Estimating a Model of Subjective Financial Well-Being among College Students

Mohamad Fazli Sabri
Leila Falahati

Department of Resource Management & Consumer Studies
Faculty of Human Ecology
Universiti Putra Malaysia
Malaysia

Abstract

The issue of financial well-being among college students has received increasing attention. The purpose of this study is to examine the association between childhood consumer experience, financial socialization, financial literacy, financial managment and subjective financial well-being of college students. Data were collected from eleven public and private universities across Malaysia. Structural equation modeling indicated that childhood consumer experiences such as savings habits, primary socialization agents such as parents, sibling and even religion and secondary socialization agents such as peer and media contribute to students' financial literacy level which the effect of secondary socialization agents was negative. Financial literacy has the greatest effect on financial management which in turn enhanced the perceived level of financial well-being among students. Overall, implications and recommendations for future research, teaching, and public policy are also provided for parents, college administrators, counselors, and educators.

Keywords: Financial well-being, childhood consumer experience, financial literacy, financial management

1.0 Introduction

Previous studies have shown that many college students perceived higher level of financial problems (Falahati & Paim, 2011; Sabri, MacDonald, Hira & Masud, 2011) due to lack of sufficient financial knowledge (Garman & Forgue, 2006; Mandell, 2009). Financial literacy refers to adequate knowledge of personal finance facts and the vocabulary for successful personal financial management (Garman & Forgue, 2006). Prior studies of college students consistently found that they are not receiving a good education in personal financial fundamentals and have poor knowledge (Chen & Volpe, 1998). The research findings of Mandell (2009) among high school seniors revealed that students are leaving schools and enterning to college without the sufficient ability and skills to make critical decisions which may affecting their entire lives. Chen and Volpe (1998) through a review of several studies from 1993 until 1997, concluded that poor knowledge of financial issues such as investment, savings and spending fundamentals are the most common problem encountered by people experiencing financial problems. Furtheremore a low knowledge of personal finance among college students is expected to be associated with ineffective financial behaviors, including a lack of savings (Sabri et al. 2011), not keeping financial records (Chen & Volpe, 1998), and greater credit card debts (Norvilitis, Merwin, Osberg, Roehling, Young & Kamas, 2006).

According to Varcoe, Peterson, Gabertt, Martin and Costello (2001) poor financial habits acquired at a young age may carry on into adulthood and cause financial problems, in some cases serious ones, without some type of effective educational intervention. This combination of high debt, low income, and low levels of financial knowledge may adversely affect college students' financial well-being (Leach et al. 1999). Several studies indicated the role of efficient resource management to higher level of perceived (subjective) financial well-being (Shim, Xiao, Barber & Lyons, 2009; Xiao, Tang & Shim, 2009). In other words personal financial management has been identified as a major contributing factor to the satisfaction with one's financial status (Parotta & Johnson, 1998). Garman and Forgue (2006) asserted that personal financial behavior could be an important component in defining financial well-being. However, positive financial behavior may enhance the level of financial well-being and fail to manage the finance aspect cooperates with financial problems.

Poor financial management can affect more than students' finances such as academic performance, mental and physical well-being, and even the ability to find a job after graduation (Lyons, 2003; 2004). Students like other people principally learned financial matters within family spheres. Based on the consumer socialization theory of Moschis (1987) and Ward (1974) individuals, particularly children and adolescents, develop consumer skills, knowledge and attitudes by interacting with various socialization agents such as parents, peers, and school. Among several socialization agents, family is recognized as the primary agent through which children start to experience money management and which continues through adolescence (Bowen, 2002; Chen & Volpe, 2002; Koonce, Mimura, Mauldin, Rupured & Jordan, 2008). Because college students may bring their heavy debt and financial insecurity with them into adulthood, understanding financial well-being among college students can help educational loan providers, financial counselors, college administrator, and parents to better understand students' current and future financial challenges and needs (Leach et al. 1999). Few previous studies have examined the associations between childhood consumer experiences, financial socialization agents effect, financial literacy, financial management and financial well-being among college students. This study attempts to examine the association between childhood consumer experience, financial socialization, financial literacy, financial managment and subjective financial well-being of college students.

