The Effects of Social Influence and Financial Literacy on Savings Behavior: A Study on Students of Higher Learning Institutions in Kota Kinabalu, Sabah

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Abstract

Economists generally believe that higher savings will spur economic growth, thus strengthening the economy further. In Malaysia however, the sharp increase in the ratio of household debt to disposable income particularly over the past ten years has raised doubts on the ability of Malaysians to save and plan for their future. As a result, total household savings remained low and there is high risk that Malaysians would not have sufficient savings for their retirement. Even more worrying is that young adults reportedly are the main group who are trapped into this financial difficulty. The issue has raised concern on the needs to educate young Malaysian adults on the fundamental importance of savings in order to ensure financial sufficiency on their retirement. With regards to savings behavior, the needs for savings are different amongst individuals due to different mind-set, behavior, knowledge, and social environment. This study intends to explore the savings behavior amongst students of higher learning institutions in Kota Kinabalu, Sabah. Specifically, the study intends: (i) to investigate the determinants of savings behavior; and, (ii) to examine the mediating effect of attitude towards the relationship between financial literacy and savings behavior. Data was collected using structured questionnaire and analyzed using SMART-PLS, a second generation structural equation modelling software. The results indicate that family involvement plays a major role in nurturing students' savings behavior, followed by financial literacy and peer influence. In addition, students are said to have more favorable financial attitude when they are financially literate. Financial attitude however, does not mediate the relationship between financial literacy and savings behavior. This research is expected to contribute to the body of knowledge within the financial wellness and personal financial planning context.

Field of Research: financial literacy, savings behavior, social pressures, personal financial planning, partial least square

Introduction

Savings play an important role in maintaining economic growth. Although its role is important at different levels, namely households, companies and government, the three entities however, are closely interlinked. For instance, if households save too little, they might face financial difficulties in addition to having deficient emergency savings which, in turn, will increase anxiety and leads to serious health problems (Prawitz et. al, 2006). On the broader perspectives, there will be insufficient funds available for the government to invest in social and physical infrastructure. Funds which are placed in financial assets are channeled through financial intermediaries for investments, and subsequently, enriching the country through higher productivity and economic growth.

Domar (1946) and Tang (2010) argued that the speed of long run economic growth depends on the ability to save since a high savings rate will increase investments, affect capital accumulation and consequently stimulate economic growth.

High savings leads to accumulation of wealth that allows individuals to improve their living standard (Gokhale, 2000) and could hedge the country against economic downturns and financial crisis, insuring against time of economic shocks and an important way of improving well-being (Mahdzan and Tabiani, 2013). In some countries, savings are considered as backbone to certain sectors of its economy. In Azerbaijan for instance, household savings is regarded as the most important investment resource for the development of the non-oil sector, whilst its foreign capital contributing more on production of natural resources like oil and gas (Bairamli and Kostoglu, 2010). To summarize, individual savings will not merely benefit households, but benefitting the entire nation, as well. Therefore, it is important to have the knowledge on factors influencing individuals' saving behavior as it is essential in maintaining the economic growth since it will give benefits to the entities involved such as households, financial institutions, government and other related stakeholders.

Issues and Problems

The Malaysian household debts have been on the uptrend, increasing from 57% of Gross Domestic Product (GDP) in 2002 to 70% of the GDP in 2009. The household debts continued to rise sharply, hitting a new record of 87.9% of GDP in 2014, thus making Malaysia the most highly levered household in Asia (Bank Negara Malaysia, 2014). The primary reason for the increase is the spiraling property prices due to high demand on properties caused by the rapid urbanization that prompted young adults, in particular, to buy their own property. In line with this, statistics by Bank Negara Malaysia, the country's central bank, reported that housing loans dominates the household debts chart, followed by motor vehicle financing, personal loans, credit cards and other forms of smaller household liabilities. Another staggering fact was that Malaysia's household debt to disposable income ratio was recorded at 140% high, the highest as compared to other developed economies such as Japan and United States ("Household debt in Malaysia: Is it sustainable?"n.d). the statistics indicate that half of Malaysian households' disposable income went into servicing debts and this worrying fact raised another concern on their ability to save for future apart from the rising household debt/GDP. Although debt is perceived as essential to economic growth, Cecchetti *et. Al*. (2011) argued that it could also be a reason to economic deterioration. As the debt level rises, the borrowers' ability to pay are more sensitive to changes in income level as well as interest rate. Even more worrying is that Malaysian young adults are reportedly the main group trapped into this financial complexity.

