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# Impact of Financial Literacy Level on Financial Behavior among Higher Education Students: A Case Study in KDA University

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## Abstract

Nowadays, financial literacy is becoming a concern in ~~a~~ society particularly, among youngsters. The biggest issue is, the youngsters are lack of understanding on how to control their finances. This study aims to evaluate the financial literacy level among youngsters based on their knowledge, attitude and behavior. At the same time investigating whether financial literacy, gender and household income have a significant influence on the financial behavior of KDA undergraduate students. Primary data was collected through a questionnaire which consisted of few different sections that measure the financial knowledge, attitude and behavior among KDA students. A total sample size of 186 was collected for this study. Reliability test, regression analysis and Pearson's correlation coefficient were the methods used to analyze the data. The finding concluded that KDA students acquire a medium financial literacy level. Therefore, this study implies that individual, academic authorities, government and NGOs should educate and encourage students to practice good financial management and raise their financial literacy to avoid facing any financial issues in the future.

**Keywords:** Financial Literacy, young adult, financial knowledge, behavior, undergraduate

## INTRODUCTION

The latest survey by Creador in the year 2020 mentioned that approximately 70 percent of Malaysian are in need for personal finance literacy support, in particular the personal budgeting and savings. Financial literacy can be understood as the ability to understand and apply appropriate management skills in finances. This includes effective way to manage debt, budgeting and understanding interest (Thomas, 2020). The Organisation for Economic Co-operation and Development (OECD) in 2013 has proposed measurement for financial literacy which can be in a form of knowledge, attitude, behavior, skills, and awareness of an individual.

Financial management is very important in everyday life to ensure that we have enough money for sustainability in paying everyday expenses or buying needs. The level of literacy will give impact to financial behaviors. In this article, we refer financial behaviors as the saving and spending behavior portrayed by individual that may be affected by various demographic factors such as age, level of education, gender or income level of each family household. Based on report from Department of Statistics Malaysia (DOSM) in 2019, the monthly income range of group B40 (Bottom 40%) is less than RM 4,850 while M40 (Medium 40%) group between RM4,850 and RM10,959 and T20 (Top 20%) is the class of citizens who has more than RM 10,959.

In the era of pandemic, the knowledge of financial literacy becoming more significant as people begin to be pressured by their current economic standing. As global economy is in a stall phase and recession is most probable post pandemic, those without strong personal financial buffer are more likely being heavily affected by this uncertain time. Thus, this event has become the catalyst for a more comprehensive and aggressive effort to improve financial literacy among our citizen. Future generation (currently the young adults) should become the prime target for this initiative as they are in their productive time to acquire sufficient wealth for their future needs. Given sufficient knowledge and practical skills related to financial literacy enable them to learn from the mistakes of their predecessor and pave way to a more self-sustainable future citizen that is robust in any given conditions in the future.

Young adults or youngster's financial literacy is alarming low. Approximately 47 percent of young people in Malaysia are having heavy credit debt that leads to bankruptcy (NST, 2020). At current, poor financial literacy awareness is one of the major problems especially among university students in Malaysia. Most of the students do not save their current student loans, instead spending it on non-academic purposes. This behavior leads financial difficulties once the repayment loan is taking affect (Sabri & MacDonald, 2010). Female students tend to spend more on fashion, i.e., clothes, shoes, bag and make up. While male students prefer to spend more on gadgets and entertainment. This circumstance created unhealthy spending behavior, and with poor financial literacy is a recipe for disaster, leading to bad financial management and unsustainable living.

Furthermore, some of the students do not have sufficient knowledge on how much of saving is considered enough. They have limited exposure to the personal finances knowledge as this topic is sometime seen as a taboo conversation which is rarely seen in Malaysia's domestic setting. Although it is common knowledge that parents play a vital role in developing their kids' financial literacy, this may not be in practice, as most parents are also having poor financial literacy, thus there is gap in the transferring of good financial behavior. It is expected that students who have higher financial literacy level tend to have significant impact on saving and smart spending since they are more aware on their current financial condition, resulting to better financial plan, and making a better financial decision.

