

Financial Literacy and Financial Wellbeing of Public Sector Employees: A Critical Literature Review

Margaret Gatuiri Kamakia, PhD Student

University of Nairobi, Kenya

Dr. Cyrus Iraya Mwangi, PhD

Dr. Mirie Mwangi, PhD

Department of Finance and Accounting,
University of Nairobi Nairobi, Kenya

doi: 10.19044/esj.2017.v13n16p233 [URL:http://dx.doi.org/10.19044/esj.2017.v13n16p233](http://dx.doi.org/10.19044/esj.2017.v13n16p233)

Abstract

There is a great concern from researchers, government, and professional bodies about how consumers, households, students and employees manage their finances. A great number of people from both developed and developing countries are reported to be financially illiterate. Employees today are facing serious challenges in financial decision making that seems to emanate from the changes in financial markets and in social security pension schemes. They have access to financial literacy sessions at their workplaces yet this is not always reflected in the kind of lives they live. This provokes the question ‘does a more financially literate employee enjoy better financial wellbeing than a less literate person?’ The current study therefore seeks to critically review the literature to establish the documented relationship between financial literacy and financial wellbeing and possible intervening and moderating variables. The existing literature gaps are identified and recommended for further research. The results from the literature review indicate that financial literacy and financial wellbeing are defined and measured differently. Additionally, there seem to be a positive relationship between financial literacy and financial wellbeing but this relationship is intervened and moderated by financial decisions and demographic factors respectively.

Keywords: Financial Literacy, Financial Wellbeing, Financial Decisions

Introduction

So much has changed in the world of finance that requires individuals to change and do things differently. With a wide range of complex financial products in the market, a growing number of workers approaching

retirement, and a shift towards individual responsibility over their finances, financial literacy is necessary. A financially literate individual is able to plan, save, borrow, invest, and spend wisely, take risks reduction measures, (Moulton et al. 2013; Atkinson & Messy 2012; Grohmann et al. 2014; Attridge 2009; Lusardi & Mitchell 2009; Van Rooij et al. 2007) and even seek financial information where necessary. However, previous studies reveal that, a great number of people worldwide are financially illiterate. Xu and Zia (2012) in their research found that financial literacy levels are low in both high and low income countries. Lusardi and Mitchell (2011) observe that, financial illiteracy is widespread even where financial markets are well developed.

The subject on financial wellbeing has also become an interesting area of discussion to researchers, government, employers, and professionals. Given the many challenges facing individuals such as, personal bankruptcies, health issues, early retirement, job losses, among others, well financially prepared individuals are able to overcome them with more ease than poorly financially prepared individuals. The World Bank (2013) observes that, policy makers across the world are concerned with how the households' financial wellbeing can be improved to enhance financial sector and increase its stability. InFRE (2014) observes that many workers are expecting a more active lifestyle but are not adequately planning for additional income that this lifestyle costs. Lusardi and Mitchell (2011) argues that, the reason as to why people fail to plan for retirement, or do so unsuccessfully, may be because they are financially illiterate.

The current study alienates from the traditional economic theories of rationality to behavioural theories that explain the human irrationality. The argument is that people do not always act as expected due to some behavioural characteristics they possess. In this study, financially literate individuals have more behavioral control over their finances and therefore better financial wellbeing.

Employees are facing various financial challenges which range from overwhelming financial information and products, to financial responsibilities. Van Rooij et al. (2007) argue that, complex financial markets and structural reforms in Social Security and pensions schemes have exposed individuals to a greater responsibility of making difficult financial decisions for their own wellbeing. Agarwalla et al (2012) observe a reduced role of the government and employers in managing investments on behalf of employees as a result of these reforms. This has led to increased responsibility of employees in managing their own finances and securing their financial future. Lusardi and Mitchell (2014) argue that, financial knowledge impacts key financial outcomes during the work life. FSD (2009) urges that, while the supply side of the financial markets in Kenya is likely to

improve access to financial services, the demand side must also be stimulated by increasing financial literacy.

The current study is divided into five sections. The first section provides the conceptual and the contextual background of financial literacy and financial wellbeing as well as the research problem statement. The second section provides the key theories supporting the current study. The third section provides theoretical literature review. The fourth section provides empirical literature review. The fifth section provides the conclusion and recommendations for further research.

