Factors Affecting Financial Management Behaviour among University Students

Soo-Cheng Chuah[1], Juliana Noor Kamaruddin[1], JS Keshminder Singh[1]

[1]*Faculty of Business and Management, University Teknologi MARA Cawangan Selangor, Puncak Alam Campus, Selangor, Malaysia*

Abstract

Youth financial management practices have received growing consideration among various parties such as government agencies, community organisations, and education bodies as the age group is considered as a high-risk group for being involved in financial difficulties. This study examined the effects of money attitude, financial knowledge, financial self-efficacy, and locus of control on financial management behaviour among university students. All data were collected via a convenient sampling method by using self-administered questionnaire given to a sample size of 272 respondents. Following this, the data were analysed using structural equation modelling–partial least square (SEM-PLS) method. The results obtained in this study indicated that money attitude, financial knowledge, and financial self-efficacy positively and significantly influenced financial management behaviour among university students. As such, this study could serve as a useful reference for the purpose of higher education curriculum development in order to nurture good financial management.

Keywords: Financial management behaviour, financial knowledge, money attitude, locus of control, financial self-efficacy

1.0 Introduction

Financial management is one of the crucial factors in determining an individual’s financial well-being (Garman & Forgue, 2006; Joo, 2008; Xiao et al., 2009). Contextually, personal financial management involves the application of various activities to plan, manage, and control one’s finances. Positive financial behaviour is thus reflected by a good attitude in managing income, loans, and investments (Layli, 2013). Theoretically, financial management behaviour refers to the actions in determining, acquiring, allocating, and utilizing financial resources to achieve a planned financial goal (Weston & Brigham, 1981).

The youth, specifically college students, and their financial management ability and behaviour have received much attention from different scholars (e.g. Goldsmith & Goldsmith, 2006; Gutter et al., 2010; Joo, 2008; Norvilitis et al., 2006; Falahati & Paim, 2011; Herawati et al., 2018). College students are considered as a high-risk group associated with financial instability due to their high propensity towards borrowing to fund their education. Therefore, this group ends up bearing an extensive amount of debt upon graduation before entering the job market (Leach et al., 1999; Falahati & Paim, 2011). Empirical evidence further shows that the youth exhibits poor performance in managing their finances especially when it comes to budgeting and planning long-term savings (Jorgensen & Savla, 2010).

In general, college students learn how to manage their finances from peers and family members which occurs mainly throughout their early childhood life and onwards (Danes & Hira, 1990; Hira & Mugenda, 2000; Watchravesringkan, 2008). Therefore, the transition from teenagehood to adulthood requires young adults to be equipped with the appropriate financial knowledge, skills, values, and attitudes on personal financial management (Shim et al., 2010). Furthermore, one's financial behaviour may be influenced by their financial literacy. Here, financial literacy is defined as a measure of how well an individual can understand and use personal finance-related information (Huston, 2010, p. 306). Definition-wise, it is thus comprised of the knowledge, attitude, behaviour, and ability to make financial decisions. Accordingly, Lusardi (2012) has asserted that financial literacy underlines an individual's sources or inputs that outline their financial behaviour. Thus, better financial knowledge and risk management leads to greater financial decision-making (OECD, 2014; 2017) as good financial practice leads to better financial health in the future (Husniyah et al., 2017).

Moreover, scholars believe that positive financial attitudes contribute to favorable financial behaviour (Joo & Grable, 2004) which further leads to a better management plan (Roberts & Jones, 2001). Therefore, money attitude can predict one's financial habits. Past studies have found a significant relationship between money attitudes and the level of financial problems (e.g. Dowling et al., 2009; Hayheo et al., 2000; Lim et al., 2003; Falahati & Paim, 2011) where the money attitude that makes people more powerful often lands them in financial problems (Falahati & Paim, 2011).

