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Gender Differences in Saving Behavior Determinants among University Students

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ABSTRACT

This paper aims to examine the moderating effect of gender on the relationship between childhood consumer experiences, primary and secondary socialization agents' influence, financial knowledge and financial skills on savings behavior. Data were collected from Malaysian public and private university students. Samples were selected using a stratified sampling technique. A total of 11 universities were randomly selected for the study and 350 questionnaires (300 for in campus and 50 for off-campus students) were distributed to students through the student affairs divisions of the respective universities. A total of 2,340 questionnaires were selected to run the data analysis. A multi-group analysis approach using Amos was applied to assess the moderating effect of gender. The results indicated that males have a higher level of financial knowledge, financial skills, perceived earlier childhood consumer practices and better savings behavior than female students. The results of testing the structural equation model revealed that gender significantly moderates the effect of childhood consumer experiences, primary and secondary socialization agents' influence, financial knowledge and financial skills on savings behavior.

KEYWORDS: Gender differences, Saving Behavior, Childhood Consumer Experiences, Primary Socialization agents' Influence, Secondary Socialization agents' Influence, Financial Knowledge, Financial Skills, University Students.

1. INTRODUCTION

A person's ability to manage his money is essential to being successful in life. Financial management has been identified as the main determinant of one's financial well-being (Garman & Forgue, 2006; Joo, 2008; Xiao, Tang, & Shim, 2009), which, in turn, is influenced by other major factors, such as past experiences, influence of financial socialization agents and financial knowledge. Young adults, particularly college students, receive more attention from financial educators (Falahati & Paim, 2011; Goldsmith & Goldsmith, 2006; Gutter, Garrison, & Copur, 2010; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Hira, Anderson, & Petersen, 2000; Norvilitis et al., 2006; Sabri, MacDonald, Hira, & Masud, 2010)as they have easier access to financial sources, such as credit, debt and educational loans, than previous generations of students. College students may be considered as a high-risk group based on economic stability and, consequently, well-being, due to their propensity to borrow to fund their college education. Recent college graduates carry a considerable debt load and financial problems at the time when they have just begun working with starting salaries (Leach, Hayhoe, & Turner, 1999). Xiao (2008) indicated that common financial behavior includes practices relating to cash, credit and savings management (Xiao, Sorhaindo, & Garman, 2006), for which an effective behavior to improve financial well-being is to refer to positive or desirable behavior recommended by consumer economists. However, failure to manage personal finances can have serious long-term, negative social and societal consequences (Perry & Morris, 2005). According to Chowa(2006), savings are an important way of improving well-being, insuring against times of shocks, and providing a buffer to help people cope in times of crisis (Miracle, Miracle, & Cohen, 1980; Zeller & Sharma, 2000).Prior literature has shown that several factors contribute to predicting savings behavior, such as education (Esson, 2003; Quisumbing & Hallman, 2003), employment, marital status (Grinstein-Weiss, Zhan, & Sherraden, 2006) and gender (Fafchamps & Quisumbing, 2005; Falahati, Babaei, & Paim, 2011). Regarding gender differences in savings behavior, a number of studies have shown that the economic well-being and financial behavior of men and women differ significantly. Women hold lower levels of wealth and have significantly lower earnings than men. In addition, women spend as many as five more years than men in retirement as a result of having longer life expectancies(Gottschalck, 2008). Researchers and financial practitioners have reported that women invest their financial resources more

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conservatively and are, in general, more risk averse than men (Bajtelsmit & Bernasek, 1996; Faff, Mulino, & Chai, 2008; Hallahan, Faff, & McKenzie, 2004). Researchers have also found that women have lower rates of participation in retirement plans compared to men and are more likely to be living in poverty during retirement (Masud, Haron, & Gikonyo, 2008).The combination of lower earnings, lower savings, longer life spans, and higher risk aversion when investing presents women, financial educators, and policymakers with a significant challenge (Embrey & Fox, 1997).

