



***GENDER DIFFERENCES IN FINANCIAL WELL-BEING AMONG  
MALAYSIAN COLLEGE STUDENTS***

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By

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AMONG MALASIAN COLLEGE STUDENTS**

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**April 2011**

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Gender issues receive a considerable attention in financial behavior and financial well-being studies. The expansion of educational services in Malaysia resulted in the fast growing number of students enrolled in higher education. Education attainment has been known as the main factor to achieve higher level of financial well-being in later life, and evidence is growing showing that male and female college students have the different level of financial behavior and consequently, perceived different level of financial well-being. However, not much research done on financial well-being and financial behavior of university students in Malaysia.

Financial behavior known as an important predictor of financial well-being and it is associated with several factors such as financial knowledge, financial attitude and financial socialization. Understanding the determining factors related to the financial well-being among male and female college students as the future labor force

participates is crucial to further develop appropriate strategies in the educational system to promote better students' financial behavior. From gender perspective, social learning theory, family resource management theory and feminist economic theory could provide a valid basis for explaining and predicting gender differences in financial well-being among college students.

This study sets out to examine the factors predicting financial well-being among male and female Malaysian college students. Research instrument has verified adequate levels of internal consistency, reliability, and content validity according to the past researches. Data of the research was collected through a self-administered questionnaire at 11 Malaysian universities (five publics and six privates) with a total number of 2,340 respondents. Descriptive analysis, t-test, Path analysis and Mediation analysis with Macro SPSS were employed to achieve the objectives of the study.

Results of the study revealed that female students have higher level of financial well-being, effective financial behavior, lower level of financial knowledge, have more conservative financial attitude and financially socialized at later age compare to male students. Moreover, findings indicated that among several predictors, spendthrift attitude has the highest effect on financial well-being among male and female students. Results also indicated that financial socialization has an effect on the financial behavior and financial problem among male students but among female students, it has effect on financial behavior only. In addition, results indicated the mediation effect of financial behavior and financial problem on the relationship between predictors and financial well-being among male and female students.

Among male students the following were factors that predict financial well-being: spendthrift attitude, secondary socialization agents, financial behavior, primary socialization agents, financial problem, financial socialization, conservative attitude and financial knowledge. Male students' financial behavior has full mediate effect in the relationship between financial socialization and financial well-being. Financial problem and financial behavior have partial mediate effect on the relationship between spendthrift attitude and secondary socialization agents; however, this effect was greater through financial behavior.

On the other hand, among female students ranking by spendthrift attitude, primary socialization agents, financial problem, financial behavior, secondary socialization agents and conservative attitude were contributing to predict financial well-being. Female students' financial socialization by full mediate effect, it shows that financial behavior has effect on financial well-being. Financial problem and financial behavior have partial mediate effect on the relationship between spendthrift attitude and secondary socialization agents with financial well-being; however, this effect was greater through financial problem. Findings of research highlight the need for financial education for male and female students to be directed at assisting changes in financial attitude and financial behavior. Regarding to the strong influence of socialization agents, implications for further research and parents' education practices were discussed.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PERBANDINGAN GENDER TERHADAP KESEJAHTERAAN  
KEWANGAN DALAM KALANGAN SISWA DI MALAYSIA**

Oleh

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Isu gender mendapat perhatian dalam kajian berkaitan tingkahlaku kewangan dan kesejahteraan kewangan. Peluasan perkhidmatan pendidikan di Malaysia menyebabkan peningkatan jumlah pelajar di institusi pengajian tinggi yang memberansangkan. Pencapaian pendidikan telah dikenalpasti sebagai faktor utama untuk mencapai tahap kesejahteraan kewangan yang tinggi pada masa hadapan, dan bukti menunjukkan bahawa mahasiswa lelaki dan wanita mempunyai tahap tingkahlaku kewangan yang berbeza dan akibatnya, mereka mempunyai persepsi kesejahteraan kewangan yang berbeza. Namun, tidak banyak kajian dilakukan mengenai kesejahteraan kewangan dan tingkahlaku kewangan dalam kalangan mahasiswa di Malaysia.

