Gender Differences In Financial Well-Being Among College Students

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ABSTRACT: Financial satisfaction and its impact on the quality of life have received considerable attention in recent decades. A large number of studies have attempted to identify the dimensions of financial well-being and financial behavior among various groups in relation to the development of personal financial well-being. The majority of studies on personal financial satisfaction and financial behavior among adolescents reveal notable sex differences. There is evidence that men and women's perceptions differ and that they are not necessarily only influenced by economic factors, but also by social and psychological issues. To identify gender differences in financial well-being, this study focuses on the perceived financial well-being of Malaysian college students. This study was carried out under (IRPA) funding. Data were collected from students in public and private Malaysian universities. The multi stage stratified random sampling technique was used. A total of 11 universities were randomly selected for the study and 350 questionnaires were distributed to students through the student affairs section of the respective university. Data were collected using self-administered questionnaires. Financial well-being was measured by a six-item scale. The students were asked to rate those six items on a scale of one (not satisfied at all) to nine (very satisfied). The items statements include the amount of saving, financial situation, ability to purchase, saving for emergency expenses, skill to manage money, and ability to spend. The results revealed that there were significant gender differences among Malaysian college students concerning financial matters. The results indicate that Malaysian female students have a significantly higher level of financial satisfaction compared to male students. Female students have a lower level of financial knowledge and late age financial socialization compared to male students. The results showed that primary socialization agents were the strongest predictor of financial well-being among male students while financial problems were the strongest predictor among female students. Mediation analysis confirmed the mediation effect of financial problems in the association between predictors and financial well-being.

Key words: Gender differences, Financial well-being, Financial socialization, Financial knowledge, Financial problem.

INTRODUCTION

Malaysia has experienced rapid economic growth in recent decades, which has brought about an improvement in education and economic gender segregation. According to Ahmad (1998), much progress has been achieved in recent decades in narrowing the gender gap in Malaysia, as is shown in the development in women’s roles, both in absolute and relative terms, in the major socioeconomic aspects of the country’s development. However, increasing rates of female labor force participation, gains in productive activities of women and their strengthened economic standing, their increased participation in education, and their improved health status indicates some success in reducing the gaps(Bhatti, Shar, Shaikh, & Nazar, 2010). Analysis of data from the Ministry of Higher Education of Malaysia from 2005 to 2009 indicates that the enrolment of women to universities exceeded that of men. This trend was 76% for women and 34% for men in 2005, and in 2009 there was still a higher percentage of women (54.1%) studying at university compared to men (45.8%). In addition, it is expected that students will contribute productively in the labor force after graduation, of which a large proportion will be female. Based on this scenario, gender studies are essential in understanding whether male and female students exhibit different financial behavior and perceived level of financial well-being during college life. More importantly, evidence shows that students financial well-being during college has a significant effect on their financial well-being after graduation and their overall life satisfaction (Shim, Xiao, Barber, & Lyons, 2009; Xiao, Tang, & Shim, 2009).

Several studies(Shim, et al., 2009; Xiao, et al., 2009) indicated on the role of efficient resource management to perceived higher level of financial well-being. In other words personal financial management has been identified as a major contributory factor to the satisfaction with one's financial status (Parrotta & Johnson, 1998). Garman and Forgue(2006) argued that personal financial behavior could be an important
component in defining financial well-being. However, positive financial behavior would enhance the level of financial well-being and fail to manage the finance cooperates with financial problems. Researchers have found that gender could affect financial affairs, as studies on personal financial management among students revealed remarkable differences according to sex between males and females (Barber & Odean, 2001; Goldsmith & Goldsmith, 1997, 2006; Hira & Mugenda, 2000).

Hira and Mugenda (2000) showed that financial perceptions, spending behaviors, and satisfaction with the financial situation are significantly influenced by gender. The research findings among college students indicate that female students feel they know less than male students do about financial topics such as managing money (Hira & Mugenda, 2000) financial analysis (Webster & Ellis, 1996), and investing (Goldsmith & Goldsmith, 1997). Previous research (Hira & Mugenda, 2000; Newcomb & Rabow, 1999) suggests that the financial perception and behavior of men and women are different due to different financial socialization. Based on the consumer socialization theory of Moschis (1987) and Ward (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. The schooling years from primary to college represent a similar experience for most people. For the majority of students the first time they are financially independent and responsible for keeping track of their expenses is when they are in college. Thus, it may be expected that gender differences in financial socialization have a significant effect on their financial knowledge, skills and overall financial behavior.

