

Determinant Factors of Islamic Financial Literacy In Malaysia

Sazana Ab Rahman¹, Anas Tajudin², Ahmad Fadzli Ahmad Tajuddin³

¹Department of Commerce, Ungku Omar Polytechnic, Ipoh, Perak, Malaysia

²Faculty of Management & Information Technology, Sultan Azlan Shah University, Kuala Kangsar, Perak, Malaysia

³The Malaysian Institute of Integrity, Kuala Lumpur, Malaysia

Corresponding author: Sazana Ab Rahman

ABSTRACT: The 2008 Great Recession aftermath, numerous studies were undertaken by academic researchers in analyzing the factors affecting the financial literacy of individuals. The 2008 Great Recession aftermath, numerous studies were undertaken by academic researchers in analyzing the factors affecting the financial literacy of individuals. Previous studies revealed that financial literacy among the young was low and research on the Islamic financial literacy relatively scarce. In view of these concerns, this concept paper focused on suggesting the determinant factors of Islamic financial literacy. Thus, this paper aims to suggest the constructs for Islamic financial literacy and its determinants, namely financial knowledge, financial behavior, financial attitude, demographic factors and personality traits.

KEYWORDS : *Financial Literacy, Islamic Financial Literacy, Students Financial Literacy*

I. INTRODUCTION

The contents of financial literacy provide not only the basic knowledge of finance but also educates on financial planning, money management, budgeting, debt management, creditworthiness, saving and investment. As cited by Nguyen (2013), popular definitions of financial literacy include: (1) having knowledge in multiple financial concepts; (2) having the ability to manage finances; (3) having the ability to make positive financial decisions; and (4) increasing one's financial capability so one can invest in his or her future endeavors (Huang et al., 2013; Remund, 2010; Scott, 2010; Willis, 2009). The global financial crisis during 1997-2008 affects many countries to progressively promoted financial literacy as an essential financial skill through numerous global initiatives and became part and parcel of national strategies of financial inclusion. Financial literacy agenda deepens neo-liberal govern mentality with the promotion of entrepreneurial subjectivity and responsibilities of individuals for social risks such as unemployment, economic downturn and pensions (Ayhan, 2017).

In 2002, the Organization for Economic Co-operation and Development (OECD) governments officially recognized the importance of financial literacy with the launch of a unique and comprehensive project. The OECD (2005: 11-12) pointed the factors that made financial education significant such as; availability of new and complex financial products within the context of deregulation, rising life expectancy, and changes in pensions where defined contributions replace defined benefits. In 2008, the project was further enhanced through the creation of the OECD International Network on Financial Education (OECD/INFE). The OECD/INFE has high-level membership from over 240 public institutions - including central banks, financial regulators and supervisors, ministries of finance and ministries of education - in over 110 countries. Members meet twice a year to share country and member experiences, discuss strategic priorities and develop policy responses. Better educated and financial literate citizens can also implicitly help in monitoring markets through their own decisions, and thus complement prudential supervision (OECD 2009:8). The OECD (2009: 10) further placed some of the financial crisis blame on the financially illiterate by arguing that "inappropriate decisions have played a key role in setting up the ground that led to the crisis". Henceforth, the structural underpinnings of the crisis are ignored, and the burden of adjustment is shifted onto the individual (Ayhan, 2017).

Financial education and financial literacy have expanded a prominent situation in the global policy agenda. Nowadays, financial literacy is globally recognized as an essential element of the individual financial empowerment and the stability of the financial system. As highlighted by Lusardi (2015), governments and employers have increasingly transferred the responsibility to save and invest to individuals. In 2017, at the launch of the most recent assessment of the financial literacy among students, the OECD Secretary-General Angel Gurría stated that ‘financial literacy is an essential life skill’. He explained that ‘financial literacy can make a crucial difference in the lives of people, in their opportunities, in their success. It is a foundation stone for well-being, for entrepreneurship, for social mobility, for inclusive growth (OECD 2017: 7). It emphasized the need for longer-term strategic approaches to financial education and repeat measures of financial literacy to show progress over time and reveal gaps in provision (OECD 2017: 3).