College students are the primary focus of the present study, since they are the future career and labor force contributors, and for which low savings and experiencing financial problems during college life have a significant effect on their present and future family, and career life. Therefore, it is important to identify factors that predict savings behavior among university students, which involves substantial implications for the design and implementation of practical financial programs for males and females, which, in turn, affects motivation, job attitude, financial well-being, and overall life satisfaction. Furthermore, knowledge of financial matters among university students may help to inform parents, family members and financial educators who seek to encourage, teach, and otherwise assist youth with important and inevitable financial choices before entering the job market. In respect of gender issues, such understanding is important in order to enrich the information and theory of gender and development, and, hence, is useful to educators for providing adequate consultancy and training to male and female students. Accordingly, the model tested in this study was aimed to assess the moderating effect of gender on the relationship between childhood consumer experience, primary and secondary financial socialization agents' influence, financial knowledge, and financial skills on savings behavior. The hypotheses were as follows: (1) gender moderates the relationship between childhood consumer experience, primary and secondary financial socialization agents' influence, financial knowledge, financial skills and savings behavior, (2) gender moderates the relationship between childhood consumer experience, primary and secondary financial socialization agents' influence and financial knowledge and financial skills, and (3) gender moderates the relationship between childhood consumer experience, primary and secondary financial socialization agents' influence and financial knowledge.

2. METHODOLOGY

1.2.Instrumentation

Savings behavior: To measure savings behavior an instrument including 5 items was adopted from Hilgert and Hogart(2003). This included "saving times within six months", "saving for long-term", "saving for short-term" and "regarding financial condition in university, has enough money that can be put into savings". Savings behavior was computed by summing the savings items scores. The highest score indicated good savings behavior and the lowest score indicated poor savings behavior.

Financial knowledge: Financial knowledge was measured by testing for correct answers to 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 the measurement was a kind of test the construct contributed to the model as an observed variable.

Childhood consumer experiences: To measure this construct a 10-item instrument was adopted from Hira's (1997) instrument and adapted to the Malaysian context. The instrument was measured by asking the respondents to choose the age they started to practice each statement 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 financial socialization score was computed by summing the score of statements from one to six for 10 items; 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 six items were dropped.

Influence of Primary and Secondary Socialization Agents: The measurement for this construct was taken from the studies of Hira (1997) and John (1999). The instrument included 11 items, in which peer group, mass media, magazine, advertisements, the Internet, and mobile phones were considered as secondary financial socialization agents. Primary socialization agents comprised father, mother, siblings, religion and school. To assess the influence of each item, respondents were required to rate the eleven items on a scale from 1 (not influence) to 10 (the most influence). 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 two items were dropped from primary socialization agents and three items were dropped from the secondary socialization agents.

Financial skills: The financial management skills scale includes 11 statements concerning the students' perceptions about their financial skills, including their management abilities of daily expenses, credit and debt, future needs, time management, savings, use of education loan, decision making, problem solving, stress management, interaction skills and career planning. The perceived financial skills were measured by asking students to rate those 11 items on a scale of 1 (no skills at all) to 5 (very skillful). The financial skills were entered into the model as an observed variable.

2.2.Sample procedure and sample profile

The study sample comprises 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. Male and female students showed a statistically significant difference in terms of financial knowledge (male= 7, female= 6.2, t= 3.52, p<.000), financial skills (male= 12.84, female= 12.09, t= 2.92, p<.000), childhood consumer experiences (male= 5.65, female= 4.91, t= 3.38, p<.000) and savings behavior (male= 4.53, female= 4.12, t= 2.91, p<.000). However, there were no differences in the influence of primary and secondary socialization agents' between male and female students.

3. RESULTS AND DISCUSSION

Statistical testing of the initially proposed structural model yielded the following indicators for 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 the model some items were dropped and the 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). Furthermore, the moderating effect of gender on the relationship between childhood consumer experiences, primary and secondary socialization agents, financial knowledge and financial skills on savings behavior were examined. According to the classical definition of the moderation effect, the latter occurs when a variable (in the present study – gender) causes a variation in the strength of the causal relationship between two other variables. In order to test the moderating effect of gender on the research model, the multi-group approach was used.