In this article, we will determine the level of financial literacy among students in KDA institution, as they are in the category of young adults. We will also investigate the relationship between gender and family household towards financial behavior level, and further determine the correlation between financial literacy based on knowledge and attitude with the financial behavior of KDA students.

## LITERATURE REVIEW

Financial literacy is the ability of a person to perceive basic financial theories and to implement knowledge in order to make financial decisions (Llewellyn, 2012). Although the concept of financial literacy in financial knowledge and financial education is still being explored, we can relate financial education to knowledge, meanwhile financial literacy has more general definition including knowledge, behavior and attitude of a person. Some studies mentioned that financial literacy and demographic variables are clearly correlated. Men in general equipped with better financial literacy level compared to women (Lusardi & Mitchell, 2011). Chen and Volpe (1998) classify financial literacy level into 3 categories based on the mean percentage of correct score – A score below 0.6 fall under category of low financial literacy level, 0.60 to 0.80 as medium and above 0.80 have a high level of financial literacy.

Meanwhile, financial behavior refers to how individuals use their money for payment of bills, budget planning and saving habits. In short, it is the saving and spending behavior of a person. In economic context, savings are the extra money over a given period, after spending from income and investment

(Kagan, 2019). On the other hand, spending behavior is a behavior that affects the way in which a person spends their money without losing control to meet their wants and needs (Levenson, 2014). Narrowing to students, their spending behavior is different compared to older generations. Students are more tempted into consumerism, especially in response to the current E-Commerce industry. There are several factors that may influence financial behavior of a person including demographic factors such as gender, age and income, to name a few.

In Malaysia, Delafrooz and Laily (2011) found that financial literacy can affect saving behavior. They administered questionnaires to 2,246 public and private workers and analyze the findings quantitatively. The result indicates that financial literacy greatly affects respondents saving behavior where people with weaker financial literacy level are not expected to save and may face financial difficulties later. Sabri and MacDonald (2010) also discussed that financial behaviors of college students had a positive impact from financial literacy. A total of 3,850 students from 11 Malaysia universities were involved in this survey with 350 students are randomly selected students from each university. The outcomes of this research showed that participants who have greater personal finance awareness seem to practice healthy saving and spending behaviors.

Another study by Mahdzan (2013) also supported that financial literacy is critical to determine individual's saving behavior. He found that individual with high financial literacy level are prone to save than those who have low financial literacy level. In addition, a sample of 384 students concluded that spending behavior has a positive correlation with financial literacy (Shaari, Hasan, Mohamed, & Sabri, 2013). Thus, positive financial literacy can be related to positive behavior in which saving, and spending are done in a rational manner. There are also studies that determine the relationship between gender and financial management. According to Thapa and Nepal (2015), demographic factors are determinants of financial knowledge too. Study towards 436 college students indicated that age, income and education have significantly influenced on financial knowledge, with exception on gender. A study by Shaari *et al.* (2013) on local universities towards Malaysian students also found that gender has negative correlation with financial behavior.

In contrast, the result of a study on differences in gender and financial behavior found that male and female have different financial behavior, and that men prefer to use debit card or involved in investment compared to women (Walczak & Pienkowska-Kamieniecka, 2018). However, women are more careful in their expenditure (Nandanan & Fernandez, 2017). According to Mottola (2013), the differences in financial behavior among university students are noticeable even though optimizing age, work experience and class rank. Studies in Malaysia also agreed that men have better financial behavior than women, but they suggested for further study to include other necessary factors that may affect financial behavior too (Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012). Robb and Sharpe (2009) highlighted that female students were more likely to be financially at risk. Female students often had less financial awareness, but otherwise were more likely to own a credit card and bear more debt. Whereas, males are more independent and comfortable in handling their money in terms of planning financial (Carpenter, Jason, & Moore, 2008). Women were naturally enculturated to achieve satisfaction from shopping. Therefore, compared to men, they are more likely to possess spending behavior, particularly compulsive buying (Roberts, 2000).