Tingkahlaku kewangan dikenali sebagai prediktor penting bagi kesejahteraan kewangan dan ia berkait dengan beberapa faktor lain seperti pengetahuan kewangan, sikap kewangan dan sosialisasi kewangan. Memahami faktor penentu yang berkaitan dengan kesejahteraan kewangan bagi pelajar-pelajar lelaki dan wanita yang akan

menyertai tenaga buruh masa depan adalah penting untuk membentuk strategi dalam sistem pendidikan yang sesuai untuk meningkatkan tingkahlaku kewangan pelajar. Dari perspektif gender, teori pembelajaran sosial, teori pengurusan sumber keluarga dan teori ekonomi feminis boleh memberikan asas yang kukuh untuk menjelaskan dan meramalkan perbezaan gender dalam kesejahteraan kewangan dalam kalangan mahasiswa. Kajian ini dijalankan untuk memeriksa faktor yang menentukan kesejahteraan kewangan dalam kalangan mahasiswa lelaki dan wanita di Malaysia. Alat penyelidikan telah disahkan mempunyai tahap konsistensi dalaman yang mencukupi, kebolehpercayaan, dan kesahan isi yang sesuai berdasarkan kajian terdahulu. Data kajian dikumpul melalui borang soal selidik sendiri yang diedarkan di 11 buah universiti di Malaysia (lima universiti awam dan enam universiti swasta) dengan jumlah responden seramai 2,340. Analisis deskriptif, t-test, analisis *Path* dan analisis Mediasi dengan Makro digunakan untuk mencapai tujuan kajian.

Keputusan kajian menunjukkan bahawa pelajar wanita mempunyai tahap kesejahteraan kewangan yang lebih tinggi, tingkahlaku kewangan yang berkesan, tahap pengetahuan kewangan yang rendah, sikap kewangan yang lebih konservatif dan kewangan disosialisasikan pada usia yang lebih lewat dibandingkan dengan siswa lelaki. Selain itu, penemuan juga menunjukkan bahawa di antara prediktor yang dikaji, sikap boros mempunyai kesan tertinggi kepada kesejahteraan kewangan pelajar lelaki dan wanita. Keputusan kajian juga menunjukkan bahawa sosialisasi kewangan mempengaruhi tingkahlaku dan masalah kewangan bagi pelajar lelaki, tetapi bagi pelajar wanita, sosialisasi kewangan hanya mempengaruhi tingkahlaku kewangan sahaja. Selain itu, keputusan menunjukkan kesan mediasi tingkahlaku kewangan dan masalah kewangan ke atas hubungan prediktor dan kesejahteraan

keuangan dalam kalangan pelajar lelaki dan wanita. Dalam kalangan pelajar laki-laki faktor yang meramalkan kesejahteraan kewangan adalah: sikap boros, agen sosialisasi sekunder, tingkahlaku kewangan, agen sosialisasi primer, masalah kewangan, sosialisasi kewangan, sikap konservatif dan pengetahuan kewangan. Tingkahlaku kewangan pelajar lelaki mempunyai pengaruh sepenuhnya ke atas hubungan antara sosialisasi kewangan dan kesejahteraan kewangan. Masalah kewangan dan tingkahlaku kewangan mempunyai pengaruh mediasi separa terhadap hubungan antara sikap boros dan agen sosialisasi sekunder, namun kesan ini lebih besar melalui tingkahlaku kewangan.

Sebaliknya, dalam kalangan pelajar wanita, prediktor yang mempengaruhi kesejahteraan kewangan mengikut urutan adalah sikap boros, agen sosialisasi primer, masalah kewangan, tingkahlaku kewangan, agen sosialisasi sekunder dan sikap konservatif. Sosialisasi kewangan pelajar wanita dengan kesan penuh memediasi, menunjukkan bahawa tingkahlaku kewangan mempengaruhi kesejahteraan kewangan. Masalah kewangan dan tingkahlaku kewangan mempunyai pengaruh mediasi separa terhadap hubungan antara sikap boros dan agen sosialisasi sekunder dengan kesejahteraan kewangan, namun kesan ini lebih besar melalui masalah kewangan. Penemuan kajian menunjukkan keperluan pendidikan kewangan untuk pelajar lelaki dan wanita bagi mengubah sikap dan tingkahlaku kewangan. Sehubungan dengan pengaruh yang kuat dari agen sosialisasi, implikasi untuk kajian akan datang dan pendidikan bagi orang dewasa dibincangkan.



