Financial Socialisation and Moderation Effect of Gender in The Influence of Financial Behaviour on Financial Well-Being among Young Adults

Mervin Anthony1, Mohamad Fazli Sabri[1], Husniyah Abdul Rahim[1], Mohd. Amim Othman[1]

[1]*Faculty of Human Ecology, Universiti Putra Malaysia,*
43400 Serdang Selangor, Malaysia.
Corresponding author e-mail: fazli@upm.edu.my

Abstract

Personal financial success is desired by young adults through their upbringing since childhood and may differ among men and women. In conjunction with these, the objective of this study was to assess the influence of financial socialisation on financial behaviour and financial well-being. It further analysed how the gender of young adults moderates the influence of financial behaviour on financial well-being. The conceptual framework was examined by subjecting data of 360 young adults to structural equation modelling (SEM). Multistage random sampling was used to sample the respondents. The results displayed a significant influence of financial socialisation on financial behaviour and the financial well-being of young adults. The results indicated the insignificant moderating effect of males in the influence of financial behaviour on financial well-being (β = 0.26, t = 1.388, p = 0.16). Meanwhile, the results indicated a significant moderating effect of females in the influence of financial behaviour on financial well-being (β= 0.73, t = 2.649, p = 0.08). This paper finds that the influence of financial behaviour on financial well-being depends on the gender of respondents, whereby the effect is not significant for male respondents, while the effect is significant for female respondents. In conclusion, the study concludes that the moderation by gender occurred, which impacts their financial well-being.

Keywords: financial behaviour, financial socialisation, financial well-being, gender, young adults

1.0 Introduction

Young adults of both genders are being confronted with an elevated economic risk due to Malaysia's macroeconomic events and circumstances. As both genders have different personality traits, many young adults have financial difficulties that impact and affect their overall well-being (Serido & Deenanath, 2016). A longer lifespan among women in Malaysia is indicative that they need to equally pay heed to their financial behaviour. Given that the world is experiencing one of its worst pandemics in human life since the Spanish flu of 1952, considering such an event will have deleterious effects on young adults' financial well-being, joblessness, savings deficit, and over-indebtedness makes it crucial for their well-being to be examined.

As previous studies have suggested, most financially vulnerable young adults are frequently significantly affected by financial catastrophes (Kim et al., 2017). This paper is timely given the present financial crisis because of COVID-19 associated restrictions. The well-being of women is often affected by life events. Malaysia is among countries where young adults lack financial knowledge rendering it more critical to make financial decisions such as investing or savings (Garg & Singh, 2018; Lusardi & Mitchell, 2014). The 12th Malaysian Plan (2021-2026), focusing on the "Malaysian Family", emphasises enhancing inclusiveness and providing a level playing field of opportunities for all Malaysians. In 2019, youths in Malaysia constituted 45.8% of the total population of 32.6million, out of which 7.26 million (52%) are male, and 6.62 million (48%) are female (Department of Statistic Malaysia. DOSM, 2020). As such, the young adults' percentage of the Malaysian population is significant. There are no universal definitions and age brackets of youths, young adults or emerging adults. This study uses the 18-29 age bracket to define young adults as it best suits the local context.

The influence of financial socialisation would last throughout their lifetime when such financial practice is found in young adulthood, as evident in numerous studies. The financial well-being of a child would depend on what was taught at home regarding money management (Bucciol & Veronesi, 2014; Grinstein-Weiss et al., 2011). One critical problem in Malaysia is many parents themselves lack financial knowledge and have poor financial behaviour. Thus, parental financial socialisation is impacted. Young adults of both genders, males and females, differ in their behaviour in personal finance matters. Despite males being head of households, data in Malaysia indicates that more females pursue tertiary education than males. Females play a supporting role in household finance in Malaysia; their knowledge and financial behaviour could help improve both family finances and, to a greater extent, societal economic well-being.

Financial well-being can be best attained with proper actions undertaken by an individual when they are young. The time-factor or, known as the effect of compounding and avoidance of costly financial mistakes, can propel a young adult's financial well-being. Accordingly, financial mistakes in early adulthood at an early stage can prove to be costly in later life (Lusardi et al., 2010). Consequently, the determinants of financial socialisation, financial technology, self-control, and financial literacy deserve attention to attain financial well-being in their lives. Developing positive financial behaviour such as having financial goals, knowing where money is spent and having restraint on spending will be crucial in determining a young adult's financial well-being. Importantly, these positive behavioural finance traits must exist in the lives of young adults at the earliest possible age.

Young adults of both genders manage their money differently. Malaysia has a greater number of young female adults completing tertiary education than males. One problem highlighted in the Economic Survey of Malaysia OECD (2019) was the large pool of inactive female labour force representation in Malaysia. However, the current pandemic has provided possibilities for many companies to have Work From Home (WFH) arrangements. As such, young adults of both genders have better opportunities to attain financial well-being. Flexible working practices will be something that will be more mainstream in Malaysian companies, and more females will be able to participate in the labour force in the years ahead. In line with this, gender disparities in finances compound women’s difficulties securing their financial well-being. However, they may be an issue no longer be relevant in the future. As they can participate confidently in economic and financial activities through more changes, thus gender serves as an important moderating variable.

The findings of the analysis OECD (2020a) highlighted a clear gender finding whereby women have lower levels of financial knowledge than men, except in Hungary. However, in the case of Malaysia, the OECD reveals that females scored higher in financial literacy, 12.6% vs 12.5% for males, financial knowledge for women was lower at 3.6% vs 3.8 for males, and financial behaviour was 6.2% for females vs 6.1% for males. These numbers indicate the need for mindset change among many females who have lower levels of financial knowledge, especially in the case of Malaysia, whereby the OECD’s recent data have indicated an almost equal finding between both genders. In this connection, females have no relationship with general financial behaviour. However, in terms of financial well-being, there is no positive relationship (Strömbäck et al., 2017). A gender difference was reported by researchers, Kalmi and Ruuskanen (2018) where they find evidence of a positive relationship between financial literacy among women but not among men.

2.0 Literature Review

The literature review chapter in this study is arranged to discuss the significance of financial socialisation, financial behaviour and gender. It then provides a theoretical understanding and a theoretical framework.

2.1 Financial Socialisation

Albeerdy and Gharleghi (2015) defined financial socialisation as the process of acquiring the skills, knowledge and attitudes of the internal and external environment needed to maximise the role of consumers in the financial markets. Financial socialisation agents provide valuable financial information about financial management to achieve personal financial well-being.

The influence of parents in families was found to be the most predominant financial socialisation agent (Fan & Chatterjee, 2019). In illustrating parents' impact on financial socialisation, Shim et al. (2011) found parents to be two times more influential than friends regarding the degree of financial socialisation. In addition, Shim et al. (2011) found parental influence to be 1.5 times greater than financial education. Poor financial behaviour developed from childhood may tack into young adulthood and lead to serious financial problems. Therefore, young adults' surroundings, including people they mix around, were an essential predictor of financial well-being.

Compared to their parents' era, households among young adults take longer to be established (Settersten, 2012). More young people choose to marry later in life because of financial circumstances. Knowing how young individuals develop financial beliefs, attitudes, and behaviours is critical for transitioning to maturity, as Kim (2000) points out. Parents are the most influential and likely their initial financial socialisation agent for their children (Gudmunson & Danes, 2011). Both Drever et al. (2015) and Lanz et al. (2019) studies focused on parents as key financial socialisation agents. How a young adult has been socialised from a young age by their parents in discussing everyday financial matters, budgeting and consumerism purchasing patterns all constitute part of financial socialisation. Interestingly, based on a recent survey result, many parents in Malaysia are aware of this. As money parenting begins at home, 74% of Malaysian respondents of the Asia Money Parenting Survey (2020) see that job as the mother and father's responsibility. Parents, according to research, have a vital role in boosting economic knowledge, which can favourably improve financial well-being (Agnew et al., 2018).