The need to increase financial literacy is important as the economy continues to change (Nguyen, 2013). The importance of financial literacy not only among adults but also among youth or students in order for them to make important financial decision for their future as they transition into adulthood. Financial illiteracy not only affects adults, but also among youth who are struggling in understanding basic financial concepts such as credit management, balancing checkbooks, and the importance of savings. Financial illiteracy starting at younger age such as students may result them likely to experience long-term financial burdens. This can be supported by Nguyen (2013) which mentioned that debt can be an overwhelming concern for most youth or students and a few people are unable to save due to debt accumulation. Little (2014) also mentioned that many people nowadays do not have the basic skills of budgeting and balancing their checkbook, which this can be as an evident of their financial illiteracy that affects them into a large amount of credit card debt. For example, according to Lusardi (2015), the reduction of state-supported pensions in some countries means individuals must save in order to provide for their own financial security after retirement. Lusardi opines that for young people, these savings must be ample enough to cover longer retirement periods due to higher life expectancies.

In 2016, the OECD/INFE Survey of Adult Financial Literacy Competencies provided an analysis of 30 countries and economies. The internationally comparable data used in the survey were collected using the Financial Literacy and Financial Inclusion Measurement Toolkit. The report highlighted worryingly low levels of financial literacy around the world. It emphasized the need for longer-term strategic approaches to financial education and repeat measures of financial literacy to show progress over time and reveal gaps in provision. In particular, the young and the old age segments, women, and less-educated groups are vulnerable in financial transactions and decision-making due to their financial illiteracy (Lusardi and Mitchell, 2014). The low level of financial literacy is linked to poor financial decision making and less level of unspent income, and a greater financial literacy can help individuals face unexpected macroeconomic and income shocks (Klapper, Lusardi & Panos, 2012). A person with a better financial literacy rate will not only be more effective in doing simple financial calculations for their household budget, considering their ability to pay interest on loans, using credit or debit cards wisely, but also when considering using or buying more sophisticated financial products or services, such as mortgages, pension or investment funds, insurance, shares, bonds or even other financial derivatives and private equity investments (Lantara & Kartini, 2015).

Financial illiteracy may place negative impacts not only to personal finance but also on family’s finance, because it leads to poor financial decision making regarding saving, investment, and spending. Moreover, the cost of poor financial decision making resulted from the cost of financial illiteracy is likely to transfer not only to the least capable individuals but also to society as a whole (Lusardi & Mitchell, 2011). Less financially literate individuals may not realize the existence of arbitrage opportunities and hence may not recognize that co-holding is a costly activity (Weber, 2015).

II. DETERMINANT FACTORS OF ISLAMIC FINANCIAL LITERACY

The study on Islamic financial literacy can be considered as a new concept being brought into the area of financial literacy. Due to its novelty, there is currently no commonly accepted meaning of Islamic financial literacy (Abdullah and Chong, 2014). Likewise, due to the limited literature in the area, the review of literature in this study is mainly based on contemporary research on financial literacy. Therefore, maintaining its close link with the general definition of financial literacy, Abdullah and Chong (2014) proposed the conceptual definition of Islamic financial literacy as “the ability of a person to use financial knowledge, skill and attitude (OECD, 2012) in managing financial resources according to the Islamic teachings.”

The existence of certain unlawful elements such as interest in the existing financial literacy constructs which are not in line with the underlying philosophy of Islamic finance highlights the crucial need to develop the constructs for assessing Islamic financial literacy (Hafizah et al., 2016). Thus, this paper attempts to fill this gap by developing the appropriate constructs for Islamic financial literacy. Since literature on Islamic financial literacy are scarce, no definition was found except for Abdullah and Anderson (2015) which built on Houston’s (2010) definition of financial knowledge stating that Islamic financial knowledge means “the stock of knowledge that one acquires through education and/or experience specifically related to essential Islamic

finance concepts and products". Therefore, Islamic financial literacy simply refers to financial literacy specific to Islamic financial products and concepts (Mohomed, 2015). Nevertheless, Kayed (2008) in his paper posed a pertinent question enquiring if there are any attempts by the research community to assess levels of Islamic financial literacy in various Muslim communities. In addition, another question was put forth by Ahmad (2010) on the importance of Islamic financial literacy. Most of the previous literature has been on the literacy on conventional financial decision making. Since there is a renewed interest in Islamic social finance, more studies should be undertaken in order to determine the level of literacy of people on Islamic financial concepts and products. Researchers should also look into the designing instruments to measure the level of Islamic financial literacy (Abdullah and Chong, 2014).