2.0 Literature Review

Researchers have reported that a number of variables appear to influence financial well-being or financial satisfaction. Among the most common are demographic and socioeconomic characteristics such as gender, ethnicity, age, income, education, and marital status (Hira & Mugenda, 1999a; 1999b). It has been suggested that while financial well-being is significantly related to some demographic factors, other variables such as financial behavior (Hira & Mugenda, 1999b; Joo & Grable, 2004) financial attitudes (Grable & Lytton, 1998), and financial literacy (Joo & Grable, 2004; Shim et al. 2009) can also affect financial well-being.

2.1 Childhood Consumer Experience

Recently published research showed that involvement with important aspects of family finance (e.g.discussing family finances with parents) during childhood improved knowledge and experience about money management among Malaysian college students (Sabri et al. 2011). The results confirmed previous findings which reported that the more parents talked about money matters with their children, the more knowledgeable the children felt about personal finance as college students (Shim et al. 2009). Peng, Bartholomae, Fox, and Cravener (2007) examined the impact of personal financial education delivered in high school and college on students' investment knowledge and savings rate. They found that if respondents held a bank account before age 18 they were more likely to have greater investment knowledge. Sabri et al. (2011) reported that financial literacy (knowledge) scores improved if respondents began a savings account between the ages of seven and 12 compared to those who did so after age 13 or had not yet opened a savings account. Another study by Kotlikoff and Bernheim (2001) found that individuals who had an allowance, bank account, or investment when they were children saved more of their income as adults.

2.2 The Influence of Financial Socialization Agents

Financial socialization defines as the "process by which young people acquire skills, knowledge, and attitudes relevant to their effective functioning as consumers in the marketplace" (Ward, 1974, p.2). However, Danes (1994, p. 128) gives a broader definition, as "the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the financial viability and well-being of the individual." Previous research has acknowledged that parents, peers, printed media, television commercials, and in-school education are the most important agents of consumer socialization (Moschis, 1987; Moschis & Churchill, 1978).

2.2.1. The Parents

The most significant influence on children as they learn consumer behavior patterns is the parents (Lachance & Legault, 2007; Hayta, 2008). Parents have been shown to be the primary source of financial information for teens and college students (Peng et al. 2007; Lyons, Scherpf & Roberts, 2006) Lyons et al. (2006) found that the majority of college students (76.7%) indicated that they had gone to their parents for financial information. Furthermore, parents play a significant role in shaping a child's financial habits and values (Pinto, Parente & Mansfield, 2005).

2.2.2 The Peers

The influence of peer groups and friendships in childhood have long been known to be important in both emotional and cognitive development (Pressley & McCormick, 2007), but studies have also shown that peer groups contribute to effective learning about monetary values and social motivation (Moschis & Churchill, 1978; Hayta, 2008). Interaction with peers of course makes adolescents aware of fads and fashions that is, new goods and services in the marketplace and new buying patterns. This greater awareness of the consumer environment may in turn contribute to active peer interactions about consumption matters, forming a cyclical or pattern. Lachance and Legault (2007) found that normative (accepted by a reference group) and informative (source of information) peer influences were significantly related to students' attitudes and behaviors towards consumption. Children spend more time in school with teachers and friends than they do with their parents, starting in preschool and continuing into their later school years (Hayta, 2008).

2.2.3 The School

School as a social institution by and large reflects the requirements and objectives of society and provides young people with necessary knowledge and skills in many areas including consumption. Teachers play as important a role as parents in shaping children's consumption behaviors (Ozgen, 1995). According to Varcoe et al. (2001) information provided at school regarding economics has an important effect on the child in terms of acquiring and shaping skills, and behaviors related to consumption.

2.2.4 The Media

Mass media such as television, radio, newspaper, and the Internet plays an important role in the socialization of adolescents (Varcoe et al. 2001; Koonce et al. 2008) and adults as consumers (Hayta, 2008). Lachance and Legault (2007) revealed that media such as television, Internet, magazines, and newspapers were the second most important socialization influence on college students' attitudes towards consumption defined as credit, advertising, and commercial practices. Koonce et al. (2008) confirmed that students learned a "good amount" or "a lot" from the media, which included television, radio, newspapers, and magazines and the Internet.

