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## Financial Literacy Determinants in Peninsular Malaysia

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### Article Information

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### Abstract

Financial literacy is about empowering and enlightening consumers so that they are knowledgeable about finance in a way that is relevant to their lives. Koid Swee Lian, (2011) Bank Negara Malaysia Director for Consumer and Market Conduct denoted that challenges faced by Malaysians to protect their wealth are low level in financial literacy, complexity and accessing in financial products and services, level of transparency and costs of living. Therefore, this paper endeavors to analyze the determinants of financial literacy in Peninsular Malaysia. Survey forms were distributed to 2500 working adults in Peninsular Malaysia, age ranging from 18 to 45 years old in 2014. The method employed in this study is multiple regression analysis. This study shows that parents' characteristic, investment skill, saving management and debt management are the important factors in enhancing financial literacy.

### 1.0 Introduction

It comes no surprise that the global pressure urge people to conserve and hold up their wealth. Today's generation is urged to become financially literate than their parents if they are to manage their personal finances successfully through life. Hence, financial literacy influencing financial decisions that have a major impact on an individual's financial well-being. Therefore, financial literacy is significant at all levels. In general, financial literacy is defined as a set of skill that allow people to manage their money wisely and plan for a better future that directly affect their financial well-being (Basu, 2005).

Looking at Malaysian scenario, household debt and bankruptcy rates in Malaysia are raising red flags. Central Bank of Malaysia (BNM) reported that Malaysian household debt to GDP climbs to 89.1% in 2015. Besides, household spending also increased from RM120, 000 million in the year 2013 to RM144, 254 million in the year 2015. On top of that, Malaysian Institute of Economic Research, reported that the confidence index (household's current and expected financial position) in 2016 is the lowest rate at 63.80 compared to previous years. Meanwhile, statistics from the Malaysian Department of Insolvency (MDI) shows that an average of 1,812 people are declared bankrupt per month in 2013. The total number of bankrupts as of December 2013 was 253,635 and there were 25,552 cases involving those aged between 25 and 34. This scenario created a warning situation because the ages of those declared bankrupt now are younger. Credit Counselling and Debt Management Agency (AKPK) pointed out that the lack of knowledge in financial literacy was the major reason many individuals found themselves in indebtedness (Badrul, 2014). Furthermore, the *Federation of Malaysian Consumers Association* (FOMCA) study shows that in 2010, nearly 50% of 3,000 individuals who have visited AKPK for credit counseling each month are those who are aged between 30 to 40 years old (Marimuthu, 2013). AKPK highlighted that, individuals do not know precisely whether they could afford things like a new house, luxury car or the latest fancy electronic gadgets, but they still want to go for it (Edwin, 2012). In Malaysia, BNM has a mandate to support Malaysian financial literacy level by setting up AKPK in the year 2006 to assist individuals to manage their personal finance and to avoid financial distress. It is important to note that the Malaysian government has come up with various strategies to help Malaysians achieve their dream life, prepare

for their future and most importantly avoid financial nightmare. However, a continuation of the strategies taken by the government and the level of financial literacy among Malaysians are not parallel. Therefore, the objective of this paper is to identify the determinants of financial literacy among Malaysian in Peninsular Malaysia.

## **2.0 Literature Review**

### **2.1 Financial Literacy**

It has evoked great attention in the recent past with the fast changes in the financial landscape. Recent studies found that, the deficiencies of financial literacy are found to be a widespread phenomenon at a global level and is also distinctly proved in developing nations such as the United State (Lusardi & Mitchell, 2005), United Kingdom (Smith, 2005), as well in Japan and Australia (Smith, 2005). Studies conducted especially at developed economies prove that, financial literacy has become one of the major components of sound financial decision-making and provides significant implication to financial behavior (Emmanuel, 2010). For example, people with lack of financial literacy have high tendency to engage in debt problems (Lusardi & Tufano, 2009), tendency in stock market participation is relatively low (Van Rooij, Lusardi & Alessie, 2007), shows a less interest to participates and choose mutual funds although with lower fees (Hastings & Tejada-Ashton 2008,), less knowledgeable to accumulate wealth and manage wealth effectively (Stango & Zinman 2007; Hilgert, Hogarth & Beverly, 2003; Harnisch, 2010), and unwise in planning for retirement (Lusardi & Mitchell, 2009). Harnisch (2010) and Kidwell and Turrisi (2004), found that individuals who have greater financial knowledge keeps detailed about their financial records and have more access to credit opposed to their counterparts who does not keep any financial records and are financially illiterate. Cole *et al.*, (2009), noted higher financial literacy is more significantly related to higher usage of banking services and suggesting that financial literacy strongly influences banking behavior.