Many Islamic financial products are still vague to some people, the degree of information varying from one to the other, while others carry apprehensions that these products might not be Shariah compliant. Consequently, low Islamic financial literacy levels represent a serious threat to the survival of current and future Islamic products and to the Islamic finance sector overall. Moreover, Lukonga (2015) stated that consumer protection and financial literacy are vital pillars to ensure a sound and stable financial system, which brings us to the realization that there is pressing need for Islamic financial literacy. Efforts are being exerted on different fronts to promote Islamic financial literacy, although it is still in developmental stages. For instance, the increasing trend of university programs and professional courses among major institutions in different countries and the active participation of financial regulators in some jurisdictions (eg; Malaysia, Indonesia and Saudi Arabia) in financial education programs. Bahrain even has established a special Waqf fund designated to promote Islamic finance training, education and research (Lukonga, 2015). But, the success and outreach of these Islamic financial literacy projects are yet to be established.

In 2006, the Central Bank of Malaysia's Governor first highlighted the importance of Islamic financial literacy in easing transactions and increasing acceptability of Islamic financial products. Two years later, Kayek (2008) questioned any research attempt in assessing Islamic financial literacy in Muslim societies and Ahmad (2010) reaffirmed the significance of the subject (cited in Abdullah and Chong, 2014; Abdullah and Anderson, 2015). According to Abdullah and Chong (2014), more research on Islamic financial literacy is required and the only works found in this area are Abdullah and Anderson (2015), and Abdul Rahim et al. (2016). Abdullah and Chong (2014), in an exploratory study of financial literacy literature, concluded that works on the Islamic aspect are almost non-existent. The closest study to this research is one presented by Abdul Rahim (2016) on the influence of psychosocial factors and gender on the level of Islamic financial literacy. As suggested by Er Assoc and Mutlu (2017), it is considered that studies must be carried out primarily towards young population, housewives, and sections of the society with low level of income and education as part of the studies to be carried out according to the findings obtained from the research. This research is undertaken to fill in this gap particularly with focus on the student population in a college/university.

In view of these concerns, it is suggested that future study should be undertaken to focus on assessing financial literacy within Islamic context. Specifically, Islamic financial literacy is considered a new area with very limited literature. More importantly, despite calls for such attempt in the literature, the constructs for Islamic financial literacy have not been adequately examined (Abdullah and Anderson, 2015). Thus, this paper aims to suggest the constructs for Islamic financial literacy and its determinants, namely financial knowledge, financial behavior, financial attitude, demographic factors and personality traits.

2.1 Financial Knowledge

Financial knowledge has significant stake in financial literacy (Chaulagain, 2016). Huston (2010) describe that financial literacy and knowledge are used synonymously, but, financial knowledge is an integral dimension of, but not equivalent to, financial literacy.

The terms financial literacy, financial knowledge, and financial education often have been used interchangeably both in the academic literature and in the popular media (Huston, 2010). Huston identified four main categories that emerged from these studies' definitions of financial literacy and knowledge: personal finance basics, borrowing, saving/investing, and protection. Huston proposed that financial literacy could be conceptualized as having two dimensions: understanding personal finance knowledge (theory) and using personal finance knowledge (application). Houston concluded further that financial literacy should be defined as measuring how well an individual can understand and use personal finance-related information, while financial knowledge is an integral component of financial literacy, but not identical to financial literacy. In the survey of existing studies by Lusardi and Mitchell (2014), they found evidences that the low literacy levels are pervasive around the world, especially in old and young populations, although most participants in the surveys are confident of their financial knowledge without recognizing their own shortcomings. They consider financial knowledge as a form of investment in human capital, which may have optimum level to achieve for each individual given heterogeneity of costs and benefits perceived by that person.

Financial knowledge refers to understanding basic financial concepts of how business performance and business condition is measured using the mental model to facilitate, support or enrich decision-making (Lusardi & Bassa Scheresberg, 2013; Lusardi & Michell, 2007a, 2007b; Moore, 2003). Literate people are more engaged in the financial markets because they are well acquainted and enlightened with financial issues. Financial knowledge is required to establish a measure of financial competence for competitive advantage, that is, to stay knowledgeable about financial matters (Lusardi & Michell, 2006). People will become more competence in terms of finance when they are more literate. Financially illiterate people tend to shy away from financial markets because they have little knowledge of stocks (Mouna & Anis, 2016). However, both scholars, Moore (2003) and Huston (2010), concurred in explaining that financial literacy cannot be measured directly, and there is no established instrument engaged to measure financial literacy (as cited by Eniola & Entebang, 2017).