A study by Dorjana, Teuta, and Antoneta (2015) showed different family income level will also influence students' saving and spending behaviors. They found that students from lower family income level are more likely to have a positive financial attitude than others. From the study, majority of the students informed that their studies and living cost are fully sponsored by their family. This may result in inability for them to understand the value of working for money. Students are not expected to prioritize their saving and spending behaviors, monitoring expenses and cultivating a monthly budget. Thus, students with high parental income tend to spend money, do not bother on financial matters and unaware of precautionary savings.

In comparison, students with low parental income may face obstacles since early years and have to understand that money is important. Parents from lower- income families may cultivate their children about money management practices and encourage good subsistence practices in their children's life. Hence, they concluded that the family income has significant impacts on students' financial literacy level and will influence the saving and spending behaviors of the students (Dorjana, Teuta, & Antoneta, 2015).

## METHODOLOGY

In this study, the independent variables are categories into three groups: financial literacy, gender and family household income. The schematic diagram in Figure 1 shows the relationship between dependent and independent variables involve in this study. Primary data was collected by using self-administered survey method. This study conducted on specific population which is KDA University local undergraduate students. As of 2019/2020 academic session, KDA has a total of 28,866 students which consisted of 80% of undergraduate students and 20% of postgraduate students. KDA local undergraduate student was chosen as the respondents of this study because it is consisted of a mix of different financial literacy level people, gender and family background of household income.

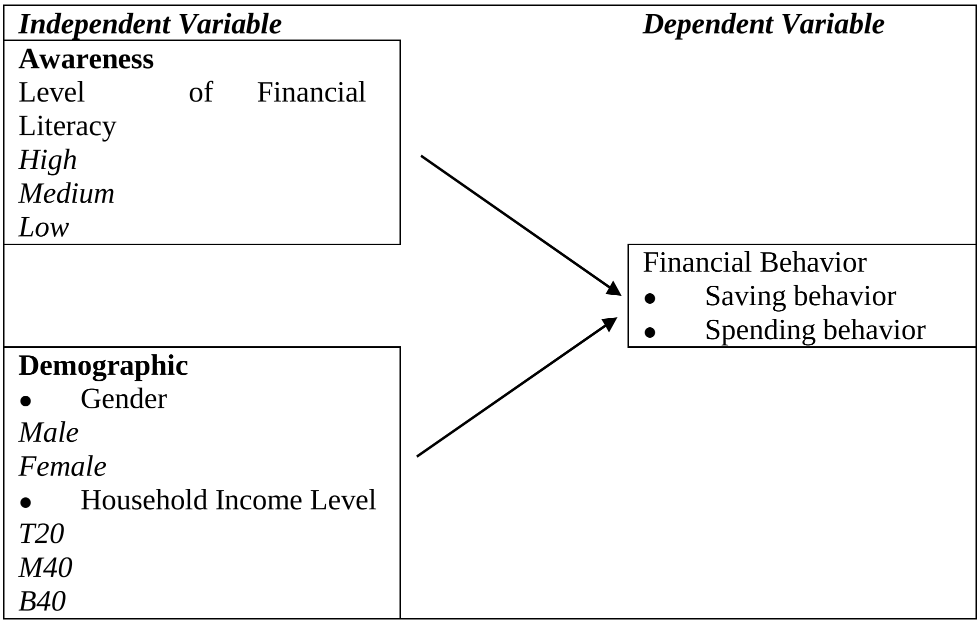


**Figure 1:** Conceptual Framework between Independent and Dependent Variable

Non-probability sampling technique was adopted for this study. Data was obtained from respondents who are conveniently available. Thus, this sampling design could help this research to be done quickly, conveniently and economically especially during movement control order period of COVID-19 crisis. Questionnaire was distributed through online platform in 5 weeks period. Questionnaire was posted on social medias i.e., WhatsApp and Facebook group of KDA students weekly. In this research, sampling size is not limited but the data of respondents was collected based on time limit. Therefore, the time range will determine the number of sampling size.

