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Financial Literacy – A Review

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Abstract

This study focuses on reviewing the existing literature on financial literacy. Financial literacy is a necessary skill to manage the financial aspects adequately in order to make informed decisions. This study indicates that there is a need of a common and well-structured definition of financial literacy. All the studies under review concluded that financial literacy is important for the wellbeing of the society. Financial literacy levels are generally low among the public. Policy makers may take steps to improve the levels resulting in better investments and wellbeing of the economy.

Key words: Financial Literacy, Financial Education, Retirement Planning.
JEL Classification:

1. Introduction

Merriam Webster dictionary defines literacy as *"the quality or state of being able to read and write".* However today's society emphasizes on many forms of literacy for example, *Digital Literacy*- Cognitive skills that are used in executing tasks in digital environments, *Computer Literacy*- Ability to use a computer and software, *Media Literacy*- Ability to think critically about different types of media, *Information Literacy*-Ability to evaluate, locate, identify, and effectively use information, *Technology Literacy*- The ability to use technology effectively in several different ways, *Political Literacy*- Knowledge and skills needed to actively participate in political matters, *Cultural Literacy*- The knowledge of one's own culture, *Multicultural Literacy*- The knowledge and appreciation of other cultures, *Visual Literacy*- The ability to critically read images. In addition to these "*Financial literacy*" is being discussed in the subject of Finance.

The ability to manage personal finances has become increasingly important in today's world. People must plan for long term investments and their children's education. They must also decide on short term savings, borrowings or down payments for a house or a vehicle. Insufficient financial literacy can lead to failure of business organizations and is a hindrance to the development of financial markets and can result in institutional and personal bankruptcy and lead to economic crises. As markets develop a range of diversified financial products are being introduced, many of which can be complicated and inapprehensible necessitates knowing and understanding financial concepts and matters.

This study focuses on reviewing the existing literature on the definition of financial literacy, its' importance, how its' being measured, the level of financial literacy for different segments of the society, influence of financial education on financial literacy and how it influences retirement planning.

2 Definition of "Financial Literacy"

It is necessary to define a concept to be able to measure it. Nevertheless, it seems that a large body of financial literacy literature has failed in defining what financial literacy (Huston's J 2010) is. However, there are limited number of studies giving an exact definition of financial literacy. The terms *financial literacy*, *financial knowledge* and *financial education* often are used interchangeably in the literature and popular media. Few scholars have attempted to define or differentiate these terms. Unlike health literacy, which is typically measured using one of the three standardized tests, there currently are no standardized instruments to measure financial literacy. Huston S J (2010), Marcolin and Abraham (2006) identified the need for research focused specifically on measurement of financial literacy. Accordingly, the OECD (2005) defined financial education as "*the process by which financial consumers/investors improve their understanding of financial products and concepts, and through information, instruction, and/ or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being*". ANZ Survey of adult financial literacy in Australia (2014) provides a similar definition to that of OECD. '*Financial literacy is the ability to make informed judgment and effective decisions regarding the use and management of money and is a complex combination of a person's skills, knowledge, attitudes and ultimately their behaviors in relation to money*'. Noctor et al, (1992) defined financial literacy as '*The ability to make informed judgments and to take effective decisions regarding the use and management of money*'. Shagen and Lines (1996) proposed that a financially literate person would enjoy a range of abilities and attitudes comprising: an understanding of the key concepts central to money management, a working knowledge of financial institutions, systems and services, a range of (analytical and synthetic) skills, both general and specific and attitudes which allow effective and responsible management of financial affairs. Servon and Kaestner (2008) defined financial literacy as "*a person's ability to understand and make use of financial concepts*". National Financial Educators Council (NFEC) defines financial literacy as '*Possessing the skills and knowledge on financial matters to confidently take effective action that best fulfills an individual's personal, family and global community goals'*. This definition is broad because it considers not only the personal aspect but also family and community aspects. The researcher observes some common aspects emphasized in all the definitions and taking all that into consideration a comprehensive definition of financial literacy would be "*a state of proficiency that reflects the awareness and understanding (Knowledge) of the basic financial concepts, skills, attitudes, confidence and behavior related with making informed decisions in managing financial resources in order to achieve personal, family or community goals in an ever-*

changing financial environment". Consequently, *financial literacy is a necessary skill to manage the financial aspects adequately in order to make informed decisions*. Financial literacy therefore is important for each and every individual. Those who are financially literate would make error free financial decisions and as a result they would avoid paying more for financial institutions and services, manage their borrowing behavior well, make efficient investments and ultimately enhance their personal wealth compared to others.