Leach, Hayhoe and Turner (1999), by reviewing various literature, indicated that although a number of studies have been done on gender differences concerning financial issues like credit and spending behavior, studies of financial well-being through the lens of gender lenses college students is limited. There is a need to address gender issues in financial studies as although a few researchers (Kamaruddin & Mokhils, 2003; Masud, Rahim, Paim, & Brit, 2004; Sabri, MacDonald, Hira, & Masud, 2010) have examined financial behavior in Malaysia, the study of gender differences in financial well-being is scarce. Understanding gender difference in financial well-being predictors should be of interest to financial educators in their efforts to enhance students’ financial situation and for educators to develop appropriate programs adequately for boys and girls to equip them with appropriate financial skills before entering the labor force. Hence, within the Malaysian context, the main aim of this paper is to understand two issues: (1) gender differences in financial well-being, financial knowledge, financial socialization and financial problems; and (2) gender differences in factors predicting financial well-being among male and female students.

**Literature Review:**

Joo (1998) developed a model that involved objective and subjective factors to predict financial satisfaction, and indicated that subjective factors such as financial knowledge and financial behavior are important components because these factors have the potential to change personal financial satisfaction. Joo (Joo, 2008) emphasized that financial problems are the direct output of financial behavior, however, it is assumed that financial behavior by mediating with financial problems can influence financial satisfaction. Gender theories indicate that males and females are different due to different socialization. Past experiences is recognized as the main factor influencing differences in behavior both among sociologists (e.g. Bandura) and consumer researchers (Fishbein, Ajzen, Albarracin, & Hornik, 2007). In the model applied in this study, financial problems were considered as the mediating factor on the relationship between financial socialization, financial socialization agents, financial literacy and financial well-being. In the model utilized in this study, the mediator was financial problems, which were hypothesized would be affected by financial knowledge, financial socialization, and primary and secondary socialization agents variables.

**Mediator:**

**Financial Problems:**

Financial problems, as a direct output of negative financial behavior, have been a topic of interest among financial researchers. Although the term financial problem has not been defined consistently in the literature, the term generally refers to a mismatch between financial resources and demands (Kerkmann, Lee, Lown, & Allgood, 2000). Several studies indicated that positive financial behavior, such as financial planning and budgeting, are the main component of one’s financial satisfaction (Garman & Forgue, 2006; Xiao, et al., 2009) and, conversely, frequent financial problems are a symptom of economic insecurity. Financial problems in addition to economic stressors can contribute to other personal and family burdens. Marcolin and Abraham (2006) pointed out that financial problems are often the basis for divorce, mental illness such as isolation, emotional stress, depression and lower self-esteem and a variety of other unhappy experiences. To lessen the likelihood of financial problems, researchers identified the role of financial knowledge and skills. For instance, Marcolin and Abraham (2003) indicated that having financial knowledge is an essential basis for both avoiding and solving financial problems.
Reviewing the literature on financial problems revealed that only a few researchers studied financial problems among college students. The research findings among Malaysian college students by Sabri et al. (2010) showed that the majority of students experience financial problems. Although they found no significant gender differences in financial problems, financial literacy was associated with better financial behavior, and financial literacy was also negatively related to financial problems. In addition, the results showed that those who had more financial socialization have fewer financial problems. Masud et al. (2004) conducted a research among Malaysian college students and found that females reported fewer problems compared to males. More than half of the females reported experiencing one to four problems while males reported more than three problems (2004). The research findings of Leach et al. (1999) confirmed the mediation effect of the financial problems between independent variables and financial well-being for both male and female students. However, among college students, it is shown that college men and women both report similar results in that worries about financial inadequacy and not having enough money for wants both affect the level of financial strain (1999). They conclude that by this reasoning, women may report more stress in other areas of their lives, such as academic, than do men, and that these additional stresses spill over into stress about finances. However, gender differences in financial problems indicate that males and females may have different financial behavior due to different levels of financial knowledge and financial socialization.

**Predictive Factors:**

**Financial Socialization:**

Financial behaviors like all other issues have been learned principally from parents through observation and participation in financial experiences like shopping. The socialization process has an important effect on financial practices as Ward (1974) indicated that financial socialization is the process by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace. Lau (1998) pointed out that through different socialization experiences people come to understand money differently. Financial socialization studies indicate that gender issues are influenced by family strategies in the socialization process. The research findings of Newcomb and Rabow (1999) show that families use a number of different strategies for the financial socialization of boys and girls, such as keeping their daughters dependent and uninformed regarding money. Newcomb and Rabow (1999) emphasized that boys and girls perceived different financial messages from parents, as daughters are protected from parental fiscal problems or do not perceive or evaluate them in the same way as do sons. The findings of Newcomb and Rabow (1999) reveal that sons more than daughters perceive and evaluate their parents as expecting them to know how to work and to save. In addition, sons were introduced to discussions about family finances at an earlier age than their sisters, reported that they currently work more than do women, and received less financial support from their families than did women (1999).