2.2.5 Religion

Religion is one of the most universal and influential social institutions and has a significant influence on people's attitudes, values, and behaviors at both the individual and societal levels (Shweder, 1991). Religious values and beliefs are known to affect ritualistic and symbolic human behaviour (Mokhlis, 2009). Bailey and Sood (1993) examined the effects of religious affiliation on consumer behavior and found variations in consumerism among different religious groups. For example, Catholics were less likely to be informed shoppers, Hindus were likely to be rational shoppers, and Muslims were least likely to be risky shoppers. There is considerable literature focused on culture and its influence on various aspects of consumer behaviour (Mokhlis, 2009). However, little research has examined the effect of religion specifically on financial behavior, financial literacy, or financial well-being.

2.3 Financial Literacy

A review of the literature on financial literacy, also referred to as financial knowledge, suggests that a majority of college students lack sufficient knowledge to effectively manage their personal finances (Chen & Volpe, 1998; Avard, Manton, English & Walker, 2005; Norvilitis et al. 2006). Most previous and current studies tried to establish a relationship between financial literacy and financial behavior (Hilgert, Hogarth & Beverly, 2003; Robb & Sharpe, 2009). However, there is little previous or current research that links financial literacy and financial well-being among college students, and the extent to which financial literacy affects financial well-being has had very limited attention. Shim et al. (2009) were the first to try to establish a link between financial literacy and financial well-being among college students and did not find a significant relationship between these two variables. Joo and Grable (2004) investigated the determinants of financial satisfaction (rather than financial well-being) among white-collar clerical workers. Results indicated that financial literacy had both a direct and an indirect effect on financial satisfaction. The limited research on this topic and the mixed results make it difficult to draw conclusions about the relationship between financial literacy and financial well-being or financial satisfaction.

2.4 Financial Management

The development of the ability to manage personal finances has become increasingly important in today's world since people should plan for long-term investments for their retirement and family expenses such as children's education. There is a common consciousness among researchers that the ability to manage resources effectively is the main determinant of financial well-being (Kim, 2001; Joo, 2008; Shim et al. 2009). Xiao, Sorhaindo & Garman (2006) indicated that common financial behaviour includes practices relating to cash, credit and savings management, for which an effective behaviour is to refer to positive or desirable behaviour recommended by consumer economists as a way to improve financial well-being. Joo (2008) indicated that since an individual's financial well-being can be either objective (as measured in terms of income, assets, etc.) or subjective (as measured in terms of financial satisfaction), it makes sense that positive financial behaviour should improve financial well-being in both realms. However, failure to manage personal finances can have serious long-term, negative social and societal consequences (Perry & Morris, 2005). College students have become a segment of financial studies, as they have easy access to financial education, credit cards and debt. The studies of financial behaviour among college students (Knight & Knight, 2000; Eckel & Grossman, 2002; Borden, Lee, Serido & Collins, 2008) have shown that students have inadequate knowledge and skills to manage their finances. They fail to make correct financial decisions and experience a high level of financial strain and problems such as debt load.

2.5 Financial Well-Being

Financial well-being is defined as "a state of being financially healthy, happy, and free from worry" and is typically based on a subjective appraisal of one's financial situation (Joo, 2008, p.22]. Financial well-being has often been measured by overall satisfaction with one's financial situation (Van Praag, Frijters & Ferrer-i-Carbonel, 2003). Malone, Stewart, Wilson, and Korsching (2010) posited four domains of financial well-being: buying behaviors, perception of current finances, perception of the financial future, and attitudes toward long-term care insurance. Overall satisfaction with one's financial situation is often used as a measure of financial well-being (Joo, 2008). Few examinations of the determinants of financial well-being have incorporated objective, subjective, and behavioral measures into a single empirical test of individual financial satisfaction (Joo & Grable, 2004). Furthermore, most previous studies on financial well-being have been conducted among adults or employees; few studies involved college students (Joo, 2008; Malone et al. 2010). To date, no definitive measure of college students' financial well-being has been advanced. Shim et al. (2009) used both objective (amount of debt) and subjective (financial satisfaction and coping with financial strain) measures in assessing financial well-being. Leach et al. (1999) measured students' perceived economic well-being by asking them to describe how they felt about their level of income, debt and savings, ability to handle financial emergencies, and amount of money available for necessities and future needs (subjective measures).