The debt problem particularly among young Malaysian adults however, is arguably caused by the lack of financial knowledge, overspending on rather unnecessary items or due to impulse buying, and maintaining affluent lifestyles that prompted them to resort to lending to satisfy their needs. In addition, the advancement of the technology particularly on-line purchasing websites where customers are able to place their order on-line, enjoy rewards from their buying and have their goods delivered to their doorstep has offered new shopping experience which is both convenient and thrilling.

This further encourage buying activities and since most on-line purchases are undertaken using credit cards, the debt level due to credit cards transaction will increase, as well. The high spending habit among young adults also makes them an easy target particularly by banks to promote their credit-based banking facilities. As a result of this unhealthy spending habit, the number of people seeking for financial advice had tripled, whereby about 280,428 individuals reported to have enrolled in financial and debt management programme provided by The Malaysian Credit Counseling and Debt Management Agency (AKPK) since the agency commenced operation in 2006. From all the cases reported, 44 percent of the individuals involved in this financial counseling program belonged to the 30-40 age groups. Consequently, while savings level amongst young Malaysian adults is rather low and insufficient, their spending is excessive, unfortunately.

This issue has raised concern on the needs to educate the youth to prepare for their future especially educating them on the importance to start their savings earlier in order to ensure sufficient income at their retirement. Therefore, the issue is what actually motivates the young adults to save and have a better future retirement planning? This is a very important issue that needs to be addressed and any outcomes from this study will further assist on designing and implementing more practical financial programs that could benefits the Malaysians, particularly the young adults. In this regards, this study intends: (i) To investigate the determinants of savings behavior; and (ii) to examine the mediating effect of attitude towards the relationship between financial literacy and savings behavior. Considering that students represent a sizeable group of the young adults, this study will focus on students of higher learning institutions to examine their savings and spending behavior.

Apart from their population, the choice of college and university students is motivated by the fact that they will become the main thrust of human resources upon their graduation and any financial misconduct or problems during the early stage of their life could bring negative impact on their own individual life, family and career.

Literature Review

The underlying theory of the model developed in this study is based on the Theory of Planned Behavior initiated by Ajzen (1991). The theory argued that people perform several behaviors because they are intended to do so. The intention can be determined by three important factors which are attitude, subjective norms and perceived behavioral control. Attitude is defined asthe evaluation made by the individuals towards certain behavior whilst perceived behavior control refer to the individuals believe on their ability to perform such behaviors. For the purpose of this study, these two factors are used to evaluate how perceived financial literacy could predict college students' savings attitude and behavior. Subjective norms on the other hand, refer to how social pressures affect the students' intention to save. Hence, it is used to explain how the influence from parents and peers will give an impact towards their savings behavior.

Social Influence

Social influence involves the exercise of social power by a person or group to change the attitude or behaviour of other persons or groups in a particular direction (Franzoi, 2006). In this study, social influence refers to parent socialization and peer influence. Several literatures acknowledged the role of parents as the key to their children's financial socialization (see Cude et. al., 2006; Sam et. al, 2012), in which, parents are highly influential in developing their children's financial behaviour, thus they should become the role model to their children in managing their financial affairs. Webly and Nyhus (2006) further added that economic socialization (namely discussing financial matters with parents) will have an impact on children's future orientation.

In other words, children who have good relationship with their family are more likely to be future oriented and have a good financial behavior. Shim *et. al.* (2010) discovered that the role played by parents is significantly greater than the role played by working experience and high school financial education of young adults. A set of supportive social support from parents and family members are crucial in helping young adults and adolescence achieve their successful adult life. When parents displayed a positive financial behavior, they will become financial role models to their children and will trigger positive attitudes and behavior amongst the young adults.