Parents have been identified as the main agents of financial socialization during childhood: it seems that the role of other agents – peer group and mass media – have become in significant level as well. John (1999) emphasized that the developments in financial socialization do not emerge in a vacuum, but take place in a social context including the family, peers, mass media, and marketing institutions. John (1999) indicated that parents are the primary and direct source of financial practices, followed by peers who are an additional source of influence in financial socialization, and, finally, the mass media and advertising provide information about consumption and the value of material goods. Shim et al. (2010) conducted a research among 2,098 first year college students and found that parents, work, and high school financial education during adolescence predicted young adults’ current financial learning, however, attitude and behavior, with the role played by parents, is substantially greater than the combined role played by work experience and high school financial education. In the context of Malaysia, Kamaruddin and Mokhlis (2003) studied financial socialization among students and found that male students are more likely to interact with their peers about consumption matters than females. In contrast, female students are more likely to interact with parents regarding financial behavior.

**Financial Knowledge:**

The development stages from birth to adolescence contain socialization and then entry to adulthood. One of the first steps towards adulthood is leaving the parental home. Most students enter college immediately after high school without a sufficient level of financial knowledge and practice in the family and school stages. Garman & Forgue (2006) pointed out that financial knowledge is knowledge of facts, concepts, principles, and technological tools that is fundamental to being smart about money. Researchers studying financial knowledge among college students indicate that students are burdened by the lack of knowledge concerning financial issues (Chen & Volpe, 2002; Ibrahim, Harun, & Isa, 2009; Lusardi, Mitchell, & Curto, 2010; Mandell, 2009). However, for people lacking financial experience, such as college students, financial knowledge has been identified as an important factor to improve financial behavior and for promoting personal financial well-being. Several studies indicated gender differences in financial knowledge among college students. Studies indicated that women feel that they know less than men do about financial topics (Barber & Odean, 2001; Hira &
Mugenda, 2000; Webster & Ellis, 1996). Indeed, the findings pointed out that although women employ more prudent investing strategies than men do (Barber & Odean, 2001), their lack of knowledge and confidence is likely to contribute to their dissatisfaction with their financial situation (Hira & Mugenda, 2000). Goldsmith and Goldsmith (1997), in a survey of college students, showed that the men students felt they knew more about investing and actually did know more about investing than the women students. Bajtelsmit and Bernasek (Bajtelsmit & Bernasek, 1996) indicated that women may also differ from men in their access to information, as well as the ability or inclination to use available information. From a gender perspective, male and female differences in financial issues such as attitude, knowledge and overall behavior is due to different financial socialization during childhood (Lim, Teo, & Loo, 2003). For instance, in most cultures, boys have grown up with the expectation of being the family breadwinner while girls have grown up with the expectation of being the caregiver (Wilhelm, Varcoe, & Fridrich, 1993). Therefore, diversity in gender role expectations would provide different strategies to the financial socialization of boys and girls, and, consequently, the different levels of financial knowledge among them. An assessment of the literature review revealed that financial knowledge and financial socialization may have a significant effect on the differences in financial problems among male and female students, which, in turn, results in different levels of financial well-being as well.

**Methodology:**

**Measurements:**

**Financial Well-Being:**

Financial well-being in this study is defined as satisfaction with one’s financial situation. Financial well-being in the present study was measured by adopting the 6-item financial well-being instrument introduced by Lown and Ju (1992) and Hira and Mugenda (1999). Respondents were asked to subjectively evaluate major areas of financial concerns, including six items. Measurement included items such as “amount of saving”, “financial management skills” and “current financial situation”, “ability to meet wants”, “saving for emergency needs’ and “affordability to spend”. A self-anchoring ladder that was originally developed by Cantril (1965), and used by Porter and Garman (Porter & Garman, 1993), measured the perceived financial well-being subjectively. In this measure, 1 refers to being dissatisfied and 10 refers to being satisfied. A financial well-being score was computed by summing the average scores for all six statements.