Financial Literacy

Different definitions of financial literacy show that, researchers are yet to agree on a common definition and measurement of this concept. Remund (2010) broadly defines financial literacy as a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions. OECD (2013) broadly defines financial literacy as knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial wellbeing of individuals and society, and to enable participation in economic life.

Huston (2010) defines financial literacy as a measure of how well an individual can understand and use personal finance-related information. Abdullah and Chong (2014) narrowly define financial literacy as the ability to make effective decisions regarding the use and management of money and other assets. Addin et al. (2013) narrowly define financial literacy as the awareness of financial principals and terminologies.

The current study embraces the definition of OECD (2013). It acknowledges the need for individual's motivation and confidence to apply financial knowledge in decision making, given different financial contexts. It also emphasizes the improvement of not only individual's financial wellbeing but also that of the society.

Remund (2010) argues that, a generally accepted definition of the financial literacy removes the confusion that slows progress and hinders the ability to design meaningful and effective consumer education programs. Huston (2010) explains that, lack of a precise and consistent construct conception limits the ability to conduct comparative analyses or assess financial literacy rates and their subsequent impact on financial wellbeing. Jumpstart National coalition for financial literacy (2007) maintains that, defining financial literacy, the recognition that financial literacy is more than

just knowledge or information and, that the ability to use information and resources is key to achieving and maintaining financial wellbeing.

There are other terms used synonymously with financial literacy. Zait and Berteau (2014) find interchangeable terms in financial capability, financial literacy, financial knowledge, financial education, and financial competence. Huston (2010) defines financial education as an input intended to increase a person's human capital, specifically financial knowledge and application. Hung et al. (2009) argue that financial knowledge is a form of financial literacy. The World Bank (2013) defines financial capability as the internal capacity to act in one's best financial interest given socioeconomic environmental conditions. Cox et al. (2009) refers financial competence as the knowledge and behaviours which contribute to financial capability.

Several terms have been used to operationalize financial literacy. Remund (2010) uses such indicators as budgeting, saving, borrowing and investing. OECD (2013) uses domains of money and transactions, planning and managing finances, risk and reward, and financial landscape. Huston (2010) views it in terms of money basics, borrowing, investing and saving, and protecting resources. Jumpstart National coalition for financial literacy (2007) uses indicators such as spending, saving, credit & debt, income, investing, risk management and insurance, financial decision making. Capuano and Ramsay (2011) have applied the dimensions of numeracy and money management, budgeting and living within means, saving and planning, borrowing and debt literacy, choosing financial products, and recourse.

Mbarire and Ali (2014) note that, the first step to improving financial literacy is to measure it. Huston (2010) argues that, a well-designed financial literacy instrument with four content areas can yield twelve to twenty minimum questions that adequately capture personal finance knowledge and application. Lusardi and Mitchell (2011) design the three basic financial literacy concept questions in the area of Interest compounding, inflation, and risk diversification. Atkinson and Messy (2012) designed twenty one questions on basic knowledge, behavior, financial products, and attitude. Hung et al. (2009) developed five multiple-choice basic financial literacy items and eight multiple-choice sophisticated financial literacy items.

Financial Wellbeing

Financial wellbeing is one of the branches of wellbeing from which previous research studies have derived its definition. Mokhtar et al. (2015) broadly define financial wellbeing as an abstract concept being used to explain an individual or family financial situation. Porter and Garman (1993) broadly defines financial wellbeing as a function of personal characteristics, objective attributes, perceived attributes, and evaluated attributes of the

financial domain. Muleke and Muriithi (2013) broadly defines financial wellbeing of a person as a state of mind that measures their satisfaction with own financial matters. CFPB (2015) narrowly defines financial wellbeing as a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life. Joo (2008) derives the definition of financial wellbeing from the general wellbeing and narrowly defines it as a state of been financially healthy, happy and free from worry.

The current study embraces the definition of CFPB (2015). It recognizes that a person who is financially well can comfortably make financial choices and meeting current and future financial needs. The definition also recognizes financial wellbeing as a measure of the individuals' financial satisfaction. They feel secure and enjoy their lives as they make financial decisions.

Financial wellbeing of employees can make their lives easier as they can work and retire free of worry. Garman et al. (2005) state that, an important part of a person's overall psychological wellbeing is satisfaction with various aspects of life and one of the domains of overall wellbeing is personal finance. CFPB (2015) notes a growing consensus that, the ultimate measure of success for financial literacy efforts should be individual's financial wellbeing.