The study has employed a questionnaire from OECD (2013) financial literacy question to find the financial literacy level and difference between financial literacy level and financial behavior. The questions in the survey includes financial knowledge, behaviors and attitudes relating to various aspect of financial literacy. Pilot test was conducted among twenty respondents to check the suitability of research instruments in a preliminary small-scale study. Thus, the questionnaire is considered acceptable and reliable for further analysis. Following hypotheses have been formulated for the study.

| | | |
|---|---|---|
| *$H_1$* : | There is a significant correlation between financial knowledge, attitude and the financial behavior. | Pearson's Correlation |
| *$H_2$* : | There is a significant relationship between gender and financial behavior. | Multiple Regression |
| *$H_3$* : | There is a significant relationship between familyhousehold income and financial behavior. | Multiple Regression |

All data were coded and entered to SPSS. The data collected from the survey form was described in average, frequency distribution and percentage distribution (Zikmund, 2003). The demographic was summarized in frequency distribution and the financial literacy and financial behavior are summarized by the mean percentage. Analysis was conducted to find the financial literacy level of students and the significant difference of financial behaviors among gender and family household income. Students having a mean percentage of correct score below 0.60 fall under category of low financial literacy level, 0.60 to 0.80 as medium and above 0.80 have a high level of financial literacy (Chen & Volpe, 1998).

The multiple regression model takes on the following form:

$$Y= a + b1X1 + b2X2 + b3X3$$

Where,

| | | |
|---|---|---|
| *Y* | = | Financial behavior of KDA students |
| *a* | = | Constant; Y when b1, b2, b3 = 0 |
| *b1, b2, b3* | = | Slope of regression line |
| *X1* | = | Financial literacy |
| *X2* | = | Gender |
| *X3* | = | Family household income |

## ANALYSIS, FINDINGS AND DISCUSSION

Data analysis was conducted to determine the impact of financial literacy on financial behaviors among KDA students and also to determine if financial behaviors can be influenced by other factors such as gender and household income. Table 1 shows the demographic of the respondents. Data from a total 186 respondents were collected for this study.

**Table 1:** Demographic Characteristics of the Sample

| **Characteristics** | | ***n*** | **%** |
|---|---|---|---|
| Gender | Male | 80 | 43 |
| | Female | 106 | 57 |
| Age | 18-19 years old | 15 | 8.1 |
| | 20-21 years old | 68 | 36.6 |
| | 22-23 years old | 94 | 50.5 |
| | 24 years old & Above | 9 | 4.8 |
| Source of Income | Earning | 121 | 65.1 |
| | Parents | 119 | 64 |
| | Scholarship | 38 | 20.4 |
| | Loan (PTPTN or others) | 125 | 67.2 |
| Family Household Income Level | B40 | 100 | 53.8 |
| | M40 | 74 | 39.8 |
| | T20 | 12 | 6.5 |

| | | | |
|---|---|---|---|
| Monthly Saving | None | 10 | 5.4 |
| | Below RM100 | 51 | 27.4 |
| | RM100-RM300 | 98 | 52.7 |
| | Above RM300 | 27 | 14.5 |
| Monthly Spending | Below RM300 | 94 | 50.5 |
| | RM300-RM600 | 66 | 35.5 |
| | RM601-RM900 | 24 | 12.9 |
| | Above RM900 | 2 | 1.1 |

Finding shows that majority of the respondents are female (57%), while male (43%). Most respondents are between 22 to 23 years old (50.5%), followed by age group of 20 to 21 (36.6%). Meanwhile, 8.1% of the respondents fall under age group of 18 to 19 years old and the minority is from the age group of 24 and above (4.8%).

Table 1 indicated the highest percentage of respondents (67.2%) have their source of income from loan, followed by from their own earning (65.1%) and 64% of the respondents received their income from their parents. The respondent's family household income is divided into 3 groups, the B40, M40, and T20. Majority of them are from B40 group (53.8%) followed by M40 (39.8%) and the lowest respondents are from T20 group (6.5%).