**Financial Problems:**

Financial problems in this study are defined as the failure to manage expenses and experience financial strain. Financial problems in this study were measured by using an instrument involving 10-items. The problems listed were derived from a list used by the Financial Counseling Clinic at Iowa State University (2004), to determine the types of financial counseling required by students seeking financial counseling, and adapted to a Malaysian context. The instrument measured two main aspects of financial problems including planning and cash flow problems. Respondents were required to rate the experience of these problems on a five-point Likert scale from Never (1) to every day (5). The Alpha reliability for the financial problems scale items was .764. The financial problems score was computed by summing the total score for all ten statements. A higher score (out of 50) indicated higher financial problems and vice versa.

**Financial Knowledge:**

Financial knowledge in this study is defined as the degree of knowledge about financial concepts, facts, and basic information that is fundamental about money. Financial knowledge was measured by an instrument developed by Sabri et al. (2006) based on the Malaysian context. The instrument consisted of 25 true and false questions concerning financial goals, financial records, saving, investment, retirement, banking system, time value of money, wills, insurance, education loan, and general knowledge concerning personal finance. The Alpha reliability of the financial knowledge scale items was .747. A financial knowledge score was computed by summing the right answers to statements.

**Financial Socialization:**

To assess the financial socialization process a 10-item scale was adopted from Hira (1997). Items were adapted to the Malaysian context and included statements about the age that financial practices start (e.g. own bank account, receive income from working, discuss with family about financial matters). The respondents were required to choose the age they started to practice each statement on a scale answer from Never until 18 years old. The financial socialization score was computed by summing the score of statements from one to six for 10 items. The Alpha reliability of the financial socialization scale items was .544. The financial socialization score was computed by summing the score of statements from one to six for 10 items, a higher score indicated earlier financial socialization.

The second scale was developed to assess the effect of socialization agents on the financial behavior of respondents. The measurement for this construct was taken from the studies of Hira (1999) and John (1999).
Two main dimensions involving primary socialization agents and secondary socialization agents were considered to develop the instrument. The instrument included 11 items, in which father, mother, siblings, religion and school, were considered as primary socialization agents, and peer group, mass media, magazine, advertisements, the Internet, and mobile phone were considered as secondary socialization agents. To assess the influence of each item, the respondents were required to rate on a scale from 1 (not influence) to 10 (the most influence) for eleven items. The primary and secondary socialization agents’ score were computed by summing the score of statements from one to ten for 11 items. The highest score for each dimension indicated a higher level of influence by the respective socialization agent. The Alpha reliability of the financial socialization agents scale items was .848.

Data Collection and Sample Profile:
Data were collected using a stratified sampling method. The study sample comprised students in public and private Malaysian universities, and a total of 11 universities were randomly selected for the study (six public and five private universities). For each university a total of 350 students were selected randomly using the list of names obtained from each student affairs office. The total number of questionnaires distributed to 11 universities was 3,850. A total of 2,500 completed and usable questionnaires were returned by the students producing a 65% response rate. Of the 2,500 students who responded to the survey, 40.4% were male and 59.6% were female students. The ethnic composition was Malay (71.4%), Chinese (21.7%), Indian (5.0%) and others (8%). The age composition of students was lowest – 20 years (39.3), 21-30 years (60.5%) and highest 31 years (2%). The mean age of the respondents was 20.9 years. Students from public universities were (60%) while others (40%) studied in private universities.

Statistical Analysis:
As the main aim of this study was to determine the gender differences in financial well-being, t-tests were conducted to determine gender differences among student’s perceived financial well-being, financial problems, financial knowledge, financial socialization and financial socialization agents. To test the conceptual model assumed in this study Path Analysis was conducted.

Mediation Analysis:
A variable is called a mediator, to the extent, that it accounts for the relation between the predictor and the criterion (Preacher & Hayes, 2008). The simple form of mediation is the type that occurs when one variable (M) mediates the effect of X on Y. In this study, financial problems are considered as a mediator. Preacher and Hayes (2008) indicated that there is no such assumption in the assessment of indirect effects. It is quite possible to find that an indirect effect is significant even when there is no evidence for a significant total effect. Whether or not the effect also represents mediation should be judged through examination of the total effect. This mediation test assumes that: 1) there exists an effect to be mediated (c ≠ 0), and 2) that the indirect effect is statistically significant in the direction predicted by the mediation hypothesis. The mediation hypotheses are usually tested using the product-of-coefficients approach developed by Sobel(1987) or the causal steps approach popularized by Baron and Kenny (1986). In both approaches the multivariate normality of the sampling distribution of total and specific indirect effects is assumed, however, it is highly dependent on the sample size (Preacher & Hayes, 2008). The present study employed a bootstrapping approach to multiple mediation that does not require such an assumption, a process that concurrently enhances power and asserts control over the Type I error (Preacher & Hayes, 2008). Bootstrapping is a resampling technique that empirically produces an approximation of the sampling distribution. In the case of a simple mediation model, the sampling distribution of indirect effects are empirically generated by selecting a subsample, with replacement, of the full data set and then calculating the indirect effects in the repeated subsamples.