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**Kuala Lumpur, Malaysia, May 2011**

**Leila Falahati**

## DEDICATION

*This thesis is dedicated to my daughter Baran for her endless love, support and  
patience.*



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## CHAPTER 1

### INTRODUCTION

Gender issues have received considerable attention in statements on economics and finance in recent decades. Since gender differences have been observed in a number of financial domains, such as behaviour, investment and, perhaps, most importantly in financial skills, gender issues have become a concern among economists and gender educators. Scholars have documented gender differences in financial affairs such as financial knowledge, attitudes and particularly financial behaviour. Hira and Mugenda (2000) indicated that gender is a social phenomenon, a dichotomy that exists in all societies, which, as a social dimension, affects consumer behaviour. Furthermore, Hira and Mugenda (2000) added that it is understudied and sometimes misunderstood.

Previous studies (Goldsmith & Goldsmith, 2006) have found that women know less about financial management skills than men. Financial behaviour is one area in which gender differences are often apparent. However, researchers such as Joo and Grable (2004) indicate that financial behaviour or financial management is the single most powerful direct determinant of one's financial satisfaction. In comparison to men, recent studies have also found that women are less knowledgeable financially (Goldsmith & Goldsmith, 2006) late age financially socialized (Shim, Barber, Card, Xiao, & Serido, 2010) and have negative attitudes towards money (Dowling, Corney, & Hoiles, 2009), which will likely result in significant differences in their behaviour and financial well-being.

Young adults, particularly college students, receive more attention from financial educators (Goldsmith & Goldsmith, 2006; Gutter, Garrison, & Copur, 2010; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Hira, Anderson, & Petersen, 2000; Joo, 2008; Norvilitis et al., 2006), as they have easier access to financial sources such as credit, debt and educational loans than previous generations of students. However, a great body of research has documented significant gender differences in financial behaviour and the level of perceived financial well-being among college students (Masuo, Malroutu, Hanashiro, & Kim, 2004; Norvilitis, et al., 2006; Shim, Xiao, Barber, & Lyons, 2009).

Studies on college students financial behaviour has become of interest to Malaysian educators and scholars (Bakar, Masud, & Jusoh, 2006; Ibrahim, Harun, & Isa, 2009; Sabri et al., 2008) as Malaysia has experienced a remarkable university enrolment in recent decades. A few researchers (Kamaruddin & Mokhlis, 2003; Masud, Husniyah, Laily, & Britt, 2004) have examined the financial behaviour in Malaysia on the basis of gender, however, the study of financial well-being is scarce. Financial research (Joo, 2008; Xiao, Tang, & Shim, 2009) has long recognized that financial behaviour is the main determinant of financial well-being, which, in turn, is influenced by four major factors – financial attitude, financial socialization, financial socialization agents and financial knowledge.

Students like all other people learn financial behaviour early in life, however, it is widely held among researchers that family experiences, in particular, often provide the foundation for the student's financial behaviour (Danes & Hira, 1986; Hira & Mugenda, 2000; Watchravesringkan, 2008). It is widely documented that financial



socialization is significantly affected by parents' gender ideology (Moschis & Churchill, 1978). The research findings of Newcomb and Rabow (1999) indicate that families use a number of different strategies to financially socialize boys and girls, which keeps their daughters dependent and uninformed regarding money. Evidence has proven that different financial socialization will lead to differences in financial attitude (Hayhoe, et al., 2000; Masuo, et al., 2004), financial knowledge (Chen & Volpe, 2002; Goldsmith & Goldsmith, 2006), financial behaviour (Dowling, et al., 2009; Xiao, et al., 2009), which, in turn, results in different levels of financial well-being (Hira & Mugenda, 2000).

To understand the effect of parents and socialization agents on the financial behaviour and financial well-being of individuals, scholars have adapted social learning theory (Bandura, 1977) and later the theory of consumer socialization (Moschis & Churchill, 1978) was developed. From a gender perspective, social learning and consumer socialization theory have enhanced the understanding of gender differences in financial domains. According to these theories the socialization process conducted by family and later by socialization agents, provides a different level of financial skills, practices, knowledge and perceptions between boys and girls (Chen & Volpe, 2002; Hira, 1997; Shim, et al., 2010).

