

Financial Literacy among Undergraduate Students: Empirical Evidence from Malaysia

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Abstract: The ability to manage personal finances has become increasingly important in today's world. Unfortunately, studies have shown that financial literacy among young adults is low; they have inadequate knowledge of personal finances. As a result of that, they fail to make correct decisions. This study has three objectives. First, it will provide evidence on the level of personal finance literacy among university students. Second, it examines why some university students are relatively more knowledgeable than others. The third purpose is to examine how a student's knowledge influences his/her opinions and decisions on personal financial issues. This study will use a wide-ranging questionnaire designed to cover major aspects of personal finance. It will include financial literacy on general knowledge, savings and borrowing, insurance, and investments. The survey participants will be asked to answer questions of their knowledge in personal finance, their opinions and decisions with regards to personal finance and questions on demographic data. The quality and consistency of the survey will be examined using Cronbach's alpha. The responses from each participant will be used to calculate the average percentage of correct scores for each question, section, and the entire survey. Consistent with the existing literature, the average percentage of correct scores will be grouped into (1) more than 80%, (2) 60% to 79%, and (3) below 60%. The first category represents a relatively high level of knowledge. The second category represents a medium level of knowledge. The third category represents a relatively low level of knowledge. In addition to that, by using ANOVA, this study will also provide evidence on the difference in the level of financial literacy among subgroups of student.

Key words: *Financial Literacy, Financial Behavior, Undergraduate Students*

INTRODUCTION

The main objective of this research is to investigate the level of financial literacy and its determinants among undergraduate students in Malaysia. Financial literacy is the ability to understand on how money works. This can be divided into three categories which are: how to make money, how to manage the money and how to invest the money. The first category explains the cash flow four quadrants which are money from the employer, money from the business, money by self-employed or money by investment. The second categories on

how to manage the money, people manage money efficiently for future like having emergency fund for a rainy day, life insurance for any contingency or manage money against tax. The last category explains the money is invested either through business or people. Overall, the financial literacy is a recognition of awareness skill, knowledge, behavior and attitude which are necessary to achieve better financial decisions and individual well-being [1].

Furthermore, being less financial literacy in understanding financial concept tends to make less effective in making financial management decisions. [2] has found that, as 83.7% of the

respondents increase their expenses than existing income and the results show a worrying trend among Malaysians and only 16.3% know the expenses should be lower than income. This clearly showed that, Malaysian have low literacy and basic skill in managed the life expenses. Other than that, these skills must be comprehended over a life span. According to [3] reported that nearly 70% of Malaysians are young generation. They were experiencing financial stress early in life. The statistics showed only 28% of them have confidence and ability to handle financial matters and 58% of them have average financial knowledge [4]. Meanwhile, [5] in their study stated that the college students spent more than their received, only 13% of them use the money for debts repayment and around 45% disposable income was fully spent before end of the semester.

With the growing complexity and various of the financial products that are exposed to higher risk, thus, it is significantly important to give awareness about financial literacy to everyone especially to the college students. Hence, [6] also required the individuals to have knowledge and skills of personal finance literacy.

Due to its importance, Malaysian government has launched the National Strategy for Financial Literacy 2019-2023. The purpose of this plan is to outline five actionable plans for Malaysian to make sound and prudent with regard to financial decisions and right attitude in management of financial [7]. There is a need to understand the level of financial literacy and factors affecting different level of financial literacy in order for the government and related agency to better implement the plan.

PROBLEM STATEMENT

Financial literacy is the capacity to read, analyze, manage, and communicate about the personal financial conditions that affect material wellbeing which includes the ability to differentiate financial choices, discuss money and financial issues without difficulties, plan better future and respond competently to life events that affect every day financial decisions, including general economy events [8]. According to [9] the increasing financial literacy and capability promotes better financial decision-making, thus, enabling better planning and management of life events such as education, housing purchase, or retirement.

The increasing of costs and good services has pushed people to be able to make mindful

decisions. The implications to lower financial literacy may put the individuals in risky situation in future. However, studies have shown that financial literacy among young adults especially university students is low since they have inadequate knowledge of personal finances [6]. In recent times, the advance of technology nowadays can be one of the factors to young people include university student to spend more than saving. According to [10], the lifestyle of young people is more likely influenced by advertising and the media and it is more likely tend to increase reliance on debt.