Nguyen (2013) examined high school seniors' financial knowledge in four Washington County public schools. The study specifically measured whether students were able to increase their financial knowledge after they completed the Money Management Skills for Young Adults class. Yates and Ward (2011) conducted a study to examine how financial knowledge transfers from high school level to college level and to adult level. The goal of the study was to evaluate the content areas of personal financial education and determine the alignment while examining the competencies at the high school, college and adult levels. The results revealed there is a societal deficiency in personal financial literacy and there was no evidence of any progression of financial literacy being threaded from high school level through college and then into adulthood. Yates and Ward (2011) stated, "Financial educators, policy makers/state mandates, and course curricula need to be better informed how knowledge is threaded through these levels". Not much is known about financial knowledge and behaviors among young Malaysians (Sabri, 2011). In addition, there is yet a single standard measurement of financial literacy and/or financial knowledge of college students. Thus, this paper suggests on the extent of the relationship between financial knowledge and financial literacy among college students' specifically in the Islamic finance context. It can be concluded with the first independent variable of this research as Financial Knowledge.

2.2 Financial Behavior

Behavior is a demonstration of any activity, which are possible to watch and observe by the others too. Behavior is the manner in which one behaves through the action or the reaction of a person in response to external or internal factors. Financial behavior is the action or reaction of a person in response to financial decisions (Kehiaian, 2012). Financial behavior of individuals is very significant in decision making but it also is difficult to understand, define and measure. Tyson (2010) opines that being financially informed and knowing the correct financial activities is not enough to bring financial change, there is need of change some poor financial habits into good.

Dew and Xiao (2011) present financial behavior as the financial management behavior. Financial management is any activity in managing money and maximizing the profit. Financial management person is the person who behaves well with their money. Therefore, the financial behavior is about how a person deals with money. Dew and Xiao (2011) explained that the financial behavior is an application part of financial literacy that is believed to contribute financial well-being of persons positively and it can be divided into two; consumption and financing. The first one is related with how the money is to use in consumption expenditure and the second one is related with how the money is to use as investment and saving. However, Lusardi, Mitchell and Curto (2010) argued the basic implication of financial literacy is to change financial behavior of persons. Thus, the financial literacy that cannot change the financial behavior is worthless. Future studies should include measures of financial attitudes and financial behaviors to better understand college students' financial literacy and financial well-being (Sabri, 2011).

Likewise, Monticone (2010) opines that there is a double relationship between financial literacy and behavior; financial literacy affects financial behavior and vice-versa. However, Lusardi and Mitchell (2013) find that causal relationship to find between financial literacy and behavior is difficult. In assessing the link between the literacy levels and financial behaviors, Lusardi and Mitchell (2014) conclude that more financially literate people make more and better money decisions and retirement planning, and less financial mistakes and herd behaviors. The fact that knowledge and behaviour are related in financial literacy simply means that whatever one learns and the knowledge they have must be accompanied by behaviour or application thereof (Matemane, 2015). In practice, if the literacy and behavior are measured through scientific process, therefore, measuring the literacy and behavior is not that much difficult (Chaulagain, 2016). Lusardi and Mitchell (2014) explained that research on the financial literacy and financial behavior of adults has been facilitated by different measures of financial literacy, especially the use of five test items in national and international studies (as cited by Walstad & Rebeck, 2017). Studies on testing the financial knowledge and understanding of children and youth have been more limited, in part because of a focus on particular curricula or special programs (Walstad and Rebeck 2005; Walstad, Rebeck, and MacDonald 2010; Danes, Rodriguez, and Brewton 2013) and a lack of standardized tests of national standards for personal finance (as cited by Walstad & Rebeck, 2017).

Both financial knowledge and perception appear to affect financial literacy and in turn appear to affect financial decisions and behavior. Future research should take into account both what people know about financial matters and also what they think they know when controlling for financial literacy (Allgood & Walstad, 2016). Thus, this paper suggests on the extent of the relationship between financial behavior and financial literacy among college students' specifically in the Islamic finance context. It can be concluded with the second independent variable of this research as Financial Behavior.