Different levels of knowledge and perception may appear in different financial behaviour, which is supported by the theory of reasoned action (TRA). This theory indicates that attitude is the main determinant of one's behaviour. However, feminist economists (Bristol&Fischer, 1993) has studied gender differences in economic realms and financial affairs for years and concluded that most of the time women's

economic roles were determined by social norms and that women's economic productivity was widely ignored. Social and cultural norms designate the economic role to the men and the caregiver role to women, which, in turn, has resulted in women being excluded from financial practices and issues from childhood.

In addition, other theories such as the sexual/gender division of labour indicates that the division of labour in households and the kind of jobs have roots in the conventional images of man as the breadwinner and woman as the homemaker. This theory indicates that in most families, mothers are more involved in household and childcare duties, and fathers are more involved in paid employment than mothers (Fulcher, Sutfin, & Patterson, 2008). Therefore, women are excluded from financial matters and men are more involved in financial practices, as, traditionally, economic roles were the realm of men (Connell, 2009).

With financial behaviour being a concern among financial educators, the family resource management theory provided a more comprehensive view to understand the relationship between several factors such as cognitive, perceptual and behavioural to predict financial well-being. For both individuals and families, the family resource management theory (Deacon & Firebaugh, 1981) assumed three main components to achieve financial well-being -input, throughput and output. From a family resource management theory perspective, information and personal background, such as financial knowledge, financial socialization and financial attitude are entered into the system as input, which, in turn, has an effect on one's financial management success or failure as a throughput. Therefore, the output or financial well-being is the outcome of one's financial behaviour directly and indirectly. Together, from a gender

perspective, understanding gender differences in the socialization process, financial attitude, financial behaviour, and factors predicting financial well-being through a system model, could provide a valid basis for explaining gender differences in financial well-being among Malaysian college students. Moreover, such understanding is important in order to enrich the knowledge and theory of gender and development, and, hence, is useful to educators for providing consultancy and training to college students.

The main aim of this study is to investigate gender differences in financial well-being among Malaysian college students, with a particular emphasis on understanding and evaluating the gender differences in factors predicting financial well-being. Since college students' are the future labour force, and financial users in the market place, it is important to understand the factors that predict financial well-being among them. Such knowledge about students' financial behaviour and financial well-being is important as their present financial behaviour has a significant effect on their future financial well-being and overall life satisfaction.

### **Problem Statement**

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 the past few decades in narrowing the gender gap in Malaysia, as is shown in the development in women's roles in the major socioeconomic aspects of the country's development, both in absolute and relative terms. This is illustrated by the increasing rates of female labour force participation, gains in productive activities of women and their

strengthened economic standing, their increased participation in education, and their improved health status (Parka & Levine, 1999). The analysis of data from the Ministry of Higher Education of Malaysia from 2005 to 2009 indicates that women's enrolment to universities exceeds that of men. The trend was 76% for women and 34% for men in 2005 and, in 2009, an even higher percentage of women (54.1%) were studying at the university compared to men (45.8%). In addition, it is expected that all these students will contribute productively in the labour force after graduation; of which a large proportion of them are female. According to Masud, et al. (2004), the expansion of educational services in Malaysia made university and college students one of the most important market segments, because of their easy access to money and the potential of earning a greater income after graduation.

However, because of the lack of financial management skills and poor money management, students report greater financial problems, greater stress, as well as decreased financial well-being (Hayhoe, Leach, Allen, & Edwards, 2005; Hira & Mugenda, 2000; Kidwell & Turrisi, 2004; Norvilitis, et al., 2006). Based on such scenarios, gender studies are essential to determine whether male and female students have different financial behaviour 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, et al., 2009; Xiao, Tang, & Shim, 2009). Since the studies of gender differences in financial well-being in Malaysia are scarce, it is crucial to determine gender differences in predicting financial well-being among college students, if we aim to enhance male and female students' financial well-being adequately. Financial behaviour has been identified as the main

determinant of one's financial well-being (Garman & Forgue, 2006; Joo, 2008; Xiao, et al., 2009). However, research findings among Malaysian college students indicate that the lack of financial knowledge (Ibrahim, et al., 2009), financial management skills (Masud, et al., 2004) and negative attitude towards money (Bakar, et al., 2006), has resulted in Malaysian college students having financial problems (Sabri, et al., 2008). Therefore, student's financial behaviour is strongly influenced by financial attitude, financial knowledge, and financial socialization, which, in turn, can lead to financial success or financial problems.