Even though, they may be one of digital savvy generation, the truth is they are not financially savvy when it is related to money matter. Hence, it is of great importance to university students to have great sense of responsibility of their levels personal finance because, after they have graduated, they will bear more commitment for instance paying the bills, insurance, credit cards, working, budgeting, saving and managing debt.

Based on the past research, the lowering of financial literacy specifically can affect several issues, the financial illiteracy is considered as a root cause for several issues such as declining saving rates [11], increasing consumer debt [12], and poor managing in retirement planning [13]. In addition, the college students' performance academic, physical and mental health, employment [14] having financial distress [15] and limit students' ability to make decisions better [16] also affected. Obviously, it is major important financial literacy among university students.

Thus, this research aims to examine the level of financial literacy and understand the factors that contribute to or detract from the acquisition of financial literacy among youth which can help in making policy intervention targeted at youth to enhance their financial well-being

OBJECTIVE OF RESEARCH

- To determine the level of financial literacy among undergraduate students
- To provide evidence on the different level of financial literacy among subgroups of students
- To investigate the factors affecting financial literacy

RESEARCH QUESTIONS

- What is the level of financial literacy among undergraduate students?
- Is there any evidence on the different level of financial literacy among subgroups of students?
- Are there any factors affecting financial literacy?

SCOPE OF RESEARCH

This study will cover sets of instruments that consist of 5 sections which are the first section covers topic of demographic information, section two covers topic the financial attitudes, section three covers the influence meanwhile section four covers topic financial behavior and last section is about financial literacy. The subjects are students of Universiti Teknologi MARA Perlis branch and result of questionnaires will be elaborated in Chapter 3 (Data Methodology) and Chapter 4 (Findings).

LITERATURE REVIEW

In this chapter, the researcher are going to present the most relevant aspects of the literature with respect to the research topic. This chapter examines some related literature on previous works done on the topic from a global perspective. The purpose of this literature review to provide information on financial literacy, the definition, and the dimensions of it.

There is no such definition of financial literacy which satisfying the of readers [6]. Despite of the different definitions by different researchers, they do have the same concept of financial literacy. Initially, [17] defined financial literacy as a measuring of an individual's ability to understand and apply personal financial skill and information in their life [18] illustrated financial literacy as knowledge and skill's ability to manage financial resources effectively for a lifetime. [9] Stated the basic skills and knowledge of financial literacy are needed by individuals to survive in the modern society even though the cost of goods keeps increasing. In addition, [19] defined financial literacy as people's capability to make informed decisions about financial planning, wealth accumulation, debt, and pensions also ability to process economic information. Similar [20] stated that financial literacy is part of human capital in order to increase an individual's financial wellbeing used in financial activities. Moreover, [21] stated

that the definition of financial literacy includes capability to make decisions on expenses, ability to protect personal income, understanding consequences of personal decision on current and future income and also orientation on the job market. Thus, the definition of financial literacy in this study is defined as the understanding and knowledge of basic economic and financial concepts, as well as the ability to use that knowledge to manage financial resources.

There are many studies carried out among the youths including school and college students on financial literacy and demographic characteristics. Most common demographic characteristics are age, gender, marital status, occupation, education level, annual income and others. Meantime, in the study by [17], they concluded that level of financial literacy students significantly were affected by demographic variable such as social background, financial knowledge, financial attitude, and family agent. [15] surveyed 323 college students of Iowa State University in USA by using questionnaire that included topic of knowledge of credit card, record keeping, personal loans, insurance and overall financial management. The findings indicated that female and unmarried students were less knowledgeable in most areas and the colleagues have a low level of overall money management. With the average level score of 44%, the findings by [16], indicated the students who majoring in business from 454 undergraduate students tend to have more knowledge on investment topic compared to students who were not majoring in Business by using an instrument of 23 items that primarily focused on investment knowledge. [22] Investigated the financial behavior among 1500 university students. The results indicated that 90% of students were interested to learn about specific topics in financial education. The female students were prone to be shopaholic especially on sale season meanwhile the female students tended to hide their spending habits from the families. [23] Surveyed the financial literacy of adults in the U.S using 28 true/false type questions on topics related to personal finance. The result showed that relationship between those who were individual single, uneducated, low income, minority, and middle aged were less financially knowledgeable. [24] Surveyed the financial literacy among 384 university students from local university by using questionnaires survey. The result of their study indicated positive relationship between spending habit and year of

study with financial literacy meanwhile there is a negative relationship in age and gender with the financial literacy. It is concluded that financial literacy can prevent the university student from engaging in extensive debt especially the credit card debt.