Other researchers have also found financial learning is primarily obtained through parents (Sabri et al., 2020; Grohman et al., 2015; Pinto et al., 2005). In Shim et al. (2010) study, they highlighted that emerging adults were found to have learnt the most from parents articulating that parents are the core instruments of financial socialisation agents. While financial socialisation happens even after the age of 18 (Gudmunson et al., 2016; Serido et al., 2015), the influences obtained at an earlier age through parental financial socialisation are more important and directly influence financial outcomes (Serido & Deenanath, 2016). Adding credence to this line of thought, Jin and Chen (2020) found financial socialisation is positively related to financial knowledge.

In confirming the influence of parental financial socialisation on young adults' financial well-being, it was found that when less support is received from their parents during their childhood, a young adult takes a greater degree of awareness to self-search to make the right financial moves for their financial well-being. This finding is confirmed both in the Turkish context (Akben-Selcuk & Altiok-Yilmaz, 2014) and in the Malaysian context (Sabri et al., 2010). Discussing family finances (Sabri et al., 2010) and financial socialisation by parents (Akben-Selcuk & Altiok-Yilmaz, 2014) appear to have a positive influence, while in contrast, family income in certain instances does (Douissa, 2019; Oseifuah et al., 2018), and in other instances, it does become a significant predictor of financial well-being. These findings indicate that a young adult born in a not wealthy family can still be very successful in attaining financial well-being.

Arrondel et al. (2015) also found a similar finding of parental influence. The family context plays a fundamental role in a young adult's financial well-being. Considering young adults, the finding found that individuals whose parents are stockholders are more likely to hold stocks themselves is noticeable (Arrondel et al., 2015), indicating that parental socialisation might be significant. Kim and Chatterjee (2013) found this includes assets ownership, better financial credit scores and lower credit-card debt levels (Grinstein-Weiss et al., 2011). Longer-term outcomes of young adults are also indirectly based on financial socialisation obtained through their parents (Britt, 2016), taking into account overall well-being and life satisfaction generally.

2.2 Financial Behaviour

Financial behaviour is based on the everyday financial decisions of individuals (Dew & Xiao, 2011). An individual's financial well-being is highest when they can manage all aspects of their financial affairs (Zulfiqar & Bilal, 2016). Financial behaviour is the mediating variable in this paper. It defines how young adults behave with finance matters as is the cornerstone of financial well-being (Gudmunson & Danes, 2011).

According to (Gutter & Copur, 2011; Mokhtar & Husniyah, 2017), the financial well-being of young adults depends on financial behaviour factors such as budgeting, savings, and credit management. Additionally, in the Malaysian context study, Sabri and Falahati (2013) acknowledge that financial capability was related to financial well-being. One of the crucial study findings was that individuals who possess a high degree of money management abilities would correspondingly have high levels of financial well-being. A similar finding was obtained by researchers Delafrooz and Paim (2011). They studied the direct and indirect determinants of financial wellness among Malaysian workers. Their findings using path analysis indicated that financial wellness could be altered by prudent financial behaviours (Delafrooz & Paim, 2011a).

Meanwhile, in a global outlook, a study of the Principal Financial Well-being Index among American Workers was conducted in 2013. This study involved 1,106 employees, consisting of adults from 18 years old and above. The results found that the financial behaviour of Americans of not saving enough was the main financial blunder of decreased financial well-being. Apart from that, these employees reported good progress in achieving their long-term financial goals by undertaking prudent financial well-being measures. It shows that levels of financial well-being can be enhanced if young adults take pragmatic behavioural approaches to their finances.

When desired financial behaviour is found in young adults, researchers (Gutter & Copur, 2011; Shim et al., 2009) concluded that it has a positive relationship with their financial well-being, including non-personal consequences, such as improved physical health, better mental health and life satisfaction (Xiao et al., 2011). Other international studies have consistently found financial behaviour had the strongest direct impact on financial well-being. However, an observable gap is that this study's focus is rarely on young adults from developing economies. Most are based on advanced economies. Taken together, young adults who are financially socialised, use financial technology, have some degree of self-control and are financially literate are more likely to practice responsible financial behaviour, which is critical in becoming financially well in life.

2.3 Mediating Role of Financial Behaviour

In terms of understanding the mediating relationship between financial socialisation and financial well-being, it is clear that financial socialisation factors exerted by parents shape young adults' financial well-being through their undertaking of positive financial behaviours. The effects were proven in research findings (Deenanath et al., 2019). In addition, the effectiveness was crystal clear in the findings of (Jorgensen & Savla, 2010; Lanz et al., 2019). Parental financial socialisation was found to have lasting and profound financial outcomes throughout individuals' lifetimes. Positive financial behaviour is achievable through parental financial socialisation among young adults (Drever et al., 2015; Norvilitis & MacLean, 2010). It is also clear that parental financial socialisation impacts financial behaviours (Kim & Chatterjee, 2013; Sohn et al., 2012). Damian et al. (2019) found young adults whose parents had healthy financial behaviours were traits also witnessed in their young adult life. In explaining this, Barnea et al. (2010) suggested that financial socialisation happens when young adults look at their family members as well as role models to emulate. According to them, the family environment does have vital effects on the financial behaviour of young individuals, but this influence is not long-lasting because individuals gain personal experience as time passes.

Imitation or role modelling occurs as children observe the financial behaviours of their parents. Both Rosa et al. (2018) and Serido and Deenanath's (2016) recent studies concluded the occurrence of daily actions of parents influence the financial behaviour of the child as they tack into adulthood (Serido & Deenanath, 2016). Some other studies have found that young adults' financial socialisation happens outside of the family environment. As Xiao et al. (2014) indicated, financial socialisation can happen outside of the home environment, particularly through peers, informally at the workplace, and through financial literacy programmes. Even their economic standing can influence financial socialisation. However, parents, it was always found to have a more potent socialisation effect on their children. The financial lessons learned from parents will serve as young adults and guide in their financial behaviour. Implicit interactions in the family unit between parents and children contributed to financial socialisation more often than purposive teaching and practice (Gudmunson et al., 2016). Van Campenhout (2015) confirmed this contention again in his study that financial socialisation in families happens implicitly. Financial ability skills decrease debt levels in adulthood (Grinstein-Weiss et al., 2011), in contrast to higher debt positions in the lives of individuals who had a lack of parental financial socialisation (Norvilitis & MacLean, 2010).

Tang et al. (2015), who used data from the National Longitudinal Survey of Youth (NLSY,1997), found that the financial behaviour of young adults is positively influenced based on their parents, particularly in terms of cash flow, saving and credit management. Parental influence relates positively to developing self-benefiting financial behaviour among young adults. Another large sample study of 4,473 high school young adults also clearly indicated that family financial socialisation is positively associated with desirable financial behaviours (Deenanath et al., 2019). Falahati et al. (2012) identified financial behaviour as the main determinant of financial well-being in the Malaysian local context.

In the concept of financial behaviour, outcome measures are fundamental in exploring if young adults' behaviour helps their longer-term financial well-being. Hence, the outcome of a financial decision that leads to financial well-being is influenced by financial socialisation is established.

2.4 Moderating Role of Gender

A gender effect was found as an essential determinant of a young adult’s financial well-being. The research hypothesis in this paper states that the gender of respondents moderates the relationship between financial behaviour and the financial well-being of young adults. Moderator refers to the variable that may buffer or alter the relationship between independent and dependent variables.

