International Journal of Business and Management Invention
ISSN (Online): 2319 – 8028, ISSN (Print): 2319 – 801X
www.ijbmi.org || Volume 6 Issue 7 || July. 2017 || PP—60-67

Financial Markets and Products Complexities, the Growing Need for Personal Finance

Robert Awobgo-moah Amoah, PhD
Professor of Finance, College of Adult and Graduate Studies, Ohio Christian University, Ohio USA

***Abstract**: The question of who needs personal finance education remains skeptical among both academicians and researchers alike. Every individual, irrespective of their educational status, requires financial literacy to be able to function financially. Traditional education maybe intended to create value by conferring liberal or technical knowledge and skills useful for employment and industrial motives. In contrast, personal financial education not only makes individuals and households financially savvy but also provides them with the necessary knowledge and tools to effectively put their financial resources under control. The need to promote financial literacy turn out to be a global issue following the two-times hit economic depressions of the 1930s and that of the 2007-2009. Both economic shocks spurred increased concerns and need for finding the best ways possible to enable individuals and households acquire effective coping skills and strategies in times of hardship. The primary focus of this study was on minorities in general and African Americans in particular. The study assessed their working knowledge on financial matters. Results confirmed previous reports that African Americans have relatively low working knowledge of personal finance. Results on income, money management, savings and investment, and spending/credit proved otherwise.*

***Key Words:** Financial literacy, financial crisis, great depression, minority Americans, personal finance*

I. INTRODUCTION

The great depressions of 1930s and the 2007-2009 in the history of the United States of America evidently were the two events that rocked the financial world. The1930s recession together with the 2007-2009 recession being the worst hit rescission, called for renew regulatory and corporate governance and risk management policies in the financial institutions (Levin Boum report, 2011). The need for individuals and households to brace up for such inevitable events is in line with the availability bias theory. According to availability bias theory, a past event is likely to reoccur giving reason for people to expect it (Amoah, 2017). Evidently, not only did these two financial crisis call for personal finance education but also the ever-changing financial environment including financial markets and products, calls for increased need for personal finance education to enable individuals and households better understand their new world. The Levin-Coburn report discovered some underlying causes of the crisis including high risk, complex products.

II. LITERATURE REVIEW

2.1 Introduction

Renowned personal finance researchers such as Lew Mandell, Annamaria Lusardi, Mitchell, and the like, would attest to the fact that personal finance plays a significant role in wealth creation as well as the economic health of the individuals, households and the entire nation. The Jump$tart Coalition for personal finance took another keen interest in the development and promotion of personal finance. The coalition took such initiatives since 2002 testing high school seniors and later on extended to college students. They developed a standardized survey instrument testing several aspects of personal finance including income, investment, money and risk management, interest rates, and taxes.
Subsequent sections of the paper reviewed literature on various personal finance related topics.

2.2 The Need for Personal Finance education. A Growing Concern

In a world of invention and innovation, need becomes a dominant factor. The need for financial literacy and education in modern societies derives its popularity from the need to understand, explore, and take advantage of the contemporary financial world**.** The 1930s and the 2007-2009 recessions have shaped the financial landscape of the United States of America. The stock market crash in the 1930s led to renewed stock market and banking regulations that gave birth to the Securities and Exchange Commission (SEC) to give maximum protection to the ordinary investor. The 2007-2009 recession being the worst hit rescission, further called for renewed regulatory and corporate governance and risk management policies in the financial institutions (Levin Boum report, 2011). The Levin-Coburn Commission blamed the financial crisis on the emergence of high risk, complex products among others, in recent times.

The aftershocks of the great economic depressions and the ever-changing financial markets and products for the most part, spurred mounting concerns and demand for financial literacy for individuals and households to adjust to their new world. Furthermore, consumer Financial Protection Bureau (CFPB) director Richard Cordray, admittedly stated that the major outcry for financial education was not only necessitated by the aftermath of the worst financial crisis ever experienced in the lives of Americans, but also the growing complexity of the marketplace (CFPB, 2013).

Financial intermediaries such commercial banks, credit unions, insurance companies and othe financial institutions have experienced significant growth in the introduction of sophisticated financial products in the world. These instituitions make available a growing number of complex and diversed financial products and instruments in the developed and emerging financial markets. Proper knowledge of the capital and money markets and their products would help individuals and households take advantage of them and improve their financial welbeing.