3. **Importance of Financial Literacy**

Schagen S and Lines A (1996) in a study of adults in England emphasize that adults lack financial literacy skills and are needed to be improved. Peter A. Kindle(2010)studying on social work students found that knowledge about finances have an important impact on the lives of their clients, although the nature of financial knowledge, skills, or behaviors necessary to buffer against financial stress and strain cannot be decided. Lyons A C and L. Hunt J L (2003) examining credit practices and financial education needs of community college students found that students wish to receive information on financial assistance and how to become responsible credit consumers and also prefer to receive financial education in one-on-one discussions, small group settings and from financial aid officers. Financial knowledge and retirement planning in the Netherlands was studied by Van Rooij, M. C. J., Lusardi, A., &Alessie, R. J. M (2009) via a household survey and has identified a strong and positive relationship. Kefela G (2010) argued that financial literacy is important at many levels. It is an essential element in enabling people to manage their financial affairs and can make an important contribution to the soundness and efficiency of the financial system, and to the performance of the economy. Karunathilaka K.T.S. (2016) found that financial literacy is positively correlated with income, education, usage of banking products and knowledge of simple economic concepts and suggested that knowledge and practice of the basic financial literacy should be included in the formal education syllabus and popularizing financial knowledge through various programs is a must to improve the prevailing conditions. Goel, I and Khanna S R (2013) suggest that financial literacy can help guide consumers through complex maze of financial products & services. It can help consumers make their financial decisions confidently, safeguard their financial interests and resist marketing pitches of financial service providers. Edirisinghe UC,*et. al.* (2017) concludes that financial literacy on Savings, Investments, Insurance, Borrowing and Credit are valid determinants of financial behavior of management undergraduates.

As suggested by many authors' financial literacy is an important aspect that defines peoples' behavior in finance related matters. If people are not financially literate they tend to make suboptimal decisions leading to sub-optimization of economic goals. A low level of public financial knowledge can mean that inappropriate risk return decisions are being made, and that people are not necessarily aware of the risks they face in their day-to-day financial decisions. It can also help reduce the burden of protecting financial consumers on regulators and maintain integrity and quality of financial markets. University/college administrators and financial professionals can apply this information to develop resources that specifically address the financial education needs of their students.

4. Measuring Financial Literacy

Different researchers have utilized different methodologies in measuring financial literacy. In this section the instruments used in data collection, techniques used in measuring financial literacy and the sample studied are discussed. Many researchers such as; Chen and Volpe (1998); Chen and Volpe (2002);Lyons A C and L. Hunt J L (2003); Beal, D. J., &Delpachitra, S. B(2003); Borden L M, et.al(2007); Wagland, S. P. and Taylor, S.,(2009) ; Kindle, P (2010); Jorgensen B L and Savla J (2010); Falahati L and Paim L H (2011); Altintas K M(2011)); Agarwalla S K , et.al (2012); Mihalčová B et.al (2013); Opletalová A (2014) ; Edirisinghe, S.S. *et al* (2015); Wagner J(2015); Altintas K M (2011); Thapa B S and Nepal S R (2015);Edirisinghe U C et.al (2017) have focused on a sample of university students or college students. Mandell L and Schmid Klein L (2009) studied high school student's .Clarke M C., et.al. (2005) chose specific population of university students where higher percentage of individuals coming from a first marriage, two-parent home with a larger family size, thus allowing the researcher to assess the modeling of financial tasks at home by father and mother throughout childhood and modeling by the older and younger siblings. Some others have concentrated on the adult population (Schagen S and Lines A(1996),Hastings J, et.al (2010), Van Rooij, M. C. J., et.al (2009) Agarwalla S A K ,et.al(2012) Falahati L and Paim L H(2011) Almenberg J and Sa¨ve-So¨derbergh J(2011)) and there were other studies that concentrated on university professors(Nayebzadeh S,et.al. (2013)), consumer credit users (Lasantha, S. A. R. and Pathirawasam, C (2015)) young employees (Lusardi A, et.al (2009), Agarwalla S A K, et.al. (2012)) ,holders of common stocks and trade a variety of other securities (Korniotis G M and Kumar A(2011); Carpentier C and Jean-Marc Suret(2012)), investors (Hussein A. et.al.(2009)) and financially distressed consumers who telephoned a large national non-profit credit counseling organization seeking assistance with outstanding credit(Xiao J Jet.al (2005)) Bucher-Koenen T and Lusardi A (2011) and Heenkenda S(2014) studied households. Karunathilaka K.T.S. (2016) studied the rural sector. Lusardi A and Mitchell O S (2015) surveyed people in several countries. Klapper L F, et.al G a (2012) used a panel dataset from Russia, an economy in which consumer loans grew at an astounding rate.