Besides demographic characteristics, environmental influences such as parents, families, peers, life experience and social media are also categorized as independent variables to financial literacy among university students. For instance, in a study by [25], it is reported that family communication about financial management is diminished over age and that peer communication about financial matters increases with age. This report highlights the importance of these two agents over a particular period of an individual. The study by [14] investigated the factors that lead students at greater financial risk and also investigated how the college students have financial knowledge and behaviors by using quantitative and qualitative data US College from a multi-state research project. As the findings showed that the parents play important role in their children's financial management practices, the authors also concluded that the results provide important judgement into financial education opportunities for students, parents, college administrators, and financial professionals and educators. Furthermore, the study by [26] examined the financial literacy in the context of multiple socialization factors by conducted online survey at a large state university in the south-western United States. The results suggested the way on how young adults acquire knowledge about financial matters and attitudes form and behavioral intentions which are influenced by self –actualizing personal values, financial education at home, and formal financial education at school that plays the important roles. Similarity to study by [27] which examined how perceived financial socialization, was associated with young adult's life outcomes and well-being. Results from hierarchical regression analyses showed that young adult's own financial behaviors were the most patterned, followed by financial socialization from the romantic partner, and then from financial socialization from parents.

Moreover, [28] explored the relationship between financial literacy and family communication patterns through an online survey for a sample of 96 United States college students between the ages of 18 and 26. The results suggested

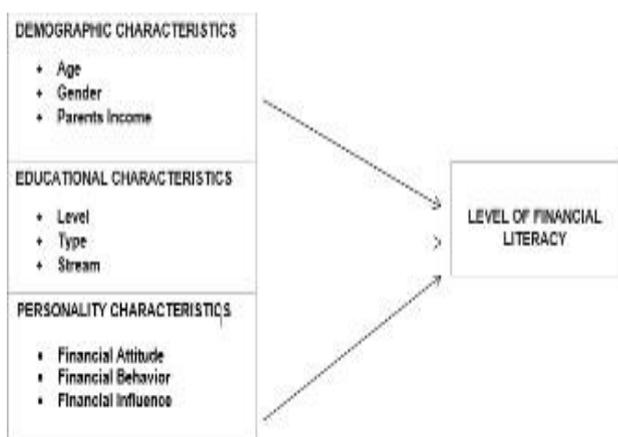
that conversation within the family regarding financial matters provides important knowledge about financial matters and it may be the factor to be considered in designing any financial literacy curriculum. To further support such opinions, an attitude towards financial products has also been shown to influence student's financial literacy levels. For instance, [29] reported that financial attitudes are established through economic and non-economic beliefs held by a decision maker on the outcome of financial decision. Besides, the study [30] also suggested that financial education should be implement for secondary and primary levels so that the students later will have sufficient knowledge about management of financial. Therefore, the findings also showed that both family and peer influence positively significant influence the saving behavior.

Several studies suggested that the stream of the education is one of the indicators in determining financial literacy of the students [16] [31] [32] [33] . However, a study by [33] have surveyed the level of awareness of financial literacy among management students at the University of Mauritius. The findings showed that most students had a medium level of knowledge and skills in financial literacy savings and borrowings. They did not find any the significant difference in the financial literacy level between male and female respondents on the other hand, the ability of males and females to read, analyze, manage and communicate was found significantly different although the students are aware of the importance of financial literacy in their subject of study. Other than that, their study also stated that age, gender, language, race and income level did not have an impact on the level of financial literacy. Another study by [34], showed similar result which evaluated the financial literacy amongst the business and non-business students of two local universities in South Africa and found that financial literacy does gives impacts on an individual's financial decisions especially in the area of savings, borrowing, retirement planning, or portfolio choice. It was also found that non-business students have a low level of financial literacy in comparison to business students.