Financial literacy impacts how individuals make their financial decisions (Amoah, 2016). Existing studies document a positive correlation between fiancial education and financial decision making (Eugster, 2013; Lusardi and Tufano, 2008, 2009; Lusardi and Scheresberg, 2013; Moore, 2003; van Rooij, Lusardi & Alessie 2011**).** Eugster (2013) for example, established a positive correlation between financial literacy and individuals' readiness to understand and participate in a risky asset market. Moore (2003) also revealed how financially knowledgeable individuals and households could possibly avoid consequential predatory lending practices than their counterparts through making informed decisions (refer to Amoah, 2016 Dissertation for more)**.**

Who needs personal finance education remains the sole question for the skeptics (academecians and researchers). But Organization for Economic Cooperation and Development (OECD) study has answered it all. According to OECD (2006), as cited in Amoah, (2016) people with high level of education are likely to exhibit the same level of poor financial knowledge and behaviors as those with low levels of education. To function financially every individual, regardless of level of education, needs to be financially enlightened. Financial Literacy and Education Commission (FLEC) admits that, while traditional education creates value in the individual by conferring liberal or technical knowledge and skills useful for employement industrial purposes, personal financial education prepares individuals and households with the needed tools to handle their financial matters (FLEC, 2011).

Financially illiterate folks for the most part, tend to exhibit negative attitudes toward savings, investing, and money management which impact their wealth accumulation (Lusardi and Mitchell, 2010; Lusardi and Tufano 2009; van Rooij, Lusardi & Alessie, 2007). van Rooij, et al., (2007), found that individuals who have had some exposure to financial education from high school or from employer-sponsored programs were more likely to save, plan for retirement, and accumulate wealth than their counterparts.

2.3 Stock Market Participation. The Role of Financial Education

Financial literacy impacts how people make financial decisions. Financial literacy plays a role in how investors and potential investors understand and participate in the stock market activities. An efficient market not only is determined by timely and efficient flow of information but also by the size and type of stock market players (CFA Institute, 2012). Studies recorded a positive correlation between financial literacy and individuals' readiness and ability to participate in a risky asset market (Eugster, 2013). Also, the ability to create wealth through stock market participation and retirement contributions is more feasible through financial education (Lusardi and Mitchell, 2010; van Rooij et al., 2011**).** Additionally, Bucher-Koenen, & Ziegelmeyer (2013) documented that financially literates tend to involve more in the stock market activities than the financially deprived individuals. Literature pertaining to personal finance further revealed that the inability of individuals and households to participate in the stock market is often hampered by a myriad of factors including low cognitive ability, cost of participation, less knowledge about stock market activities, and risk aversion (Grinblatt, Keloharju, & Linnainmaa, 2011; Guiso & Jappelli, 2005; Kim, Hanna, Chatterjee, & Lindamood, 2012). Guiso and Jappelli (2005) reported that little to no awareness of financial assets negatively impact stock market participation.

There had been however, scholarly argument about the positive link between financial literacy and financial behavior and decision-making found by other researchers (Huston, 2010; Massimo and Ornella, 2011). Massimo and Ornella contend such factors as socio-demographic features, financial maturity, and practical experience derived from exposure to financial products and availability of quality information play a major role in financial decision-making (Read more from my Dissertation).

The argument in favor for financial literacy and decision-making ability, however, continues to heighten as Brown (2009) documented that, education in personal finance impacted the financial decision-making skills among graduate level health professionals. The study revealed behavioral change including thoughtful consideration of spending, minimizing student loan borrowing, and avoiding credit cards to avoid unnecessary payments among study participants. Similarly, Harnisch (2010) and Norman (2010) argued in favor for financial litereacy among individuals. They argued financial education not only is needed for investors but also needed by the average individual, families, and communities to able to balance their budgets, buy a home, fund their children's educations, and save toward retirement (Refer to Amoah, 2016 for more). More arguments in favor for financial education unfold in the financial literature. Jappelli and Padula (2011) argued that an increase in national investment in financial literacy would lead to a hugh savings in the nation's scarce resources.