2.3 Financial Attitude

Financial attitude of a person shows a psychological or mental judgment of financial matters and situation. In other words, the attitude evaluates how the things are Financial attitude is a contextual, dynamic and ever-changing domain. Normally, attitude is positive and negative, however, sometimes the individuals also stay indifferent. Knowledge is one of the sources of attitude, but not necessarily knowledge always helps in formulating a positive attitude. Financial attitude is not a single factor determining financial behavior. Louw, Fouche and Oberholzer (2013) argue that financial literacy helps in developing positive financial attitude. Thus, the financial attitude is subject to change in improved financial literacy of persons. Financial literacy and financial attitude determine not only to financial behaviors of individuals but also to their financial well-being. Atkinson and Messy (2012) argue that negative financial attitude of a person results a negative and defective financial behavior that may not contribute in financial well-being. However, there is positive but not necessarily a proportional relationship among financial literacy, financial attitude, behavior and well-being of individuals (Chaulagain, 2016).

Financial awareness has a positive relationship on financial attitude (Eniola & Entebang, 2017). Financial attitude refers to the capacity to assess the new and sophisticated financial instruments and build sophisticated judgements in each option of instruments and degree of utilization that may be in their own best long-term interests (Mandell, 2007). Financial awareness has a positive relationship on financial attitude and attitude towards decision-making approaches has become characteristic of many firms that are successful (Eniola & Entebang, 2017). Bond and Meghir (1994) opined that credit terms also determined the extent to which SMEs access finance. They noted that when credit terms are favorable, the SMEs' managers' attitudes towards accessing that credit tend to be positive and they are encouraged to borrow, and therefore expansion of the capital base leading to increased business activity takes place (as cited by Eniola & Entebang, 2017). Financial literacy is reported to have a negative relationship with financial constraints (Fazli & MacDonald, 2010).

In today's generation, youngsters tend to value money more than compared to previous generations whereby older generations were not interested in the materialistic world as the younger generations nowadays. However, the attitude an individual has over money will eventually affect his/her literacy and behaviour towards finance. People who view money as just a measure to obtain their immediate wants will never be able to have a proper financial planning for the future which is the main problem in this modern era. Hence, individuals having the right attitude and mind-set towards money will be more prone in an early financial planning and savings. This will hinder their chances of going bankrupt or fail to enjoy the benefits of an early financial savings (Albeerdy & Gharleghi, 2015). Thus, this paper suggests on the extent of the relationship between financial attitude and financial literacy among college students' specifically in the Islamic finance context. It can be concluded with the third independent variable of this research as Financial Attitude.

2.4 The Influence of Demographic Factor and Personality Traits

Demographic factors such as age, races, education level, family background, parental influence and religion affected the financial literacy of an individual. Lusardi and Mitchell (2014) found evidences of heterogeneity in literacy levels due to differences in gender and races, income and work status, education levels and family background, and hometown. Future studies might want to focus whether students' relationships and interactions within their community and family have changed their financial attitudes and behaviors over the years (Nguyen, 2013).

Chen & Volpe (2002) surveyed college students' financial literacy using a large sample from different colleges and universities in the United States (n = 924). The sample included freshmen, sophomores, junior, and graduate students. The researchers also queried whether there were differences in financial literacy between men and women and possible reasons why these differences existed. Overall findings indicated that men scored significantly higher than women and those women had lower financial literacy. Chen and Volpe (2002) found that one's financial knowledge was related to education and experience. For instance, business majors were likely to score higher than students with other majors and students. Interestingly, Chen and Volpe (2002) also found that women (74%) and men's (68%) parents were their primary sources for financial knowledge.

Weber (2015) research studies showed that underlying individual or personality traits are important predictors for consumer choice. His research explained that households with self-control issues are significantly more likely to co-hold substantial amounts, consistent with the notion that co-holding is a form of self-control

management to limit the consumption. His research results also showed that individuals with low levels of financial literacy and an impulsive present bias for consumption are significantly more likely to hold alternative, non-amortizing, mortgage products.