Financial attitude, influence and behavior are related to financial knowledge [35]. According to [36], the study provided a analysis of the impact of financial education programs on consumers financial behaviors but the empirical relationship

between financial knowledge and behavior was not found. It may be that savings behaviors are associated with factors other than financial knowledge and attitudes. However, [11] provided some supports for a link between financial knowledge and better financial practices. They used monthly survey data from the University of Michigan's Surveys of Consumers and constructed indexes that represent the level of households' participations in each of four financial management practices: cash flow management, credit management, saving, and investment.

A review of the literature on financial literacy shows that most of the studies focused on demographic variables of the students. Very few of these studies covered selected areas in personal finances, such as financial behavior, attitude and influence. This study tries to fill this gap using local university Malaysian data. Broadly, all independent variables are respondents, influence, financial attitude and financial behavior. Schematic diagram which showing a relationship between dependent and independent variables for the study has been presented in Figure 1.



Source: [6]

DATA METHODOLOGY

Population and Sample

This study is wholly based on survey. It describes the characteristics of sampled respondents with their responses on the various aspects of financial literacy. Random sampling method was used to collect data from Faculty of Business Management, University Teknologi Mara Perlis branch. A well-developed questionnaire was constructed covering five section namely demographic characteristics, financial behavior, financial influence, financial attitude and financial knowledge with reference to

[35] and [6] using Google Form online. Along with demographic information, survey participants were asked 59 total questions including multiple-choice questions on regarding their literacy of finance, and multiple answer questions and opinion of different aspects of financial literacy. The survey was administered in September 2019. Out of 223 Finance students who have responded, only 150 randomly responded well the questionnaire survey. Thus the response rate was 67.27%. The pilot test was conducted among ten prospective respondents and the opinions experts were taken to refine and finalize the questionnaire. The quality and consistency of the survey was assessed using Cronbach's alpha and its value was 0.86, which was more than 0.6 thus the data seem to be reliable

Hypotheses:

The following hypotheses are:

- I. There is no significant difference in the level of financial literacy among subgroups of students.
- II. There is no significant difference on the factors affecting financial literacy

In analysing data, first of all responses were coded and entered into Stata 11. Descriptive statistics were used to describe characteristics as frequency, mean and standard deviation. Then, scores on the basis of correct answers regarding financial literacy were converted into percentage after extract the raw data in Excel. According to Chen and Volpe (1998), the level of financial literacy is divided into three categories which are, respondents who have the basis correct answer percentage score below 60 is considered as low, 60 to 80 as moderate and above 80 is considered as high level of knowledge. The level of literacy in this study is considered as: high level of financial literacy by more than 80, 60 to 79 moderate level of financial literacy and below 60 is considered as low financial literacy. T-test and ANOVA were used tested to find significant difference among the gender, age, semester, income and financial specification assistance.

Furthermore, the respondents were classified into two subgroups on the basis of median percentage of correct answers of the sample. Students with higher scores than the sample median were classified as those with relatively more literacy meanwhile students with scores equal to or below the median are classified as students with relatively less literacy. This dichotomous variable was then

used in the logistic regression as the dependent variable, which was explained simultaneously by the independent variables (Demographic, Behavior, Influence, and Attitude).

The Model:

$$Y_i = \beta_0 + \beta_1(\text{Demographic})_i + \beta_2(\text{Behavior})_i + \beta_3(\text{Influence})_i + \beta_4(\text{Attitudes})_i + \epsilon_i$$

Where,

Y_i = Dependent Variable, Financial Literacy

CONCLUSION

Financial literacy is about how people manage the money. Financial literacy rate among Malaysian is considered low compared to other developing countries which is 59%, meanwhile the rate is only 36% among Malaysians. The regulators should implement more on initiative to enhance the literacy about financial especially to young generation. Being low in financial literacy could affect the performances of individuals and also well-being. Thus, with the financial literacy will be help us to manage more decisions making of financial planning.