Financial wellbeing has been operationalized differently by different researchers. CFPB (2015) uses such indicators as behavior in managing money, research and knowledge-seeking, planning and goal-setting; knowledge; and persona traits. Porter and Garman (1993) operationalize financial wellbeing in terms of cash management, credit management, capital accumulation, risk management, retirement or estate planning, and general financial management. Malone et al. (2010) uses such dimensions as buying behavior, perception of current finances, perception of financial future, and attitude toward long-term care insurance.

Vlaev and Elliott (2013) describe the objective wellbeing as a measure which focuses on the economic and social aspects of wellbeing, while subjective wellbeing focuses on the psychological aspects of wellbeing. Prawitz et al. (2006) argue that, subjective measures provide a richness that objective measures do not, for they help the researcher to examine not only how the financial condition is perceived, but also how it affects individuals and families. They use subjective measures of eight questions on financial satisfaction. Shim et al. (2009) use fifteen subjective financial knowledge questions, five financial attitude questions, five questions on healthy financial behavior performances, and three items on financial satisfaction. Mokhtar et al. (2015) use Malaysian personal financial

wellbeing scale with twelve items about financial control, attitude, behavior and confidence.

There are other terms that are used synonymously with financial wellbeing. They include financial wellness, financial satisfaction, and economic wellbeing. Delafrooz and Paim (2011) define financial wellness as a level of financial health which includes satisfaction with material and non-material aspects of one's financial situation, perception of financial stability including adequacy of financial resources, and the objective amount of material and non-material financial resources that each individual possesses. Shim et al. (2009) define financial satisfaction as a behavioral indicator that is demonstrated as a result of satisfaction or dissatisfaction with financial issues. Hayhoe and Wilhelm (1998) define perceived economic wellbeing as the perception of one's economic situation in light of what is required and desired.

Public Sector Employees

Public sector is the part of national economy providing basic goods or services that are either not, or cannot be, provided by the private sector. It consists of national and local governments, their agencies, and their chartered bodies. The public sector employee is therefore a person employed by the government, either, national, local, or agencies to carry out tasks, and deliver goods, services, and benefits that are termed as public. A public commodity, service, or benefits are provided to all members of a society, with disregard to profits.

Lusardi (2008) argues that, just as it was impossible to live and operate efficiently without being literate in the past, so it is very hard to live and operate efficiently today without being financially literate. Lusardi and Mitchell (2014) argue that, inasmuch as employees are increasingly taking on additional responsibility for their own financial wellbeing, there remains much to learn about saving, investment and liabilities. They argue that, financial knowledge impacts key outcomes during the work life and in retirement. Attridge (2009) points out that, lack of primary skills on how to manage, save, and invest money is one of the reasons as to why employees experience financial trouble. Lusardi and Mitchell (2009) find that, financially illiterate employees do not plan for retirement, while more financially knowledgeable younger and non retired people are more likely to plan for retirement.

Employees have always assumed that the statutory savings would guarantee them full financial wellbeing when they leave work. Mokhtar et al. (2015) in their study find that, the general financial wellbeing of public employees is at moderate level. Boddy et al. (2015) observe that, over the last ten years, approximately half of non retired Americans reported being

confident that they will have enough money to live comfortably in retirement. Maximilian et al. (2011) however explain that, financial wellbeing in retirement increasingly depends on individuals' effective management of savings and investments during both the work and retirement years. Zaimah et al. (2013) discover that, many public sector workers do not cultivate effective saving habit in their lives and instead likely to spend more than what they earned. Malone et al. (2010) show that, majority of working women were worried about their financial status. Prawitz et al. (2007) observe that a decrease in both negative bill-paying behaviors and exhaustion of liquid assets, and an increase in time spent in a debt management program enhance financial wellbeing.