A study conducted to examine the financial literacy among Malaysians has found that as a whole, their financial literacy rate is low compared to other countries (Yong et al., 2018). The Standard and Poor (S&P) Global Literacy Financial survey has further reported that the Malaysian population's financial literacy rate is approximately only 36% compared to 59% in developed countries. Such a low rate is thus deemed as one of the factors that contribute to high debts and alarming bankruptcy problems among the youths in Malaysia ("Lim: Young Malaysians", 2019). Besides, a survey by the Youth and Sports Ministry Malaysia has underlined insufficient financial knowledge and low financial literacy level as the main factors contributing to poor financial planning among a majority of Malaysian youths. To design and implement effective financial education programs, it is important to understand the underlying factors influencing university student's financial management behaviour. Therefore, this study incorporates the elements of financial knowledge, money attitude, financial self-efficacy, and locus of control in the study model to generate a deeper understanding of financial behaviour.

2.0 Literature Review

2.1 Financial Management Behaviour

Financial behaviour is described as the capability to understand the overall impacts of financial decisions on one's (i.e. person, family, community, or country) circumstances and to make the right decisions related to cash management and the precautions and opportunities of budget planning (Tezel, 2015). Therefore, financial management behaviour is the attainment, allocation, and utilization of financial resources oriented towards a target set by an individual.

The Family Resource Management and Behavioural Life-cycle (BLC) hypothesis are the main theories underpinning this study. In particular, the family resources management model developed by Deacon and Firebauge (1988) shows that "decision-making includes connected sequences started by inputs and continued by throughput, output, and the feedback linking back to the input" (Mien & Thao, 2015, p. 3). Following this, Parrotta and Johnson (1998) have offered a modified model by expressing financial knowledge as the input and financial attitude and financial management behaviour as the outputs from the throughput process.

Furthermore, the BLC hypothesis formalized by Shefrin and Thaler (1988) states that people's financial behavior in life is determined by their ability to control impulses and the costs connected to existing exercise such as self-control. It has been applied by researchers in investigating the association between self-control and financial behaviour in making a financial decision as people with low self-control are likely to be involved with credit problem and indebtedness problem (Strömbäck et al., 2017). In the study, self-control is represented by the locus of control and self-efficacy accounting for significant variance in actions.

2.2 Money Attitude

In consumer studies, the attitude towards money varies across individuals and have a considerable substance on financial behaviour (Prince, 1991) thus rendering such an attitude to shape financial behaviour accordingly (Potrich, Vieira et al., 2016; Henchoz et al., 2019). Furthermore, a study by Castra-González et al. (2020) has shown that Spanish people's attitude towards money influences their actual financial behaviour. Meanwhile, Shim et al. (2010) have also revealed that an adolescent's attitude towards money is an important factor in predicting their financial behaviour. Amagir et al. (2018) found two subscales of money attitudes namely "think before acting" and "power/prestige" were significantly related to responsible financial behaviour. Similarly, Akben-Selcuk (2015) has indicated that the attitude towards money affects college students' financial behaviour, whereby those with a positive attitude show a higher ability to detail out their monthly bill payments to be within their budget and adequately manage their future savings. Therefore, this study proposes the following hypothesis:

H1: Money attitude has positive effects on financial behaviour among university students.

2.3 Financial Knowledge

Hilgert et al. (2013) state that financial knowledge is ultimately one's understanding of finance. Theoretically, it refers to an individual's knowledge about financial literacy and their ability to perform financial transactions in daily life by using the financial knowledge attained previously. Here, financial knowledge can be obtained through formal education, informal sources, and real-life experiences. Individuals with higher financial knowledge regarding personal finance are likely to behave more responsibly in dealing with financial issues such as savings and investment (Perry, 2008). This knowledge allows them to make better financial decisions in life (Hilgert et al., 2003; Howlett et al. 2008; Lusardi & Mitchell, 2007; Mansfield & Pinto, 2008). However, empirical findings have revealed that the effects of financial knowledge on financial behaviour are mixed in nature. Certain scholars have particularly found a positive relationship between financial knowledge and financial behaviour (Hilgert et al., 2003; Shim et al., 2010; Serido et al. 2013; Yong et al., 2018; Amagir et al., 2018; Adiputra & Patricia, 2020).