REFERENCES

- [1] S. J. Huston, "Measuring Financial Literacy," *J. Consum. Aff.*, vol. 44, no. 2, pp. 296–316, 2010, doi: 10.1111/j.1745-6606.2010.01170.x.
- [2] M. F. P. Council, "Financial Capability & Utilization of Financial Advisory Services in Malaysia 2018," *Res. Rep. 2018*, vol. 53, no. 9, pp. 1–50, 2018, doi: 10.1017/CBO9781107415324.004.
- [3] DOSM, "Department of Statistics Malaysia Press Release," *Dep. Stat. Malaysia*, vol. 2018, no. September, pp. 5–9, 2018, doi: 10.1017/CBO9781107415324.004.
- [4] Asian Institute of Finance, "Bridging the Knowledge Gap of Malaysia's Millennials," pp. 1–44, 2015.
- [5] M. F. Sabri and M. MacDonald, "Savings Behavior and Financial Problems among College Students: The Role of Financial Literacy in Malaysia | Sabri | Cross-cultural Communication," *Crosscultural Commun.*, vol. 6, no. 3, pp. P103-110, 2010, doi: 10.3968/j.ccc.1923670020100603.009.
- [6] S. R. N. Bharat Singh Thapa, "Financial Literacy in Nepal : A Survey Analysis from College Students," *Nrb Econ. Rev.*, vol. 26-28 Febr, no. February 2015, pp. 49–74, 2015.
- [7] Bernama, "PM launches National Strategy for Financial Literacy 2019- Similar Posts:," pp. 1–4.
- [8] L. a. Vitt, J. Kent, D. M. Lyter, J. K. Siegenthaler, and J. Ward, "Personal Finance and the Rush To Competence: Financial Literacy Education in the U.S.," *Pers. Financ.*, no. October, pp. 1–234, 2000, doi: Fannie Mae Foundation: Washington DC.
- [9] N. S. Mahdzan and S. Tabiani, "The impact of financial literacy on individual saving: An exploratory study in the Malaysian context," *Transform. Bus. Econ.*, vol. 12, no. 1, pp. 41–55, 2013.
- [10] J. Fear and J. O. Brien, "Where does the buck stop? Community attitudes to over-lending and over-spending," *Australas. Account. Bus. Financ. J.*, vol. 3, no. 1, pp. 1–12, 2009.
- [11] M. A. H. and J. M. Hogarth, "Household Financial Management: The Connection between Knowledge and Behavior," vol. 20, no. 2, 2003, doi: 10.15381/rivep.v20i2.609.
- [12] V. Stango and J. Zinman, "Fuzzy Math and Red Ink: When the Opportunity Cost of Consumption is Not What it Seems," *Work. Pap.*, pp. 1–61, 2007.
- [13] A. Lusardi and O. S. Mitchell, "Financial literacy and retirement planning in the United States," *J. Pension Econ. Financ.*, vol. 10, no. 4, pp. 509–525, 2011, doi: 10.1017/S147474721100045X.
- [14] B. Cude *et al.*, "College Students and Financial Literacy: What They Know and What We Need to Learn," *East. Fam. Econ. Resour. Manag. Assoc.*, no. June 2014, pp. 102–109, 2006.
- [15] S. M. Danes and T. K. Hira, "Money Management Knowledge of College Students," *J. Student Financ. Aid*, vol. 17, no. 1, pp. 3–16, 1987.
- [16] H. C. and R. P. Volpe, "An Analysis of Personal Financial Literacy Among College Students," *Financ. Serv. Rev.* 7(2), no. 8, pp. 107–128, 1998, doi: 10.3788/CJL201643.0811001.
- [17] D. Ibrahim, R. Harun, and Z. Mohamed Isa, "A Study on Financial Literacy of Malaysian Degree Students The efficiency of waqf performance View project A Study on Financial Literacy of Malaysian Degree Students UNE ÉTUDE SUR LES CONNAISSANCES FINANCIÈRES DES ÉTUDIANTS MALAISIE," *Can. Acad. Orient. Occident. Cult.*, vol. 5, no. 4, pp. 51–59, 2009, doi:

- 10.3968/j.ccc.1923670020090504.006.
- [18] F. Literacy *et al.*, “National Strategy for Financial Literacy 2016 Update,” pp. 1–43, 2016.
- [19] A. L. and O. Mitchell*, “The Economic Importance of Financial Literacy: Theory and Evidence,” *J. Econ. Lit.* 2014, 52(1), 5–44, vol. 32, no. 1, p. 40, 2014.
- [20] F. Lovšin and N. Ponikvar, “Financial literacy of first-year university students: the role of education,” *Int. J. Manag. Knowl. Learn.*, vol. ue 2, no. 4, pp. 241–255, 2015.
- [21] M. Krechovská, “Financial Literacy As a Path To Sustainability,” *Trendy v Podn.*, vol. 5, no. 2, p. 3, 2015.
- [22] S. B. Masud Jariah, A.R. Husniyah, P.Laily, “Financial Behavior and Problems among university students: Need for financial education,” no. 2003, pp. 1–20, 2004.
- [23] J. Hogarth and M. Hilgert, “Financial Knowledge, Experience and Learning Preferences: Preliminary Results from a New Survey on Financial Literacy Marianne A. Hilgert, Federal Reserve Board,” *Consum. Interes. Annu.*, vol. 48, pp. 1–7, 2002.
- [24] N. A. Shaari, N. A. Hasan, M. Ramesh Kumar Moona Haji, and S. Mior Ahmad Jafri Md, “Financial Literacy: a Study Among the University Students,” *Interdiscip. J. Contemp. Res. Bus.*, vol. 5, no. 2, p. 279, 2013.
- [25] R. L. Moschis and P. George, “Anticipatory Consumer Socialization,” 1991.
- [26] S. Shim, J. J. Xiao, B. L. Barber, and A. C. Lyons, “Pathways to life success: A conceptual model of financial well-being for young adults,” *J. Appl. Dev. Psychol.*, vol. 30, no. 6, pp. 708–723, 2009, doi: 10.1016/j.appdev.2009.02.003.
- [27] C. J. Totenhagen, M. J. Wilmarth, J. Serido, M. A. Curran, and S. Shim, “Pathways from Financial Knowledge to Relationship Satisfaction: The Roles of Financial Behaviors, Perceived Shared Financial Values with the Romantic Partner, and Debt,” *J. Fam. Econ. Issues*, vol. 40, no. 3, pp. 423–437, 2019, doi: 10.1007/s10834-019-09611-9.
- [28] T. A. Hanson and P. M. Olson, “Financial literacy and family communication patterns,” *J. Behav. Exp. Financ.*, vol. 19, pp. 64–71, Sep. 2018, doi: 10.1016/J.JBEF.2018.05.001.
- [29] I. Ajzen, “The theory of planned behavior,” *Organ. Behav. Hum. Decis. Process.*, vol. 50, no. 2, pp. 179–211, 1991, doi: 10.1016/0749-5978(91)90020-T.
- [30] A. Azlan, A. Jamal, W. Kamal, R. Mohdrahimie, A. K. Roslemohidin, and Z. Osman, “The Effects of Social Influence and Financial Literacy on Savings Behavior: A Study on Students of Higher Learning Institutions in Kota Kinabalu, Sabah,” *Int. J. Bus. Soc. Sci.*, vol. 6, no. 111, pp. 110–119, 2015.
- [31] C. A. Robb and D. L. Sharpe, “Effect of personal financial knowledge on college students’ credit card behavior,” *J. Financ. Couns. Plan.*, vol. 20, no. 1, pp. 25–43, 2009.
- [32] O. Fatoki, “The Financial Literacy of Non-business University Students in South Africa,” *Int. J. Educ. Sci.*, vol. 7, no. 2, pp. 261–267, 2014, doi: 10.1080/09751122.2014.11890188.
- [33] D. Ramasawmy, S. Thapermall, S. A. Dowlut, and M. Ramen, “A Study of the Level of Awareness of Financial Literacy among Management Graduates,” *Proc. 3rd Asia-Pacific Bus. Res. Conf.*, no. February, pp. 1–13, 2013.
- [34] O. Fatoki, “The Financial Literacy of Non-Business University Students in South Africa 2014,” in *International Journal of Education and Science* 7(2): 261-267.
- [35] B. L. Jorgensen and Thesis, “Financial Literacy of College Students: Parental and Peer Influences,” *Master Thesis Submitt. to Virginia Polytech. Inst. State Univ. Master Sci. Hum. Dev. Virginia.*, p. 89, 2007, doi: 10.1017/CBO9781107415324.004.
- [36] I. Hathaway and S. Khatiwada, “Do Financial Education Programs Work?,” *SSRN Electron. J.*, 2011, doi: 10.2139/ssrn.1118