Research Problem

Employees are facing various financial challenges which range from overwhelming financial information and products, to financial responsibilities, (Agarwalla et al 2012; Van Rooij et al. 2007). According to InFRE (2014), many workers expects better financial lifestyles but do not know how to achieve it while Lusardi and Mitchell (2011) argues that it may be because they are financially illiterate. Employees in the formal employment, have an advantage of accessing financial knowledge through their employers' training initiatives at their work places. Volpe et al. (2006) however find the area of pension planning as one of the areas in which most employees are financially illiterate, followed by financial concepts. This study therefore critically reviews the concepts of financial literacy and financial wellbeing, their relationship and the influence of other likely variables on the relationship between financial literacy and financial wellbeing. The study seeks to answer the question 'does a more financially literate person enjoy better financial wellbeing than a less literate person?'

Key Theories

In behavioural science, individuals are said to be irrational, to have limited access to information, and to enjoy utility derived from short term decisions. Individuals' financial wellbeing can be influenced by the financial decisions they make with a given level of financial literacy. This study is grounded on three behavioral theories. Kahneman and Tversky (1979) developed prospect theory which describes the real life choices an individual makes. They are of view that in making decision involving risk, people rely on a limited number of heuristic principles. In this case financial literacy is necessary to help in minimizing decision errors that may affect their financial well being. Ajzen (1991) extended the theory of planned behavior to explain peoples' intention to behave in a certain manner under perceived behavioural control. Financially literate individuals may not always act in

their own best interest to improve their financial wellbeing. Stone (2012), in the dual processing theory of financial functioning, views a human mind as divided into two systems which drive decisions. It explains why financially literate people may be good policy makers yet poor in executing them.

Theoretical Literature Review

It is expected that once employees become financially literate, their financial wellbeing improves. CFPB (2015) argues that, the ultimate measure of success for financial literacy efforts should be individual financial wellbeing. Addin et al. (2013) argue that, financial literacy can influence individuals' financial wellbeing and being away from financial worries. Monticone (2011) finds that, various definitions consider financial literacy as sufficient to improve financial wellbeing. Insufficient financial information leads to financial errors that affect financial wellbeing of individuals. InFRE (2014) argues that, financial illiteracy is the cause of inadequate retirement planning by many employees expecting more active lifestyles currently and in future. Prawitz et al. (2006) show that, participation in a debt management program contributes to beneficial outcomes, like higher financial wellbeing. Shim et al. (2009) however, find no significant relationship between financial literacy and financial wellbeing.

Having the right knowledge and skills can help in improving one's financial wellbeing. For instant, investment knowledge and skills may help employees expand their sources of income thereby becoming financially secure. CFPB (2015) argue that, in order to put financial knowledge to use, an action component, the ability or skills, is needed. Addin et al. (2013) note that individuals with higher financial literacy make better decisions and enjoy higher financial security and wellbeing. Grohmann et al. (2014) explain that, financial literacy enhances individual's welfare by enabling financial decision making in saving and borrowing. Gerrans et al. (2013) note that, considerable resources are being directed towards improving levels of financial literacy with an expectation of improved financial decision making and quality of life. Financial literacy can enhance individual's attitude towards a behavior that can improve financial wellbeing. Atkinson and Messy (2012) observe that, financially literate people have some basic knowledge of key financial concepts, their behavior have a significant impact on their financial wellbeing, and undertaking a certain behavior depends on their attitude. Moulton et al. (2013) explain that, taking an informed decision about how much mortgage debt is manageable requires a consumer to accurately perceive his or her financial situation.

Individual differences can either strengthen or weaken the relationship between financial literacy and financial wellbeing. Messy and Monticone (2012) note that, gender differences in financial literacy are

correlated with education which influences women's financial wellbeing. Rutherford and DeVaney (2009) find that, higher levels of education offer many advantages to consumers and only those with a college degree are more likely to use credit cards conveniently. OECD (2006) however notes that, highly educated consumers can be as financially ignorant as less educated consumers. Hung et al. (2012) observes that, women's financial knowledge and confidence are lower than that of men. They argue that, although women tend to do better at day-to-day household money management, they still fare worse in planning, choosing products and staying informed. Gamble et al. (2015) argue that the cognitive decline that comes with age could compromise the elderly's decision-making ability and thereby their financial wellbeing. Accumulating wealth requires know-how and ability to do so, for the current and future financial wellbeing. Sekar and Gowri (2015) argue that ignorance about basic financial concepts can be linked to lack of retirement planning and lack of wealth. Njuguna et al. (2011) argue that, financially literate people are able to make informed decisions and take appropriate actions on matters affecting their financial wealth and wellbeing.