Conversely, other studies have highlighted an insignificant relationship between financial knowledge and financial behaviour (Jones, 2005; Borden et al., 2008). Borden et al. (2008) have also noted an insignificant relationship between financial knowledge and effective financial behaviour, indicating that higher financial knowledge may improve students' intention towards more responsible behaviour. However, they may not execute their financial plans according to their intention, thereby technically suggesting that they are not using the knowledge that they have obtained. This is further supported by another study by Jones (2005) in which an insignificant relation has been found between financial knowledge and credit card debt.

However, a large volume of literature has indicated a positive relationship between financial knowledge and the financial behaviour of college students. For example, Amagir et al. (2018) have found a positive relationship between financial knowledge and financial behaviour among high school students in the Netherlands, similar to findings obtained by Loke (2015) and Yong et al. (2018) in the context of Malaysia. Collectively, this implies that those with higher financial knowledge are more likely to display better financial behaviour. Parallel to this, Sohn et al. (2012) have also found a significant relationship between financial knowledge and financial management behaviour among Korean high school students. Thus, this study proposes the following hypothesis:

H2: Money attitude has positive effects on financial behaviour among university students.

2.4 Locus of Control

Locus of control is a psychological concept regarding an individual's belief about the events that they are experiencing which occurred within their control (Hillrigel et al. 2010). Conceptually, it measures the generalised expectancies for internal versus external control of reinforcement. Therefore, an internal locus of control refers to an individual's belief that their own actions determines the reward they obtain, whereas the external locus of control indicates one's belief that their own behaviour does not matter much and any rewards in life are out of their control (Rotter, 1966). Accordingly, those with an external locus of control generally attribute the outcomes of their lives to external factors (e.g. fate, luck, other people, etc.), while those with an internal locus of control believe that much of what happens in life stems from their own actions (Gatz & Karel, 1993). In this regard, Perry and Morris (2005) have found that the external locus of control is negatively associated with financial management behaviour. Similarly, Dessart and Kuylen (1986) have noted that those with a high external locus of control are more likely to face financial difficulties. Locus of control was found significantly related to financial well-being among employees in Malaysia (Mokhtar & Abd Rahim, 2016). Thus, the following hypothesis is proposed:

H3: Locus of control has positive effects on financial behaviour among university students.

2.5 Financial Self-efficacy

Financial self-efficacy is a psychological aspect that reflects an individual's sense of confidence in their ability to manage their finances well and achieve targeted financial goals (Rizkiawati & Asandimitra, 2018). The higher the level of efficacy one has in carrying out the financial management, the more responsible they are in managing their finances.

In line with this notion, research by Qamar et al. (2016) has shown that financial self-efficacy has a positive and significant effect on financial management behaviour along with a positive moderating impact on the relationship between money attitudes and personal financial management behaviour. This is also supported by research works of various other scholars (e.g. Lown et al., 2015; Asandimitra & Kautsar, 2017; Mayasari & Sijabat, 2017, Herawati et al., 2020).

Furthermore, several studies have underlined that a higher financial self-efficacy is linked to more productive financial behaviours and greater well-being (Amatucci & Crawley, 2011; Danes & Haberman, 2007; Engelberg, 2007). Following this, Farrell et al. (2016) have thus examined the significance of an individual's financial self-efficacy in explaining their financial behaviour through the application of a psychometric instrument. By administering a 2013 survey to a sample of Australian women, financial self-efficacy has emerged as one of the strongest predictors regarding the type and number of financial products that a woman holds. Specifically, the analysis reveals that women with higher financial self-efficacy are more likely to hold investment and savings products and are less likely to hold debt-related products. Therefore, the hypothesis is as follow:

H4: Financial self-efficacy has positive effects on financial behaviour among university students.

3.0 Research Methodology

3.1 Survey and data collection

This study aimed to determine the factors affecting financial management behaviour among the undergraduate students of Universiti Teknologi MARA Puncak Alam Campus, Malaysia. Here, the underlying factors were financial ethic, financial knowledge, financial self-efficacy, and locus of control. Accordingly, this study was conducted using the quantitative research approach using self-administered questionnaire (Appendix A) as the research instrument. Moreover, convenience sampling method was employed in the data collection process.