3.0 Methods

3.1 Sample

The study sample is comprised of students in public and private colleges. Eleven colleges were selected for the study using a multi-stage sampling technique (six public and five private colleges). For the first stage, a list of all public and private colleges was obtained, from which five public and five private colleges were selected at random. In addition to the ten randomly selected colleges, University Putra Malaysia was included in the study to assist the researchers in planning educational programs. At each college, 350 students were selected randomly using a list of names obtained from the student affairs office. The number of questionnaires distributed to the 11 colleges was 3,850. A total of 2,519 questionnaires were completed and usable producing a 65% response rate. To enhance the accuracy of the results, Bentler and Chou (1987) recommended that for meaningful and interpretable values for structural equation modeling (SEM), the ratio of 5–10 participants per estimated parameter rule be used to calculate the sample size. According to this rule, and given the response rate of around 65%, a sample comprising 400 respondents was randomly selected from the original data set. The study sample has a majority of Malay students (63.8%) and about one in four were Chinese (24.9%) and just 5.2 % of respondents were Indian. The sample for this study consisted of 59.1% female and 40.9% male students. Respondents were on average 20.9 years old.

3.2 Measures

Childhood consumer experience: Respondents were asked at what age they became involved in financial activities, which included ítems such as, having their own saving account, receiving an allowance, and discussing financial matters with parents. The instrument was measured by asking the respondents to choose the age they started to practice each financial activitivity on a score answer from "<7 years old", "7-12 years old", "13-15 years old", "16-17 years old", ">18 years old" and "Never". The childhood consumer experience score was computed by summing the score of statements from one to six for 10 items (activities); however, the earlier age (< 7 years old) received the highest score (6), and never received the lowest score (1). To enhance the fitness of the construct three items were dropped.

Financial literacy: Financial literacy was measured by testing for correct answers on 25 questions concerning financial goals, financial records, savings, investments, retirement, banking systems, time value of money, wills, insurance, education loans, and general knowledge of personal finance. Since financial literacy was measured by a test with "Yes" and "No" questions, we enterned the financial literacy as an observed variable in intial model.

The Influence of Primary and Secondary Socialization Agents: The measurement for this construct was adapted from the studies of Hira (1997) and John (1999). The instrument included 11 items, in which father, mother, siblings, religion and school were considered as primary financial socialization agents.Secondary socialization agents comprised of peer group, mass media, magazine, advertisements, the Internet, and mobile phones. To assess the influence of each item, respondents were required to rate on a scale from one (not influence) to 10 (the most influence) on eleven items. The primary and secondary socialization agents' scores were computed by summing the scores of statements from one to ten for 11 items. A higher score for each dimension indicates a higher level of influence by the respective socialization agent. Furthermore, to enhance the fitting of the construct one item was dropped from primary socialization agents and two items dropped from secondary socialization agents.

Financial management: To measure financial management, two main dimensions including savings and spending behaviour were considered. To measure spending behaviour an instrument was developed which included 11 items requiring students to confirm whether they spent their money on those items (e.g mobile phone, Internet café, entertainment magazine and movies) using a "Yes" or "No" answer. The saving behaviour was measured by included five items: "have own savings account", "number of saving within six months", "saving for long term", "saving for short term" and "regarding financial condition in university, have enough money that can be put into savings". Savings behaviour scores were computed by summing these five items. The highest score indicated good savings behaviour and the lowest score indicated poor savings behaviour. Financial management was measured by summing spending and savings behaviour; a higher score indicated effective financial management and a lower score indicated ineffective financial management. This construct was contributed to model as observed variable.

Perceived (subjective) financial well-being: To measure this construct respondents were asked to subjectively evaluate a major area of financial concern, including six items. Measurements included items such as "amount of savings", "financial management skills", "current financial situation", "ability to meet wants", "saving for emergency needs' and "affordability to spend" on a scale from one (completely dissatisfied) to 10 (completely satisfied). To enhance the fitness of the construct two items were dropped.

4.0 Results

Statistical testing of the initially proposed structural model yielded the following indicators of the overall model: (χ^2/df= 2.66, $p < 0.001$, CFI = .849; GFI = .849; RMSEA = .06) suggesting that the model could be improved. However to enhance the fitting of model some ítems were dropped (Table 1) and fit of the adjusted model was better and deemed an acceptable fit (χ^2/df= 2.31, $p < 0.001$, CFI = .935; GFI = .923; RMSEA = .056). Compared to the initial model, the overall fit of the adjusted model was improved as indicated by a significant reduction in Chi-Square ($\Delta\ P\ \chi^2 = 318.052$, $\Delta\ df = 129$, $p < 0.001$). Consequently, this version was accepted as the final model (Fig.1). As results revealed in Table 2, several factors have influence on the development of college students' financial literacy. Primary socialization agents including parents, siblings and religion have positive effect (β = .144) on financial literecy level.

