

The Determinants Of Employees's Financial Literacy

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Abstract: Financial literacy is the education and understanding of how money is made, spent, and saved, as well as the skills and ability to use financial resources to make decisions. These decisions include how to generate, invest, spend, and save money. The concept can be applied to individuals and organizations. Good financial management is about long-term financial goals and to achieve that, it is necessary to have an adequate knowledge in financial management. The aims of this study is to examine the extent of financial literacy among employees at all level of management in National Defence University of Malaysia (NDUM). The determinants that involved in this study are differences in ages, level of financial literacy, marriage status, type of job and level of education. The study employed a quantitative analysis for 150 employees of the National Defence University of Malaysia. The level of financial literacy is divided into savings, debts, investments and monthly expenses. The discoveries of the investigation demonstrates that the degree of financial literacy are connected with the level of education. Neither age nor marital status are associated with financial literacy among employees. This study contributes the body of knowledge of financial literature on financial literacy among employee and revisit the determinants of financial literacy that are useful for policy maker to develop effective approaches in providing financial knowledge among the employees or targeted group.

1. Introduction

Interest in research about financial literacy is strong and ongoing. This is because a good money management leads to financial freedom and independent. A comfort life, less debt burden is everybody dream but to achieve that a proper financial plan is needed. Financial literacy is defined as ones' "knowledge of facts, concepts, principles, and technological tools that are fundamental to being smart about money." (Garman & Gappinger, 2008). The importance of financial literacy has been arising with the deregulation of the financial markets and the easier access to credit as financial institutions compete strongly with each other for market share, the rapid growth in development and marketing of financial products, and the government's encouragement for people to take more responsibility for their retirement incomes (Beal & Delpachitra, 2003). In addition, financial literacy can prevent the employees engaged in extensive debt especially credit card debt or any debt trapped like personal loan. In Malaysia it was reported that the highest level of bankruptcy is between the individual age of 20 to 30 years old (AKPK,2020). Additionally, the level of bankruptcy is nominated by men and it was reported the main reason of this record is due to lack of knowledge in financial management (AKPK,2020).

Proper knowledge in financial management budget, can avoid overspending on non-necessary purchase that lead to lower disposable income. The objective of financial management is to achieve the goal of making the best use of money. If an individual plan to achieve the financial freedom, they must equipped with proper financial plan and set the financial goal before involved in unnecessary spending (Bailard et al.,1973). Financial problem will lead to psychological problem as the capacity to fulfill daily necessities like food, clothing, shelter and transportation will be disrupted. In relation to this, other needs like health and education expenses will be further unbearable (Zainal Abidin et al., 2000). Hence, the aim of this study is to discuss the determinants of financial literacy among employees of Universiti Pertahanan Nasional Malaysia, (UPNM).

2. Literature review

This study examines a selected literature which covers a wide spectrum of views on the determinants of financial literacy levels. These include theoretical studies, conceptual frameworks and measurements of financial literacy. Financial literacy is the education and understanding of how money is made, spent, and saved, as well as the skills and ability to use financial resources to make decisions. These decisions include how to generate, invest, spend, and save money. The concept can be applied to individuals and organizations respectively. A wise

individuals must be able to wisely managed daily expenses that enable them to allocate appropriate value of personal monthly savings for emergency use.

The clearest definitions most widely used for the concept of financial literacy include, the ability to read, analyze, manage and communicate about personal financial situations that affect material and well-being (Chen & Volpe 1998; Vitt et al., 2000; Cude et al., 2006; Huston, 2010; Cude, 2010). The basis knowledge of financial management is necessary for people to survive in modern society (Koonce, JC, Mimura, Y., Mauldin, TA, Rupured, AM, & Jordan, J., 2008). In addition, (Bowen, 2002) concluded the ability to understand key financial concepts are essential for American society. Financial management ability consist of the skill on managing cash, controlling expensesx knowledge of opening savings accounts and obtaining credit, basic understanding of health and life insurance, ability to comparing offers and planning for future financial needs (Emmons, 2005). The knowledge in financial management is vital in order to manage well financial resources for good financial well-being. (Coalition, 2007). Extention to this, (ANZ, 2005) defined financial management as the ability to make informed judgments and make effective decisions about money,a measure of the extent to which a person understands key financial concepts and has the necessary ability and confidence to manage their own finances through short -term decisions and long -term planning by taking into account economic events and changing conditions (Remund, 2010).