1.3.Male Students

The results presented in Table 1 indicate that among the male students childhood consumer experiences (b= .259, CR= 12.09, P<.05), primary socialization agents (b= .059, CR=2.43, P<.05), secondary socialization agents (b= .385, CR=15.66, P<.05), financial knowledge (b= .385, CR= 12.41, P<.05) and financial skills (b= .163, CR= 5.49, P<.05) are significantly associated with savings behavior among male students. Furthermore, the results indicate that childhood consumer experiences (b= .043, CR= 7.28, P<.05), primary socialization agents (b= -.109, CR=-3.511, P<.05) secondary socialization agents (b= .372, CR=16.57, P<.05), financial knowledge (b= .594, CR= 22.59, P<.05) are significant predictors of financial skills among male students. Finally, path coefficients indicate that childhood consumer experiences (b= .159, CR= 11.41, P<.05), primary socialization agents (b= .374, CR=18.94, P<.05) and secondary socialization agents (b= .385, CR=22.64, P<.05) were significant predictors of financial knowledge among male students. Assessments of the findings indicate that financial knowledge, secondary and primary socialization agents, childhood consumer experiences and financial skills enhance the savings behavior among male students. However, in terms of financial skills, the results indicate that childhood consumer experiences and secondary socialization agents have a positive effect on increasing the financial skills level, while the primary agents have a negative effect. The results indicate that those who are more affected by primary agents have a lower level of financial skills. Financial knowledge was also positively affected by socialization agents and childhood experiences. These findings show that financial skills and financial knowledge may have the potential for a mediating effect on the relationship between primary and secondary socialization agents influence and childhood consumer experiences with savings behavior (Fig 1).