3.2 Sample Size

The minimum sample size for this study was calculated using G*Power version 3.1 (Faul et al., 2007). Based on Cohen's (1992) recommendation, a minimum statistical power of 80% and effect size of 0.15 are required for behavioural science research. Therefore, the G*Power analysis showed that the minimum sample size required was 50, with four predictors. A total of 272 questionnaires was thus collected, which exceeded the minimum requirement.

3.3 Construct Measures

The construct measures applied in the current study were adopted from earlier studies. For example, the constructs of money attitude is measured using the 12 items of financial ethics scale developed by Tang (1995), whereas five items to measure financial knowledge were adapted from the works of Perry and Morries (2005) and Danes and Haberman (2007). Meanwhile, seven items measuring locus of control were adapted from Rotter (1966), whereas six items measuring financial self-efficacy were adapted from Lown (2011). Finally, financial management behaviour was measured with eight items adapted from Dew and Xiao (2011) with some modifications to make them applicable in the context of a university student's financial situation. To this end, a 5-point Likert scale (1 = strongly agree to 5 = strongly disagree) was utilised to measure each item in the questionnaire.

3.4 Multivariate Normality

Web-Power online tool was applied to examine the element of multivariate normality in this study. The analysis showed that the p-value of Mardia's multivariate skewness and kurtosis coefficient was less than 0.05, thus indicating the existence of multivariate non-normality.

3.5 Data Analysis Method

The current study applied structural equation modelling-partial least square (PLS-SEM) to analyse the research model designed, namely by using the Smart PLS 3.2.8 software (Ringlee et al., 2015). The PLS-SEM analysis typically consists of the measurement model (i.e. validity and reliability) and structural model.

4.0 DATA ANALYSIS

4.1 Respondent's Characteristics

Questionnaire responses were collected from a sample size of 272 undergraduate students. The respondent characteristics are presented accordingly in Table 1. Almost three-fourth of the respondents were female (69.12%), while more than half of them came from families within the M40 income bracket where their parents' monthly incomes were within the range of RM3000–RM4999 (29.41%)

and RM5000–RM9999 (24.63%). Approximately 64% of the respondents were recipients of financial aids in the form of scholarships or study loans from *Perbandanan Tabung Pendidikan Tinggi Nasional* (PTPTN). In contrast, the remaining 36% did not receive any financial aids during the course of their study.

Table 1 : Respondent Characteristics

Characteristics	Frequency	Percentage (%)
Gender		
Male	84	30.88
Female	188	69.12
Age		
18–20 years old	55	20.22
21–23 years old	160	58.82
24–26 years old	56	50.59
27 years old and above	1	0.37
Parents Monthly Income		
Less than RM3000	103	37.87
RM3000–RM4999	80	29.41
RM5000–RM9999	67	24.63
RM10000 and above	22	8.09
Financial Aids Received		
Scholarship	60	22.06
Loan	113	41.54
None	99	36.40

4.2 Measurement Model

For the PLS-SEM analysis, the measurement model typically examines the convergent validity and discriminate validity of the constructs tested (Hair et al., 2017). In particular, factor loadings, average variance extracted (AVE), and composite reliability (CR) were thus utilised to assess the measures of convergent validity (Hair et al., 2017). As shown in Table 2, all items loadings were found to be higher than 0.6, the AVE values exceeded 0.5, and the CR values were greater than 0.7. Therefore, this revealed that the measures were valid and reliable. However, a total of nine items were dropped due to low factor loadings (i.e. FA7, FA10, FA11, FA12, LC3, LC4, LC5, FE5, FE6).

Table 2 : Measurement Model

Construct	Item	Loading	CR	AVE
Financial Ethic Scale (Money Attitude)	FA1	0.742	0.895	0.520
	FA2	0.811		
	FA3	0.853		
	FA4	0.730		
	FA5	0.714		
	FA6	0.659		
	FA8	0.642		
	FA9	0.578		
Financial Knowledge	FK1	0.788	0.891	0.623
	FK2	0.874		
	FK3	0.785		
	FK4	0.789		
	FK5	0.700		
Locus of Control	LC1	0.700	0.856	0.600
	LC2	0.754		
	LC6	0.809		
	LC7	0.828		
Financial Efficacy	FE1	0.765	0.805	0.512
	FE2	0.838		
	FE3	0.613		
	FE4	0.620		
Financial Management Behaviour	FB1	0.746	0.894	0.517
	FB2	0.704		
	FB3	0.746		
	FB4	0.785		
	FB5	0.535		
	FB6	0.789		
	FB7	0.814		
	FB8	0.582		

