-52.

GAO. (2001), "Consumer Finance: College Students and Credit Cards," GAO-01-773. Washington, DC: United States Government Accounting Office.

Grable, John E. and So-Hyun Joo (2006), "Student Racial Differences in Credit Card Debt and Financial Behaviors and Stress," *College Student Journal*, 40(2), 400-408.

Guo, Lin, Jing Jian Xiao, and Chuanyi Tang (2009), "Understanding the Psychological Process Underlying Customer Satisfaction and Retention in a Relational Service," *Journal of Business Research*, 62(11), 1152-1159.

H. R. 3147: Young Adults Financial Literacy Act. (2009), (accessed March 19, 2010), [available at <http://www.govtrack.us/congress/bill.xpd?bill=h111-3147>].

Hayhoe, Celia Ray, Lauren Leach, and Myria W. Allen (2005), "Credit Cards Held by College Students," *Financial Counseling and Planning*, 16(1), 1-10.

Hayhoe, Celia Ray, Lauren Leach, and Pamela R. Turner (1999), "Discriminating the Number of Credit Cards Held by College Students Using Credit and Money Attitudes," *Journal of Economic Psychology*, 20(6), 643-656.

Hayhoe, Celia Ray, Lauren Leach, Pamela R. Turner, Marilyn J. Bruin, and Frances C. Lawrence (2000), "Differences in Spending Habits and Credit Card Use of College Students," *The Journal of Consumer Affairs*, 34(1), 113-133.

Hilgert, Marianne A., Jeanne M. Hogarth, and Sondra G. Beverly (2003), "Household Financial Management: The Connection between Knowledge and Behavior," *Federal Reserve Bulletin*, 89(7), 309-322.

Hrubes, Daniel, Icek Ajzen, and John Daigle (2001), "Predicting Hunting Intentions and Behavior: An Application of the Theory of Planned Behavior," *Leisure Sciences*, 23(3), 165-178.

John, Deborah Roedder (1999), "Consumer Socialization of Children: A Retrospective Look at Twenty-Five Years of Research," *Journal of Consumer Research*, 26 (December), 183-213.

Lyons, Angela C. (2004), "A Profile of Financially At-risk College Students," *The Journal of Consumer Affairs*, 38(1), 56-80.

Lyons, Angela C. (2008), "Risky Credit Card Behavior of College Students," In J. J. Xiao (ed.). *Handbook of Consumer Finance Research* (pp. 185-208). New York: Springer.

Manning, Robert D. (2000), *Credit Card Nation: The Consequences of America's Addiction to Credit*. New York: Basic Books.

Moore, Jesse, Mary Anne Raymond, John Mittelstaedt, and John F. Tanner, Jr. (2002), "Age and Consumer Socialization Agent Influences on Adolescents' Sexual Knowledge, Attitudes, and Behavior: Implications for Social Marketing Initiatives and Public Policy," *Journal of Public Policy & Marketing*, 21 (Spring), 37-52.

Moschis, George P. and Gilbert A. Churchill Jr. (1978), "Consumer Socialization: A Theoretical and Empirical Analysis," *Journal of Marketing Research*, 15 (November), 599-609.

Nelson, Melissa C., Katherine Lust, Mary Story, and Ed Ehlinger (2008), "Credit Card Debts, Stress and Key Health Risk Behaviors among College Students," *American Journal of Health Promotion*, 22(6), 400-412.

Palmer, Todd Starr, Mary Beth Pinto, and Diane H. Parente (2001), "College Students' Credit Card Debt and the Role of Parental Involvement: Implications for Public Policy," *Journal of Public Policy & Marketing*, 20(1), 105-113.

Pinto, Mary Beth, Diane H. Parente, and Todd Starr Palmer (2001), "College Student Performance and Credit Card Usage," *Journal of College Student Development*, 42(1), 49-58.

Raju, P. S., Subhash C. Lonial, and W. Glynn Mangold (1995), "Differential Effects of Subjective Knowledge, Objective Knowledge, and Usage Experience on Decision Making: An Exploratory Investigation," *Journal of Consumer Psychology*, 4(2), 153-180.

Roberts, James A. and Eli Jones (2001), "Money Attitudes, Credit Card Use, and Compulsive Buying among American College Students," *The Journal of Consumer Affairs*, 35(2), 213-240.

Roberts, James A. and John F. Tanner Jr. (2000), "Compulsive Buying and Risky Behavior among Adolescents," *Psychological Reports*, 86 (3), 763-70.

Sallie Mae (2009), "How Undergraduate Students Use Credit Cards: Sallie Mae's National Study of Usage Rate and Trends 2009," (accessed September 13, 2010), [available at <http://www.salliemae.com/NR/rdonlyres/0BD600F1-9377-46EA-AB1F-6061FC763246/10744/SLMCreditCardUsageStudy41309FINAL2.pdf>].

Shim, S., Mary Ann Eastlick, Sherry L. Lotz and Patricia Warrington (2001), "An Online Prepurchase Intentions Model: The Role of Intention to Search," *Journal of Retailing*, 77(3), 397-416.