In the case of Malaysia, women tend to be more academically inclined, and a higher proportion of them undergo studies in universities. In this connection, Giuliano's (2017) study on gender norms and differences finds that gender roles are based on historical circumstances. Despite changes in current circumstances, gender roles take time to change. Women's low level of financial literacy (Lusardi & Mitchell, 2011; Mottola, 2013) and their lower ability in money management skills (Hung et al., 2012) concern their financial behaviour. Borden et al. (2008) also found women to have a negative attitude towards money. Lusardi and Mitchell (2014), in an analysis of 12 countries, show that there are strikingly similar patterns by gender. In a bigger analysis involving 140 countries on financial literacy, gender differences existed everywhere, from developing to advanced economies (Klapper & Lusardi, 2020).

Some previous studies which had the same moderating relationship shed some perspective on the role of gender. For example, Strömbäck et al. (2017) found females were negatively related to financial well-being, and females were not related to general financial behaviour. Men are likely to feel pressure to be the main earner in the family and tend to keep the pressure on themselves. Gender has not been consistently related to financial well-being whereby some researchers have found that females are likely to have a higher state of financial well-being than males (Lea & Webley, 1995) while Davies and Lea (1995); Boddington and Kemp (1999) have found that male's financial well-being is better than females. Despite the often generally perceived view that females are poorer in money management and have lower financial well-being, Henry et al. (2001) found females to be better with money management as many of them are in charge of household budgets which requires them to take care of the needs of the families.

Compulsive buying habits were found to be a trait more within females (Achtziger et al., 2015), who are also more likely to encounter a negative financial event (Letkiewicz, 2012), thus arguing that women generally have lower financial well-being. In another study in Malaysia, Sabri and Zakaria (2015) found that men were more capable of managing money than women. On the other hand, Furnham et al. (2015) agreed that attitudes towards money act differently between males and females. They classified females as worried spenders, whereas females treat shopping as part of therapy and worry about money later. In Malaysia, disparities in women's financial behaviour could be interlinked with their role as housewives and dropping off the workforce to tend to the needs of their families, thus affecting their financial well-being.

In general, few studies have focused on the differences between the genders in decision making (Francis et al., 2015) and financial management (Falahati & Sabri, 2015). However, there are limited studies investigating the effect of gender of young adults as a moderator on the relationship between financial behaviour and financial well-being. Therefore, this paper intends to examine the relationship.

2.5 Theories

The backbone theory in this paper is based on system theory. Davis and Helmick (1985) concluded that the Deacon and Firebaugh systems theory is consistent with the widely used conceptual framework of life satisfaction (Campbell et al., 1977; Davis & Helmick, 1985). System theory has been widely adopted, validated, and used in the literature on financial behaviour and family resource planning. Most of the financial-related studies employed the family resource management model to validate and justify the inter-relationships between external environment factors (e.g., parental financial socialisation), input (e.g. financial literacy, personal characteristics), throughput (financial behaviours), and output (e.g. financial well-being, financial satisfaction (Gutter & Copur, 2011; Jariwala & Sharma, 2016; Van Campenhout, 2015).

Social learning theory is increasingly cited as an essential component of sustainable natural resource management and promoting desirable behavioural change (Muro & Jeffrey, 2008). In social learning, as the name of the theory denotes, learning happens based on social encounters, interactions one has with another, and observing what a person does and then imitating those behaviours. Bandura (1977) highlighted imitation involves the actual reproduction of the observed behaviours. Social learning theory involves reciprocal interaction between cognitive, behavioural, and environmental influences (Pajares, 2002). In the literature on financial behaviour and financial well-being, the theory of social learning has been widely adopted, validated and used. For example, the interaction between social learning and financial well-being was detailed by Kadoyo and Khan (2017). They explored how social learning theory is used to determine financial literacy in Japan. Saboe (2014) used social learning theory to show financial knowledge of the behaviour of native high school students. In addition, Martin and Oliva (2001) highlighted that young adult learn personal financial skills from their parents through observation. Their research identified several experiences in which the social learning theory could be applied.

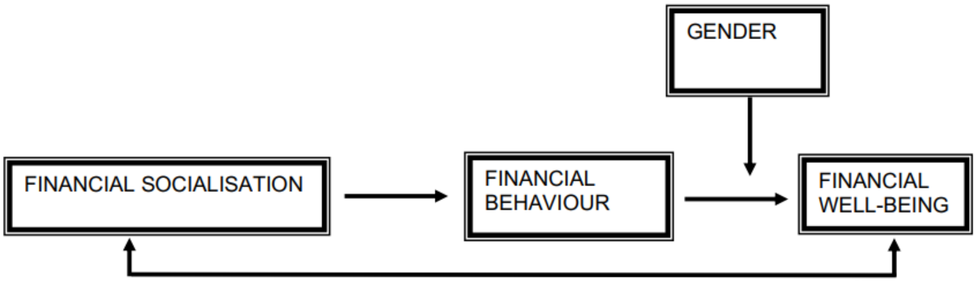

Figure 1 : Theoretical Framework

3.0 Methodology

This study was conducted through a multistage random sampling method to sample 400 respondents from four (4) regions in Peninsular Malaysia (i.e., Northern, Southern, Eastern & Central), of which 360 useable feedbacks were collected. In the second stage, upon confirming the locations, a list of all youth organisations located in urban areas in the selected states was attained from Malaysian Youth Council (MYC), the official youth organisation recognised by the Ministry of Youth and Sports, Malaysia. Four youth organisations were randomly selected from the list requiring 25 respondents from each youth organisation. Only young adults between the ages of 18-29 were respondents in the study. The quantitative method was the most suitable as this study data was from young adults across the peninsular. This study aimed to highlight the critical variables associated with young adults' financial well-being and attempted to investigate the moderating effect of gender on the variable relationship and the mediation effect of financial behaviour. Data was collected once over four months to ensure that respondent's feedback was not influenced by the various Government driven assistance packages, such as the financial aid packages provided by the Government during the COVID-19 pandemic.

Baron and Kenny (1986) were instrumental in the mediation process whereby they tested the mediation occurrence through regression equations. In this paper's mediation analysis, causality and temporal ordering among the three variables (intervention, mediator and response) will explain the likelihood of logical significance of financial behaviour and how financial well-being is achieved. This paper is on the occurrence of partial mediation.

3.1 Measures

Financial socialisation was measured with ten items listed to be selected using Manfrè (2017) and Lanz et al. (2019) to measure their financial socialisation and their parents. Financial behaviour asked respondents to rate themselves on behavioural traits was measured with ten items using Kim (2004) and Ismail et al. (2017). An example of a statement in this section is "I keep track of where my money is spent". The measurement of financial well-being in this study was based on Financial Well-Being Scale developed by CFPB (2015), with eight items.

4.0 Findings

Discussion of the respondents' profiles in this paper is related to the financial well-being of young adults. The respondent's profile includes gender, age, educational level, employment status and if the COVID-19 pandemic has impacted their income. Table 1 provides the results of the data analysis generated to describe the demographic of young adults in this study.

Table 1 : Sociodemographic Characteristics of Respondents (N=360)

Respondents Characteristics	**Pooled Sample (N=360)**	
	Freq.	**Per cent**
Gender		
Male	**146**	**40.6**
Female	**214**	**59.4**
Age		
Below 20 years old	**14**	**3.9**
20 – 25 years old	**300**	**83.3**
26 – 30 years old	**43**	**11.9**
31-35 years old	**3**	**.8**

Respondents Characteristics	Pooled Sample (N=360)	
	Freq.	**Per cent**
Education level		
No formal education	**2**	**.6**
Secondary (SPM/STPM)	**53**	**14.7**
Diploma/Certificate	**40**	**11.1**
Bachelor's Degree	**239**	**66.4**
Master's Degree	**14**	**3.9**
Others	**12**	**3.3**
Employment status		
Unemployed	**49**	**13.6**
Civil Servant	**15**	**4.2**
Private Sector Employee	**30**	**8.3**
Self Employed	**11**	**3.1**
Student	**248**	**68.9**
Others	**7**	**1.9**
Income Affected in view of COVID-19 Pandemic		
Increased	**30**	**8.3**
No Changes	**177**	**49.2**
Reduced	**153**	**42.5**

As shown in Table 1, sample frequency distribution was carried out to understand the respondents' backgrounds. Regarding gender, the majority, 59.4 per cent of participants, were females, and 40.6% were males. Over 80% of the respondents were between 20-25 years of age. Most of those respondents were Malay (79.7%), Chinese (11.9%), Indian (3.3%) and others (5.0%). The sample indicates that most of the respondents were enrolled in a university or had a college tertiary level of education in terms of education. Education helps to improve financial well-being. Anderloni et al. (2012) and McCarthy (2011) found education to consistently have positive effects on personal financial management. Only 15.3% of respondents have SPM/STPM or have no formal education. It was noted that the young adults have had their allowances reduced, with 42.5% of the respondents indicating a drop in income because of the Covid-19 pandemic.