### **2.2 Saving Management**

A study conducted by Hussein and Al Anood (2009), revealed Singaporean has a healthy attitudes and financially literate towards managing their savings and investments. Most of the Singaporeans active in making savings, always records their spending and always done some of the basic financial planning. While Ammar Askari (2010), examined American have low levels of financial knowledge, as well as insufficient saving and high indebtedness. Moreover, Clancy, Grinstein-Weiss and Schreiner (2001) and Schreiner, Clancy and Sherraden (2002) suggested general financial literacy or financial education can increase the saving attitudes of individuals.

### **2.3 Expenses Management**

A study by Marzieh *et al.*, (2013), noted that financial illiteracy increased financial concern to fulfill the basic needs and prepare compatibility between earnings and financial expenditures. In additional, Peng *et al.*, (2007), states that, university students face challenges in managing their expenses as they pay bills, used credit cards and budgeting their monthly expenditures as well as managing the debt. Thus, there is the paramount importance of financial literacy among college students. On top of that, Dahlia *et al.*, (2009), found that nowadays most of the students are unable to manage their earning in an appropriate way, since if they have abundant of cash, they merely spend it for unnecessary purpose.

### **2.4 Debt Management**

Mandell (2009), the study finds that currently, the lower levels of financial literacy contribute to the problems such as poor mortgage options and unsustainable high level of debt. According to US Federal Reserve, the debt to personal disposable income (household leverage) ratio rose from 55% in year 1960 to 65% by the mid-1980 and then increase drastically to 133% in the year 2009. Presently, the household shows a drastic upward trend as the total household debt increased to 117% in year 1999 to its peak in early 2008 (Harnisch, 2010). The high levels of debt increase the bankruptcy rate and cause relatively weak preparation for retirement (Taylor, 2013). Research by Lusardi and Tufano (2009), also indicates, 'debt literacy' is also low among respondents. It is because, only one-third of respondents are knowledgeable about the time it takes to double the debt if a person borrowed at an interest rate of 20%. In addition, Stephen, Denis and Irene (2014), prove that less financial literate people will face more challenges relates to debt management, savings, credit and also less likely to plan for their future.

### **2.5 Investment Skill**

Lusardi and Mitchell (2007), found that those who are financially literate are much more like to plan for investment and retirement. While a similar study carried out by Van Rooij, Lusardi and Alessie (2007), prove that individuals who are financially sophisticated have higher tendencies to invest in stocks. Moreover, Sabri *et al.*, (2010) and Peng *et al.*, (2007), insists that college students who have a bank account at a younger age have relatively high investment skill. Calvet, Campbell and Sodini (2005), argue that households with high financial

literacy and greater financial sophistication are much more likely to participate in the risky asset market and invest more effectively.

## 2.6 Parents' Characteristics

Lusardi and Mitchell (2013); Mahdavi (2012) financial literacy has been proved to have a significant correlation with parents' characteristics. In other words, knowledge of financial literacy may get started from family; perhaps the children's might see their parents' habits of savings and investing or received financial education directly from their parents (Sabri *et al.*, 2010; Chiteji & Stafford 1999; Shim *et al.*, 2009). Furthermore, various studies have proven parents have a strong influence on their children as they learn consumer behavior from their parents and financial literacy starts from the house itself where children are taught on how to handle money, such as to save and spend wisely (Lachance & Legault, 2007; Logasvathi, 2013, 2014; Ambre, 2012 and Bowen 2002).