In contrast secondary socialization agents particularly peer, media and the Internet have negative effect (β = -.364) on students' financial literacy level. In other words those were more affected by secondary socialization agents have lower level of financial literacy (knowledge). Other interesting findings indicated that those with earlier consumer experiences during childhood have higher level of financial literacy (β = .162), which indicated that while children were involved in financial practices and family involved them in family financial matters the financial literacy is enhanced significantly among these children. The results showed that financial literacy is significantly contributed to predict financial management (β = .505), which indicated that those with higher level of financial literacy are more effective in managing their finances and performed greater financial management.

The significant relationship between primary socialization agents and financial management showed the meaningful effect of parents and family on financial management (β = -.199), however since this effect is negative several reasons may exist. One posible reason may related that since family provided financial supports for children, therefore those have higher support and assistance from family may spend more money and have lower level of saving.

The positive influence of financial management on financial well-being (β = .154) indicated that those with greater financial management and were effective in managing their finances are perceived higher level of financial well-being. It should be noted that in direct model non of assumed factors in model including financial literacy, primary and secondary socialization agents and childhood consumer experiences have significant direct effect on financial well-being except for financial management (Table 2). Further assessment of paths revealed that the financial literacy performed mediate effect in the relationship between the influence of primary socialization agents on financial management. As mentioned earlier the direct effect of primary agents on financial management was negative while it has positive effect on financial literacy. These findings revealed that the parents may have more efforts to enhance their children financial literacy which indirectly improved their financial management. Assessment of total effects depicted in Table 2, indicated that financial litercay (β = .582) is the most powerful predictor of students' financial well-being.

5.0 Conclusion and Implications

This study explored the determinants of subjective financial well-being among college students. Structural equation modeling was used to explore the contributor factors and validate an empirical model. The results of this study suggest several important conclusions. First, it is apparent that positive early childhood consumer experiences improve college students' financial literacy which in turn have significant effect on students' financial management. In addition the positive effect of family on enhancement of students financial literacy indicated that the family might be the primary focus of financial educators and family economist. Creating awareness among parents, family, and students themselves about the importance of practicing good financial habits at home; specifically, at the appropriate age when children are ready to learn about money related activities may enhance the financial management skills and knowledge among children and in turn increase the perceived level of financial well-being. Second, since the religion was a proxy of primary sociaization agents therefore financial knowledge can be increased through social institutions such as mosques and churches. Nowadays financial education can be accessed easily through online (website) sources, as well as through printed materials such as magazine, books, and flyers. Students should be encouraged by parents, teachers, and university instructors to learn about money management and practice good financial behavior in their daily lives. Providing basic knowledge on personal finance to school-aged children through the school systems would seem to be an effective approach to educate students to become responsible and prudent consumers. Third, the most revealing results of this study and those most consistent with previous studies are that perceived financial well-being can be increased by indirect effect of financial knowledge (literacy) through financial management. In other words, to ensure financial well-being, financial education should be made available to all school aged-children, college students, and parents to enhance financial management.

Most importantly the negative effect of secondary socialization agents on financial literacy may received more attention. Logically the Internet and media should enhance users information, while findings of present study indicated that those were more involved with peer groups and are more affected by media in money management, have lower level of financial literacy. To enhance this effect to a positive manner the schools may provide more programms to enhance the awareness of students regarding life skills and money management.

These findings have implications for parents, university administrators, financial counselors, financial planners, educators, and students themselves. These findings could be used to develop financial education programs that would provide students with the knowledge and skills to better manage their finances and improve their financial well-being. Past research confirms that financial education is the best single method available for practitioners, educators, and policy makers to improve financial satisfaction and overall consumer well-being of individuals and families (Bernheim, Garrett & Maki, 1997; Joo & Grable, 2000). Parents should begin discussing sound money-management practices with their children at a young age, continue it through adolescence, and reinforce with them that financial education is a life-long pursuit. This study was not without its limitation and these need to be considered when interpreting the results. First, for all constructs, researchers relied exclusively on students' self-report, so the associations we have found might be in part due to a shared reporter variance. Second, the explanatory power of the model was quite low. Arguably, however, the models were well fitted to the data and the low explanatory was perhaps due to the exploratory in nature of the investigations.