Abbreviations: AVE, average variance extract; CR, composite reliability

Next, discriminant validity was tested by using the heterotrait-monotrait ratio of correlations (HTMT) criterion (Henseler et al., 2015). The HTMT values for all constructs were noted to be below the threshold level of 0.85 (Kline, 2011), therefore indicating that the discriminant validity was confirmed (Table 3).

Table 3 : Discriminant Validity (HTMT criterion)

Construct	1	2	3	4	5
Financial Ethic Scale					
Financial Knowledge	0.346				
Locus of Control	0.314	0.302			
Financial Efficacy	0.419	0.290	0.467		
Financial Management Behaviour	0.491	0.612	0.300	0.454	

4.3 Structural Model

Upon examining the values of variance inflation factor (VIF), it was found that there were no collinearity problems for the predictor latent variables. This is due to the fact that VIF values are less than 5.

The research model was then tested using a bootstrapping procedure with 5000 re-sampling to attain its t-values, p-values, and bootstrapped confidence intervals. The structural model results are shown in Table 4 below.

Table 4 : Structural Model

Hypothesis relationship	Standard beta, β	SD	t-value	p-value	BCI LL	BCI UL	Decision
H_1: financial ethic scale → financial behaviour	0.311	0.037	8.303	p<0.01	0.252	0.374	Supported
H_2: financial knowledge → financial behaviour	0.385	0.040	9.604	p<0.01	0.311	0.444	Supported
H_3: locus of control → financial behaviour	0.017	0.044	0.396	p>0.01	-0.057	0.085	Not Supported
H_4: financial self-efficacy → financial behaviour	0.166	0.045	3.667	p<0.01	0.085	0.234	Supported

Accordingly, three hypotheses designed for this study were found to be sufficiently supported. In particular, financial ethic scale ($\beta = 0.0311$, $p < 0.01$), financial knowledge ($\beta = 0.385$, $p < 0.01$), and financial self-efficacy ($\beta = 0.166$, $p < 0.00$) all posed a significant and positive effect on financial management behaviour respectively. Thus, H_1, H_2, and H_4 were supported. In contrast, locus of control was found to yield no significant effect on financial management behaviour among university students. Thus, H_3 was not supported.

Table 5 : The R^2, f^2 and Q^2 values

Hypothesis relationship	R^2	f^2	Q^2
H_1: financial ethic scale → financial behaviour	0.427	0.135	0.207
H_2: financial knowledge → financial behaviour		0.525	
H_3: locus of control → financial behaviour		0.000	
H_4: financial self-efficacy → financial behaviour		0.039	

As shown in Table 6, the R^2 value is 0.427 which indicates that 42.7% of the variance in financial management behaviour can be explained by the constructs (i.e. financial ethic scale, locus of control, and financial efficacy) in the model. This outcome exceeded the value of 0.26 as proposed by Cohen (1988) thus indicating the presence of substantial predictive accuracy within the research model of this study.

Next, the change in R^2 value to examine the effect size, f^2 was suggested by Hair et al. (2017). The results of f^2 shown in Table 6 reveal an acceptable effect size for the supported hypotheses as per Cohen's (1988) guideline. Moreover, the predictive relevance of the model was assessed through the blindfolding procedure as recommended by Hair et al. (2017). As shown in Table 6, the Q^2 values for financial management behaviour (Q^2 = 0.207) is greater than 0 (Fornell & Cha, 1994) thereby suggesting that the model has sufficient predictive relevance.

5.0 Discussion

This study assessed the relationship between money attitude, financial knowledge, locus of control, and financial self-efficacy with financial management behaviour respectively. The results obtained thus supported the hypothesis for the factors of money attitude, financial knowledge, and financial self-efficacy, which positively influenced financial management behaviour. Therefore they were consistent with the underpinning theory, except for hypothesis H3 (i.e. locus of control financial → management behaviour, b = 0.017, p > 0.05), which was found to be insignificant. As the students were yet to experience complex financial problems, external locus of control did not significantly impact their financial management.