## 3.0 Methodology

The sample sizes involved in this study was 2500 labor force in Malaysia. The population of labors age between 18 years old to 45 years old in 2014 in Malaysia are 9,819,100 workers (Department of Statistics Malaysia, 2014). This study used normal distribution theory method to estimate the number of sample sizes required in this study. With the value of  $Z = 2.575$  at significant level  $p = 0.01$ , assuming a chance to be selected as respondents is 50% and the estimated error of 3%, which the amount of error this study can tolerate, and the sample sizes estimated are 1843. To reduce the error estimates, approximately 2500 respondents were selected. This study used a total number of 2500 respondents randomly selected by enumerators at shopping complex, which cover all states in Peninsular Malaysia. The main reason this study used simple random and probability sampling because to generalized and represented the finding to the population. The unit of analysis in this study is individuals and this study used cross sectional analysis for the time frame of 2014.

Data gathered through questionnaire is used to measure the dependent variable namely, financial literacy. This study adapted the work of Lusardi and Mitchell (2007) and Lusardi, Mitchell and Curto (2010) to develop questions that demonstrated individuals' understanding about fundamental knowledge of economic and financial conception. Meanwhile, advance level questions were adapted from Lusardi and Mitchell (2008) and Tan, Hoe and Hung (2011). The financial literacy questions scale in the survey form is an ordinal level index where each correct answer scored one point. The respondent may receive a maximum of one point for each correctly answers questions. Thus, with 12 questions, the index ranges from 0 to 12, with higher values representing greater financial literacy level.

Questions for independent variables, namely saving management, expenses management, debt management, investment skill and parents' characteristic were developed based on the former works done by Lusardi and Mitchell (2007); Lusardi, Mitchell and Curto (2010); Tan, Hoe and Hung, 2011; Dahlia, Rabitah and Zuraidah (2009), Chen and Volpe (1998) and Olga Kuzina (2010). The independent variable questions scale in the survey form is an interval-level index with five-point Likert scale. The questions about saving management, expenses management and parents' characteristic the responses range from 1 to 5 with lower values indicating strongly agree in respective variable. Where else, the questions for debt management and investment skill the responses range from 0 to 5. 0 indicated not applicable in debt management and investment skill questions. Respondents' responses range 1 to 5 with lower values representing most important. The saving management, expenses management, parents' characteristic, debt management and investment skill index are created by averaging the results respectively. The dependent variable used in this study is financial literacy. Meanwhile the independent variables are saving management, expense management, debt management, investment skill, and parents' characteristics as shown in below regression equation model in this study.

$$FL_{it} = B_0 + B_1 SM_{it} + B_2 EM_{it} + B_3 DM_{it} + B_4 IS_{it} + B_5 PC_{it} + \epsilon_{it} \dots \dots (i)$$

Where,

- FL = Financial literacy
- SM = Saving management
- EM = Expense management
- DM = Debt Management
- IS = Investment skill
- PC = Parents characteristics

In Table 1 the operational definition for each variable in this study is describes.

**Table 1: Operational Definition**

Variables	Operational Definition
Financial Literacy	Financial literacy is measured based on respondents’ knowledge on compound interest rate, risk diversification, time value of money, numeracy and financial and banking products.
Saving Management	Saving management, describe as additional cash left after income minus expenses.
Expenses Management	Expense management is an outflow of money to another party as a payment for an item, products or services. It is also known as the money we spent to fulfill our needs and wants.
Debt Management	Management of debt is an action that assists the borrower to pay back or manage their debt in better way.
Investment Skill	Investment skill is a purchase of financial and non-financial monetary assets with a hope, the property will give income in the future or its value will increase and can be sold for a higher price.
Parents Characteristics	Parents’ characteristics define as the role played by the parents or family to influence their children financial matters or financial behavior.

Additionally, this study employed various statistical techniques to analyze the data in order to answer research objective, such as descriptive statistics, correlation analysis and regression analysis.

**4.0 Finding and Discussion**

Table 2 shows descriptive statistics for dependent and independent variables in this study. Financial literacy as dependent variable shows a mean value of 4.94 with a standard deviation of 2.395. The mean value of 4.94 pointed out that the level of financial literacy among Malaysian is still at poor level. This is because zero (as minimum point) described that respondents could not correctly answered any financial literacy questions. While else, twelve (as maximum point) described that respondents were able to answer all financial literacy questions correctly. As for saving management, expenses management and parents’ characteristics the mean values show in table 2 are 2.90, 2.81 and 2.65 respectively. The results indicate that respondents in Malaysia agree neither or disagree about their saving management, expenses management and parents’ characteristics. On the other side, respondents indicate that they feel most important and important in their debt management and investment skill as show in the mean values at 1.27 and 2.20 respectively. The findings show that respondents in Malaysia feel that they are manageable with their debt and knowledgeable in investment.