Financial literacy can lead to financial satisfaction as (Joo and Grable, 2004) investigated the factors influencing financial satisfaction. The results showed the level of education, financial literacy, risk, financial capability, financial activity and financial stress had a direct impact on financial satisfaction. Higher financial knowledge and skills, strengthening financial behavior that leads to higher financial satisfaction and financial risk tolerance. While financial stress has a negative relationship with financial satisfaction. It was also found that age, gender, race, marital status, having a home, family income and total dependents were not connected with the level of on financial satisfaction.

Dvorak and Hanley (2010) examined the relationship between financial literacy and how much individual prepare for retirement plan plan. The results of the study indicated the level of financial literacy among low income group, and lower education level among women increases when they participate in financial consulting and training courses. Cude (2010) examined the determinants of financial literacy among individuals. The results showed that higher academic qualifications, ages, work experience, hpusehold income, parental occupation and the numbers of training classes would improve financial literacy among individual. It was also proven that people with higher financial literacy are more successful in their business and personal lives. In another study, Rooij et al. (2007) confirmed that age has a significant relationship with financial literacy. Literacy levels among individual are at lower level among adolescents, moderate at the age within 40 to 60 and declining when the individual above 60 years old.

Academic qualifications are positively associated with financial literacy. Studies have consistently shown that individuals with higher academic qualifications are the most potentially financially literate. Individuals who graduate from university or college are more knowledgeable than those with low academic qualifications (Cole et al. (2008), Lusardi & Mitchell (2006, 2008), Almenberg & Säve-Söderbergh (2011). In addition, Mandell (2004, 2008) showed that the correlation between literacy and education is present in the early stages of the life cycle. He has found that children of college graduates perform better on numerical tests. Employment status has an association with an individual's level of financial literacy. A survey by ANZ Survey (2008) and Worthington (2005) in Australia found that financial literacy scores are typically higher among individuals who are in professional and managerial occupations. Similarly, the type of job / field is also associated with the level of financial literacy of the individual. A survey of United Arab Emirates investors found that individuals working in finance / banking or investment, generally display higher financial knowledge than others in other areas of employment (Al-Tamimi & Bin Kalli, 2009).

3. Related theories

Social study describes how social factors (such as sources of information and financial advice) influence in shaping a person's behavior. The attitude and financial value of money comes from their environment. The impact of social interactions on individual behavior has been modeled, tested and used in a variety of situations. Social interactions can influence financial decisions when people receive and process information through interacting with others. Studies have found that peer impact affects retirement savings decisions because many people take less attention through the advantages and disadvantages of particular plan for themselves. Many employees use information from peers when making decisions about participation because they may not have the information that urges them to make sound retirement investment decisions. In addition, some guidelines will also influence

employee decisions because the desire to act is similar to the surrounding community.

Psychosocial theory focuses on developmental conflicts that are also related to financial behavior (beliefs, power, and self-regulation). Financial security requires a person to trust banks and other financial authorities to be responsible with one's money (FDIC, 2009). Guiso (2008) found that distrustful individuals are less likely to buy stocks, and, if they do, they buy less. As evidenced by the recent financial crisis, the ability to ascertain who should be held accountable is essential to making appropriate financial decisions. Dual-process theory embraces the idea that decisions can be driven by both intuitive and cognitive processes (Evans, 2008). Although dual-process theories come in many forms, they all agree to distinguish two main processing mechanisms. One process can be characterized as fast, unconscious, and tied to intuition (System 1), and the other slow, controlled, and conscious (System 2) Stanovich & West (2000). System 2 is responsible for the analytical and rational thinking (Stanovich & West, 2000) required to consistently execute currency-literate investment strategies on a consistent basis. Goel & Dolan (2003), Sanfey et al. (2006) provided neuropsychological evidence for a dual process. In relation to this, the study on financial literacy should be extended and widely explore.