Table 2 : The Hypothesis Statement For Direct Effect Based On Framework

	Hypothesis statement	Statistical Analysis to employ
H1	Financial socialisation has a significant and direct effect on Financial Behaviour	Path Analysis in SEM
H2	Financial Behaviour has a significant and direct effect on Financial Well Being	Path Analysis in SEM
H3	Financial Behaviour mediates the relationship between Financial socialisation and Financial Well Being	Path Analysis in SEM and Bootstrapping
H4	Gender of respondents moderates the relationship between Financial Behaviour and Financial Well Being	Multi-Group Analysis in SEM

As shown in Table 2, the hypothesis statements and the statistical analysis employed are presented.

Table 3 : The Average Variance Extracted (AVE) and Composite Reliability (CR)

Construct	Items	Factor Loading	CR (Above 0.6)	AVE (Above 0.5)
Financial Behaviour	FBC1	0.70	**0.771**	**0.630**
	FBC2	0.79		
	FBC3	0.69		
Financial Socialisation	FSC1	0.73	**0.785**	**0.589**
	FSC2	0.79		
	FSC3	0.80		
Financial Well-Being	FWB1	0.79	**0.906**	**0.617**
	FWB2	0.78		
	FWB3	0.79		
	FWB4	0.74		
	FWB5	0.81		
	FWB6	0.80		

The study found that all AVE and CR values above their threshold values of 0.5 and 0.6 fulfilled the necessary threshold as presented in Table 3 (Aziz et al., 2016; Yusof et al., 2017). As a result, the study infers that all three latent constructs in the model have attained Convergent Validity and Composite Reliability.

4.1 The Assessment of Discriminant Validity among Constructs

When any pair of constructs are highly correlated, discriminant validity is used to ensure no duplicated constructs in the model. The discriminant validity index is shown in Table 4. The square root of the AVE of the respective constructions is bolded on the diagonal, while other figures indicate the correlation coefficient between the pair of respective constructs.

Table 4 : The Discriminant Validity Index Summary for All Constructs

Construct	FS	FB	FWB
FS	0.79		
FB	0.78	0.80	
FWB	0.71	0.75	0.78

According to Table 4, a construct's Discriminant Validity was obtained when the square root of its AVE is greater than its correlation value with other constructs in the model (Awang et al., 2015). In other words, if the diagonal values (in bold) are higher than any other values in the row and column, the Discriminant Validity is obtained. As a result, the study concludes that all constructs have Discriminant Validity.

Table 5 : The R^2 and Its Implication in This Study

Endogenous Construct	R^2	Conclusion
Financial Behaviour	**0.74**	Financial socialisation contributed about 74 per cent towards the Financial Behaviour of the target population.
Financial Well-Being	**0.61**	Financial socialisation and Financial Behaviour contribute about 61 per cent toward the Financial Well-Being of the target population.

The explanation regarding the model's performance of R2 (coefficient of multiple determination) is explained in Table 5. The R^2 represents the combined impact of exogenous variables on endogenous variables (Hair et al., 2017). The results showed R2 of 0.74 for financial behaviour and R^2 of 0.61 for financial well-being. R2 of 0.74 indicated that financial socialisation accounted for 74 % of the variance in explaining financial behaviour. Similarly, R^2 of 0.61 signified that financial socialisation and financial behaviour accounted for 0.61% of the variance in explaining financial well-being. Based on Cohen's (1988) guideline, the variance explained in financial behaviour was considered large, while the variance explained in financial well-being was moderate.

The regression path coefficients for all independent constructs are shown in Table 6.

Table 6 : Regression Path Coefficient and Its Significance

			Estimate (β)	Std Error	Z	P-value	Result
Financial Behaviour	<---	Financial socialisation	.404	.081	4.973	.001	Significant
Financial Well Being	<---	Financial Behaviour	.480	.155	3.103	.002	Significant
Financial Well Being	<---	Financial socialisation	.310	.106	2.938	.003	Significant

Table 6 shows the regression path coefficient between latent constructs, and its significance is tabulated. Table 6 shows the text output for the three direct effect relationships. The testing of the direct effect hypothesis in Table 8 is decided based on the probability value (p-value). The hypothesis is significant if P-value obtained in text-output is less than the type error value (alpha) of 0.05.

Financial socialisation was significantly related to financial behaviour ($\beta = 0.40$, $Z = 4.97$, $p < 0.05$). Our data that found that most young adults' financial socialisation was significantly influenced by their parents are in line with prior literature on socialisation, from Williams et al. (2010) and Oppong-Boakye and Kansanba (2013), for instance. The household environment and parents' own everyday spending behaviour influence their children, and thus young adults are socialised. Childhood experiences such as financial incidents within the family are pivotal. This is because childhood experiences have a lifelong impact on adults' behaviour (Grohman et al., 2015). In the context of this study, the emphasis was on parental socialisation. In concurrence with the findings of this study, (Grohman et al., 2015; Sohn et al., 2012) found parents who are classified as socialisation agents stimulate young adults in shaping their saving attitudes and credit attitudes by gathering financial information and cultivating good financial behaviour. A more recent study also concluded that parents influence young adults' financial skills, knowledge, and behaviours (Bamforth & Geursen, 2017). It is thus clear that the financial socialisation of parents has a positive causal relationship with young adults' financial behaviour. Under the social learning theory, key socialisation processes contribute to behavioural outcomes (Hancock et al., 2013). Young adults' financial socialisation is influenced by their environment (Bandura, 1986), such as their parents (Hancock et al., 2013), as postulated in the theoretical underpinnings of this paper. The theory posits that surroundings and past events shape an individual's decision.

Understanding the variable financial behaviour was found to significantly influence financial well-being ($\beta = 0.48$, $Z = 3.10$, $p < 0.05$). This is in line with recent local studies (Mahdzan et al., 2019; Sabri et al., 2021) that found that being financially healthy and happy requires one to exhibit positive financial behaviour, such as regular savings and proper credit management. However, the scenario among young adults is an expected behavioural trait. The study observed that young adults fail to have a budget or record their expenses. This was one of Bakar et al. (2020) findings whose study was in the Malaysian context. Again, this is in line with the findings of Tang Ruxyn (2017), who found that incapability to make responsible financial decisions is the cause hindering young adults' financial well-being. In addition, in attaining financial well-being, Brown et al. (2015) found that the best way for youths to avoid bankruptcy and be free from financial troubles is by having prudent financial habits.