Questionnaire happens to be the most frequently used instrument in collecting data, while focus group discussions were used by Lyons a C and Hunt J L (2003). The questions covered (1) general personal financial knowledge (2) understanding of financial concepts and terms (3) the skill needed to utilize knowledge and understanding and respondents experience (4) and the demographics of the respondents in the majority of instances. Questionnaire was administered personally by Chen and Volpe (1998). Lyons a C and L. Hunt J L (2003) administered the questionnaire as a paper version. Borden L M et.al (2007) asked students to complete both a pre- and post-test survey during one of the seminars. Wagland, S. P. and Taylor, S., (2009) used group administration method to distribute the survey. Hussein A. et.al. (2009) selected a convenient sample that consisted of the UAE-national investors of Abu Dhabi Securities Market (ADSM) and Dubai Financial Market (DFM). The Arabic version of the questionnaire was administered in different ways: some of the questionnaires were handed to the investors who visited DFM and ADSM trading floors. Some via the managers of brokerage companies, Abu Dhabi Chamber of Commerce, Abu Dhabi Business Women Council and Ras Al-Khaimah Chamber of Commerce. Mandell L and Schmid Klein L (2009) segmented the high school students by high school and year of graduation. Half the sample took a personal financial management course while the other half did not. The superintendent of schools wrote letters containing the web address for an online survey and a coded identification number that could be placed at the end of the survey to qualify respondents for a payment. Jorgensen B L and Savla J (2010) gathered data using the on-line survey program, Survey.vt.edu. Kindle P A (2010) used a survey questionnaire on SurveyMonkey.com. And the participants were solicited by e-mails. Falahati L and Paim L H (2011) selected Malayasia university students randomly, using the list of names obtained from each student affairs office. Bucher-Koenen T and Lusardi A (2011) have used the cross-section of a household survey in which one randomly chosen person (not necessarily the house hold head) who has information on household finances responds to all questions in paper and pencil format. Almenberg J and Sa¨ve-So¨derbergh J (2011) have collected data via a telephone survey of Swedish adults that was commissioned by the Swedish Financial Supervisory Authority and carried out by a private contractor from an independent random sample that is representative of the Swedish population generated using Statens person address register, a database containing all individuals registered as residents of Sweden. Korniotis G M and Kumar A(2011)and Carpentier C and Jean-Marc Suret(2012) studied households who hold common stocks and trade a variety of other securities including mutual funds, options. Altintas K M (2011) evaluated a large sample from multiple universities in Turkey. Agarwalla S A K ,et.al(2012) adopted the questionnaire developed by the Organization for Economic Cooperation and Development (OECD) to assess financial literacy of students , young employees and the retired in India. Survey administered by Edirisinghe, S.S. et al (2015) used a comprehensive questionnaire developed in Sinhala language, converted to an online format using the online platform: www.esurv.org, and web links of this questionnaire were administered using emails and Face book.

Majority of the researchers have used standard questionnaires developed by others (such as the OECD) or tailor made questionnaires to suit a specific sample and only in one situation it was found that focus group was used in collecting data. In administering the questionnaires many methods were used. Some have used a structured questionnaire type, whereas others have used e mail, Face book, and telephone or examination type.