2.4 Who is Financially Educated?

Figure l represents a conceptual framework depicting the outcome of financial literacy as defined by many scholars. The framework is consistent with many scholars who argue financial literacy results in knowledge and skills acquisition, which in turn translate into effective financial decision making ability, behavior, and general well-being of the individual (Lusardi, 2012; Mandel & Klein, 2009; Schuchardt et al., 2009). Research indicates that by acquiring formal education does not necessarily makes one a financially educated person. However, persons who took finance and finance related courses and/or attended employer-sponsored litereacy programs have a better understanding of personal finances than their counterparts. It is hard to define a financially educated person but Lee (2013) believes financial education is an outcome-based discipline measured in terms of actual performance relative to financial matters. Figure l below is a depiction of what makes a person financially educated.

Figure I also is an indicative of how receiving knowledge in two or more elements of financial literacy not only results in acquisition of knowledge and skills as perceived outcomes but also enables the person puts them into informed actions(Hogarth, 2006, Norman, 2010). Thus, acquiring knowledge and skills in financial literacy in itself does not make a person a complete financially educated but putting the acquired knowledge and skills into practice makes one a complete financially educated person. To this end, receiving financial education alone without putting the acquired knowledge into practice is insufficient. The notion is that a financially enlightened individual, having acquired the perceived knowledge and skills, would not only participate in the stock market but also develop positive attitudes toward money management, savings, debt reduction, and risk management and making independent financial decisions thereafter (refer to Dissertation for more).