Financial socialisation was also found to significantly influence financial well-being ($\beta = 0.31$, $Z = 2.93$, $p < 0.05$). Young adults whose parents have financially socialised them were found to manage personal finances better in our study. This parallels Jorgensen and Savla's (2010) findings, who found that youths acquire their financial learning experiences via positive or negative reinforcement, observations, participation, and practice or instructions from their family. Keeping track of allowance income and family discussions could be one way to motivate youths to increase their knowledge and formation of values and behaviours on money management (Gudmunson & Danes, 2011; Jorgensen & Savla, 2010). Parents who discuss family finances with their young adults indirectly help them understand money management better. Intermediate outcomes of young adults, such as attitude toward money, are primarily influenced by their family members and are significantly related to their financial behaviours and well-being. The findings of this research are supported by prior findings, which also found a causal significant relationship between parental financial socialisation and the well-being of young adults. According to researchers, adults who handle their finances well have learned efficient financial habits during childhood (Friedline et al., 2013; Metcalf & Atance, 2011; Sirsch et al., 2020). A family unit, as postulated being the fundamental theoretical underpinnings of this research through the ramifications of system theory, young adults clarified the research findings, which was their financial well-being, whereby those with better financial socialisation will generally have better financial behaviour. Financial well-being is the status that young adults obtain from better financial behaviour and financial socialisation, one of the individual characteristics of the family. In line with our theorising, financial behaviour acts as throughput and generates the output of financial well-being. Young adults who are more strongly socialised can assist a family unit by having a better level of financial well-being.

4.2 Confirming the Results of Mediation Test using Bootstrapping

To determine the bootstrap samples, the study needs to choose from a bootstrap sample between 500 to 5000, the bootstrap confidence interval between 90% to 99%, and a bias-corrected confidence interval between 90% to 99%. From the bootstrap results, we could determine the significance of mediation and the type of mediation. Therefore, this study used 1000 bootstrap samples, a 95 per cent bootstrap confidence interval, and a 95 per cent bias-corrected confidence interval with the Maximum Likelihood Estimator (MLE) bootstrapping.

Mediation exists when there is a strong relationship between the independent and dependent variables (Baron & Kenny, 1986). This study examined the mediation effect of financial behaviour in the relationships between financial socialisation and financial well-being ($\beta = 0.19$, $p < 0.05$) and between financial behaviour and financial well-being ($\beta = 0.13$, $p < 0.05$). The mediation analysis unveils a clear and firm finding that financial behaviour is significant in empowering young adults' financial well-being. The study employed the method of testing the mediation effects in the model as proposed by Awang et al. (2015).

4.3 Testing the Financial Behaviour as a Mediator on the Relationship Between Financial Socialisation and Financial Well Being

The bootstrapping procedure for assessing financial behaviour as a mediator in the association between financial socialisation and financial well-being is shown in Table 7.

Table 7 : The Bootstrapping Result for Testing Financial Behaviour as a Mediator

	Indirect Effect (axb)	Direct (c)
Bootstrapping Value	**0.193**	**0.308**
Probability Value	**0.002**	**0.010**
Results on Mediation	Significant	Significant
	Mediation exists since indirect effects are significant	
Type of Mediation	**Partial Mediation** since the direct effect is not significant	

This study found significant partial mediation that financial behaviour mediates the relationship between financial socialisation and financial well-being.

4.4 Testing Gender as Moderator in the Relationship between Financial Behaviour and Financial Well-Being

Table 8 : The Regression Path Coefficient and its significance for MALE Respondents

			Estimate	Std Estimate	S.E.	Z	P
Financial Well-Being	□	Financial Behaviour	0.26	0.28	.189	1.388	.165

The regression coefficient (slope) for MALE Respondents is 0.26 for Beta and 0.28 for the standardised beta (see Figure 5). The p-value is 0.165, indicating that the regression coefficient is not significant.

The result of SEM analysis using data from male respondents is presented in Table 8. At the same time, the result of SEM analysis using data from female respondents is presented in Table 9. The analysis focuses on the relationship between financial behaviour and financial well-being. As shown in Table 8, the results indicated an insignificant moderating effect of males in the relationship between financial behaviour and financial well-being ($\beta = 0.26$, $Z = 1.388$, $p > 0.05$). However, as shown, the relationship between financial behaviour and financial well-being is stronger when it's controlled for gender.

In Malaysia, males have often assumed the legitimate occupiers of productive roles. They are expected to be more career-oriented (Abdullah et al., 2008), thus probably leading to better financial behaviour. Although the results obtained in this study contradict such facts, some studies in Malaysia support the results obtained (Delafrooz & Paim, 2011a; Sabri & MacDonald, 2010). Studies in the Malaysian context (Loke, 2017; Sharif et al., 2020) explain that males may be more risk-taking while females tend to exercise caution in their financial behaviour.

Table 9 : The Regression Path Coefficient and its significance for FEMALE Respondents

			Estimate	Std Estimate	S.E.	Z	P
Financial Well-Being		Financial Behaviour	0.73	0.55	.274	2.649	.008

The **regression coefficient** (slope) for FEMALE Respondents is **0.73** for Beta and **0.55** for the standardised beta. The p-value is 0.008, indicating the regression coefficient is **significant.**

As shown in Table 9, the results indicated a significant moderating effect of females in the relationship between financial behaviour and financial well-being (β= 0.73, Z = 2.649, $p < 0.05$). In line with the findings of this study, the effect of females' financial well-being was significant, thus in support of preceding studies. For example, Sabri and MacDonald (2010) showed that female students are more engaged with saving behaviour than their male student counterparts in Malaysia. In addition, females perceive money management to be more impactful to their future compared to males (Danes & Haberman, 2007)

Analysing the results in Table 8 and Table 9, the study found that the regression slope for male respondents is 0.26 and not significant, while the regression slope for female respondents is 0.73 and significant. In conclusion, the study concluded that moderation occurred. In other words, the effect of financial behaviour on financial well-being depends on the Gender of respondents, whereby the effect is not Significant for male respondents, while the effect is Significant for female respondents.

Lastly, Table 10 demonstrates the overall results by summarising the hypotheses and their respective evaluation results, whether they are supported or not supported. All three direct effect hypotheses (H1, H2, H3) were significant in terms of path analysis.

Table 10 : Summary of Hypothesis Testing

No	Hypothesis Statement	Statistical Decision
H_1	Financial socialisation has a significant and direct effect on Financial Behaviour	Supported at alpha 0.01
H_2	Financial Behaviour has a significant and direct effect on Financial Well Being	Supported at alpha 0.01
H_3	Financial Behaviour mediates the relationship between Financial socialisation and Financial Well Being	Significant (mediation occurs) Partial Mediation
H_4	Gender of respondents moderates the relationship between Financial Behaviour and Financial Well Being	Moderation Occurred. Not significant for males; Significant for Females

5.0 Conclusion and Recommendations

The focus of this paper was to investigate young adults' financial well-being in Malaysia through the influence of financial socialisation and financial behaviour. The findings have various theoretical and practical implications. This study has shown that the most important determinant of financial well-being based on the path relationship beta coefficient is young adults' financial behaviour. This study found that financial behaviour on financial well-being depends on the gender of the respondents, whereby the effect is not significant for male respondents. In contrast, the effect is significant for female respondents. Parental financial socialisation is crucial for young adults and has long term positive financial behavioural impacts. The results suggest there may be an important developmental opportunity to build the capacity of young adults in the area of financial behaviours.

In this regard, policies should be drawn to help young adults attain financial well-being through the right content framework. As an example, whilst many policy directions are geared towards financial literacy, this study indicates that other factors are crucially more important in the attainment of financial well-being. Precisely, the intervention policies should aim to be geared towards moulding the financial behaviour of young adults. Increasing the financial resources of young adults could feasibly work to improve young adult's financial well-being as an alternative direct intervention.

Despite all the claims made in this study, it is inevitably subjected to limitations. Some of the limitations encountered during this study are that it only looked at influences and never actually examined the actual behaviour of young adults. A longitudinal study will help provide more perspectives and insights on the financial behaviour of young adults and how they attain financial well-being. In addition, a key limitation of this study was data was collected during the COVID-19 pandemic, and young adults may have been affected by this turn of events when answering the questionnaire.