Empirical Literature Review

Volpe et al. (2006) carried out a study on an analysis of the importance of personal finance topics and the level of knowledge possessed by working adults. The objectives of the study were to identify important topics and questions for testing literacy in personal finance, and as well as establishing the current level of knowledge possessed by employees. A sample of 1,500 United States-based companies was randomly selected. Questionnaires were mailed to professionals in charge of 401(k) education, employee benefits, and other related personal finance programs. The response rate was 14%. The results were analyzed using descriptive statistics and t-tests. Results indicate that, retirement planning and personal financial basics were more important than other areas. Again, respondents' knowledge was relatively low in both cases. The definition of financial literacy is missing, the measuring questions are too many, and the study period is not clearly stated. Given the low response rate, and also considering the period of the study, financial literacy levels may have improved by now. A similar study with a better content measure can be carried out elsewhere in order to generalize the results. Again, financial wellbeing concept can be added to seek its relationship with financial literacy.

Mokhtar et al. (2015) carried out a study on financial wellbeing among public employees in Malaysia. The study aimed to discuss the level of public employee's financial wellbeing in Malaysia as well as examining the determinants of financial wellbeing. A convenient sampling technique

was used to arrive at a sample of 73 public employees in Selangor and Putrajaya. Questionnaires were distributed through e-survey to collect the data. The response rate was 41%. The results indicated that, respondents' financial wellbeing was at multiple level of consisting of low, moderate and high. Their saving cultures were found to be at a unsatisfactorily level and they spent more than they earned. The study period is not indicated, the conceptual definition of financial wellbeing is too narrow, the analytical model is missing, and the response rate is low. The study is also inconclusive as to the level of financial wellbeing of public employees. Again, financial literacy concept can be added to seek its relationship with financial wellbeing.

Muleke and Muriithi (2013) carried out a study on financial education on employees' financial wellbeing in academia at Chuka University in Kenya. The study aimed to investigate the effects of financial knowledge on employees' financial wellbeing. The target population comprised of 251 employees with a sample size of 84. Questionnaires were self administered to the selected employees, to collect the data. Descriptive statistics, Pearson correlation, and chi-square were used to analyze the data. The results show that, employees expressed their dissatisfaction with various financial aspects, indicating that their financial wellbeing was not satisfactory to them. It also emerged that, the level of employee financial knowledge significantly influenced their financial wellbeing. The study is lacking in a sampling procedure and may be the results would have been different. Owing to the fact that the respondents are from a higher institution of learning, it would be more interesting to find out whether the level of education, financial literacy and financial wellbeing have any relationship.

Lusardi and Mitchell (2006) carried out a research on the implication of financial literacy and planning on retirement wellbeing to measure how workers make their saving decisions, collect the information for making these decisions, and whether they possess the financial literacy needed to make these decisions. The study used a purpose-built module on planning and financial literacy for the 2004 Health and Retirement Study where 1,269 respondents in America were included. The module includes three questions testing knowledge in risk diversification, and basic financial numeracy in compound interest and inflation. Results indicate that, financial knowledge and retirement planning are clearly interrelated. The study lacks the sampling procedure and the analytical model. The study does not clearly give the results as per the objectives. It would have been interesting to know whether it is everyone who possesses financial literacy has a good retirement plan.

Bakar et al. (2013) carried out a preliminary investigation on financial wellbeing and indebtedness among young workers in Malaysia. The aim was to investigate whether demographic variables have an effect on

indebtedness and financial wellbeing among young workers in Malaysia. The sample was obtained by purposive sampling in Penang town. Self-administered questionnaires were distributed to 100 respondents in the age group of 20 to 34 years. The data was analyzed using descriptive statistics. The findings from this study indicate that age, education and income level have an effect on house ownership and credit card ownership. Young Malaysians workers were found to be over indebted, and overconfident about their financial satisfaction. It is not clear how the sample was obtained without involving firms. The definition of financial wellbeing and the study period are missing in this study. It is not clear how the sample was obtained without involving firms. It would be interesting to find out why indebted employees would be overconfident about their financial satisfaction. An analysis of relationship among demographic factors of age, education, and income can be carried out.