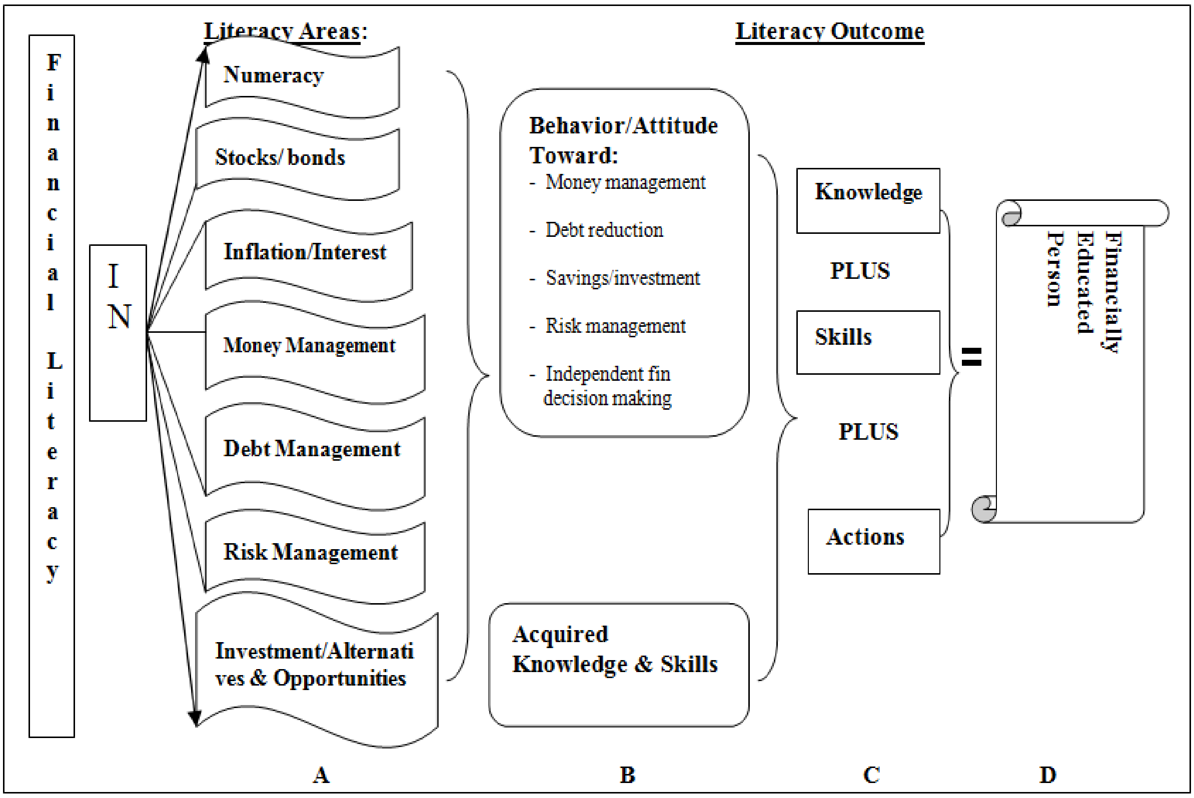

Figure I. Conceptual framework of Financial Literacy

Source: Adapted from Amoah's 2016 Doctoral Dissertation

2.5 Financial Education and Financial Behavior Interface

Figures I and II are illustrations of how financial education can impact an individual positively. In fig. I, financial illiteracy tends exist as an individual lacks the two components to function in the financial world. Thus, prior to having financial education there is absence or a disconnection between the individual's awareness, knowledge, and skills and development of positive attitudes toward money matters.

In fig. II, as a person acquires knowledge and skills from financial education, he/she would begin to develop positive behavior and attitude toward such things as savings, expenditure, risk management, debt reduction and independent make financial decisions. In general, as the gap between knowledge and behavior develop begins to narrow up, the individuals' ability to make independent financial decisions and participate in the stock market tends to increase.