Acknowledgements

This study was funded by the Geran Putra Universiti Putra Malaysia (UPM/800/2/2/4-Geran Putra – The Influence of Personal Finance and Psychological Factors on Financial Health among Malaysian Millennial Youth).

References

Abdullah, K., Noor, N. M., & Wok, S. (2008). The perceptions of women's roles and progress: A study of Malay women. *Social Indicators Research*, *89*(3), 439-455

Achtziger, A., Hubert, M., Kenning, P., Raab, G., & Reisch, L. (2015). Debt out of control: The links between self-control, compulsive buying, and real debts. *Journal of Economic Psychology*, 49, 141–149. https://doi.org/ 10.1016/j.joep.2015.04.003

Agnew, S., Maras, P., & Moon, A. (2018). Gender differences in financial socialisation in the home—An exploratory study. *International Journal of Consumer Studies*, *42*(3), 275–282.

Akben-Selcuk, E., & Altiok-Yilmaz, A. (2014). Financial Literacy among Turkish College Students: The role of formal education, learning approaches, and parental teaching. Psychological Reports, 115(2), 351–371. https://doi.org/10.2466/31.11.PR0.115c18z3

Albeerdy, M. I. & Gharleghi, B. (2015). Determinants of the financial literacy among college students in Malaysia. *International Journal of Business Administration, 6* (3), 15–24.https://doi.org/10.5430/ijba.v6n3p15

Anderloni, L., Bacchiocchi, E., & Vandone, D. (2012). Household financial vulnerability: An empirical analysis. *Research in Economics*, *66*(3), 284-296.

Arrondel, L., Debbich, M., & Savignac, F. (2015). Stockholding in France: the role of financial literacy and information. Applied Economics Letters, 22(16), 1315–1319.

Asia Money Parenting Survey(2020). https://https://eastspring.com/docs/librariesprovider6/fund-announcements-media-releases/my/2021/my-moneyparenting-press-release-(jan-2021)--final_final.pdf?sfvrsn=57f567f_4

Awang, Z., Lim, S.H., & Zainudin, N.F.S.(2018). Pendekatan Mudah SEM- Structural Equation Modelling. *Bandar Baru Bangi, MPWS Rich Resources*.

Awang, Z., Afthanorhan, A., Mohamad, M., & Asri, M. A. M. (2015). An evaluation of measurement model for medical tourism research: the confirmatory factor analysis approach. *International Journal of Tourism Policy*, *6*(1), 29-45

Aziz, MI., Afthanorhan, A., & Awang, Z. (2016). Talent development model for a career in Islamic Banking Institutions: A SEM approach. *Cogent Busines and Management 3*(1), 1186259.

Bakar, M. Z. A., Bakar, S. A., & Ayub, S. H. (2020). Financial Education as Moderating Influence in Prudent Financial Management Practices among Malaysian Youth. *International Journal of Academic Research in Business and Social Sciences, 10*(2), 1–11.

Bamforth, J., & Geursen, G. (2017). Categorising the Money Management Behaviour of Young Consumers. Young Consumers, 18(3), 205-222.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. Psychological review, 84(2), 191.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology,4*(3), 359-373.https://doi.org/10.1521/jscp.1986.4.3.359

Barnea, A., Cronqvist, H., & Siegel, S. (2010). Nature or nurture: what determines investor behavior? *J Financ. Econ. 98,* 583–604.https:// doi: 10.1016/j.jfineco.2010.08.00

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Boddington, L., & Kemp, S. (1999). Student debt, attitudes towards debt, impulsive buying and financial management. *New Zealand Journal of Psychology, 28*, 89- 93.

Borden, L. M., Lee, S.-A., Serido, J., & Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of Family and Economic Issues, 29(1)*, 23-40.

Britt, S. L. (2016). The intergenerational transference of money attitudes and behaviors. *Journal of Consumer Affairs, 50*(3), 539– 556. https://doi.org/10.1111/joca.12113.

Brown, M., John G., Wilbert v. d. K., Jaya W., & Basit, Z. (2015). "Financial Education and the Debt Behavior of the Young." Staff Report no. 634. New York: Federal Reserve Bank of New York.

Bucciol, A. & M. Veronesi. (2014). "Teaching children to save: What is the best strategy for lifetime savings?", *Journal of Economic Psychology*, *45*, 1-17, http://dx.doi.org/10.1016/J.JOEP.2014.07.003.

Campbell, A., Converse, P. E., & Rodgers, W. L. (1977). The Quality of American Life: Perceptions, Evaluations, and Satisfactions. *Canadian Journal of Political Science, 10*(4), 875–877.

Cohen, J. (1988). *Statistical power analysis* (2nd ed.). Hillsdale NJ: Erlbaum.

Consumer Financial Protection Bureau. (2015). "Measuring financial well-being: a guide to using the CFPB financial well-being scale", http://www.consumerfinance.gov/data-research/research-reports/financial-well-being-scale/.

Damian, L. E., Negru-Subtirica, O., Domocus, I., & Friedlmeier, M. (2019). Healthy financial behaviors and financial satisfaction in emerging adulthood: A parental socialisation perspective. *Emerging Adulthood*. https://doi.org/10.1177/2167696819841952.

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Journal of Financial Counseling and Planning, 18*(2), 48-60.

Davies, E. and Lea, S. E. G. (1995). Student attitudes to student debt. *Journal of Economic Psychology, 16*, 663-679

Davis, E. P., & Helmick, S. A. (1985). Family Financial Satisfaction: The Impact of Reference Points. *Family and Consumer Sciences Research Journal, 14*(1), 123–131. https://doi.org/10.1177/1077727X8501400112

Deenanath, V., Danes, S. M., & Jang, J. (2019). Purposive and unintentional family financial socialisation, subjective financial knowledge, and financial behavior of high school students. *Journal of Financial Counseling and Planning, 30*(1), 83–96. https:// doi.org/10.1891/1052-3073.30.1.83.

Delafrooz, N., & Paim, L. H. (2011). Determinants of financial wellness among Malaysian workers. *African Journal of Business Management, 5*(24), 10092–10100.

Delafrooz, N., & Paim, L. H. (2011a). Determinants of Saving Behavior and Financial Problem among Employees in Malaysia. *Australian Journal of Basic and Applied Sciences, 5*(7), 222–228.

Department of Statistic Malaysia. DOSM. (2020). Current Population Estimates.

Dew, J., & Xiao, J. J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning, 22*(1), 43.

Douissa, I. B. (2019). Factors affecting College students' multidimensional financial literacy in the Middle East. *International Review of Economics Education*. https://doi.org/http://10.0.3.248/j.iree.2019.100173

Drever, A. I., Odders-White, E., Kalish, C. W., Else-Quest, N. M., Hoagland, E. M., & Nelms, E. N. (2015). Foundations of financial well-being: Insights into the role of executive function, financial socialisation, and experience-based learning in childhood and youth. *Journal of Consumer Affairs, 49*(1), 13–38.

Falahati, L., & Sabri, M. F. (2015). An exploratory study of personal financial well-being determinants: Examining the moderating effect of gender. *Asian Social Science*, *11*(4), 33–42. http://doi.org/10.5539/ass.v11n4p33

Falahati, L., Sabri, M. F., & Paim, L. H. J. (2012). Assessment a model of financial satisfaction predictors: Examining the mediate effect of financial behaviour and financial strain. *World Applied Sciences Journal, 20*(2), 190–197. https://doi.org/10.5829/idosi.wasj.2012.20.02.1832

Fan, L., & Chatterjee, S. (2019). Financial socialisation, financial education, and student loan debt. *Journal of Family and Economic Issues, 40*(1), 74-85.