Results:
Gender Differences In Financial Well-Being:
Financial well-being was computed by summing the scale score. The mean of financial well-being for all respondents was 32.2 for male (Out of 60) and 26.48 for female students. The results show that female students have a significantly higher level of financial satisfaction compared to male students. The financial well-being scale includes six components. The results depicted in Table 1 indicate that there is a significant difference between males and females in the components of financial well-being. The results indicate that there are significant gender differences in satisfaction with financial situation, (t= -2.73 p<.05), ability to meet wants (t= -3.16 p<.05), saving for emergency (t= -2.44 p<.005), and affordability to spend (t= 2.85 p<.005) between male and female students. No significant gender differences were observed in satisfaction with the amount of saving and financial management skills.

Gender Differences in Financial Problem:
The mean score of respondents’ financial problems among male students was 20.3 (out of 50) and for female students it was 19.91. The findings indicate that students are burdened by financial problems, which male students perceived as being greater than female students. However, the t-test analysis indicates no significant gender differences in the financial problems score.

**Gender Differences in Financial Knowledge:**

The financial knowledge score was computed by summing the right answers to statements of scale. The financial knowledge mean score for male students was M=12.61 (out of 25) and M=12.21 for female students. The findings indicate that students have a low level of financial knowledge; particularly female students, who have a lower level of financial knowledge than male students. The mean comparison of the t-test indicates a significant gender difference in the financial knowledge score, (t= 3.28 p<.000) between male and female students.

<table>
<thead>
<tr>
<th>Items</th>
<th>Male</th>
<th>Female</th>
<th>t</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Saving</td>
<td>4.92</td>
<td>5.02</td>
<td>-1.084</td>
<td>-</td>
</tr>
<tr>
<td>Current financial situation</td>
<td>5.07</td>
<td>5.33</td>
<td>-2.73</td>
<td>.00</td>
</tr>
<tr>
<td>Ability to meet wants</td>
<td>5.08</td>
<td>5.36</td>
<td>-1.36</td>
<td>.00</td>
</tr>
<tr>
<td>Saving for emergency</td>
<td>5.09</td>
<td>5.32</td>
<td>-2.44</td>
<td>.00</td>
</tr>
<tr>
<td>Financial management</td>
<td>5.56</td>
<td>5.47</td>
<td>1.034</td>
<td>-</td>
</tr>
<tr>
<td>Affordability to spend</td>
<td>5.55</td>
<td>5.74</td>
<td>-2.23</td>
<td>.00</td>
</tr>
<tr>
<td>Financial well-being (out of 60)</td>
<td>31.17</td>
<td>32.2</td>
<td>-2.28</td>
<td>.00</td>
</tr>
<tr>
<td>Financial problem (out of 50)</td>
<td>20.3</td>
<td>19.91</td>
<td>1.49</td>
<td>-</td>
</tr>
<tr>
<td>Financial knowledge (out of 25)</td>
<td>12.61</td>
<td>12.21</td>
<td>2.58</td>
<td>.00</td>
</tr>
<tr>
<td>Financial socialization (out of 60)</td>
<td>34.34</td>
<td>33.59</td>
<td>3.28</td>
<td>.00</td>
</tr>
<tr>
<td>Primary socialization agents</td>
<td>29.36</td>
<td>29.33</td>
<td>.664</td>
<td>-</td>
</tr>
<tr>
<td>Secondary socialization agents</td>
<td>30.37</td>
<td>30.74</td>
<td>-2.71</td>
<td>-</td>
</tr>
</tbody>
</table>

**Gender Differences in Financial Socialization:**

The financial socialization scale included financial practices, for which the score was computed by scoring the age students started to practice financial issues. The mean score of financial socialization for male students was M=34.34, and for female students it was M=33.59. The mean comparison analysis of the t-test (t= 3.28 p<.000) indicates a significant gender difference in the score for financial socialization between male and female students. The analysis indicates that female students started to practice financial socialization later than male students.