Respondents were also asked on their monthly saving. From the result, majority of the respondents have saved RM100 to RM300 (52.7%) per month, followed by 27.4% of the respondents saved less than RM100 per month, 14.5% of the respondents saved more than RM300 while 5.4% do not saved any money per month. As for the monthly spending, majority of the respondents spend less than RM300 (50.5%) per month, followed by RM300 to RM600 (35.5%). Minority of 12.9% spend RM601 to RM900 per month and only 1.1% spend above RM900 per month.

**Table 2:** Financial Literacy Level Based on Knowledge and Attitude

| Items | Mean Percentages | Interpretation for level |
|---|---|---|
| Knowledge | 0.7054 | Medium |
| Attitude | 0.7215 | Medium |
| **Overall** | **0.7134** | **Medium** |

**Table 3:** Level of Financial Behaviour

| Items | Mean Percentages | Interpretation for level |
|---|---|---|
| Saving | 0.7495 | Medium |
| Spending | 0.7161 | Medium |
| **Overall** | **0.7328** | **Medium** |

**Table 4:** Level of Financial Behaviour According to Gender

| **Gender** | ***n*** | **Financial Behaviour** | |
|---|---|---|---|
| | | Mean Percentages | Interpretation |
| Male | 80 | 0.7475 | Medium |
| Female | 106 | 0.7217 | Medium |

**Table 5:** Level of Financial Behaviour According to Household Income

| **Household Income** | ***n*** | **Financial Behaviour** | |
|---|---|---|---|
| | | Mean Percentages | Interpretation |
| B40 | 100 | 0.7520 | Medium |
| M40 | 74 | 0.6946 | Medium |
| T20 | 12 | 0.8083 | High |

Based on Table 2 – Table 5, in average, the financial literacy level of KDA undergraduate student based on their financial knowledge and financial attitude is considered at medium level with an overall mean percentage of 0.7134. The mean percentage in financial knowledge is 0.7054 while financial attitude has the mean of 0.7215. Since the mean percentage is between 0.60 and 0.80, the financial literacy of students is considered in a medium level.

Financial behavior of students is accessed by their saving and spending habits. From the results, the overall mean percentage of students' financial behavior is 0.7328 which is considered a medium level. The results show that male (0.7475) has higher mean percentage compared to female (0.7217). But both genders are considered in the category of a medium financial behavior level. The household income group of B40 (0.7520) and M40 (0.6946) are in medium level and T20 (0.8083) is in high financial behavior level.

**Table 6:** *Correlations Between Financial Knowledge, Attitude and Behavior*

| Subscale Knowledge | *Knowledge* | *Attitude* | *Behavior* |
|---|---|---|---|
| Knowledge | - | 0.368** | 0.319** |
| Attitude | - | - | 0.360** |
| Behavior | - | - | - |

** Correlation is significant at the 0.01 level (2-tailed).

Table 6 shows the correlations between financial knowledge, attitude and behavior. It is to find out whether better knowledge or attitude could result in a better financial behavior. All the variables have positive correlations. Financial attitude and financial knowledge have the highest relationship ($r$=0.368). The result shows that financial attitude correlate with financial behavior ($r$=0.360). Since all the three variables have a $r$>0, there are a positive correlation among them. Financial knowledge, attitude and behavior of respondent is correlated with each other's at $p$<0.01 significance level.

**Table 7:** Model Summary

| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of Estimate** |
|---|---|---|---|---|
| 1 | 0.428[a] | 0.183 | 0.170 | 0.145 |

a. Predictors: (Constant), Financial Literacy, Gender, Income
b. Dependent Variable: Financial Behaviour

Table 7 shows the *R* square value of 0.183 which means that 18.3% of the variation in the dependent variable (Financial Behavior) can be described by the independent variables (Financial Literacy, Gender, Household Income).