In terms of financial knowledge, college students showed an extensive gender disparity (Barber & Odean, 2001; Goldsmith & Goldsmith, 2006). Garman and Forgue (2006) pointed out that financial knowledge is a fundamental tool in successful financial management. However research findings indicate that female students consider themselves as being less knowledgeable about financial topics (Hira & Mugenda, 1999), financial analysis (Webster & Ellis, 1996) and investing (Goldsmith & Goldsmith, 1997). Therefore, it is important to understand gender differences in financial knowledge among Malaysian college students.

Successful financial management is not only dependent on financial knowledge, but also financial attitude (Joo & Grable, 2004; Lim, Teo, & Loo, 2003). Previous researchers who have examined the relationship between socio-demographic variables and money attitudes concluded that males and females have different beliefs about money (Allen, Edwards, Hayhoe, & Leach, 2008; Hayhoe, et al., 2000), which is due to the different financial socialization during childhood (Hira & Mugenda, 2000). Research findings among Malaysian college students indicate late

age financial socialization (Sabri, MacDonald, Hira, & Masud, 2010) and that they are also highly affected by their peers and the media in their financial behaviour, such as consumption (Kamaruddin & Mokhlis, 2003). As stated earlier, financial socialization is the process by which students acquire financial skills, beliefs and knowledge, in which family, peers and media are known to be the key socialization agents during childhood (Moschis, 1987; Watchravesringkan, 2008). However, it is widely documented (Gutter, Copur, & Garrison, 2009; Newcomb & Rabow, 1999b; Shim, et al., 2010) that families use different strategies to financially socialize boys and girls, which includes protecting girls from financial issues, and encouraging boys to participate in family financial decision making and practices (Newcomb & Rabow, 1999).

Therefore, understanding gender differences in financial socialization and financial attitude among Malaysian college students is essential for educators in their effort to educate male and female students about financial management. It is important to note that most Malaysian studies on financial behaviour, considered financial behaviour as a dependent factor, and that this is the first time financial behaviour and financial problems are examined as a mediator factor. Understanding the mediation effect of the financial behaviour and financial problem is important because it extends our knowledge of the financial behaviour effect on students' financial well-being. Finally, although Malaysian researchers documented gender differences in financial domains, the study of gender differences in factors predicting financial well-being is scarce. Consequently, as college students are the future careers and labour force contributors, it is necessary to understand the financial needs and dilemmas of males and females in conducting their finance during college life, since experiencing

financial problems during college life has a significant effect on their present and future family, and career life.

### **Research Questions**

Research questions are posed to obtain the relevant information required to fulfil the objectives. The proposed questions to be answered in this research are as follows:

1. Do male and female students experience different financial socialization?
2. Are there gender differences in financial attitude, financial knowledge, financial behaviour, effect of financial socialization agents, financial problems and financial well-being?
3. What are the factors that influence financial problems among male and female students?
4. What factors significantly explain the financial well-being of male and female students?
5. Do financial behaviour and financial problems mediate the relationship between financial attitude, financial knowledge, financial socialization, effect of financial socialization agents, and financial well-being?

### **Research Objectives**

The general objectives of this study are to compare the factors predicting financial well-being among male and female Malaysian college students. Specifically, the study aims to:

1. Determine gender differences in financial socialization among students.

2. Identify gender differences in financial attitude, financial knowledge, effect of financial socialization, financial behaviour, financial problems, and financial well-being among students.
3. Determine the factors influencing financial problems among male and female students.
4. Explore factors that significantly explain financial well-being among male and female students.
5. Determine the mediating effect of financial problems and financial behaviour in the relationship between financial socialization, effect of financial socialization agents, financial knowledge, financial attitude, financial behaviour and financial well-being.