**Gender Differences in Financial Socialization Agents:**

The financial socialization agents included primary and secondary socialization agents. The results revealed that although no significant gender differences were observed, the male students (M=29.36) were more affected by primary socialization agents than female students (M=29.33). However, female students (M=30.74) were more affected by secondary socialization agents than male students (M=30.37).

**Factors Predicting the Financial Well-being among Male and Female Students:**

The results for male students will be presented first, followed by the results for female students.

**Male Students:**

As presented in Table 2, the path analysis for the factors concerning financial well-being reported that among male students secondary socialization agents, primary socialization agents, and financial problems significantly predict financial well-being. The results of the path analysis revealed that primary socialization agents (β=.149, P<.000) is the strongest direct predictor of financial well-being among male students. This finding suggests that those male students who were more affected by primary socialization agents perceived a higher level of financial well-being. However, as family evaluate the higher level of satisfaction with financial situation, family members evaluate in a same way, this finding confirms the effect of socialization agents on financial affairs, such as financial attitude, perception and subjective satisfaction.

Financial problems are the second strongest determinant of financial well-being, after primary socialization agents. The effect of financial problems on financial well-being is direct and negative, which means that those male students with a higher level of financial problems perceived a lower level of financial well-being (β=-.135, P<.000). Secondary socialization agents have a positive and direct effect on financial well-being (β=.097, P<.000) and a positive effect on financial problems as well (β=.27, P<.000). Secondary socialization agents by the mediating effect of financial problems have an effect on financial well-being. These results indicate that those students who were more affected by secondary socialization agents experienced more financial problems, while, in contrast, the positive direct effect indicates that they perceived a higher level of
financial well-being. These ambivalent results indicate that male students’ evaluation of their financial satisfaction and well-being is more affected by their source of financial influence, such as the perception of peers, and colleagues instead of being affected by their actual behavior and the level of financial stressors. This findings is consistent with the literature (Hong, Kubik, & Stein, 2004; Kamaruddin & Mokhlis, 2003) which indicated that students financial behavior and decision making is more affected by peers, the media, school and colleagues than any other secondary agents. Financial socialization (β= -.109, P<.000) and financial knowledge (β= .113, P<.000) have a direct and negative effect on financial problems and through a mediating effect on financial problems have an effect on financial well-being.

These findings indicate that those male students with a higher level of financial knowledge and earlier financial socialization perform greater financial behavior and avoid financial problems and, consequently, perceive a higher level of financial well-being. Primary socialization agents is associated with financial knowledge (r= .084, P<.000) and secondary socialization agents (r= .306, P<.000). This connection indicates that family and other primary socialization agents such as siblings, religious and even school are the source of financial knowledge and persuade students to use secondary agents as a source of financial information. The findings of path analysis among female students indicate that financial problems is the strongest predictor of financial well-being (β= -.113, P<.000). The findings indicate that those female students who experience a higher level of financial problems perceived a lower level of financial well-being. In contrast with male students, primary socialization agent (β= .174, P<.000) was the second determinant of financial well-being among female students. The secondary socialization agent has a direct effect (β= .07, P<.00) on financial well-being and an indirect effect (β= .325, P<.000) through mediating financial problems. Similar to male students, the effect of secondary socialization agents on both financial well-being and financial problems is positive. Primary socialization agents correlated with secondary socialization agents (r= .306, P<.000).

Fig. 1: Path Analysis Results of the determinants of financial well-being among Male students Female Students.

| Table 2: Results of Path analysis for Male and Female Students |
|------------------|------------------|------------------|
| Items            | Financial Well-being | Financial Problem |
| **Male Students**<br>(n=765) |                   |                   |
| Financial problem | -.135**            | -                |
| Financial knowledge | -                | -.113**          |
| Financial socialization | -                | -.109**          |
| Primary socialization agent | .149***         | -                |
| Secondary socialization agent | .97*             | 27***            |
| R²               | .052              | .105             |
| F-value          | 7.06              | 18.98            |
| Sig. F           | .000              | .000             |
| **Female Students**<br>(n=960) |                   |                   |
| Financial problem | -.241***          | -                |
| Financial knowledge | -                | -                |
| Financial socialization | -                | -                |
| Primary socialization agent | .174             | -                |
| Secondary socialization agent | .07*             | 325***           |
| R²               | .083              | .114             |
| F-value          | 17.78             | 31.06            |
| Sig. F           | .000              | .000             |

*a P<0.05; ** P<0.01; *** P<0.001
In summary, the findings above suggest that: (1) among male and female students financial problems has a negative association with financial well-being, (2) financial socialization and financial knowledge have a negative effect on financial problems among male students, but not among female students, and (3) primary socialization agent is associated with financial well-being while secondary socialization agent is associated with financial well-being directly and indirectly through financial problems. Therefore, we were able to test the mediation hypothesis that the relationship between financial knowledge, financial socialization, primary socialization agent and secondary socialization agents are associated with financial well-being by the mediating effect of financial problems.