Norvitilis and Maclean (2010) revealed that parenting variables are significantly related to college students' credit card problems and credit card debt in the United States. Of all the parenting variables, parenting facilitation appeared to have the most significant influence on credit card usage amongst college students. Parents who provide hands-on approach on teaching their children about money management, allowances and bank accounts will further motivate them to lower their credit card usage in college. Norvitilis and Maclean (2010) further added that childhood is the most important period that will influence individual's behavior and attitude during adulthood. Therefore, parents play an important role to influence children in managing their financial affairs. Besides parenting factors, peer influence could also predict individuals' financial behavior. In Malaysia, it was argued that the most obvious reason that spoiled the young adults in managing their financials was due to peer pressure (Household debts are self inflicted" 2013). Similar arguments were also confirmed by Duflo and Saez (2001) where they found that people with similar preferences tend to belong to the same group, thus creating a correlation between group and individual behavior. They concluded that peer effects play an important role in retirement savings decisions of university employees in the United States.

Financial Literacy

Vast literatures on financial literacy have been published in recent years. Some literatures argued that individuals are financially illiterate (Lusardi and Mitchell, 2005; Lusardi, Mitchell and Curto, 2010, Sang et. al., 2013) that consequently affect their financial, investment and retirement planning decision (Bernheim and Garrett 2003; Lusardi, 2008; Lusardi and Tufano, 2009; Van Rooij, Lusardi, and Alessie 2011).

Other studies reported the positive effect of financial literacy to financial outcomes such as investment practices and savings (Hilgert*et. al.*, 2003) and both liquid and illiquid assets (Letkiewicz and Fox, 2014). Having a poor financial knowledge will also increase individuals' financial burden of debts that positively associate with non-payment of consumer credit (Gathergood, 2012).

In Malaysia, personal financial planning is still considered at its infancy stage since most Malaysians do not take control of their own financial affairs (Citi, 2008 and Gan, 2008; as cited in Boon *et. al,*2011). Lack of information and financial knowledge are said to be the main contributors to this problem which reflect individuals' readiness to pursuing personal financial planning. Due to the poor financial knowledge and awareness, the aggregate savings of Malaysian households is relatively low whilst majority of them have not given any thought on retirement planning, unfortunately. In a report, HSBC revealed that almost 70 per cent of those polled worried about coping with finances upon retirement while 40 per cent expected a poorer standard of living when they retire.

Although there are literatures that suggest financial education could be one of the best antidote in enhancing financial literacy (Lusardi, 2008; Chen and Volpe, 2002; Ibrahim et. al., 2009), Sam *et. al.* (2012) in their study found that attending/participating in financial education program was not statistically significant with undergraduate students' financial management behavior. The reason was because the students' intention to learn and master the financial management skills and apply it in daily practices are vary, thus they might forget whatever they have learnt in class. Furthermore, the class itself was conducted in a large group which might further reduce the effectiveness in delivering the knowledge.

Van Rooij, Lusardi and Alessie (2007) revealed that individuals who are financially illiterate do not plan and are less likely to invest in high risk investments such as stocks. Financial literacy is also regarded as the most important component in achieving a successful adult life (Shim et. al., 2010) as it plays a crucial role in developing not only individuals' financial management attitude, but also attitude about general life. Young adults are advised to begin learning about finance and money management during adolescence in order to achieve a successful adulthood transition. In the context of university students, Beal and Delpachtra (2003) examined financial literacy level amongst undergraduate students in Australian regional university where they foundthat most students who participated in the survey scored fairly well for financial literacy and knowledge. In particular, business students scored better in comparison with other majors. In terms of gender differences, male college students in Malaysia have higher level of financial knowledge than their female counterparts (Falahati and Paim, 2011). Similar results were also confirmed by Chen and Volpe (2002) where they observed that female students consider English and humanity are most important courses than finance, and they generally have less enthusiasm, lower confidence and less willingness to learn about personal finance topics that male students do. It was also discovered that students with less financial knowledge had more negative opinions about finances and made more incorrect financial decisions. They pointed out that having a low level of financial knowledge limits student's ability to make informed decisions.

Effects of Knowledge on Attitude-Behavior

Financial knowledge alone is not enough to achieve a successful adult life. Instead, it must be supported with positive attitudes and confidence to help individual especially young adults making smart choices. Shim *et. al.* (2010) in their study on the role of parents, work and education on financial socialization among first year college students, argued that financial knowledge played an important role in predicting financial attitudes which, in turn, lead to healthy financial behaviors. This finding supports the hierarchical relationship of knowledge-attitude-behavior and suggests that financial knowledge does have a direct link with financial behavior.