5. **Literacy levels of different segments of the society**

Chen and Volpe (1998) concludes that college students are not knowledgeable about personal finance while Mihalčová B et.al (2013) in a study of University students in Slovekia found that the level of knowledge and expertise in financial literacy is still about average. In Edirisinghe UC & Amarasinghe R (2016) and Edirisinghe U C , et.al (2017) authors, suggest that financial literacy level of majority of the undergraduates of the three Sri Lankan universities selected is at a moderate level. Agarwalla S A K ,et.al(2012) suggests that high financial knowledge is not widespread among Indians as only less than a quarter among the surveyed get ranked among the highly knowledgeable, based on the OECD approach. Lasantha, S. A. R. and Pathirawasam, C. (2015) investigates the financial literacy level of consumer credit users in Sri Lanka and their credit choice emphasizing that individuals have displayed a moderate level of financial literacy. Despite the financial literacy level, most individuals have resorted to high cost credit cards compared to low cost bank borrowings which implies a behavior that deviate from rationality that requires further investigation. Heenkenda S (2014) shows that the majority of the respondents in the sample (Sri Lanka) demonstrate a modest financial knowledge and can be categorized as a literate (bankable) group. Koenen T and Lusardi A (2011) found that knowledge of basic financial concepts is lacking among women, the less educated, and those living in East Germany compared to their West German counterparts. Almenberg J and Sa¨ve-So¨derbergh J (2011) indicate that many adults have low financial literacy. In a study on ability of individuals to deal with financial decisions Fornero E and Monticone C (2011) shows most individuals lack knowledge about inflation and interest rates. Lusardi A and Mitchell O S (2011) show that young, women and less educated in the United States have low level of financial literacy. Lusardi A and Mitchell O S (2015) find that levels of financial literacy are low not only in the United States but also in many other countries including those with well-developed financial markets. Yoshino N and Morgan P (2016) found that financial literacy levels in Asia are generally low.

In summary, financial literacy levels are lower among the young, the old, women and those with low income or low educational attainment. These findings are important since financial literacy is linked to borrowing, saving, and spending patterns.

6. **Demographic characteristics as determinants of Financial Literacy.**

6.1 Gender difference

The relationship between gender and financial literacy has been examined in studies by Lusardi A et al. (2010), Dvorak, T., & Hanley, H. (2010) ,Peng et al. (2007), Volpe et al. (2006), Chen and Volpe (1998); Chen & Volpe, (2002); Eitel & Martin, (2009); Goldsmith & Goldsmith, (2006); Hira & Mugenda, (2000); Lim, *et al*., (2003); Shim, *et al*., (2010); Falahati L and Paim L H (2011);Edirisinghe, S.S. *et al* (2015); Salvador R (2012); Taft M K et.al ,(2013). In these studies, higher financial literacy in men is concluded while studies by Kindle (2010), Altintas(2011); Wagland and Taylor (2009); Bucher-Koenen and Lusardi (2011) ; Heenkenda S (2014) ;Lasantha S. A. R. and Pathirawasam, C(2015) ; koenen T and Lusardi A(2011) and Thapa B S and Nepal S R (2015) , the relationship between financial literacy and gender is rejected. Falahati L and Paim L H (2011); Shim *et al.* (2009); and Newcomb and Rabow (1999)indicate that male students were socialized earlier in financial matters. Families use different strategies to socialize boys and girls regarding financial issues, and boys are being socialized earlier. Socialization agents affect the financial behavior of both male and female students. Hira, T K (1997); Hira T K & Mugenda, (2000); Lyons, (2004); Pinto, *et al*., (2005) emphasized that family, and parents are the main source of financial knowledge and skills for students. Agarwalla S A K, et.al (2012) suggests that relative to women, more men are overconfident about their financial skills. Respondents of urban origin have relatively low levels of over confidence compared to their rural counterparts. Perhaps, the relatively greater fluency of the urbanites in financial matters makes them more realistic.