In table 3, indicates the results of correlation analysis. The results highlight that financial literacy significantly correlated with investment skill and parents’ characteristics. While, savings management, expenses management and debt management are found to be insignificant. Based on the correlation results, investment skill is positively correlated with financial literacy at 0.051 and significant at the 1% level. Meanwhile, parents’ characteristics have a negative relationship with financial literacy at -0.111 and significant at the 1% level. This means, investment skill and parents’ characteristics have an effect on financial literacy. For example, financially literate people have high investment skill and will actively participate in asset markets and invest more efficiently compare to counterparts who are not financially literate (Lusardi & Mitchell, 2007). Moreover, the negative correlated between parents’ characteristics and financial literacy explains that, the children will have more financially literate if their parents are poor in money management. This scenario happens because, the poor family situation may motivate the children to know better on financial matters. This result contradicts with Van Rooij, Lusardi and Alessie, 2009; Peng *et al.*, 2007 and Sabri *et al.*, 2010, that argued financial literacy positively correlated with parents’ characteristics.

**Table 2: Descriptive Statistics**

Variable	Number of questions	Mean (Std. Deviation)	Scale	Finding
Financial Literacy	12	4.94 (2.395)	0 = cannot answer any question correctly 12 = answers all questions correctly	The mean value of 4.94 pointed out that the level of financial literacy among Malaysian is at below average.
Saving Management	4	2.90 (0.851)	1= strongly agree 5 = strongly disagree	The result shows that the respondents either agreeing or disagree with their saving management.

Expenses Management	4	2.81 (0.732)	1= strongly agree 5 = strongly disagree	This finding shows that Malaysian either agreeing or disagree with their expense management.
Debt Management	7	1.27 (0.894)	1= most important 5= least important	The mean value indicates that respondents feel debt management is most important.
Investment Skill	7	2.20 (0.624)	1= most important 5= least important	The mean value of 2.20 highlights that respondents feel investment skill is important.
Parents' Characteristics	4	2.65 (0.858)	1= strongly agree 5 = strongly disagree	The result shows that the respondents either agreeing or disagree in parents' characteristic.
N	2500			

**Table 3: Correlation Analysis**

	N = 2500	FL	SM	EM	DM	IS	PC
Financial Literacy (FL)	Pearson Correlation Sig. (2-tailed)	1					
Saving Management (SM)	Pearson Correlation Sig. (2-tailed)	.010	1				
Expenses Management (EM)	Pearson Correlation Sig. (2-tailed)	-.008	.376***	1			
Debt Management (DM)	Pearson Correlation Sig. (2-tailed)	-.003	.043**	.092***	1		
Investment Skill (IS)	Pearson Correlation Sig. (2-tailed)	<b>.051***</b>	.281***	.229***	.253***	1	
Parents' Characteristics (PC)	Pearson Correlation Sig. (2-tailed)	<b>-.111***</b>	.492***	.364***	.059***	.254***	1

Notes: \*\*\* correlation is significant at the 0.01 level (2 tailed), \*\* correlation is significant at the 0.05 level (2 tailed) and \* correlation is significant at the 0.10 level (2 tailed)

Based on table 4, the adjusted R-square shows that 12.2% significant independent variables explain the dependent variable of this study. Table 4 also pointed that significant independent variables are saving management, debt management, investment skill and parents' characteristics.

Table 4 shows that parents' characteristics are negatively correlated with financial literacy at the beta value of -0.128 (t-statistic = -5.802 and p<0.01). This indicates parents' characteristics negatively affected financial literacy. The justification for Malaysia context that the parents who are poor in money management, the higher the financial literacy level of their children. The financially illiterate family background may motivate these children to know better about financial matters. The results of this study shows contradicts with Peng *et al.*, 2007 and Ambre, 2012.

Meanwhile, saving management positively correlated with financial literacy at the beta value of 0.090 (t-statistics = 4.080 and p<0.01). This explains that saving management positively and significantly affected the financial literacy levels in Malaysia. According to Lusardi and Mitchell (2008), financially literate individual will tend to save more than the counterpart. Moreover, the work of Bernheim, Garrett and Maki (2001), shows that children who been exposed to financial education in high school save more later in life.