Sang *et. al.* (2013) found that the level of financial literacy does not directly affect ones' decision related to financial issuesbut having the financial knowledge will trigger their attitudes towards a positive financial behavior. Sabri and McDonald (2013) suggested that financial literacy had a positive, significant effect on savings behavior. However, their study did not highlight whether financial literacy could trigger attitude towards individuals savings behavior or not.

Data and Methodology

The sample consists of students studying at public and private universities and colleges in Kota Kinabalu, Sabah, Malaysia. The data collection was carried out using convenient sampling technique. The researcher's first contacted the Deputy Dean / Head of Student Affairs of the targeted institutions to get approval to distribute the questionnaires. Once the approval is received, the lecturers were randomly contacted to obtain their approval to conduct the survey at their classroom.

To ensure the students' understanding in answering the questionnaire, a briefing on the purpose of the study, definition of each of the questions and confidentiality of their responses were given before the students answered the questionnaire. The amount of time taken to finish the survey for each class was approximately around 20 minutes. Of the 1500 questionnaires distributed and returned, 1124 were complete and usable, giving a response rate of 75%. The respondents' profile is summarized in Table 1.

The questionnaire consists of five main parts and was adapted from various literatures. All questions were designed using four-points likert scale ranging from (1) Strongly Disagree to (4) Strongly Agree, and modified to suit the students' saving behavior context. Part A comprises of questions related to basic demographic information such as gender, course of study, marital status, age and ethnicity. Part B consists of several items measuring both dependent and independent variables. The study used the Structural Equation Modelling (SEM)-Partial Least Squares (PLS) approach for analysis of the data and research model. Data were firstly coded and entered using the SPSS version-17 statistical software. It was then transferred to SMART-PLS software version 2.0 for testing the hypothesized relationship. A bootstrapping method (5,000 re-samples) was used to determine the significance levels for loadings, weights, and path coefficients.

Results

This section provides the discussion of the data analysis and results based on the data obtained from the questionnaires.

Table 1: Summary of respondents' profiles

Demographic variables	Categories	Frequency	Percentage (%)
Gender	Male	281	25
	Female	843	75
Marital Status	Married	23	2
	Single	1094	97.3
	Divorced	7	0.6
Age	Less than 30	1119	99.6
	31-39	4	0.4
	40-49	0	0.0
	50-59	1	0.1
Ethnicity	Malay	306	27.2
	Chinese	207	18.4
	Indian	27	2.4
	Kadazan/Dusun	207	18.4
	Bajau	118	10.5
	Others	259	23.0
Bumiputera* Status	Bumiputera	890	79.2
	Non-Bumiputera	234	20.8

**Note: Bumiputera – Native or "son of soil"*

More than half of respondents are female (75%), which reflects the gender gap issues in institutions of higher learning enrolment in Malaysia. The ratio of female to male university graduates in Malaysia is imbalance, at 60:40 ratios favoring female students with the number of female graduates rising each year more than male graduates. Using data from Ministry of Higher Education of Malaysia, study by Falahati and Paim (2011) found that the enrolment of female studentsto universities exceeded that of male students. Majority of the respondents are single (97%) and aged less than 30 years old (99%). In terms of ethnicity, Malay respondents were the highest at 27.2%, followed by other Bumiputera ethnics (23%), Kadazan /Dusun (18.4%) and Chinese (18.4%).
In terms of Bumiputera status, majority of the respondents are Bumiputera (Malay and other indigenous people) at 79.2% of the total respondents while the remaining of 20.8% are non-Bumiputera. The data analysis process starts with data validity and reliability tests. The convergence validity test was conducted based on Hair *et. al.* (2010) by calculating the factor loadings, composite reliability and average variance extracted (AVE). All items with factor loadings below 0.5 were removed. The result of the measurement model is shown in Table 2. All factor loadings are above 0.5.