### **Research Hypotheses**

The research hypotheses of the present study comprise eleven main hypotheses and eighty subordinate hypotheses. The following are the main hypotheses of the research.

**H1:** There is a significant gender difference in financial socialization between male and female students.

**H2:** There is a significant gender difference in financial attitude between male and female students.

**H3:** There is a significant gender difference in financial Knowledge between male and female students.

**H4:** There is a significant gender difference in the effect of financial socialization agents between male and female students.



**H5:** There is a significant gender difference in financial behaviour between male and female students.

**H6:** There is a significant gender difference in financial problems between male and female students.

**H7:** There is a significant gender difference in financial well-being between male and female students.

**H8<sub>a</sub>:** Financial knowledge, financial socialization, financial attitude, financial socialization agents, and financial behaviour have an effect on financial problems among male students.

**H8<sub>b</sub>:** Financial knowledge, financial socialization, financial attitude, financial socialization agents, and financial behaviour have an effect on financial problems among female students.

**H9<sub>a</sub>:** Financial knowledge, financial socialization, financial attitude, financial socialization agents, financial behaviour and financial problems have an effect on financial well-being among male students.

**H9<sub>b</sub>:** Financial knowledge, financial socialization, financial attitude, financial socialization agents, financial behaviour and financial problems have an effect on financial well-being among female students.

**H10<sub>a</sub>:** Financial knowledge, financial attitude, financial socialization, financial socialization agents by the mediation of financial behaviour have an effect on the financial well-being of male students.

**H10<sub>b</sub>:** Financial knowledge, financial attitude, financial socialization, financial socialization agents by the mediation of financial behaviour have an effect on the financial well-being of female students.

**H11<sub>a</sub>:** Financial knowledge, financial attitude, financial socialization, financial socialization agents and financial behaviour by the mediation of financial problems have an effect on the financial well-being of male students.

**H11<sub>b</sub>:** Financial knowledge, financial attitude, financial socialization, financial socialization agents and financial behaviour by the mediation of financial problems have an effect on the financial well-being of female students.

### **Significance of the Study**

This study, by adopting a gender perspective, will explore an aspect of financial behaviour and financial well-being studies that, to date, has been generally neglected. While the issue of financial well-being has been explored as part of the quality of life studies, only limited studies focused on gender issues concerning the notion of financial behaviour and financial needs. The findings of this study will contribute new knowledge to the body of theoretical understanding of financial knowledge, financial attitude, and financial socialization on financial behaviour in the field of financial well-being. However, a gender perspective provides an in depth understanding of male and female differences in behaviour and factors predicting financial well-being among them.

Furthermore, the study will also have practical implications for financial educators, as they need to consider the financial needs of male and female students and the importance of perceptual as well as behavioural factors for financial well-being, not only for the benefits to the financial behaviour but also in order to achieve financial health, improve students financial security and increase students financial well-being. This can be achieved by helping financial educators and by identifying

factors that most influence students' financial well-being and those that decrease the financial well-being among male and female students. Furthermore, the results will indicate the kind of financial practices that matter most to financial well-being. The findings will have practical use in enhancing students' financial knowledge, financial practices during childhood and most importantly certain attitudes and beliefs towards money, which may have an effect on students' financial behaviour and financial well-being. In Malaysia, as limited knowledge exists concerning the gender and finance area, it is important to conduct a first step in exploring and predicting students' financial behaviour and financial well-being within a gender perspective.

### **Conceptual and Operational Definition of Terms**

**Gender:** The term gender means the cultural differences of women and men, based on the biological division between males and females (Connell, 2009). In this study gender is defined as male and female.

**College students:** A college student is a learner, or someone who attends an educational institution. College student in this study is defined as a student who attends an educational institution including public (IPTA) and private (IPTS) universities.

**Financial Well-being:** A state of being financially healthy, happy, and free from worry and overall satisfaction with financial situation (Joo & Grable, 2004).

Financial well-being in this study is defined as the satisfaction with one's financial situation.

**Financial Behaviour:** Financial behaviour in this study is defined as conducting personal finances involving the patterns of financial budgeting, spending, and savings (Xiao, et al., 2009). Financial behaviour in this study is defined as conducting personal finances involving patterns of spending and savings.