According to Sabri (2011), college students in more urbanized areas and from Malay ethnicity background may be less concerned about financial knowledge for goals such as saving, versus consumption for brand and fashion purposes. The descriptive analysis from his study shows that financial literacy of Malaysian students reveals that students of Chinese ethnicity, students in private colleges, freshmen, and students who never discussed finances with parents in their childhood have less financial knowledge. The final regression provides confirmation for Chinese ethnicity, college type, and discussing finances with parents. An additional multivariate finding is that on-campus students have less financial knowledge. The findings also show that there is no multivariate evidence of gender, place of origin, or socioeconomic disadvantage for financial literacy. Sabri (2011) further explained that, in order to identify potential strategies, additional research is needed to examine systematically the extent to which personal and family background, academic ability, early childhood consumer experience, financial socialization, and financial knowledge affect students' financial well-being. An important goal of his study is to increase understanding about the role of parents, peers, media, school, and religion on financial knowledge and financial well-being among college students.

From the study by Joyce K.H & Nga L.K.Y (2013) indicates that specific personality traits namely conscientiousness, openness and agreeableness have a significant influence on risk aversion, cognitive biases and socially responsible investing dimensions of financial decision making respectively. The influence of personality traits outweighs demographic factors such as gender and course majors. The ability to develop positive relationships with others and the community allowed students to realize the importance of financial knowledge as they live in an increasingly changing economy (Nguyen, 2013). Thus, this paper suggests on the weather demographic factors affects as a moderator and whether personality traits affects as a mediator between independent variables and the financial literacy among college students' specifically in the Islamic finance context.

III. CONCLUSION

The significance of this paper is that it may create new knowledge about Islamic financial literacy determinants among youth. This paper adds to previous research on the topic of financial literacy in the Islamic context. This paper contributes to the knowledge gain from the awareness of Islamic financial literacy that may assist with managing personal finance and future business finances. This paper represents an initial attempt to explore the concept of Islamic financial literacy among college students. In particular, it contributes to the current literature for Islamic financial literacy and its determinants. It is hoped that this paper could help other researchers to further expand the knowledge in the area of Islamic financial literacy.

IV. ACKNOWLEDGEMENTS

An acknowledgement section may be presented after the conclusion, if desired.

REFERENCES

- [1] Abdullah & Anderson (2015). Islamic Financial Literacy among Bankers in Kuala Lumpur. *Journal of Emerging Economies and Islamic Research*, 3(2). Retrieved from www.jeeir.com.
- [2] Abdullah, & Chong. (2014). Financial Literacy: An Exploratory Review of the Literature and Future Research. *Journal of Emerging Economies and Islamic Research*, 2(3), 1–9. Retrieved from <http://www.jeeir.com/v2/images/Vol2No32014/129-284-1-PB.pdf>.
- [3] Ahmad, M. (2010). Why Islamic financial literacy is important. *Personal Money*. March.
- [4] Albeerdly, M. I., & Gharleghi, B. (2015). Determinants of the Financial Literacy among College Students in Malaysia. *International Journal of Business Administration*, 6(3), 15–24. <https://doi.org/10.5430/ijba.v6n3p15>.
- [5] Ali, A., Rahman, M. S. A., & Bakar, A. (2014). Financial Satisfaction and the Influence of Financial Literacy in Malaysia. *Social Indicators Research*. <https://doi.org/10.1007/s11205-014-0583-0>.
- [6] Allgood, S., & Walstad, W. B. (2016). The Effects of Perceived and actual Financial Literacy on Financial Behaviors. *Economic Inquiry*, 54(1), 675–697. <https://doi.org/10.1111/ecin.12255>.
- [7] Atkinson, A., & Messy, F.-A. (2012). Measuring Financial Literacy: Results Of The Oecd / International Network On Financial Education (Infe) Pilot Study (OECD Publishing No. 15). <https://doi.org/10.1787/5k9csfs90fr4-en>.
- [8] Ayhan, B. (2017). Cultural Political Economy Of Financial Literacy In Turkey. McMaster University.
- [9] Boon, T. H., Yee, H. S., & Ting, H. W. (2011). Financial literacy and personal financial planning in Klang Valley, Malaysia. *International Journal of Economics and Management*, 5(1), 149– 168.
- [10] Bucher-Koenen, T. and Lusardi, A. (2011). Financial literacy and retirement planning in Germany, Working Paper 17110, NBER, 1-26.