Table 2: Results of the measurement model

Model construct	Measurement item	Loading	Composite reliability	AVE
Peer influence	PI1	0.745	0.772	0.630
	PI2		0.840	
Family influence	FS1	0.695	0.801	0.575
	FS2		0.738	
	FS5		0.836	
Financial literacy	LIT1	0.763	0.846	0.579
	LIT2		0.775	
	LIT3		0.750	
	LIT4		0.756	
Attitude	ATT5	0.836	0.816	0.689
	ATT3		0.825	
Saving behavior	SB1	0.794	0.834	0.557
	SB5		0.750	
	SB6		0.718	
	SB9		0.722	

Table 3 and Fig. 2 below depict the results of the structural model form the PLS output. Peer influence, family influence, financial literacy and financial attitudes explaining 40.9% of the variance in savings behavior.

Table 3: Summary of the structural model

Path	Description	Path coefficient	T-value	Results
FS -> SB	Family influence -> savings behavior	0.378	13.114**	Supported
FL -> ATT	Financial literacy -> financial attitudes	0.151	5.519**	Supported
FL -> SB	Financial literacy -> savings behavior	0.354	11.008**	Supported
PI -> SB	Peer influence -> savings behavior	0.071	2.573*	Supported
ATT -> SB	Financial attitudes -> savings behavior	-0.005	0.186	Not supported

**$p\leq 0.01$, *$p\leq 0.05$

Results Discussion

The results of multiple regression analysis clearly indicate that influence from family, peers and financial literacy plays an important role in shaping the students' savings behavior. Of the three variables, family influence was regarded as the most powerful and significant factor. The findings is consistent with past studies such as by Webly and Nyhus (2006) who concluded that strong family binding and influence from the parents are the keys to positive impact to children's future orientation. Parents should practice discussing financial matters with family members, encourage their children to save since they are young and display a positive financial behavior so that they could become the role model to their children in managing their financials. This will trigger positive financial attitudes and behavior amongst young adults. Past studies have concluded the parents are the main agent in shaping their children's savings attitude (Clarke et. al., 2005) as well as gathering financial information (Lyons et. al, 2006).

This study also found that peers and friends have an important role in determining the students' savings behavior. Parents should note that although positive behavior was shaped in parts by their actions, a strong peer socialization aspect existed in their children's savings behavior. The students' involvement in spending activities, leisure time, and discussing financial management issues with their friends could affect their savings behavior. Previous literatures have posited that there is a correlation between group and individual behavior when they observed that people with similar preference tend to stick in the same group (Duflo and Saez, 2001).

Consistent with financial experts' opinion, this study found that peer pressure is one of the primary reasons that affect the young Malaysian adults' financial management.