6.2 Age

The relationship between age and literacy have been investigated and proved by researchers such as Cude B J (2010); Lusardy et al. (2010); Kindle (2010); Al-Tamimi and Kali (2009); Taft M K et.al ,(2013); and Edirisinghe, S.S. *et al* (2015). Heenkenda S (2014) shows that the age group within 25-34 years had a higher financial literacy than others in the sample. Korniotis G M and Kumar A (2011) found that older investors' portfolio decisions reflect greater knowledge about investing but investment skill deteriorates with age due to the adverse effects of cognitive aging. Lasantha, S. A. R. and Pathirawasam, C. (2015) emphasized that individuals below the age of 25 have lower financial literacy level implying that they are susceptible to higher credit related risks. Altintas K M (2011) found age as one of the most important factors that affect the overall personal financial literacy of university students. Thapa B S and Nepal S R (2015) identified age as one determinant of financial knowledge. Finke, M S. et,al. (2011) find that financial literacy scores decline by about one percentage point each year after age 60.

6.3 Marital Status

Regarding the relationship between marital status and financial literacy, Volpe et al. (2002); Nayebzadeh S, et.al. (2013); Taft M K et.al, (2013) and Heenkenda S (2014) has proved that there is a significant relationship between marital status and financial literacy. Agarwalla S A K, et.al (2012) does not observe any significant difference between the married and unmarried in the proportion of respondents quoting higher financial literacy.

6.4 Employment Status

Wills E W (2008) found that employment status predicted students' financial knowledge, attitudes, and behaviors. In contrast, Nayebzadeh S et.al (2013) showed that university professors lack essential financial information for handling their daily financial issues.

6.5 Income Level

Agarwalla S A K, et.al (2012) found respondents in the higher income brackets appear to be more confident about their own financial skills, which is possibly in line with the observations about their financial literacy. Salvador R (2012) showed that being female was associated with lower Financial Literacy scores. Dvorak, T., & Hanley, H. (2010) found that literacy is low in low income and low education employees. Bumcrot C B , et.al.(2011) found that there is a significant correlation between the financial literacy of a state and that state's poverty level. Tapa B S &Nepal S R (2015) identified income as one determinant of financial knowledge.

Different studies have presented different results between demographic variables and financial literacy. An explanation for this difference may be the differences in time and location the investigation was conducted. Time and location can affect people's definition of financial literacy and their relationship with demographic variables.

7. **Financial Literacy and Retirement planning**

Van Rooij, et.al (2009); Bucher-koenen T and Lusardi A (2011); Prast H and van Soest A (2016) find a positive impact of financial knowledge on retirement planning. Lusardi A and Mitchell O S (2007) found consumers require additional support for old-age retirement planning and saving. Also, education programs will be most effective if they are targeted to particular population subgroups, so as to address differences in saving needs and in preferences. Monticone C (2011); Lusardi A and Mitchell O S (2011a&b) Lusardi A and Mitchell O S (2009); and Almenberg J and Sa¨ve-So¨derbergh J(2011)show that financial literacy has a positive and significant impact on the probability of pension plan participation . Agarwalla S A K ,et.al (2012) found that majority of the respondents financially plan for retirement and start systematic savings early in life. Majority of them claim to have estimated their post-retirement income requirements. The investment avenues frequently chosen are relatively safe assets. Their retirement financial planning appeared moderately successful as 68% of the retired depend on pensions. The awareness of financial products was generally low. This could limit the diversification of investment portfolios across asset classes. Less than a quarter of the respondents depended on independent financial advisers and advertisements. Fornero E and. Lusardi A (2004) suggests that retirement seminars can foster wealth accumulation and bolster financial security in retirement while Crossan, D., and et.al 2011 found financial literacy is not significantly associated with retirement planning.