- [11] Chaulagain, R. P. (2016). Relationship between Financial Literacy and Behavior of Small Borrowers.
- [12] Chen, H., & Volpe, R.P. (2002). Gender differences in personal financial literacy among college students. *Financial Services Review*, 11, 289-307. Retrieved from Social Services Abstracts.
- [13] Clark, R., Lusardi, A., & Mitchell, O. (2017). Employee financial literacy and retirement plan behavior: a case study. *Economic Inquiry*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/ecin.12389/full>.
- [14] Dew, J. & J. J. Xiao. 2011. The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning*, 22(1), 43-59.
- [15] Eniola, A. A., & Entebang, H. (2017). SME Managers and Financial Literacy. *Global Business Review*, 18(3), 1–18. <https://doi.org/10.1177/0972150917692063>.
- [16] Fazli & MacDonald (2010). Savings Behavior and Financial Problems among College Students: The Role of Financial Literacy in Malaysia. *Cross-Cultural Communication*, 6(3), 103–110. Retrieved from www.cscanada.net.
- [17] Huang, J., Nam, Y., & Sherraden, M.S. (2013). Financial knowledge and child development account policy: A test of financial capability. *Journal of Consumer Affairs*, 47(1), 1-26. doi:10.1111/joca.12000.
- [18] Huston, S. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296–316. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6606.2010.01170.x/full>.
- [19] Ibrahim, D, Harun, R, & Isa, Z. M. (2010). A study on financial literacy of Malaysian. Degree Students. *Canadian Academy of Oriental and Occidental Culture Cross-Cultural Communication*, 5(4), 51–59.
- [20] Idris, et al. (2013). Relationship Between Financial Literacy and Financial Distress Among Youths in Malaysia -An Empirical Study. *Malaysian Journal of Society and Space*, 9(4), 106–117.
- [21] Joyce K.H, & Nga L.K.Y. (2013). The influence of personality trait and demographics on financial decision making among Generation Y. *Young Consumers*, 14(3), 230–243. <https://doi.org/10.1108/YC-11-2012-00325>.
- [22] Kayed, Rasem N. (2008)"Appraisal of the status on research on labor economics in the Islamic framework." 7th International Conference on Islamic Economics, 2008.
- [23] Kehiaian, S. E. (2012). Factors And Behaviors That Influence Financial Literacy In US Households. ova Southeastern University. Retrieved from UMI 3517279 Copyright 2012 by ProQuest LLC.
- [24] Klapper, L. F., Lusardi, A., & Panos, G. A. (2012). Financial Literacy and The Financial Crisis (No. 17930). Cambridge. Retrieved from <http://www.nber.org/papers/w17930>.
- [25] Little, J. (2014). The Effects Of A Financial Literacy Intervention On Teachers' Financial Literacy, Awareness, and Advocacy. University of Phoenix.
- [26] Louw, J., Fouche, J. & M. Oberholzer. (2013). Financial literacy needs of South African third-year university students. *International Business & Economics Research Journal*, 12(4), 439-450.
- [27] Lusardi, & Mitchell. (2011). Financial literacy and retirement planning in the United States. *Journal of Pension Economics and Finance*, 10(4), 509–525. <https://doi.org/10.1017/S147474721100045X>.
- [29] Lusardi, A. (2015). Financial Literacy Skills for the 21st Century: Evidence from PISA. GFFLEC Working Paper Series (Vol. 7). <https://doi.org/10.1111/joca.12099>.
- [30] Lusardi, A., & Michell, O.S. (2006). Financial literacy and planning: Implications for retirement wellbeing (Pension Research Council Working Paper No. 1). Amsterdam: Wharton School, University of Pennsylvania.
- [31] Lusardi, A., & Michell, O.S.. (2007a). Financial literacy and retirement planning: New evidence from the RAND American Life Panel (MRRC Working Paper No. 2007–157). Frankfurt, Main: Center for Financial Studies.
- [32] Lusardi, A., & Michell, O.S.. (2007b). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics: The Journal of the National Association of Business Economists*, 42(1), 35–44.
- [33] Lusardi, A., Mitchell, O., (2014). 'The Economic Importance of Financial Literacy: Theory and Evidence', *Journal of Economic Literature*, Vol: 52 (1): 5-44. DOI: <http://dx.doi.org/10.1257/jel.52.1.5>.
- [34] Lusardi, A., Mitchell, O.S., & Curto, V. (2010). Financial literacy among the youth. *The Journal of Consumer Affairs*, 44(2), 358-380. doi: 10.1111/j.1745-6606-2010.01173.x.
- [35] Lusardi, Annamaria, and Carlo de Bassa Scheresberg, (2013). "Financial Literacy and High-Cost Borrowing in the United States," NBER Working Paper 18969.
- [36] Mahdzan, N. S., & Tabiani, S. (2013). THE IMPACT OF FINANCIAL LITERACY ON INDIVIDUAL SAVING: AN EXPLORATORY STUDY IN THE MALAYSIAN CONTEXT. *Transformations in Business & Economics*, 12(1(28)), 41–55.
- [37] Mandell, L., Klein, L. S. (2007). Motivation and financial literacy. *Financial Services Review*, 16(2), 105-116.