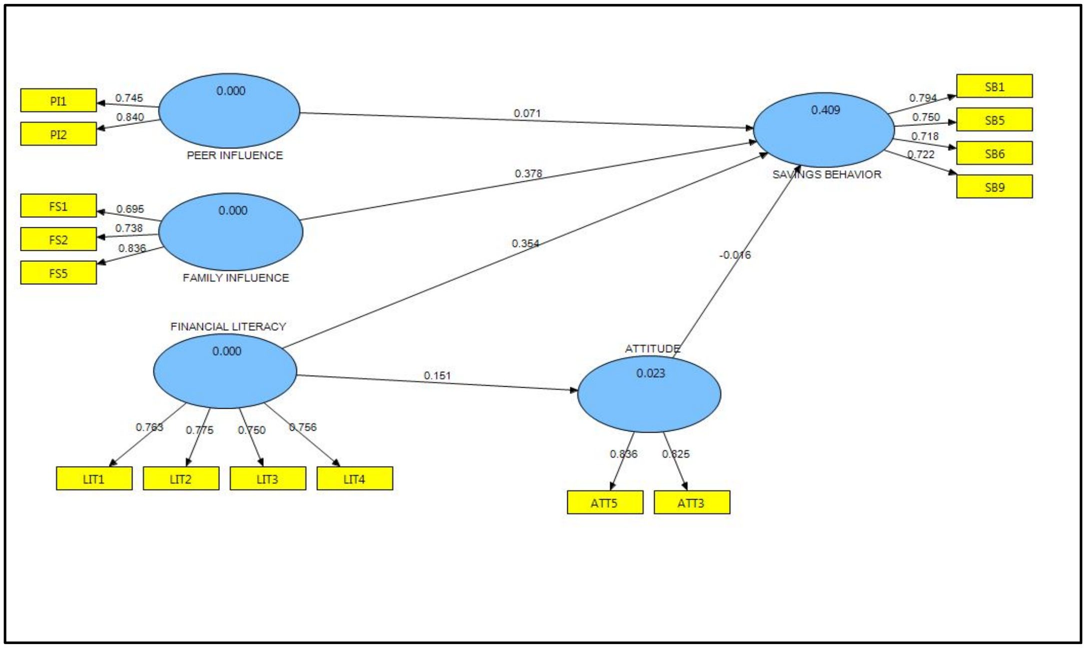

Figure 2: The structural model

As hypothesized, financial literacy was found to have a positive and significant relationship with savings behavior. It is the second powerful factor after family influence (β=0.354 t=11.008, p<0.01). The finding is consistent with past literatures Chen and Volpe (1998), Hilgert *et. al*. (2003), Lusardi (2008), Lusardi and Tufano (2009), Van Rooij *et. al*. (2011), Sabri and McDonald (2013) as well as Letkiewicz and Fox (2014). Due to its strong influence towards savings behavior, financial education should be given a focus in providing financial knowledge to the society and should be embedded as part of academic curriculum in the primary and secondary levels of education. This is because, if students are not financially literate, their ability to make informed financial decisions would be affected greatly. In a worse situation, this inability would deteriorate into financial problems when the students are unable to manage their income, savings and credit efficiently upon being employed after leaving their university. Hence, to overcome this problem, it is rather crucial to impart personal financial education in the national education system as has been suggested by Chen and Volpe (2002).

Table 4: Mediation test results

Relationship	Indirect Effect	Confidence Level	Decision
FL -> ATT -> SB	0.041*(-0.017) = -0.000697	LL =-0.000697-1.96*(0.001) = -0.0038 UL =-0.000697+1.96*(0.001) = 0.0024	No Mediation

The positive relationship between financial literacy and attitudes (β=0.151 t=5.519, p<0.01) signifies the role of financial literacy as an important predictor of the students' positive attitude towards financial practices. The result is in line with findings by Kallgren and Wood (1986) who argued that higher amount of knowledge stimulates good human intentions and serves as better predictors to behavior.

Interestingly, the results reveal that financial attitude is not significantly related to the students' savings behavior (β=-0.005 t=0.186). This could be due to the status of the respondents as students where, since they are not receiving regular salary as an employed individual, they would naturally be focused on their study rather than bothering them with financial matters excessively. In addition, since the students do not earn regular income, but instead, depend on monthly allowance from their parent or scholarship, their ability to save money would be rather limited.

The result of the mediation test (Table 4) further confirms that financial attitude does not mediate the relationship between financial literacy and savings behavior. The bootstrapping analysis showed that the indirect effect of -0.000697 was insignificant with a t-value of -0.4375. The indirect effect of -0.000697 with 95 percent Boot CL: [LL=-0.0038, UL=0.0024] straddle a 0 in between, indicating no mediation effect.

Conclusion

This study examined the effect of social influence and financial literacy on savings behavior particularly among young Malaysian adults. The respondents comprise of college and university students in Kota Kinabalu Sabah, Malaysia. The study attempts to identify the factors that affect savings behavior amidst various reports from private and government agencies of the large mismatch between household savings and debt in Malaysia as well as increasing debt problems particularly among young Malaysian adults. The study has made several important contributions. Academically, it has expanded the financial planning literatures especially on the study of relationships between social influence, financial literacy, and attitude and savings behaviour of the young adults, particularly students of higher learning institutions.

The study has found that both family and peer have a positive and significant influence in shaping the young adults' savings behavior. Equally important is financial literacy that would affect savings behavior and retirement planning. The findings suggest that financial education should be given even at primary and secondary levels so the students who later would become adults will have sufficient financial knowledge that enable them to manage their income and debt efficiently as well as planning for their retirement. It is therefore important for the authorities to ensure that any financial education program that aimed to enhance financial knowledge must not be limited to printing materials or other forms of general media, but a more structured approach to financial education should be considered to enhance the people understanding on personal financial management.

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