Francis, B., Hasan, I., Park, J. C., & Wu, Q. (2015). Gender Differences in Financial Reporting Decision-Making: Evidence from Accounting Conservatism.*Contemporary Accounting Research, 32*(3), 1285–1318.http://doi.org/10.2139/ssrn.2377312

Friedline, T., Elliott, W., & Chowa, G. (2013). Testing an asset- building approach for children: Early access to savings predicts later savings. Economics of Education Review, Special Issue: Assets and Educational Attainment: Theory and Evidence, 33, 31–51. https://doi:10.1016/j.econedurev.2012.10.004

Furnham, A., Von Stumm, S., & Fenton-O'Creevy, M. (2015). Sex differences in money pathology in the general population. *Social indicators research, 123*(3), 701-711.

Garg, N., & Singh, S. (2018). Financial literacy among youth. *International Journal of Social Economics, 45*(1), 173–186.

Giuliano P., (2017). Gender: An Historical Perspective, National Bureau of Economic Re- search, No. w23635.

Grinstein-Weiss, M., Spader, J., Yeo, Y. H., Taylor, A., & Freeze, B., E. (2011). Parental transfer of financial knowledge and later credit outcomes among low- and moderate-income homeowners. *Children and Youth Services Review, 33 (*1): 78-85

Grohman, A., Kouwenburg, R., & Menkhoff, L. (2015). Childhood roots of financial literacy. *Journal of Economic Psychology, 52*, 114–133. https://doi:10.1016/j.joep.2015.09.002

Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialisation: Theory and critical review. *Journal of Family and Economic Issues, 32*(4), 644–667. https://doi.org/10.1007/s1083 4-011-9275-y.

Gudmunson, C. G., Ray, S. K., & Xiao, J. J. (2016). Financial socialisation. In *Handbook of consumer finance research* (pp. 61–72). Cham: Springer. https://doi.org/10.1007/978-3-319-28887-1_5.

Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues, 32*(4), 699-714. https://doi:10.1007/s10834-011-9255-2

Hair, J. F., Hult, T. M., Ringle, C. M., & Sarsted, M. (2017). A primer on partial least squares structural equation modelling (PLS-SEM) (2nd ed.). Thousand Oaks, CA: Sage.

Hancock, A.M., Jorgensen, B.L. & Swanson, M.S. (2013). College students and credit card use: The role of parents, work experience, financial knowledge, and credit card attitudes. *Journal of Family and Economic Issues, 34*(4), 369-381.

Henry, R. A., Weber, J. G., & Yarbrough, D. (2001). Money Management Practices Of College Students. *College Student Journal*, *35*(2).

Hung, A., Yoong, J., & Brown, E. (2012). Empowering Women through Financial Awareness and Education. OECD Publishing. http://dx.doi.org/10.1787/5k9d5v6kh56g-en

Ismail, S., Faique, F. A., Bakri, M. H., Zain, Z. M., Idris, N. H., Yazid, Z. A., ... & amp; Taib, N. M. (2017). The role of financial self-efficacy scale in predicting financial behavior. *Advanced Science Letters, 23*(5), 4635-4639.

Jariwala, H. V., & Sharma, M. S. (2016). Assessment of behavioural outcomes of financial education workshops on financial behaviour of the participants: An experimental study. In *Financial Literacy and the Limits of Financial Decision-Making* (pp.302-324). Palgrave Macmillan, Cham.

Jin, M. & Chen, Z. (2020). “Comparing financial socialisation and formal financial education: building financial capability”, *Social Indicators Research,149*, 641-656.

Jorgensen, B. L., & Savla, J. (2010). Financial literacy of young adults: The importance of parental socialisation. *Family Relations, 59*(4), 465–478. https://doi.org/10.1111/j.1741-3729.2010.00616.x.

Kadoya, Y & Khan, MSR. (2017). Can Financial Literacy Reduce Anxiety About Life at the Old Age? *Journal of Risk Research*. http://dx.doi.org/10.1080/13669877.2017.1313760

Kalmi, P., & Ruuskanen, O. P. (2018). Financial literacy and retirement planning in Finland. *Journal of Pension Economics & Finance*, 17(3), 335-362.

Kim, J. (2000). The effects of workplace financial education on personal finances and work outcomes. Unpublished doctoral dissertation. Virginia Polytechnic Institute & State University: Blacksburg, VA.

Kim, J. (2004). Impact of a workplace financial education program on financial attitude, financial behavior, financial well-being, and financial knowledge. In: Proceedings of the Association for Financial Counseling and Planning Education ,22 (1), 82-89.

Kim, J., & Chatterjee, S. (2013). Childhood financial socialisation and young adults’ financial management. *Journal of Financial Counseling and Planning, 24*, 61–79.

Kim, K., Wilmarth, M., and Henager, R. (2017). Poverty levels and debt indicators among low-income households before and after the great recession. Journal of Financial Counseling and Planning, 28(2), 196–212. https ://doi.org/10.1891/1052-3073.28.2.196.

Klapper L., & Lusardi A. (2020). Financial Literacy and Financial Resilience: Evidence from around the World, Financial Management, 49, 589-614.

Lanz, M., Sorgente, A., & Danes, S. M. (2019). Implicit family financial socialisation and emerging adults' financial well-being: A multi-informant approach. *Emerging Adulthood*. https://doi.org/10.1177/2167696819876752.

Lea, S. E. G., & Webley, P. (1995). Psychological factors in consumer debt: Money management, economic socialisation, and credit use. *Journal of Economic Psychology, 16*, 681-701.

Letkiewicz, J. C. (2012). Self-control, financial literacy, and the financial behavior of young adults (Doctoral dissertation). ProQuest Dissertations and Theses. (Accession Order No. 3521038)

Loke, Y. J. (2017). The influence of socio-demographic and financial knowledge factors on financial management practices of Malaysians. *International Journal of Business and Society*, *18*(1), 33-50.

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and planning: Implications for retirement well-being (NBER Working Paper No. 17078). National Bureau of Economic Research. https://www.nber.org/papers/w17078

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5–44

Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, *44*(2), 358–380.

Mahdzan, N. S., Zainudin, R., Sukor, M. E. A., Zainir, F., & Ahmad, W. M. W. (2019). Determinants of subjective financial well-being across three different household income groups in Malaysia. *Social Indicators Research, 143*, 1-28.

Manfrè, M. (2017). Saving Behavior: Financial socialisation and self-control. https://siecon3-607788.c.cdn77.org/sites/siecon.org/files/media_ wysiwyg/288-manfre.pdf.

Martin, A., & Oliva, J. C. (2001). Teaching children about money: Applications of social learning and cognitive learning developmental theories. *Journal of Family and Consumer Sciences: From Research to Practice, 93*(2), 26–29.

McCarthy, Y. (2011). Behavioural characteristics and financial distress. European Central Bank. https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1303.pdf?4ca9f70deb4b072c54015aa30aac835b

Metcalf,J.L., & Atance,C.M. (2011).Planning in young children: A review and synthesis. *Development Review,31*, 1-31

Mokhtar, N., & Husniyah, A. R. (2017). Determinants of Financial Well-Being among Public Employees in Putrajaya, Malaysia. *Pertanika Journal of Social Science and Humanities, 25*(3), 1241-1260. ISI>://WOS:000426845200014

Mottola, G. R. (2013). In Our Best Interest: Women, Financial Literacy, and Credit Card Behavior. *Numeracy, 6*(2), 4. http://dx.doi.org/10.5038/1936-4660.6.2.4

Muro, M., & Jeffrey, P. (2008). A critical review of the theory and application of social learning in participatory natural resource management processes. *Journal of environmental planning and management, 51*(3), 325-344.

Norvilitis, J. M., & MacLean, M. G. (2010). The role of parents in college students' financial behaviors and attitudes. *Journal of Economic Psychology, 31*(1),55–63. https://doi.org/10.1016/j. joep.2009.10.003.