![Path Analysis](image)

**Fig. 2:** Path Analysis Results of the determinants of financial well-being among Female students.

**Test of Mediation Model:**

As depicted in Table 3, the statistics of point estimates and bias-corrected and accelerated bootstrap confidence intervals based on 5,000 bootstrap samples in a simple mediator model based on hypothesis was presented. Tests of simple indirect effects (Table ) indicate that the relationship between financial knowledge, financial socialization, primary socialization agents, and secondary socialization agents with financial satisfaction are significantly mediated by financial problems among male students. The conclusions drawn from an examination of the bias corrected and accelerated confidence intervals are consistent with the results of a traditional product-of-coefficients approach: the Sobel test statistic was 1.79 for financial socialization ($p = .07$), 1.88 for financial knowledge ($p = .004$), -2.03 for primary socialization agents ($p = .04$), and -3.16 for secondary socialization agents ($p = .001$). The results of the indirect effects among female students (Table ) indicate that the relationship between primary socialization agents and secondary socialization agents with financial socialization were significantly mediated by financial problems. The results of the Sobel test were -3.54 for primary socialization agents ($p = .000$), and -6.05 for secondary socialization agents ($p = .000$). The indirect effects of the bootstrapping and Sobel test were not significant for financial knowledge and financial socialization among female students.

<table>
<thead>
<tr>
<th>Items</th>
<th>Point Estimate</th>
<th>BCA* 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Male Students</td>
<td></td>
<td>Upper</td>
</tr>
<tr>
<td>Financial socialization*</td>
<td>.0096</td>
<td>.004</td>
</tr>
<tr>
<td>Financial Knowledge*</td>
<td>.036</td>
<td>.023</td>
</tr>
<tr>
<td>Primary Socialization agents*</td>
<td>.0061</td>
<td>- .0248</td>
</tr>
<tr>
<td>Secondary Socialization agents*</td>
<td>.011</td>
<td>- .0526</td>
</tr>
<tr>
<td>Female Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Socialization agents*</td>
<td>.0064</td>
<td>-.0355</td>
</tr>
<tr>
<td>Secondary Socialization agents*</td>
<td>.0102</td>
<td>-.0808</td>
</tr>
</tbody>
</table>

*Significant indirect effect

**Discussion And Conclusions:**

One of the crucial skills that people must obtain to function in our society is the ability to deal with money (Hira, 1997). Financial matters are related to all aspects of life, as people with a higher level of financial well-being perceive a lower level of stress and social disorder than others. However, previous research findings indicate that people high in financial well-being later earn higher incomes and perform better at work than people who report a low level of financial well-being (Diener & Seligman, 2004). Most college students are at the age where they are developing the skills to build their present and future personal and family well-being (Leach, et al., 1999). The aim of the present study was to examine whether male and female students perceived different levels of financial well-being. The second aim was to identify factors predict financial well-being...
among male and female students. The most relevant findings of the study indicate that Malaysian female students perceive a higher level of financial well-being than male students.

The findings suggest that male students are more knowledgeable financially than female students, which is consistent with previous findings (Chen & Volpe, 2002; Eitel & Martin, 2009; Goldsmith & Goldsmith, 2006; Hira & Mugenda, 2000; Lim, et al., 2003; Shim, et al., 2010) and emphasizes that females have less financial knowledge than male students. The findings indicate that male students were socialized earlier in financial matters, these findings are consistent with the results of Shim et al. (2009) and Newcomb and Rabow (1999) who indicated that families use different strategies to socialize boys and girls regarding financial issues, and that boys were socialized earlier. The findings indicate that socialization agents affect the financial behavior of both male and female students, which concurs with previous findings (Gutter, Copur, & Garrison, 2009; Kamaruddin & Mokhlis, 2003; Pinto, Parente, & Mansfield, 2005) that individual, organizational, or institutional agents are the main sources of financial socialization opportunities. Previous research emphasized that family, and parents are the main source of financial knowledge and skills for students (Hira, 1997; Hira & Mugenda, 2000; Lyons, 2004; Pinto, et al., 2005). As the results show in the financial socialization process, male students are socialized earlier and are involved in financial family discussions, which might explain why males are more affected by primary socialization agents than female students. In addition, as female students experience a lack of family financial socialization opportunities, they resorted to secondary socialization agents as the source of financial information. Both male and female students perceived financial problems at a moderately high level.