This research is important for several reasons. First, the conceptual framework that has been developed in this study provides a basis for conducting future empirical study that will improve understanding on the factors influencing financial literacy among employees. Secondly this study contributes the body of knowledge of financial literature on financial literacy. Finally, the findings on the factors explaining the differences in financial literacy levels are specific for employers and can assist policy maker to develop effective approaches in providing financial knowledge among the targeted group. Indeed, further research in investigating a wider population, variety background of working place, wider determinants of financial literacy could be further explore and elaborated. Subsequent research can focus on other financial components such as saving behavior, financial problems and productivity and determine the most important and least critical to financial success and sustainability. Several directions of future research exist. First, future research could use different methodologies, such as longitudinal studies, focus groups and interviews to identify determinants of financial literacy levels among employees. Second, there is evidence that the relative importance and possible causal relationships between financial knowledge and better financial practices may differ across cultures (Hilgert, Hogarth & Beverly, 2003). Therefore, this study can be replicated in various cultures to provide cross-cultural comparisons.

The exploration on the financial literacy according to age among employees is needed as a demographic characteristics can reflect the financial management behavior of certain group, Rooij et al. (2007). In addition, marital status was also linked to financial literacy. This is because, there are differences in terms of money management for married, single and widowed. This can be evidenced by the differences in the respective dependents. These problems also do not occur individually, but are the result of influence or connection between various other problems that occur in society. The situation worsen when these employees have difficulty changing or even removing themselves from such negative influences despite having undergone a recovery process. Various authors, in publications ranging from academic literature to mass media, suggest that financial matters are closely related to family discord, marital problems, and even divorce (Poduska, 1995; Burkett, 1989). In turn, academic qualifications can differentiate an individual's financial status. This can be evidenced by low-qualified individuals having lower salaries than high-qualified individuals. In addition, being more qualified makes the individual skilled in managing money (Cole et al. (2008); Lusardi & Mitchell (2006, 2008); Almenberg & Säve-Söderbergh (2011); Mandell (2004, 2008) and Worthington (2005). Financial literacy is the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing. Financial literacy is the foundation of your relationship with money, and it is a life long learning.

4. Conceptual framework

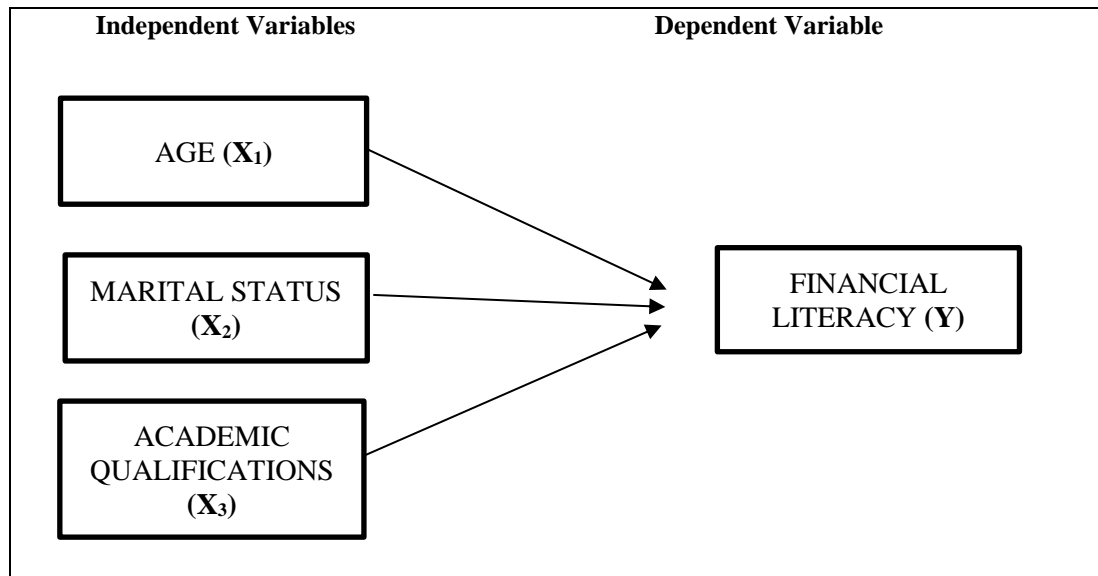


Figure 1: Conceptual Framework

The hypotheses of this study are as follows:

- H1: There is a significant positive relationship between age on financial literacy
- H2: There is a significant positive relationship between marital status towards financial literacy.
- H3: There is a significant positive relationship between academic qualifications on literacy Financial

5. Methodology and findings

According to Sekaran and Bougie (2017), the research methodology has specific purposes. A particular study using a suitable research methodology is conducted to provide complete guidance in implementing the research to be clear and operative. It is also part of a scientific method to describe the approaches and methods used in research (Mok, 2009). Several techniques could be used in conducting causal and exploratory research such as through literature review/document study, in-depth interviews and collecting data heading to using tool to analyze. This study employed a non -parametric comparative test performed on two variables namely Chi-square test where the data scale of both variables is nominal (Sutrisno, 2000). If from 2 variables, there is 1 variable with a nominal scale then the Chi Square test is performed with reference to the fact that the test must be used at the lowest degree.

6. Age on Financial Literacy

The Chi Square test is the most widely used non -parametric test. The Chi -Square freedom test was performed to assess whether the age i.e. <20 years, 21 -25 years, 26 -30 years, 31 -35 years, 36 -40 years and> 40 years related to Financial Literacy i.e. medium and high. Findings of crosstabs analysis for age and financial literacy were found to be correlated or related [Likelihood Ratio χ^2 (4, N = 150) = 7.021, p = 0.219].

Table 1: Chi Square -Age Freedom Test on Financial Literacy

Financial Literacy	Age						Total
	< 20 years	21 – 25 years	26 – 30 years	31 – 35 years	36 – 40 years	> 40 years	
Moderate	5 ^a 9.4 ^b	31 58.5	8 15.1	0 0.0	3 5.7	6 11.3	53 35.3

High	19 19.6	49 50.5	11 11.3	4 4.1	6 6.2	8 8.2	97 64. 7
TOTAL	24 16.0	80 53.5	19 12.7	4 2.7	9 6.0	14 9.3	15 0 10 0.0

Chi Square Probability Ratio = 7.021 df = 5 P-value = 0.219
 Cramer's V = 0.192, 4 cells with an expected count of less than 5 = 33.3%
 a = Count/Frequency b = Line %/In Minority %

Table 1 to show that high financial literacy at age <20 years has a much larger percentage (19.6%) than moderate (9.4%). On the other hand, high financial literacy at the age of 21 - 25 years is lower (50.5%) than moderate (58.5%) (Mihardjo et al., 2020). Similarly, for the age group of 26 - 30 years, high financial literacy has a percentage (11.3%) compared to medium (15.1%). At the age of 31 - 35 years, high financial literacy showed a higher percentage of 4.1% compared to the average of 0.0%. For the age group of 36 - 40 years, high financial literacy is 6.2% compared to medium (5.7%). Finally, those aged > 40 years showed that high financial literacy was 8.2%, which was lower than medium (11.3%). This shows that, in general, financial literacy that is at a high level is those aged <20 years, 31 - 35 years and 36 - 40 years while financial literacy that is at a moderate level is those aged 21 - 25 years, 26 - 30 years and > 40 years. The Cramer V value obtained (V = 0.192) indicated that the strength or large relationship between age and financial literacy was relatively weak. The percentage of cells with the expected number less than 5 was at 33.3% indicating that the analysis performed was inappropriate.

7. Marital Status on Financial Literacy

The Chi -Square freedom test was conducted to assess whether the marital status i.e. married, single and widow/widower was related to financial literacy i.e. moderate and high. Findings of crosstabs analysis for age and financial literacy were found to be correlated or related [Likelihood Ratio χ^2 (4, N = 150) = 1.496, p = 0.473].