In general, the results obtained show that money attitude which positively and significantly influence financial management behaviour are consistent with the study by Shim et al. (2009) which have found that it is a significant predictor of such behaviour. Furthermore, Mitchell and Mickel (1999) have asserted that money plays a symbolic role in which it is expressed as a recognition of one's achievement, status and respect, and power. According to these scholars, it also influences human sentiment and behaviour as some people perceive it as good and valuable, while others view it as evil, shameful, and useless. Therefore, students with positive attitudes towards money exhibit good financial behaviour in planning their finances and a high propensity to save (Akben-Selcuk, 2015). Moreover, those who treat money as "power/prestige" and are equipped with good financial planning are likely to display responsible financial behaviour (Amagir et al., 2018). Thus, parents and educators need to nurture a positive attitude towards money among these students by displaying a favourable attitude towards it.

Meanwhile, financial knowledge is found to be one of the significant antecedents of financial management behaviour and this is consistent with previous studies conducted in the context of Malaysia (Loke, 2015; Yong et al., 2018). This suggests that university students with good financial knowledge make better financial decisions leading to better financial management behaviour. Having sound financial knowledge allows one to properly manage their personal finances such as budgeting, investing, saving, and deciding on matters regarding insurance (Herawati et al., 2018). Most Malaysian youths are weak financial planners and spend beyond their financial capability (Yong et al., 2016) thus rendering education on personal financial management necessary for these students. As such, UiTM is tasked with ensuring that their students across all faculties are exposed to courses on personal financial management.

Besides, financial self-efficacy has been found to positively and significantly influence the financial management behaviour among students (Qamar et al., 2016; Lown et al., 2015; Danes & Haberman, 2007; Engelberg, 2007; Herawati, et al., 2018). These findings show that individuals with higher self-belief or self-confidence are likely to perform a task successfully. Financial self-efficacy among students can further enhance their financial behaviour in a better direction (Danes & Haberman, 2007) and potentially influence their future financial behaviour (Herawati et al., 2018). Collectively, this leads to a better financial position and less irrational debt-seeking behaviour (Danes & Haberman, 2007). Similarly, those with higher financial self-efficacy tend to have more investments and savings and are less likely to have loans and credit card debts (Farrell, et al., 2016).

6.0 Conclusion

This study assessed the relationship between money attitude, financial knowledge, and financial self-efficacy on the personal financial management behaviour of university students accordingly. First, attitude towards money was measured using the financial ethic scale and money attitude significantly influenced the students' financial behaviour. Financial knowledge also positively impacted their financial behaviour as well. Therefore, the results indicate that students with a higher level of self-efficacy are more likely to perform good financial management behaviour.

The study findings and implications are thus highly applicable to university students. For example, the findings obtained emphasise the need for better financial knowledge among students. This may be achieved by introducing personal financial planning into the university curriculum to enhance their knowledge towards finance and risk management. This will allow students to possess good financial behaviour by planning their finances properly via budgeting, wise expenditure, expense monitoring, and saving habits. Additionally, their families and educational institutes need to instil a positive perception of money in them as well by providing advice.

The significance of financial self-efficacy in influencing financial management behaviour implies that self-confidence is a major element in one's ability to manage finances well in order to achieve targeted financial goals. This indicates that self-confidence in one's financial ability influences their financial behaviour. Accordingly, the study contributes to the theoretical implication of the BLC hypothesis that self-control or self-confidence is a major factor in influencing financial management behaviour and contributes to the financial wellbeing of an individual. Thus, it is important to enhance university students' financial literacy through financial education to provide them with strong self-confidence on how to plan their finances in the future.

In terms of limitations, the study could not include all possible factors of financial management behaviour. The magnitude of financial literacy and financial socialization could be included to explore other factors that underlie patterns of financial management behaviour among university students. Future research could also explore whether an individual's socio-economic characteristics and childhood financial experience moderate the university student's financial management behaviour.

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