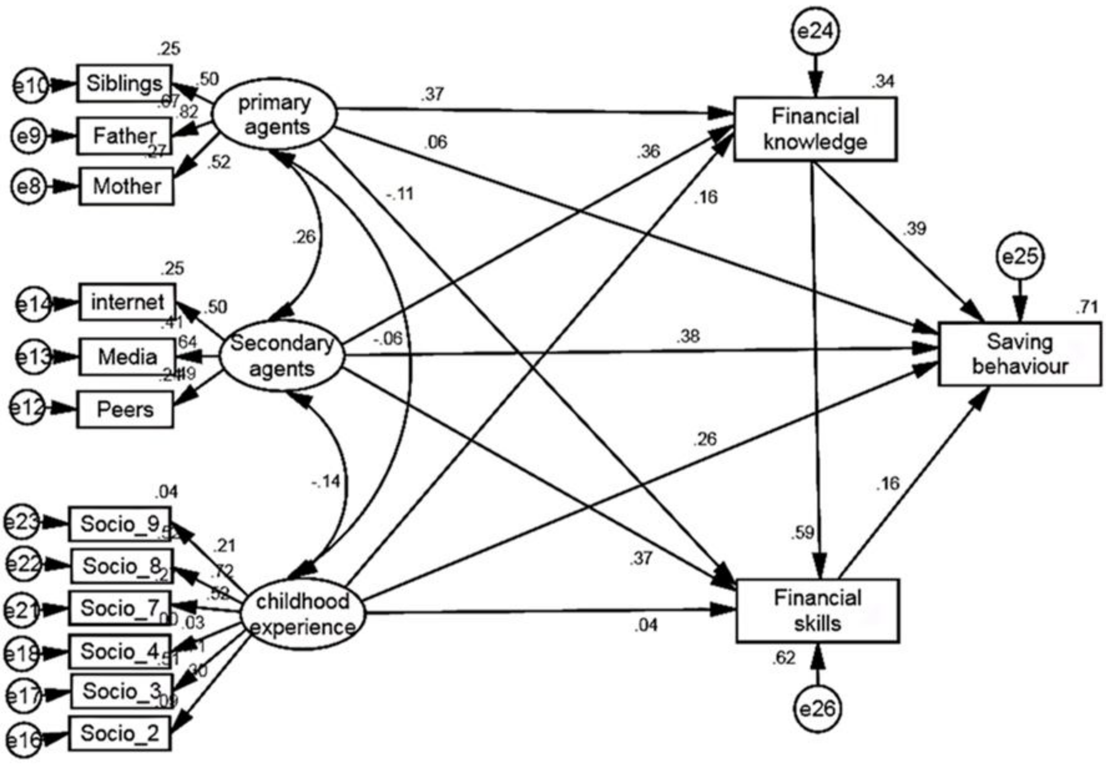

Figure 1: Full Structural Model among Male Students

Table 1: The Results of Path Coefficients among Male students

Items	Estimate	S.E.	Std. Regression	C.R.	P
Primary socialization agents → Financial Knowledge	.761	.040	.374	18.948	.000
Secondary_ socialization agents → Financial Knowledge	1.205	.053	.358	22.641	.000
childhood consumer experience → Financial Knowledge	1.667	.146	.159	11.415	.000
Secondary_ socialization agents → Financial Skills	1.315	.079	.372	16.572	.000
childhood consumer experience → Financial Skills	.477	.065	.043	7.283	.000
Financial Knowledge → Financial Skills	.624	.028	.594	22.596	.000
Primary socialization agents → Financial Skills	-.232	.066	-.109	-3.511	.000
Financial Knowledge → Saving	.302	.024	.385	12.416	.001
Secondary socialization agents → Saving	1.016	.065	.385	15.664	.000
Primary socialization agents → Saving	.093	.038	.059	2.431	.015
childhood consumer experience → Saving	2.120	.175	.259	12.090	.000
Financial Skills → Saving	.122	.022	.163	5.494	.000

2.3.Female Students

The assessment of the results of path coefficients among female students, as shown in Table 2, indicates that, together, childhood consumer experiences (b= .047, CR= 2.19, P<.05), financial knowledge (b= .578, CR=27.82, P<.05) and financial skills (b= .251, CR=12.059, P<.05) significantly predict savings behavior among female students (Table 2). The results show that among female students financial knowledge has the highest effect on predicting savings behavior. In addition, the results indicate that financial knowledge is the unique predictor of financial skills among female students. These findings indicate that more extensive childhood consumer experiences, higher level of financial knowledge and financial skills encourage female students to save more money. Unlike the male students, socialization agents involving primary and secondary socialization agents do not contribute to predict savings behavior, financial skills and financial knowledge. These findings indicate that childhood consumer experiences have a central role in the development of financial matters among female students (Fig 2).

Table 2: The Results of Path Coefficients among Female students

Items	Estimate	S.E.	Std. Regression	C.R.	P
Financial Knowledge → Financial Skills	.682	.030	.517	22.677	.000
Financial Knowledge → Saving	.368	.013	.578	27.827	.000
childhood consumer experience → Saving	.366	.166	.047	2.197	.028
Financial Skills → Saving	.121	.010	.251	12.059	.000

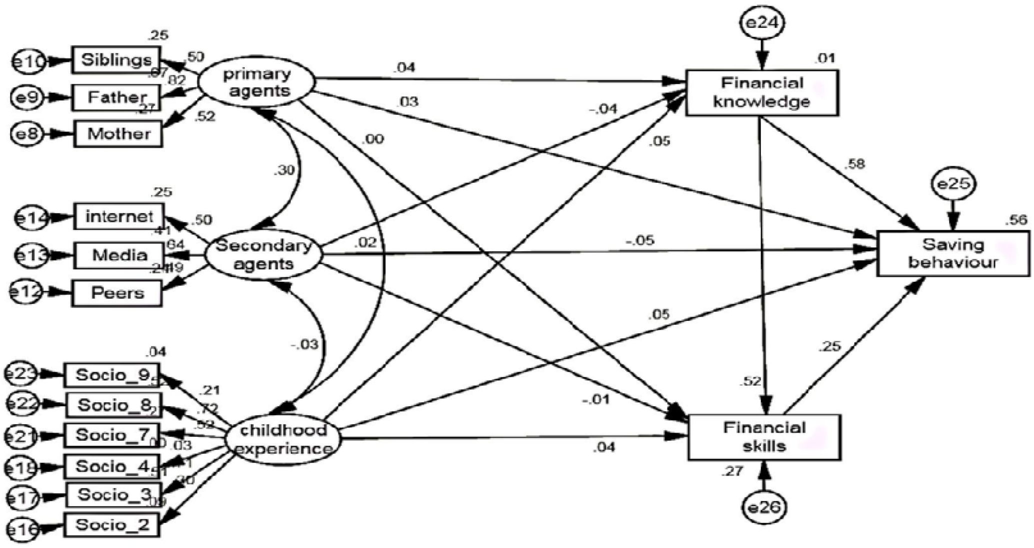

Figure 2: Full Structural Model among Female Students

3.3.Test of the Moderating Hypotheses

To assess the moderating effect of gender a multi-group analysis was conducted, for which the sample was divided into two groups of students – male and female. The statistics of Z score (≤ ± 1.96) on the assumed relationship was estimated and compared across the groups (Male and Female). From a comparison of the latent relationship estimates across groups, the results reveal the following statistically significant differences:

1.3.3- ***Predicting saving behavior:*** Primary socialization agents and secondary socialization agents significantly contribute to predict savings behavior among male students but not among female students. In addition childhood consumer experiences (z = -7.91) have a greater effect on savings behavior among male students than female students. However, financial knowledge (z = 2.36) has a greater effect in predicting savings behavior among female students than male students.

2.3.3- ***Predicting financial skills:*** Childhood consumer experiences, primary socialization agents and secondary socialization agents significantly contribute to predict financial skills among male students but not among female students. While financial knowledge was the common predictor of financial skills among male and female students, there was no significant difference in the estimate of financial knowledge in predicting financial skills between male and female students.

3.3.3- ***Predicting financial knowledge:*** Childhood consumer experiences, primary socialization agents and secondary socialization agents significantly contribute to predict financial knowledge among male students but not among female students.

4.conclusions and implications

The findings of the present study confirm the moderating effect of gender on financial matters. The results suggest that males and females perceive different levels of financial knowledge, financial skills, childhood consumer experiences, which resulted in different savings behavior. The results among male students revealed that all factors significantly contributed in predicting savings behavior, in which financial knowledge has the highest effect among all factors. As the results show, male students perceived earlier childhood consumer experiences, and, consequently, perceived a higher level of financial knowledge and financial skills than female students. Among female students primary and secondary socialization agents did not contribute in predicting financial knowledge, financial skills and savings behavior, which indicates the limited source of financial information for females. In other words males have the advantage of receiving financial information and skills and have more opportunity in financial practicing during childhood than females. According to previous findings (Joo, 2008; Kidwell & Turrisi, 2004; Norvilitis, et al., 2006; Perry & Morris, 2005), males and females are different in financial matters due to differences in socialization during childhood. Furthermore, the findings indicate that although there were differences in male and female savings behavior determinants, financial knowledge was the first and strongest determinant of savings behavior among male and female students. These findings might be a key point for family economics, consumer behavior educators, and educational initiatives to be more aware of the financial knowledge role in students' financial behavior when providing training programs. Enrichment of financial knowledge programs may be the main effort of financial practitioners, since the current educational programs are considered to enhance student's basic financial knowledge and techniques, however, an effective financial education program might enhance the practical abilities of students in conducting their financial transactions effectively.

Moreover, childhood consumer experiences happen within families and based on the research findings males perceived earlier consumer experiences than females, which means that females are deprived in family financial practices. From this finding, the implications for family economics and gender educators seem even more apparent, given the important role of parents in socializing their children in financial issues. The awareness of families about the importance of providing equal financial practices for boys and girls may be enhanced. Parents might also consider providing equal practical opportunities for sons and daughters so that their children will have an equal understanding and skill concerning money, thus, enabling them to become financially independent. However, the effect of cultural matters may receive more attention, since in the Asian context, males are expected to be the breadwinners, and, hence, are involved in financial practices and discussions during socialization, and, therefore, earlier practices with money enrich their level of knowledge and skills. Finally similar to other research, several limitations need to be considered in this study, which one refers to the scarcity of literature in the field of gender and finance. Although plenty of research has been conducted in the field of financial and consumer behaviour, only a limited number have applied the gender perspective. In fact, most of the research used gender and sex interchangeably and just reported sex differences in respective findings; however, gender is a cultural concept, and it is expected to interpret differences based on social and cultural issues. In addition, as these data are cross-sectional and cannot be generalized beyond the time frame in which they were collected, longitudinal studies among college students are needed to understand effective predictors of students financial well-being and financial behavior.

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