On top of that, investment skills also show a positive correlation with financial literacy. The beta value of investment skills is 0.073 (t-statistic = 3.512 and p<0.01). This proves that investment skills is significant and has a positive impact on financial literacy. This result explains that, the higher the financial literacy levels of the individual, the higher the involvement of individual investment activities. Van Rooji, Lusardi and Allesie (2007), found that individuals who are not financially knowledgeable are unable to make a sound investment decision on the stock market. Moreover, Hilgert, Hogarth and Beverly (2003), asserts financial illiteracy is the primary cause of low budgets, poor investment and living hand to mouth in old age.

Moreover, debt management correlated negatively with financial literacy. The beta value of debt management is -0.057 (t-statistic = -2.886 and  $p < 0.01$ ). This result expressed that debt management is negatively yet significantly affected financial literacy. A person with higher financial literacy will have the tendency to have more debt commitment. This is because, a financially literate person actively involved in wealth accumulation and this lead to more debt commitment since the buying of property involve long term mortgage loan. In Malaysia, buying more than one house has become a trend for investment purpose (real estate investment). Therefore, applying mortgage loan for more than one house is a normal environment in Malaysia. Hence, more consumers nowadays stuck in high mortgage loans in the name of investment. This study shows a contradict results with Sabri *et al.*, (2010). Finally, expenses management shows an insignificant result.

**Table 4: Coefficients Analysis<sup>a</sup>**

Variables	Beta value	t- statistics	Significant level
(Constant)		9.444	.000
<b>Saving Management</b>	<b>0.090</b>	<b>4.080***</b>	<b>.000</b>
Expenses Management	0.024	1.116	.264
<b>Debt Management</b>	<b>-0.057</b>	<b>-2.886***</b>	<b>.004</b>
<b>Investment Skill</b>	<b>0.073</b>	<b>3.512***</b>	<b>.000</b>
<b>Parents' Characteristics</b>	<b>-0.128</b>	<b>-5.802***</b>	<b>.000</b>
<b>Number of Significant Variables</b>	<b>4</b>		
<b>Adj. R Square</b>	<b>0.122</b>		

Notes: \*\*\* correlation is significant at the 0.01 level (2 tailed), \*\* correlation is significant at the 0.05 level (2 tailed) and \* correlation is significant at the 0.10 level (2 tailed)

a. Dependent Variable: Financial Literacy

## 5.0 CONCLUSION

Hilgert, Hogarth and Beverly, (2003) expressed that, the 21<sup>st</sup> century financial system has been growing with rapid, advance and also becoming much more complex all over the world. Thus, people's individual responsibilities towards their financial affairs also increasing to ensure their life is more secure in the future. The finding of this study report that, out of five variables, four variables show a significant correlation with financial literacy. Saving management and investment skills indicate a positive correlation with financial literacy. As clearly said, high level of financial literacy, lead the people to save more for their future and also make them active in investment activities. While a parents characteristics and debt management show a negative relationship with financial literacy. As discussed earlier, parents' attitudes towards money management strongly influence their children's financial behavior. Based on the finding, children will be more financially literate and aware if their parents are poor in money management. The poor family background may motivate this children's to gain better financial knowledge. Moreover, higher financial literacy also leads to the debt burden. This is because; financially literate people usually will be more foresight for their future and will be active in wealth accumulation. This lead to more debt commitment since property purchasing one of the trendy investment in Malaysia nowadays which involves long term debt commitment. Thus, we can conclude that, all the variables savings management, investment skill, parents' characteristics and debt management are proven as an important indicator and play essential role in improving the level of financial literacy among Malaysian. Hence, financial literacy is primarily about empowering and enlightening consumers so that they are knowledgeable about finance in a way that is relevant to their lives and enables them to use this knowledge to evaluate products and make informed financial decisions. Despite the paramount importance of financial literacy, this study recommends financial literacy and financial education should become proficient as early as possible. Financial education is recommended to be further explored and incorporated in workplaces for young parents, especially single-parent and women, schools and universities syllabus with involvement of industry players, policy makers and other stakeholders.

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