Nayebzadeh et al. (2013) carried out a study on university professors' financial literacy. Their aim was to find out the rate of professors' financial literacy and establish the relationship between demographic characteristics including age, sex, marital status, and education and financial literacy. The study applied an analytic survey. Through a simple random sampling, a sample of 94 professors was obtained from a population of 550 and studied. The results of the study indicate that, there is a significant relationship between marital status and financial literacy, and that university professors are financially illiterate. The study period is not indicated and the analytical model is not clear. It would be interesting to measure the relationship between the level of education, financial literacy and financial wellbeing of higher education employees.

Zaimah et al. (2013) conducted a study on the financial ratio analysis of married public sector workers in Malaysia to determine their financial wellbeing. The study sought to identify the level of financial wellbeing among public sector workers of dual-earner families in Malaysia. The study used data from a research gathering data done in 2008 which was a study on the financial wellbeing among the workers of dual-earner family in the Malaysian's public sector. A multi-stage sampling approach was used where six ministries were randomly selected from 28 ministries in the Federal Public Administration Office, Malaysia. The population was 1,298 from which a sample of 415 married workers and their working partners was obtained. Data was gathered using a questionnaire resulting in a response rate of 32%. Descriptive analytical model has been utilized. The results of the study showed that, the culture of saving among the workers is still at the unsatisfactorily level. The study reveals that many public sector workers do not cultivate effective saving habit in their lives and instead spend more than their earnings. Although the objective of the study was to identify the level

of financial wellbeing of dual-earner families in Malaysia, the study did not exhaustively measure financial wellbeing level having defined it as an objective and a subjective measure.

Sabri and Juen (2014) conducted a study on the influence of financial literacy, saving behaviour, and financial management on retirement confidence among women working in the Malaysian public sector. A multi-stage random sampling technique was applied as the sampling technique to obtain 708 women working in the public sector. Questionnaires were used to collect the data and only 42 were incomplete. This study applied Pearson correlation and multiple regressions to analyze the data. The findings reveal that women with positive financial status, who are financially literate, and practice financial management, are more likely to display high retirement confidence. The study lacks the study period. The sampling procedure needs to be more elaborate. Specific objectives are missing. It would be interesting to find out the determinants of positive financial status that every woman would enjoy.

Conclusion

The level of employees' financial knowledge has been found to influence financial wellbeing and this implies that employees' financial wellbeing could be enhanced by increasing their personal financial knowledge. Other variables emerged from the literature review. Financial decisions were found to be an intervening variable of the relationship between financial literacy and financial wellbeing, while demographic variable moderated it.

The existence of different definitions of financial literacy has led to different measurements used by different researchers resulting to mixed results. Also, the employees always have access to the pension financial information from their employers, yet this is not reflected in their behavior. Again, contrary to the reports about financial literacy of individuals in other developing and developed countries, Kenya and in South Africa people seem to be more knowledgeable in financial concepts and pension planning yet their behaviour does not reflect that. There is a need to revise and use financial literacy measurement to test specific knowledge and behaviour questions. Additionally, gender and marital status seem to affect the relationship between financial literacy and financial wellbeing more. A further study can be carried out to determine other factors that influence financial wellbeing, holding financial literacy, gender, and marital status constant. Again, where employees with very high level of education were found to be financially illiterate in some regions, a study can be carried out in similar context in other regions so as to generalize the results.

References:

1. Abdullaha, M. A., & Chong, R. (2014). Financial Literacy: An exploratory review of the literature and future research. *Journal of Emerging Economies and Islamic Research*, 2, 9, 2, 3, 1279 - 1289.
2. Addin, M. M., Nayebzadeh, S., Taft, M.K, & Sadrabadi, M.M (2013) Financial strategies and investigating the relationship among financial literacy, financial well-being, and financial worry. *European Online Journal of Natural and Social Science*, 2, 3, 1279 – 1289.
3. Agarwalla, S. K., Barua, S., Jacob, J., & Varma, J. R. (2012). A Survey of Financial Literacy among Students, Young Employees and the Retired in India. *Citi Foundation*.
4. Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50 (2), 179 - 211.
5. Atkinson, A. F., & Messy, F. (2012). Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilot study. *OECD Working Papers on Finance, Insurance and Private Pensions*, 15, 1–73.
6. Attridge, M. (2009). Employee personal financial distress and how employers can help. Research Works. *Partnership for work Place Mental Health*, 1, 1.
7. Bakar, S. A., Subramaniam, G., & Tan, P. (2013). Financial Wellbeing and Indebtedness among Young Workers in Malaysia: A Preliminary Investigation. *International Islamic Business Conference*, 1 – 7.
8. Boddy, D., Dokko, J., Hershbein, B., & Kearney, M. S. (2015). Ten Economic Facts about Financial Well-Being in Retirement. The Hamilton Project. *Economic Facts*, 1–20. http://www.brookings.edu/~media/research/files/papers/2015/06/thp-retirement-series/final_ten_facts_financial_well_being_retirement.pdf
9. Capuano, A. & Ramsay, I. (2011). What causes suboptimal financial behaviour? an exploration of financial literacy, social influences and behavioural economics. *Centre for Corporate Law and Securities Regulation*, 1 – 243.
10. CFPB (2015). Financial well-being: The goal of financial education. *Consumer financial protection bureau*, 3, 2 - 48.
11. Delafrooz, N. & Paim, L. (2011). Determinants of financial wellness among Malaysia workers. *African Journal of Business Management*, 5, (24), 10092-10100.
12. FSD (2009). Dynamics of Kenya’s changing financial landscape. *FinAccess National Survey, Kenya*.

13. Gerrans, P., Speelman, C. P., & Campitelli, G. J. (2013). The relationship between Financial wellness and financial wellbeing: A Structural Equation Modelling Approach. *Journal of Family and Economic Issues*, 35(2), 145-160.
14. Grohmann, A., Kouwenberg, R., & Menkhoff, L. (2014). Financial literacy and its consequences in the emerging middle class. *Kiel Working Paper*, 1943, 1 -49.
15. Hung, A., J. Yoong and E. Brown (2012). Empowering women through financial awareness and education. *OECD Working Papers on Finance, Insurance and Private Pensions*, 14.
16. Hung, A., Parker, A. M. & Yoong, J. K. (2009). Defining and Measuring Financial Literacy. Rand Corporation Working Paper, 708, 1 – 28.
17. https://www.rand.org/content/dam/rand/pubs/working_papers/2009/RAND_WR708.pdf
18. Huston, S. J. (2010). Measuring Financial Literacy. *The Journal of Consumer Affairs*, 44, 296 -316.
19. InFRE (2014). Improving retirement readiness for state and local government employees. *NAGDA*, 1 – 29.
20. Joo, S. (2008). Personal financial wellness. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University. Blacksburg. http://link.springer.com/chapter/10.1007%2F978-0-387-75734-6_2#page-1
21. Jumpstart National coalition for financial literacy (2007). National standards in K – 12 Personal education. Jumpstart National coalition, 4, 45. Retrieved March 21, 2012 from <http://www.simvest.com/pdf/PersonalFinanceStandards.pdf>.
22. Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), pp. 263-291.
23. Lusardi, A. (2008). Financial literacy: An essential tool for informed consumer choice? A National Symposium on Expanding Access, Informing Choices, and Protecting Consumers. *Harvard Joint Center for Housing Studies*, 28–29.
24. http://www.dartmouth.edu/~alusardi/Papers/Lusardi_Informed_Consumer.pdf
25. Lusardi, A., & Michell, O. S. (2006). Financial literacy and planning: Implications for retirement wellbeing. Department of Economics Dartmouth College and Department of Insurance & Risk Management The Wharton School, Univ. of Pennsylvania. <http://www.dartmouth.edu/~alusardi/Papers/FinancialLiteracy.pdf>
26. Lusardi, A., and O. Mitchell, 2009, How ordinary consumers make complex economic decisions: Financial literacy and retirement