**Table 8:** Analysis of Variance (ANOVA)

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 0.859 | 3 | 0.286 | 13.610 | 0.000[b] |
| | Residual | 3.831 | 182 | 0.021 | | |
| | Total | 4.690 | 185 | | | |

a. Predictors: (Constant), Financial Literacy, Gender, Income
b. Dependent Variable: Financial Behaviour

Based on Table 8, the *F*-value of 13.610 is significant at 0.05 level. This shows that the overall regression model with these independent variables can be well explained with the variation of the dependent variable.

**Table 9:** Summary of Regression Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | *t* | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| | (Constant) | 0.501 | 0.044 | | 11.289 | 0.000 |
| | Financial Literacy (FL) | 0.363 | 0.058 | 0.420 | 6.247 | 0.000 |
| | Gender (G) | -0.035 | 0.022 | -0.108 | -1.608 | 0.110 |
| | Household Income (I) | -0.015 | 0.017 | -0.057 | -0.843 | 0.400 |

a. Dependent Variable: Financial Behavior (FB)

The linear equation is:
FB = 0.501 + 0.363FL - 0.035G - 0.015I

Table 9 shows that financial literacy has a positive significant relationship with financial behavior whereas gender and income have a negative relationship with financial behavior. Based on the linear equation, financial literacy has an impact on financial behavior (β=0.420). This can be described by each unit increase in financial literacy will result an increase of 0.420 units in financial behavior, given that other variables are constant. However, gender and household income have a negative impact to financial behavior.

The first hypothesis is to determine whether there is a significant correlation between financial knowledge, attitude and financial behavior. Pearson correlation found that there is a positive correlation between the three variables. Similar from the literature reviewed, Sabri and MacDonald (2010) demonstrates that financial behaviors of college students had a positive impact from financial literacy. This finding supports the idea that financial literacy in knowledge and attitude can lead to financial behaviors. Results from regression analysis also shows that financial literacy has a positive impact towards financial behavior. The result shows that there is a positive correlation between financial knowledge, attitude and the financial behavior, and that financial literacy brings an impact to financial behavior of a student.

The second hypothesis is to determine the relationship between gender and financial behavior. Although the financial behavior of male student is better than female student, there's no proven evidence that their behavior has a significant difference. The finding from multiple regression shows that gender and financial behavior has a negative relationship.

The third hypothesis also prove that there is a negative relationship between family household income and financial behavior. The finding shows that financial behavior does not affected by the family household income of a student. This might be because most of the students do not totally depended on their family income for their saving and spending. Instead, they have their own earning probably from part-time job which affect their financial behaviors. This result also contrasts with the study by Dorjana, Teuta, and Antoneta (2015) which stated that family income has significant impacts on students' financial literacy level and will influence the saving and spending behaviors of the students.

In addition, financial literacy level of KDA students based on their knowledge and attitude is considered at a medium level. The percentages of correct answers are based on the following: knowledge (0.7054), attitude (0.7215), saving (0.7495) and spending (0.7161). Considering those questions asked from questionnaire is basic, these results suggest that KDA students' financial literacy level is inadequate.

The key findings of this research study show that there are no significant differences found in financial behaviors of KDA students by gender and family household income. However, there's a correlation between financial knowledge, attitude and behaviors of the students. Based on the study, financial literacy has a positive impact towards financial behavior of the students. Financial literacy of KDA students is in an average level. However, in deep investigation on these variables needed for further clarification.

## CONCLUSION

In this study, data from 186 students were collected and described by frequency, percentage, mean and standard deviation. Three hypotheses were tested using Pearson Correlation Coefficient and Multiple Regression Analysis. The study found that there are students who are still lacking in term of financial management and financial knowledge. According to Robert Kiyosaki, a writer of "Rich Dad, Poor Dad", having higher education does not mean having good financial literacy as certain skills and knowledge are not taught in school. Most people have never been taught what they need to know in order to control their financial. It is concluded that KDA students have a medium level of financial literacy based on knowledge and attitude. The financial behaviors of the students do not affect by their gender and family household income. It is also proven that there's a positive correlation between financial knowledge, attitude and behaviors.

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