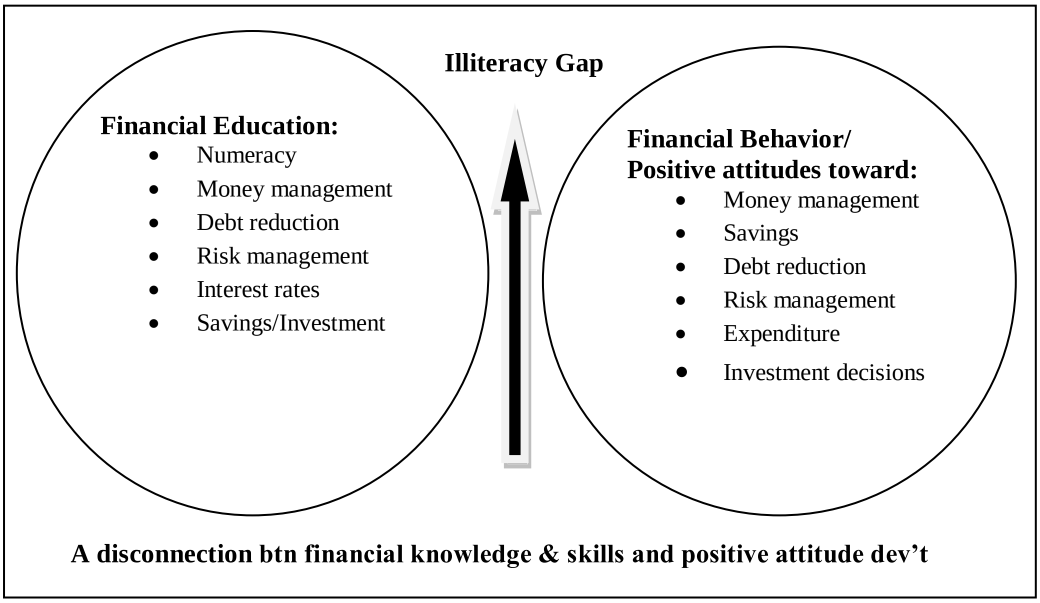

Figure II*:* Financial Education and Behavior Interface

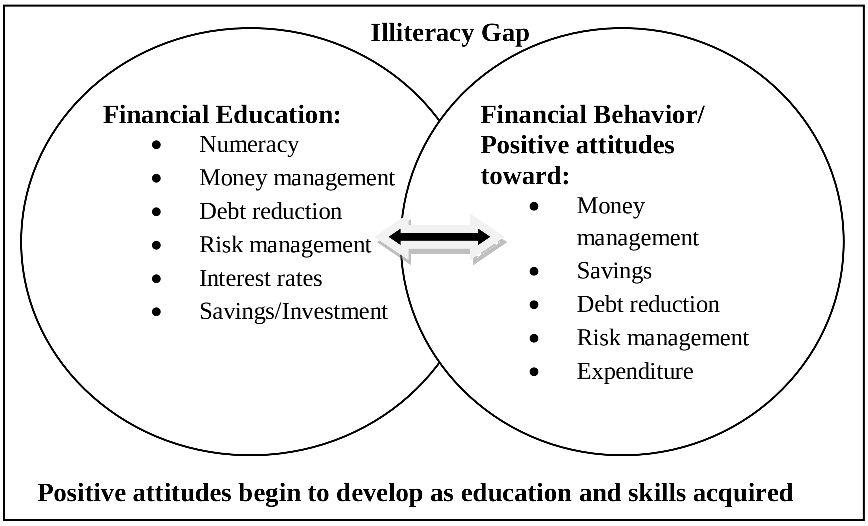

Figure III: Financial Education and Behavior Interface

2.6 Households/Individuals' Readiness to Meet the Growing Need for Financial Education

Evidently, rich literature is available regarding the increasing need for financial literacy in recent times. But individuals and households' ability to cope with their new world of financial markets and products sophistication is questionable. A recent study I conducted partly relieved researchers and skeptics from this general quest. The study confirmed previous research revelations that the majority of Americans, especially African Americans, do not have adequate financial knowledge to take advantage of the ever-changing, complex financial markets and products. The study focused solely on African Americans as research subjects based on previous research reports. Early studies document that this minority group generally lag behind their White

counterparts in terms of financial matters. Additional financial literacy report issued in 2011 by T. Daniels, founder and president of Society for Financial Education and Professional Development, further confirmed this finding. According to President Daniels, African Americans experience many personal finance issues including;
(a) higher debt delinquencies than any other ethnic group
(b) comparatively lower savings,
(c) a lower homeownership rate (only 45% own homes)
(d) a greater incidence of home foreclosure
(e) a greater incidence of victimizatoin by predatory lending practices, and
(f) a greater incidence of higher cost auto/consumer loans than other ethnic groups (Daniels, 2011; Amoah, 2016).
Subsequent sections of this paper include the following: i) methodology, ii) results, iii) recommendation, and iv) conclusion.

III. METHODOLOGY

3.1 Research Design

A cross-sectional design was used for this study to make descriptive analysis of research questions. The choice of this design was to simply make descriptive analysis of participants' performance in the study rather than to analyze the cause-effect relations between research variables as other designs do. The design was used to record and analyze data base on the research question; "To what extent do African Americans have knowledge about personal finance?" The instrument used to collect data was a survey. The survey technique was employed using a mix of the Jump$tart Coalition for Personal Finance model to collect data.

3.2 Sampling Technique and Sample Size

The target population for this study included African Americans based in Columbus, Ohio. Sample for the study was drawn from a population of 237,077 African Americans living in Columbus, Ohio. Sample units included adult workers, entrepreneurs, and students of 18 years or older. Given this precisely defined population I used simple random sampling technique to collect data. The used of this probability sample design was to give each sample unit a probable, equal chance of representing the population. To test the hypotheses of this study, a sample size of 382 participants was determined. I performed a priori G*power analysis to determine the sample size using the G*power software. An estimated sample size was derived from one tail *t* test set at 0.05 alpha levels, 0.9 power, and 0.3 effect size.

3.3 Participants' Demographic Characteristics

The participant categories for this study included entrepreneurs, adult workers, and high school seniors. Students constituted the majority participants (n = 154, 49.3%) while adult workers and entrepreneurs were n = 110 and n = 48 respectively. There was an initial proposal of 382 (N = 382) sample size comprising 200 high school students, 128 adult workers, and 54 entrepreneurs. However, 312 (n = 312) participants representing 82% of those who actually participated and returned valid responses to survey questions. Participants' sex, age, income, and educational characteristics are also presented in Table 4.

Table 1 Participant *Demographic Characteristics*

Variable	frequency	percentage
Participant Group:		
Students	154	49.3%
Adult Workers	110	35.3%
Entrepreneurs	48	15.4%
Gender:		
Male	156	50.0%
Female	156	50.0%
Age:		
< 20 years	75	24.0%
20-29 years	55	17.7%
30-39 years	82	26.3%
40-49 years	56	18.0%
50-59 years	36	11.4%
60+ years	8	2.6%
Income:		
No income	113	36.2%
< $20,000	81	26%
$20,000-$39,999	79	25.3%
$40,000-$79,999	30	9.6%
$80,000+	9	2.9%
Education:		
High School	61	38.6%
Some College	27	17.1%
College	48	30.4%
Graduate	22	13.9%

Note. N = 382, n = 312. N was the sample population for the study and n was the actual sample that participated and had turned in valid survey items. The later is used for analysis.