Table 2: Chi -Square Freedom Test of Marital Status on Financial Literacy

Financial Literacy	Marriage Status			
	Marriage	Single	Widow/ widower	Total
Moderate	12 ^a 22.6 ^b	39 73.6	2 3.8	53 35.3
High	31 32.0	63 64.9	3 3.1	97 64.7
TOTAL	43 28.7	102 68.0	5 3.3	150 100.0

Chi Square Probability Ratio = 1.496 df = 2 P-value = 0.473
 Cramer's V = 0.099, 2 cells with expected count less than 5 = 33.3%
 a = Count/Frequency b = Line %/In Minority %

Table 2 to show that moderate financial literacy at married has a much smaller percentage (22.6%) than high (32.0%). In contrast, moderate financial literacy at single status was higher (73.6%) than (64.9%). Similarly, for widow/widower status, moderate financial literacy has a higher percentage (3.8%) than moderate (3.1%). This shows that, in general, financial literacy that is at a moderate level is those who are single and widowed or widower while financial literacy that is at a high level is those who are married. The obtained Cramer V value (V = 0.099) indicated that the strength or large relationship between marital status and financial literacy had no relationship. The percentage of cells with the expected number less than 5 was at 33.3% indicating that the analysis performed was inappropriate.

8. Academic Qualifications on Financial Literacy

The chi -square independence test is done to assess whether the academic qualifications, namely SPM, STPM, DIP and DEGREE are related to financial literacy, namely medium and high. Findings of crosstabs analysis for

age and financial literacy were found to be correlated or related [Likelihood Ratio χ^2 (4, N = 150) = 6.195, p = 0.102].

Table 3: Chi -Square Freedom Test of Academic Qualifications on Financial Literacy

Financial Literacy	Academic qualifications				
	SPM	STPM	DIP	DEGREE	Total
Moderate	12 ^a	1	6	34	53
	22.6 ^b	1.9	11.3	64.2	35.3
High	10	7	16	64	97
	10.3	7.2	16.5	66.0	64.7
TOTAL	22	8	22	98	150
	14.7	5.3	14.7	65.3	100.0

Chi Square Probability Ratio = 6.195 df = 3 P-value = 0.102

Cramer's V = 0.200, 1 cell with an expected count of less than 5 = 12.5%

a = Count/Frequency b = Line %/In Minority %

Table 3 to show that moderate financial literacy on SPM has a much higher percentage (22.6%) than high (10.3%). In contrast, financial literacy was moderate at STPM (1.9%) versus high (7.2%). For DIP, moderate financial literacy has a percentage (11.3%) while high financial literacy (16.6%) is much higher. This shows that, in general, financial literacy that is at a moderate level is SPM while financial literacy that is at a high level is STPM, DIP and DEGREE.

The obtained Cramer V value (V = 0.200) indicates that the strength or large relationship between academic qualifications and financial literacy is weak. The percentage of cells with the expected number less than 5 was at 12.5% indicating that the analysis performed was appropriate.

Table 4: Summary of Objectives of the Statistical Analysis Study

N	Objective	Hypothesis	Analysis Results
0.			
1.	To determine the relationship between age with financial literacy.	The relationship between age with financial literacy is weak	The analysis performed is inappropriate
2.	To determine the relationship of marital status with financial literacy.	The relationship between marital status with financial literacy is nonexistent	The analysis performed is inappropriate
3.	To determine the relationship of academic qualifications with financial literacy.	The relationship between academic qualifications with financial literacy is high	The analysis performed is appropriate

The obtained Cramer V value (V = 0.200) indicates that the strength or large relationship between academic qualifications and financial literacy is weak. The percentage of cells with the expected number less than 5 was at 12.5% indicating that the analysis performed was appropriate.

9. Conclusion

In the nutshell, this study concluded that the most influential factor on financial literacy is academic qualifications. The relationship between marital status with financial literacy was not found and the analysis performed is inappropriate. Furthermore, the relationship between academic qualifications with financial literacy is high and the analysis performed is appropriate. This shows that factors of academic qualification are highly related to financial literacy. This study is in line with the previous study that concludes neither gender nor marital status are related with financial literacy for one party. Besides, there are many factors that can be attributed to the wedge of the future study. This study should be expanded to address conceptual and methodological limitations. Additionally, the methodology of the study can be expanded using qualitative methods or econometrics analysis that can relate to economic impact and not confined to individual impact.

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