References

Avard, S., Manton, E., English, D., & Walker, J. (2005). The financial knowledge of college freshmen. *College Student Journal, 39*(2), 321-338.

Bailey, J.M., & Sood, J. (1993). The effect of religious affiliation on consumer behavior: A preliminary investigation. *Journal of Managerial Issues, 5*, 328-352.

Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research, 16*(1), 78-117.

Bernheim, B.D., Garrett, D.M., & Maki, D.M. (1997). *Education and saving: The long-term effects of high school financial curriculum mandates*. NBER Working Papers 6085, National Bureau of Economic Research, Inc.

Borden, L. M., Lee, S.-A., Serido, J., & Collins, D. (2008). Changing College Students' Financial Knowledge,Attitudes, and Behavior through Seminar Participation. *Journal of Family Economy Issue, 29*, 23-40.

Bowen, C.F. (2002). Financial knowledge of teens and their parents. In J. Lown (Ed.), *Proceedings of the 2002 Annual Conference of the Association of Financial Counseling and Planning* (pp.93-101). Scottsdale, AZ: Association for Financial Counseling and Planning.

Chen, H., & Volpe, R.P. (1998). An analysis of personal financial knowledge among college students. *Financial Services Review*, *7*(2), 107-128.

Chen, H., & Volpe, R.P. (2002). Gender differences in personal financial knowledge among college students. *Financial Services Review*, *11*, 289-307.

Danes, S.M. (1994). Parental perceptions of children's financial socialization. *Financial Counseling and Planning, 5*, 127-149.

Eckel, C. C., & Grossman, P. J. (2002). Sex differences and statistical stereotyping in attitudes toward financial risk. *Evolution and Human Behavior, 23*, 281 - 295.

Falahati, L., & Paim, L. (2011). Toward a framework of determinants of financial management and financial problems among university. African Journal of Business Management, 5(22), 9600-9606.

Garman, T. E., & Forgue, R. E. (2006). *Personal Finance* (8th ed.). Boston: Houghton Mifflin Company.

Grable, J.E., & Lytton, R.H. (1998). Investor risk tolerance: Testing the efficacy of demographics as differentiating and classifying factors. Financial Counseling and Planning, 9(1), 61-73.

Hayta, A.B. (2008). Socialization of the child as a consumer. *Family and Consumer Sciences Research Journal*, *37*, 167-184.

Hilgert, M.A., Hogarth, J.M., & Beverly, S.G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 309-322.

Hira, T. K. (1997). Financial attitudes, beliefs and behaviors: Differences by age. *Journal of Consumer Studies and Home Economics, 21*, 271-290.

Hira, T.K., & Mugenda, O. (1999a). Do men and women differ in their financial beliefs and behaviors? In K. Kitt (Ed.), *Proceedings of Eastern Family Economics Resource Management Association* (pp. 1-8). Austin, TX.

Hira, T.K., & Mugenda, O. (1999b). The relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences*, *91*(4), 76-82.

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

Joo, S. (2008). Personal financial wellness. In J.J. Xiao (Ed.), *Handbook of consumer finance research* (pp. 21-33). New York: Springer.

Joo, S., & Grable, J. E. (2000). Improving employee productivity: The role of financial counseling and education. *Journal of Employment Counseling, 37,* 2–15.

Joo, S., & Grable, J.E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, *25*(1), 162-171.

Kim, J. (2001). Financial Knowledge and Subjective and Objective Financial Well-being. *Consumer Interests Annual, 47*, 1-3.

Knight, L. G., & Knight, R. A. (2000). Counseling clients on credit. *Journal of Accountancy, 2*, 61–72.

Koonce, J.C., Mimura, Y., Mauldin, T.A., Rupured, A.M., & Jordan, J. (2008). Financial information: Is it related to savings and investing knowledge and financial behavior of teenagers. *Journal of Financial Counseling and Planning, 19*(2), 19-28.

Kotlikoff, L., & Bernheim, B. (2001). Household financial planning and financial literacy. In *Essays on saving, bequests, altruism, and lifecycle planning.* Cambridge, MA: MIT Press.

Lachance, M.J., & Legault, F. (2007). College students' consumer competence: Identifying the socialization sources. *Journal of Consumer Research*, *13*, 1-21.