**Financial Socialization:** The process by which young people acquire skills, knowledge, and attitudes relevant to their effective functioning as consumers in the marketplace (Ward, 1974). Financial socialization in this study is defined as the process by which young people learn about financial activity and practices including bank accounts/allowance, financial activity and financial assets.

**Financial Knowledge:** The knowledge of facts, concepts, principles, and technological tools that is fundamental to being smart about money (Garman & Forgue, 2006). Financial knowledge in this study is defined as the degree of knowledge about financial concepts such as insurance, records, savings, investment, credit and risk management.

**Financial Attitude:** Feelings and beliefs towards money (Furnham, 1996). Financial attitude in this study is defined as attitude towards money including obsession, power/prestige, retention, security, anxiety, and self-gratification.

**Financial Problems:** Failure to manage expenses and experience financial strain (Kerkmann, Lee, Lown, & Allgood, 2000). Financial problem in this study is defined as the problems in financial planning and cash flow management.

## **Limitations of Study**

Similar to other research, several limitations need to be considered in this study. The first limitation in this study 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.

The second limitation refers to the general limitation of using secondary data. Since the data has been collected already, it is a limitation to measure and reconstruct some concepts. For example, the financial behaviour was measured by different questions and scales, in which the researcher, by a combination and manipulation of the variables and measures, constructed the financial behaviour for the present research. Since the study of financial well-being in the context of Malaysia is scarce, the research team tried to develop an appropriate instrument in the context of Malaysia, which, as expected, some instruments such as financial socialization revealed low reliability. The third limitation concerns the tiny beta coefficients revealed in the regression models. Although the researcher refined, screened and scanned the data adequately, the coefficients were low, between approximately 70-80 percent of the variance in the financial well-being remains unexplained. One major reason for this is related to the complicated nature of financial behaviour, which econometric researches have long recognised. Furthermore, the findings of this research support that financial behaviour and financial well-being are not a direct output of behaviour, information and experiences, and, surprisingly, attitude can influence financial well-

being beyond any other predictors, such as behaviour. Although it was expected that financial behaviour would be the strongest predictor, the results reveal that it was not, in addition, financial behaviour was more affected by attitude than knowledge. This polarity indicates that financial behaviour is different from one society and even one culture to another. As most of the factors in this research were adopted from the US and UK literature it is possible that other factors such as cultural and cognitive in the Malaysian context can predict financial behaviour and financial well-being accordingly. Finally, 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 behaviour.

### **Organization of the Thesis**

This study is organized into six chapters. The first chapter discusses the trend of gender disparity in university enrolment in Malaysia and gender differences in financial domains. It also discusses the financial well-being and financial behaviour as the main determinant and factors related to it. The research problem, research questions, objectives, hypotheses and the significance of the study, conceptual and operational definition of concepts and, finally, limitations of the study are described in this chapter as well. The following chapters are organized as follows:

Chapter 2 provides a literature review of previous work done on key concepts of research, with the aim of showing how previous empirical studies have dealt with the issue of gender and finance.

Chapter 3 reviews the theoretical approaches to financial well-being and financial behaviour analysis. It begins with social learning theory and consumer socialization

theory, and moves on to consider how attitude contributes to financial behaviour and financial well-being by employing the theory of reasoned action, and feminist economists to understand gender differences in financial domains, and ends with a family system model as a theoretical base for this study.

Chapter 4 draws the methodology of the study, including research design, the source of data, sample size and sampling procedures, research instrumentation, data analysis procedures, assumption test, and the validity and reliability of the data.

Chapter 5 covers the data analysis, interpretation and discussions. The data analysis includes a descriptive of each variable. For each research objectives adequate analysis was employed. To identify gender differences the t-test was employed and path analysis was employed to identify factors that predict financial problems and financial well-being among students. The Macro SPSS test of mediation (bootstrapping) was employed to test the mediation effect of financial behaviour and financial problems.

Chapter 6 provides the conclusion based on the research objectives and the implications of research in terms of theoretical, educators/practitioners and policymakers. In addition, recommendations for practice and future research are discussed as well.

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