The findings indicate that different factors predict financial well-being among male and female students. Among male students, primary socialization agents was the most important direct determinant of financial well-being and financial problems was the second direct determinant, followed by secondary socialization agents. In addition, the assessment of indirect effects revealed that among male students, financial knowledge and financial socialization have a negative effect on financial problems and through a mediating effect on financial problems have an effect on financial well-being. These findings indicated that those with earlier financial socialization and higher level of financial knowledge have lower level of financial problem and in turn perceived higher level of financial well-being. Secondary socialization agents have a positive effect on financial problems and through a mediating effect on financial problems have an effect on financial well-being.

Among female students, financial problems are the main direct determinant of financial well-being; followed by primary socialization agents and secondary socialization agents. Similarly, for male students, secondary socialization agents have a positive effect on financial well-being and a positive effect on financial problems as well. This ambivalent result indicates that students evaluate their financial situation in the same way as their reference and source of the influence evaluate. Since this evaluation is subjective, for students it is not important to be involved in risky financial behavior and financial problems, however, the major determinant of evaluation is peer group and colleagues, and other agents' evaluation of the financial situation. However, the direct effect of primary socialization on financial well-being indicates that because family and parents have an effect on students' financial attitude and beliefs, the evaluation of their financial situation could be affected by their family perceptions. If the family evaluates a higher level of satisfaction with financial affairs, students evaluate a higher level of satisfaction with the financial situation as well.

Overall the results of path analysis revealed that among male and female students financial problem has a negative and direct effect on financial well-being, which is consistent with the literature (Dowling, Corney, & Hoiles, 2009; Joo & Grable, 2004; Kim, Garman, & Soraindo, 2003; Mugenda, Hira, & Fanslow, 1990) that emphasized financial problem and stressors have negative effect on financial well-being. The results of this study reveal that female students perceive higher financial satisfaction, as well as a lower level of financial knowledge, later financial socialization, and having financial problems. These findings indicate that a lower level of knowledge contributes to a lower level of evaluation about their present financial situation, and that these deficiencies in the long-term may affect their financial security, particularly in retirement. DeVancy (1995) indicated that women live longer than men, earn less, leave and rejoin the work force more frequently, and tend to work in jobs that are less likely to have employer-provided benefits. Thus, these factors contribute to women's lower level of financial security and savings in retirement.

Findings indicated that primary socialization agents have direct and positive effect on financial well-being, which can be considered as a supportive factor to increase perceived financial well-being among the college student. Parents and siblings are the main components of primary socialization agents, which this finding indicated on the significant effect of them on financial issues. These findings are concurred with previous researches results (Gutter, et al., 2009; Hira, 1997; Webley & Nyhus, 2006), which indicates that among the various socialization agents, family in general, and mothers and fathers, in particular, are identified as the most important sources of influence on respondents’ financial issues. Concerning the high effect of primary socialization agents on students’ evaluation of the financial situation, it is important that family economic educators provide programs to enhance family awareness about their financial style and habits as financial information sources. Furthermore, parents should be educated about the lessons that their own financial behavior and gender-biased behavior can be modeled by children as a parents’ direct teaching. If parents have a
better understanding of how financial knowledge can contribute to their children’s success later in life, they might be more inclined to demonstrate positive financial behavior and provide or encourage adequate financial education at home for boys and girls.

The results of this study reveal that female students are marginalized in financial issues within the family and during college life and are highly affected by secondary socialization agents. Based on Malaysian statistics (2009), a high proportion of college enrolments are female, who after graduation are expected to enroll in the labor force. Consequently, it is important that policymakers pay attention to the potential labor force and market place participants, and, hence, develop more policies to encourage families, and even schools to enhance the status of women in financial issues and provide more opportunities for females to participate in economic practices. Since the results of this study confirmed gender differences in financial matters, it is necessary to develop gender sensitive policies in financial issues. Supporting the mainstreaming of gender issues in all educational and related policies together with the collaboration of gender and family economy practitioners, to ensure the equal opportunities of financial affairs for males and females within the realms of the family and formal education is strongly recommended.

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REFERENCES