Leach, L.J., Hayhoe, C.R., Turner, P.R. (1999). Factors affecting perceived economic well-being of college students: A gender perspective. *Financial Counselling and Planning*, *10*(2), 11-23.

Lyons, A.C. (2003). *Credit practices and financial education needs of Midwest college students*. Champaign, IL: Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign.

Lyons, A.C. (2004). A profile of financially at-risk college students. *The Journal of Consumer Affairs, 38*(1), 56-80.

Lyons, A.C., Scherpf, E., & Roberts, H. (2006). Financial education and communication between parents and children. *The Journal of Consumer Education*, *23*, 64-76.

Malone, K., Stewart, S.D., Wilson, J., & Korsching, P.F. (2010). Perceptions of financial well-being among American women in diverse families. *Journal of Family and Economic Issues, 31*, 63-81.

Mandell, L. (2009). *The impact of financial education in high school and college on financial literacy and subsequent financial decision making*. Paper presented at the American Economic Association meetings, San Francisco,CA.

Mokhlis, S. (2009). Relevancy and measurement of religiosity in consumer behavior research. *International Business Research*, *2*(3), 75-84.

Moschis, G. P. (1987). *Consumer socialization: A life-cycle perspective*. Massachusetts: Lexington Books.

Moschis, G.P., & Churchill, G.A. (1978). Consumer socialization: A theoretical and empirical analysis. *Journal of Marketing Research, 15*, 599-609.

Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit card debt in college students. *Journal of Applied Social Psychology, 36,* 1395-1413.

Ozgen, O. (1995). The living period approach towards socialization of consumer. *Standard Economic and Technique Magazine*, *41*(483), 425-440.

Parrotta, J., & Johnson, P. (1998). The Impact Of Financial Attitudes And Knowledge On Financial Management And Satisfaction Of Recently Married Individuals. *Journal of Financial Counseling and Planning, 9*(2), 59-75.

Peng, T.M., Bartholomae, S., Fox, J.J., & Cravener, G. (2007). The impact of personal finance education delivered in high school and college courses. *Journal of Family and Economic Issues*, *28*, 265-284.

Perry, V. G., & Morris, M. D. (2005). Who Is in Control? The Role of Self-Perception, Knowledge, and Income in Explaining Consumer Financial Behavior. *Journal of Consumer Affairs, 39*(2), 299-313.

Pinto, M.B., Parente, D.H., & Mansfield, P.M. (2005). Information learned from socialization agents: Its relationship to credit card use. *Family and Consumer Sciences Research Journal*, *33*, 357-367.

Pressley, M., & McCormick, C.B. (2007). *Child and adolescent development for educators*. New York: The Guilford Press.

Robb, C.A., & Sharpe, D.L. (2009). Effect of personal financial knowledge on college student's credit card behavior. *Journal of Financial Counseling and Planning, 20*(1), 25-43.

Sabri, M. F., MacDonald, M., Hira, T. K., & Masud, J. (2010). Childhood Consumer Experience and the Financial Literacy of College Students in Malaysia. *Family & Consumer Sciences Research Journal, Vol. 38, No. 4, June 2010 38*(4), 455-467.

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. (2009). Pathwaystolife success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology, 30*(6), 708-723.

Shweder, R.A. (1991). *Thinking through cultures: Expeditions in cultural psychology*. Cambridge, MA: Harvard University Press.

Van Praag, B.M.S., Frijters, P., & Ferrer-i-Carbonel, A. (2003). The anatomy of subjective well-being. *Journal of Economic Behavior and Organisation, 51*, 29-49.

Varcoe, K.P., Peterson, S.S., Gabertt, C., Martin, A., & Costello, C. (2001). What teens want to know about financial management? *Journal of Family and Consumer Sciences*, *93*(2), 30-34.

Ward, S. (1974). Consumer Socialization. *The Journal of Consumer Research, 1*(2), 1-14.

Xiao, J. J., Sorhaindo, B., & Garman, E. T. (2006). Financial behaviours of consumers in credit counseling. *International Journal of Consumer Studies, 30*(2), 108-121.

Xiao, J. J., Tang, C., & Shim, S. (2009). Acting for Happiness: Financial Behavior and Life Satisfaction of College Students. *Social Indicator Research 92*(53), 53-68.