- [38] Matemane, M. R. (2015). The Relationship between Financial Literacy and Saving Habits: An Analysis Of Black South Africans With A Commercial Tertiary Education. University of Pretoria.
- [39] Monticone, C. (2010, in press). How much does wealth matter in the acquisition of financial literacy. *The Journal of Consumer Affairs*, 45(2).
- [40] Moore, D. (2003). Survey of financial literacy in Washington State: Knowledge, behavior, attitudes, and experiences (Technical Report No. 03–39). Olympia, WA: Social and Economic Sciences Research Center, Washington State University.
- [41] Mouna, A., & Anis, J. (2016). Financial literacy in Tunisia: Its determinants and its implications on investment behavior. *Research in International Business and Finance*, 39, 568–577. <https://doi.org/10.1016/j.ribaf.2016.09.018>.
- [42] Nguyen, K. N. (2013). High School Seniors Financial Knowledge : The Impact of Financial Literacy Classes and Developmental Assets. University of Arkansas. Retrieved from <http://scholarworks.uark.edu/etd/867>.
- [43] OECD INFE (2012), ‘Supplementary Questions: Optional Survey Questions for the OECD INFE Financial Literacy Core Questionnaire’. <http://www.oecd.org/finance/financial-education/49878153.pdf>.
- [44] Rahmandoust, P., et al (2010). Teaching Financial Literacy To Entrepreneurs For Sustainable Development. *OIDA International Journal of Sustainable Development*, 2(11). Retrieved from <http://www.ssrn.com/link/OIDA-Intl-Journal-Sustainable-Dev.html>.
- [45] Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *The Journal of Consumer Affairs*, 44(2), 276-295. doi:10.1111/j.1745-6606.2010.01169.x.
- [46] Rooij, M. Van, Lusardi, A., & Alessie, R. (2007). *Financial literacy and stock market participation* (No. 2007/27). Retrieved from <http://www.nber.org/papers/w13565>.
- [47] Roux, D. Le. (2017). Retirement Planning : Could Tax And Financial Literacy Increase Financial Independence During Retirement. University of Pretoria.
- [48] Sabri, M.F (2011). Pathways to financial success: Determinants of financial literacy and financial well-being among young adults. Graduate Theses and Dissertations. Paper 11205. IOWA State University. Retrieved from <http://lib.dr.iastate.edu/etd>.
- [49] Santos, E., & Abreu, M. (2013). *Financial Literacy, Financial Behaviour and Individuals’ Over-indebtedness* (No. WP 11/2013/DE/UECE).
- [50] Sekita, S. (2011). Financial literacy and retirement planning in Japan. *Journal of Pension Economics and Finance*, 10(4), 637–656. <https://doi.org/10.1017/S1474747211000527>.
- [51] Tyson, E. 2010. *Personal finance for dummies* (6th ed). Indianapolis, Indiana. Wiley Publishing, Inc.
- [52] Walstad, W. B., & Rebeck, K. (2017). The Test of Financial Literacy : Development and Measurement Characteristics. *The Journal of Economic Education*, 48(2), 113–122. <https://doi.org/http://dx.doi.org/10.1080/00220485.2017.1285739>.
- [53] Weber, J. (2015). *Essays in financial literacy & decision making*. University of Nottingham. Retrieved from [http://eprints.nottingham.ac.uk/28668/1/Essays in Financial Literacy and Decision Making - Jörg Weber.pdf](http://eprints.nottingham.ac.uk/28668/1/Essays%20in%20Financial%20Literacy%20and%20Decision%20Making%20-%20J%C3%B6rg%20Weber.pdf).
- [54] Yates, D., & Ward, C. (2011). Financial literacy: Examining the knowledge transfer of personal finance from high school to college to adulthood. *American Journal of Business Education*, 4(1), 65-78. Retrieved from <http://search.proquest.com> *Note that the journal title, volume number and issue number are set in italics.*