8. **Financial Education and Literacy**

Lusardi A and Mitchell O S (2007) found that literacy is higher when they were exposed to economics in school and to company-based financial education programs. Cohen M and Nelson C (2011) finds that financial education is essential to both Institutional responsibility and financial capability. Bayrakdaroglu A, and San F B (2015) show financial education is a factor that increases the financial literacy level.Opletalová A (2014) finds that there is quite clearly a good reason for financial education in schools and educating new generations in financial literacy presents a very real possibility of eliminating a negative development in society. Lusardi A(2003)and Lusardi A (2004) suggests that by offering financial education, both financial and total net worth increase sharply, particularly for families at the bottom of the wealth distribution and those with low education. Retirement seminars also increase total wealth (inclusive of pension and Social Security) for both high and low education families and seminars foster saving, particularly for those with low education and those who save little. Wills E W (2008) suggest that the financial education seminar effectively increased students' financial knowledge, increased responsible attitudes toward credit and decreased avoidant attitudes towards credit from pre-test to post-test. At post-test, students reported intending to engage in significantly more effective financial behaviors and fewer risky financial behaviors. Borden L M, et.al(2007) suggest changing the personal finance market or the manner in which consumers must maneuver in it, making the map easier to read and follow, giving them a guide, or building more direct routes. Gibson J, et.al (2012) presents the results of a randomized experiment designed to measure the impact of providing financial literacy training to migrants. Training appears to increase financial knowledge and information seeking behavior and reduces the risk of switching to costlier remittance products but does not change either the frequency or level of remittances. Clarke M C, et.al (2005) assesses the modeling and teaching of adult financial roles to children and adolescents and the implementation of those roles in early adulthood. Young adults felt only adequately taught and moderately prepared to perform financial tasks. Financial role transfer is taking place most often from parents in the home, rather than sources outside the home. Financial tasks needed in teen years are modeled and taught more frequently and thoroughly in the home than the financial tasks needed in emerging adulthood. Fathers modeled financial tasks more frequently than mothers. When mothers modeled financial tasks and adolescents practiced those tasks, frequency of performance as young adults increased and they felt more financially prepared. Frequency of performance is also enhanced when financial tasks are considered the responsibility of the entire family while growing up. Jorgensen B L and Savla J(2010) indicated that perceived parental influence had a direct and moderately significant influence on financial attitude, did not have an effect on financial knowledge, and had an indirect and moderately significant influence on financial behavior, mediated through financial attitude. Wagner J (2015) suggests that a financial education course is positively related to long-term financial behaviors and effects of the financial education courses are larger for long-term behaviors than for short-term behaviors. Agarwalla S A K, et.al (2012) suggested that respondents (more than 5%) felt that they would benefit from training on how to manage their expenses and savings. Gibson J, et.al (2012) found that training appears to increase financial knowledge and information seeking behavior and reduces the risk of switching to costlier remittance products but does not change either the frequency or level of remittances for migrants. Goel, I and Khanna S R (2013) show financial education can help consumers develop knowledge, skills and confidence to take effective financial decisions. In contrast, Mandell L and Schmid Klein L (2009) indicated that those who took the course were no more financially literate than those who had not. In addition, those who took the course did not evaluate themselves to be more savings-oriented and did not appear to have better financial behavior than those who had not taken the course. This is confirmed in Fernandes D, et.al (2013) who found that interventions to improve financial literacy explain only 0.1% of the variance in financial behavior.

9. **Literacy and Stock Market Participation**

Van Rooij, et.al. (2007), Van Rooij, et.al. (2011),and Klapper L F , et.al G A (2012) found that those who have low financial literacy are significantly less likely to invest in stocks and financial literacy is positively related to participation in financial markets and negatively related to the use of informal sources of borrowing.

10. **Conclusion**

Financial literacy is a necessary skill to manage the financial aspects adequately in order to make informed decisions. Lack of financial literacy is problematic as individuals become unable to optimize their own welfare. This has obvious consequences for individual and social welfare. Consequently, the standard models used to capture consumer behavior and shape economic policy become less useful. The existing literature indicates that financial literacy has an influence on individual's investments, participation at the financial markets and in planning for retirement. As literature indicates financial education aiming at increasing financial literacy has resulted in increased literacy in majority of the situations researched. Low literacy levels leads to choosing simple investment products and avoiding investments in the stock market. High literacy levels encourage people to go for complex investment products and engage in retirement planning. In general women are found to be less financial literate over men, older people found to be less literate over the young, uneducated are found to be less literate over the educated and the inexperienced are found to be less literate over the experienced.

Overall people do not possess adequate levels of financial literacy. Properly planned financial education may be helpful in increasing literacy levels. Low levels of financial literacy will have an unfavorable effect on developments of the financial markets and in turn development of the overall economy. Hence governments and policy makers must pay due attention on developing financial literacy of the general public.

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