Table 1: The Model Fitting Process for the Measurement Model

Model	X^2 / df	RMSEA	GFI	CFI	TLI	Variable deleted
Initial	2.66	.06	.828	.849	.838	-
Final	2.31	.056	.923	.935	.923	CCE (4,5,6), PSA (school), SSA (Cell pone, advertisment), FW (1,3)

Note: CCE = childhood consumer experience, PSA = primary socialization agents
SSA = spending behaviour, FW = Financial Well-Being

Table 2: Structural Equation Modelling: Causal Relations Analysis

Variables		Direct effect	Indirect effect	Total effect
Primary agents	→ Financial literacy	.144	00	.144
Secondary agents	→ Financial literacy	-.364	00	-.364
Childhood consumer expericnce	→ Financial literacy	.162	00	.162
Financial literacy	→ Financial management	.505	.077	.582
Primary agents	→ Financial management	-.119	-.018	-.137
Financial management	→ Financial well-being	.154	00	.154

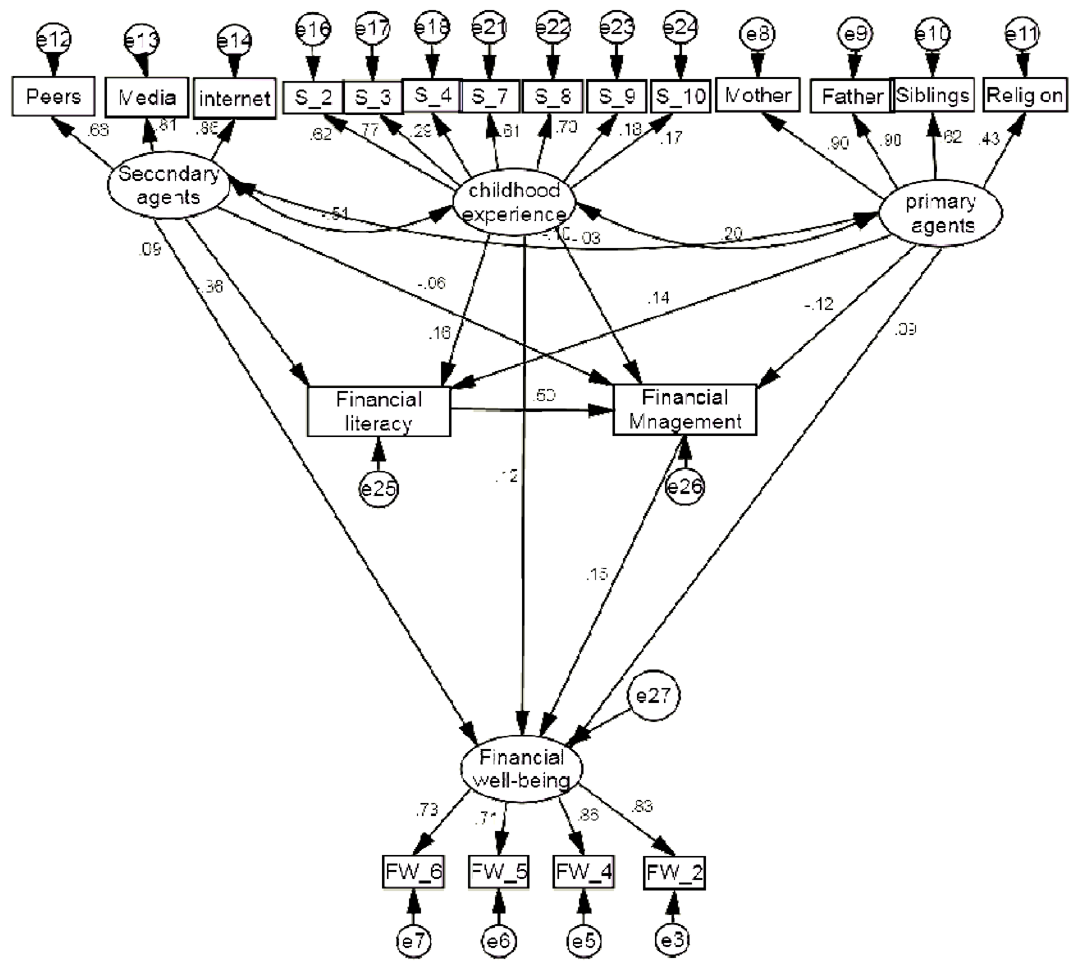

Figure 1: The Student Perceived Financial Well-Being Model: The Final Structure Equation Model (Standardized Estimates)