Shim, Soyeon, Jing Jian Xiao, Bonnie Barber, and Angela C. Lyons (2009), "Pathways to Life Success: A Model of Financial Well-being for Young Adults," *Journal of Applied Developmental Psychology*, 30(6), 708-723.

Vandell, Deborah Lowe (2000), "Parents, Peer Groups, and Other Socializing Influences," *Developmental Psychology*, 36 (November), 699-710.

Ward, Scott (1974), "Consumer Socialization," *Journal of Consumer Research*, 1 (September), 1-14.

Xiao, Jing Jian, Bonnie Barber, and Soyeon Shim (2008, November), "Financial Behavior of Young Adults: Role of Parents," Paper presented at the annual conference of National Council on Family Relations, Little Rock, AR.

Xiao, Jing Jian, Chuanyi Tang, and Soyeon Shim (2009), "Acting for Happiness: Financial Behavior and Life Satisfaction of College Students," *Social Indicators Research*, 92(1), 53-68.

DO NOT PRINT

Table 1. Result of Measurement Model

<i>Construct/Indicator</i>	Unstandardized Solution(Standard error, Wald statistic)	Completely Standardized Solution	Reliability α
Parent SES			.732
Father education	.964(.038, 25.702) **	.796**	
Mother education	.748(.034, 22.147) **	.678**	
Parent income	.602(.030, 19.959) **	.609**	
Subjective financial knowledge			.596
How would you compare yourself to your close friends regarding your overall knowledge of various financial topics?	.880(.077, 11.363) **	.971**	
How would you rate your overall understanding of personal-finance and money-management concepts and practices?	.364(.038, 9.457) **	.439**	
Financial attitude			.795
Spending within the budget	.716(.028, 25.600) **	.705**	
Paying credit card balances in full each month	.826(.025, 32.682) **	.892**	
Saving money each month for the future	.647(.027, 24.120) **	.893**	
Parental norm (expectancy value)			.925
Spend within the budget	5.891(.147, 40.031) **	.907**	
Pay credit card balances in full each month	6.112(.157, 38.958) **	.892**	
Save money each month for the future	5.794(.148, 39.064) **	.893**	
Friends' norm (expectancy value)			.911
Spend within the budget	5.054(.128, 39.512) **	.905**	
Pay credit card balances in full each month	5.059(.131, 38.555) **	.891**	
Save money each month for the future	4.526(.128, 35.311) **	.842**	
Financial intention			.734
Spend within the budget	.586(.027, 21.682) **	.622**	
Pay credit card balances in full each month	.892(.029, 30.900) **	.844**	
Save money each month for the future	.599(.031, 19.059) **	.558**	
Risky paying behavior			.710
Pay bill on time each month (Reversed)	.674(.030, 22.258) **	.666**	
Paid off credit card balance in full every month (Reversed)	1.126(.040, 27.921) **	.855**	
Risky borrowing behavior			.610
Borrowed money from credit cards	.566(.039, 14.660) **	.501**	
Maxed out credit card limit	.652(.035, 18.793) **	.683**	
Used payday loan services	.466(.026, 17.837) **	.635**	

Figure 1. The Conceptual Model

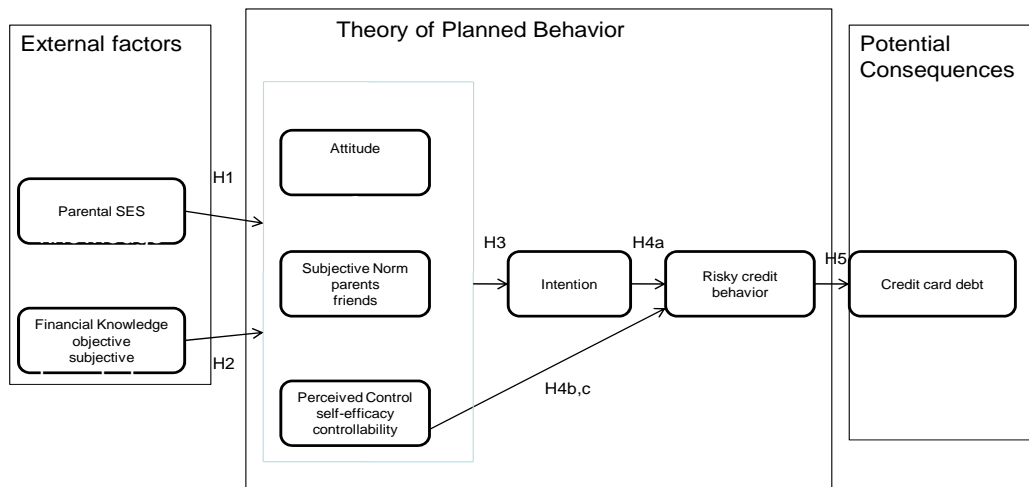


Figure 2. Results of the Structural Equation Modeling