OECD (2019). *Policy Handbook on Financial Education for Young People in the Commonwealth of Independent States (CIS), OECD, Paris,* https://www.oecd.org/financial/education/Youth-Policy-Handbook-on- Financial-Education-CIS-EN.pdf.

OECD (2020a). "Youth and COVID-19: Response, Recovery and Resilience", Tackling Coronavirus (COVID-19), OECD, Paris, http://www.oecd.org/coronavirus/en/.

OECD/International Network on Financial Education (2020). International Survey of Adult Financial Literacy

Oppong-Boakye, P. K., & Kansanba, R. (2013). An assessment of financial literacy levels among undergraduate business students in Ghana. *Research Journal of Finance and Accounting, 4*(8), 36-49.

Oseifuah, E., Gyekye, A., & Formadi, P. (2018). Financial literacy among undergraduate students: Empirical evidence from Ghana. *Academy of Accounting and Financial Studies Journal, 22*(6), 1–17.

Pajares. F. (2002). *Overview of social cognitive theory and of self-efficacy*. http://www.uky.edu/~eushe2/Pajares/eff.html.

Pinto, M. B., Parente, D. H., & Mansfield, P. M. (2005). Information learned from socialisation agents: Its relationship to credit card use. *Family and Consumer Sciences Research Journal, 33*, 357–367. https://doi.org/10.1177/1077727X04274113.

Rosa, C. M., Marks, L. D., LeBaron, A. B., & Hill, E. J. (2018). Multigenerational modeling of money management. *Journal of Financial Therapy, 9*(2), 54–74. https://doi. org/10.4148/1944-9771.1164.

Saboe-Wounded Head, L. (2014). Influences on financial knowledge and behavior. *Journal of Consumer Education, 30*, 58-73.
Sabri, M. F., & Falahati, L. F. (2013). Predictors of financial well-being among Malaysian employees: Examining the mediate effect of financial stress. *Journal of Emerging Economies and Islamic Research, 1*(3), 61–76. https://doi.org/10.24191/jeeir.v1i3.9130
Sabri, M. F., & MacDonald, M. (2010). Savings behavior and financial problems among college students: The role of financial literacy in Malaysia.*Cross-Cultural Communication*, *6*(3), 103-110
Sabri, M. F., MacDonald, M., Hira, T. K., & Masud, J. (2010). Childhood consumer experience and the financial literacy of college students in Malaysia. *Family & Consumer Sciences Research Journal*, *38*(4), 455- 467
Sabri, M. F., Aw, E. C. X., Abdul Rahim, H., Burhan, N. A. S., Othman, M. A., & Simanjuntak, M. (2021). Financial literacy, behavior and vulnerability among Malaysia households: Does gender matter? *International Journal of Economics & Management*, 15(2), 241-256.
Sabri, M.F., Gudmunson, C.G., Griesdorn, T.S., & Dean, L.R. (2020). Influence of family financial socialisation on academic success in college. *Journal of Financial Counseling and Planning*, *31*(2), 267-283.
Sabri, M. F., & Zakaria, N. F. (2015). The Influence of Financial Literacy, Money Attitude, Financial strain and financial capability on young employees' financial well-being. *Pertanika Journal of Social Sciences & Humanities, 23*(4), 827–848. https://core.ac.uk/download/pdf/153832275.pdf
Serido, J., & Deenanath, V. (2016). Financial parenting: Promoting financial self-reliance of young consumers. In J. J. Xiao (Ed.), *Handbook of consumer finance research* (2nd ed., pp. 291–300). New York: Springer Science + Business Media. https://doi. org/10.1007/978-3-319-28887-1_24.
Serido, J., Curran, M. J., Wilmarth, M., Ahn, S. Y., Shim, S., & Bal- lard, J. (2015). The unique role of parents and romantic partners on college students' financial attitudes and behaviors. *Family Relations, 64*(5), 696–710. https://doi.org/10.1111/fare.12164.
Settersten, R.A. Jr. (2012). "The contemporary context of young adulthood in the USA: from demography to development, from private troubles to public issues", in Booth, A., Brown, S.L., Landale, N.S., Manning, W.D. and McHale, S.M. (Eds), Early Adulthood in a Family Context, Springer, New York, NY, pp. 3-26

Sharif, S. P., Naghavi, N., Nia, H. S., & Waheed, H. (2020). Financial literacy and quality of life of consumers faced with cancer: a moderated mediation approach. *International Journal of Bank Marketing*. (Iran)

Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialisation of First-year College Students: The Roles of Parents, Work, and Education. *Journal of Youth and Adolescence, 39*(12), 1457–1470. https://doi.org/10.1007/s10964-009-9432-x

Shim, S., Serido, J., & Barber, B. (2011). A consumer way of thinking: Linking consumer socialisation and consumption motivation perspectives to adolescent development. *Journal of Research on Adolescence, 21*(1), 290–299. https://doi:10.1111/j.1532-7795.2010.00730.x.

Shim, S., Serido, J., Tang, C., & Card, N. (2015). Socialisation processes and pathways to healthy financial development for emerging young adults. *Journal of Applied Developmental Psychology, 38,* 29–38. https://doi.org/10.1016/j.appdev.2015.01.002.

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology, 30*(6), 708–723. https://doi.org/10.1016/j.appdev.2009.02.003

Sirsch,U., , Zupan M., Poredo, M., Levec, K., & Friedlmeier, M., (2020). Does Parental Financial socialisation for Emerging Adults Matter? The Case of Austrian and Slovene First-Year University Students. *Society for the Study of Emerging Adulthood and Sage Publishing, Vol. 8*(6) 509-520

Sohn, S. H., Joo, S. H., Grable, J. E., Lee, S., & Kim, M. (2012). Adolescents' financial literacy: The role of financial socialisation agents, financial experiences, and money attitudes in shaping financial literacy among South Korean youth. *Journal of adolescence, 35*(4), 969-980.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance, 14*, 30–38. https://doi.org/10.1016/j.jbef.2017.04.002

Tang Ruxyn. (2017). Bank Negara reveals the 4 biggest mistakes Malaysians make when it comes to money. http://says.com/my/news/bank-negara-malaysia-reveals-worrying-findings-on-financial-literacy-among-malaysians

Tang, N., Baker, A. & Peter, P.C. (2015). “Investigating the disconnect between financial knowledge and behavior: the role of parental influence and psychological characteristics in responsible financial behaviors among young adults”, *Journal of Consumer Affairs, 49* (2),376-406.

Van Campenhout, G. (2015). “Revaluing the role of parents as financial socialisation agents in youth financial literacy programs”, *Journal of Consumer Affairs,49* (1),186-222.

Williams, S. T., Kim, Y., Loke, V., & Destin, M. (2010). Assets and child well-being in developed countries. *Children and Youth Services Review, 32*(11), 1488–1496. https://doi:10.1016/j.childyouth.2010.03.011.

Xiao, J. J., Chatterjee, S., & Kim, J. (2014). Factors associated with financial independence of young adults. *International Journal of Consumer Studies, 38*(4), 394–403. https://doi.org/10.1111/ijcs.12106.

Xiao, J. J., Ford, M. W., & Kim, J. (2011). Consumer financial behavior: An interdisciplinary review of selected theories and research. *Family & Consumer Sciences Research Journal, 39*(4), 399–414. https://doi.org/10.1111/j.1552-3934.2011.02078.x

Yusof, Y., Awang, Z., Jusoff, K., & Ibrahim, Y. (2017). The influence of green practices by non-green hotels on customer satisfaction and loyalty in hotel and tourism industry. *International Journal of Green Economics*, *11*(1), 1-14.

Zulfiqar, M., & Bilal, M. (2016). Financial well-being is the goal of financial literacy. *Research Journal of Finance and Accounting, 7*(11), 94–103.