- readiness. *National Bureau of Economic Research Working Paper*, 15350.
27. Lusardi, A. & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics and Finance*, 10(04), 497-508.
 28. Lusardi, A. & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and Evidence. *Journal of Economic Literature*, 52, 1, 5–44.
 29. Maximilian, D., Schmeiser, & Seligman, J. S., (2011). Using the right yardstick: Assessing financial literacy measures by way of financial well-being. *Center for Financial security Research Brief*, 10 - 2.
 30. Mbarire, T. T., & Ali. A. I. (2014). Determinants of financial literacy levels among employees of Kenya Ports Authority in Kenya. *Research Journal of Finance and Accounting*, 5, 16, 44 -52.
 31. Messy, F. & C. Monticone (2012). The status of financial education in Africa. *OECD working papers on finance, insurance and private pensions*, 25.
 32. Mokhtar, N., Husniyah, A. R., Sabri1, M. F., & Talib, M. F. (2015). Financial Well-Being among Public Employees in Malaysia: A Preliminary Study. *Asian Social Science*, 11, 18.
 33. Monticone, C. (2010). Financial literacy and financial advice: Theory and empirical evidence. NETSPAR PhD Thesis. Scuola di Dottorato in Economia “Vilfredo Pareto” Indirizzo Scienze Economiche. Universit`a degli Studi di Torino. <http://arno.uvt.nl/show.cgi?fid=115261>
 34. Muleke, V & Muriithi, J. G. (2013). Financial Education on Employees' Financial wellbeing in academia in tharaka nithi county in Kenya. *European Journal of Business and Management*, 5, 15.
 35. Nayebzadeh, S., Taft, M. K., & Sadrabadi, M.M. (2013).The study of university professors' financial literacy. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3, 3, 111–117.
 36. OECD, (2013). Financial Literacy Framework, PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy. *OECD Publishing*, 144 – 164.
 37. Porter, N. M & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning*, 4, 135-165.
 38. Prawitz, A. D., Garman, E. T., Sorhaindo, B., O’Neill,B., Kim, J., & Drentea, P. (2006). The InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Financial Counseling and Planning*, 17, 1, 34-50.

39. Prawitz, A. D, O'Neill, B., Sorhaindo, B., Kim. J. & Garman, E. T. (2007). Financial Distress/Financial Well-being: Do Length of Time Spent in a Debt Management Program and Changes in Debt Burden and Financial Stressor Events Make a Difference? *Consumer Interests Annual*, 53, 107 – 109.
40. Remund, D. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *The Journal of Consumer Affairs*, 44, 2, 276–295.
41. Rutherford, L. G., & DeVaney, S. A. (2009). Utilizing the Theory of Planned Behavior to Understand Convenience Use of Credit Cards. *Journal of Financial Counseling and Planning*, 20, 2, 48 – 63.
42. Sabri, M. F., & Juen. T. T. (2014). The influence of financial literacy, saving behaviour, and financial management on retirement confidence among women working in the Malaysian public sector. *Asian Social Science*, 10, 14, 40 – 51.
43. Sekar, M., & Gowri, M . (2015). A study on financial literacy and its determinants among generation Y employees in Coimbatore city. *Great Lakes Herald*, 9 , 1 , 35 – 45.
44. Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30, 6, 708-723.
45. Stone (2012). Cultivating Financial Mindfulness: A Dual-Process Theory. In D.J. Lamdin (ed.), *Consumer Knowledge and Financial Decisions: Lifespan Perspectives International Series on Consumer Science*, 15 – 27.
46. Van Rooij, M., Lusardi, A., Alessie, R. (2007). Financial literacy and stock market participation. *Working Paper 13565. National Bureau of Economic Research*.
47. Vlaev. I & Elliott. A. (2013). Financial Well-Being Components. *Springer Science and Business Media Dordrecht Soc Indic Res*.
48. <http://link.springer.com/article/10.1007%2Fs11205-013-0462-0#/page-1>
49. Volpe, R. P., Chen, H., & Liua, S. (2006). An analysis of the importance of personal finance topics and the level of knowledge possessed by working adults. *Financial Services Review*, 15, 81–98.
50. World Bank (2013). Making Sense of Financial Capability Surveys around the World: A Review of Existing Financial Capability and Literacy Measurement Instruments. *International Bank for Reconstruction and Development*.
51. Xu, L. & Zia, B. (2012). Financial Literacy around the World: An overview of the evidence with practical suggestions for the way

- forward. *The World Bank Development Research Group. Policy research working paper*, 6107, 1 – 56.
52. Zaimah, R., Masud, J., Haron, S. A., Othman, M., Awang, A. H., & Sarmila, M. D. (2013). Financial Well-Being: Financial Ratio Analysis of Married Public Sector Workers in Malaysia. *Canadian Center of Science and Education*, 9, 14.
53. Zait, A., & Berteau, P. E. (2014). Financial literacy: Conceptual definition and proposed approach for a measurement Instrument. *Journal of Accounting and Management*, 4, 3, 37 - 42.