IV. ANALYSIS OF RESULTS

Table 2 represents performance comparison between the 2008 Jump$tart study and the current study using the same survey items. Comparatively the results represent low level of financial knowledge among African Americans. Generally, African Americans scored an overall average of 45.2% during the recent study. While this marginal change of performance is seen as improvement over the 2008 average of 41.2, an appreciation of 4.0%, it is still lower than the national average achievement of *M* = 48.3% and that of their White counterparts (*M* = 52.5%) recorded in 2008. The 2008 Jump$tart survey was conducted on European Americans, African Americans, Hispanics, and Native Americans. African Americans also performed relatively lower than their European American counterpart's achievement of 58.5%, an epitome of the least knowledgeable group in the entire country when it comes to financial matters.

Table 2 *Comparison of 2008 Jump$tart Performance on Financial Literacy Survey with the Current Study*

Score	2008 Jump$tart	2016 Study
Average Score	48.3%	45.2%
Whites	52.5%	--
African-Americans	41.2%	45.2%
European Americans	58.5%	--

Source: Jump$tart, 2008 Survey

4.1 Specific Financial Knowledge Area Measurement

What made it hard to draw a general conclusion about the knowledge level of African Americans in the current study was when it came to specific areas of financial knowledge. Jump$tart Coalition for Personal Finance classified these key knowledge areas as income, money management, savings and investment, and spending and credit. Interestingly, participants were tested in these specific areas of financial knowledge and the results showed an improvement over time. Despite the general underperformance in the current study, analysis of results in these key areas revealed the following (see table 4):

- more than half (*n* = 58.3%) of the participants gave correct responses to the income questions versus 46.6% of Jump$tart 2008;
- 46.4% of participants of the current study had correct responses in money management versus 36.4% of Jump$tart 2008;
- 45.8% had correct responses in savings and investment item versus 37.1% of Jump$tart 2008; and
- 49.5% had correct responses on spending and credit item versus 37.6% of Jump$tart 2008.

Table 4 *Comparison of 2008 Jump$tart Performance on the Four Financial Literacy Key Area with the Current Study*

Key Area Tested	2008 Jump$tart, ($n = 932$)		2016 Study, ($n = 312$)
	Whites	African-Americans	African-Americans
Income	61.6%	46.6%	58.3%
Money management	43.6%	36.4%	46.4%
Savings & investment	45.9%	37.1%	45.8%
Spending& Credit	48.4%	37.6%	49.5%

Source: Jump$, 2008 survey and Amoah, 2016.

The study also made a shocking discovery. Empirically, the results revealed more of a connection between experience and knowledge of financial matters. For example, participants who had experience in income or money management such as credit and ATM card use, paying auto insurance, owning security and bank accounts, and employment history, outperformed those who had little to no such experience. Analysis of data further revealed that while entrepreneurs' performance ranged between 62.7% and 80.3% on the four key areas that of adult workers were between 54.4% and 66.7%. Students scored between 27.6% and 39.4% (Amoah, 2016). This additional finding was however, not a surprise to Massimo and Ornella. According to Massimo and Ornella, (2011), a person's exposure to money and money related activities can potentially increase his or her financial knowledge. And entrepreneurs' performance over the other groups of participants during this study was nevertheless a coincidence.

V. LIMITATIONS OF THE STUDY

Due to cost constraints this study was limited to only Columbus residents of the African American minority group in Ohio. What this study failed to do is consider participants' level of education, income or social class (middle or lower) within the Black community. For consistency the study relied solely on Jumpstart's standardized survey instrument to assess the financial knowledge of participants.

VI. RECOMMENDATION FOR FURTHER STUDY

The financial knowledge levels among the minority Americans especially, African-Americans as reported by previous studies is worrying. The limitations of this study turn out to provide great opportunities for further re-examination of the issue. There is the need to extend the study to involve all minority groups. Literature on financial literacy generally labeled the minority groups such as Asians, Hispanics, and Native Americans, and African Americans as the least knowledgeable group in terms of financial literacy.

I recommend that future studies take a more look at an analytical verse a descriptive approach taking into consideration the quantitative relationship between financial literacy and factors that influence financial literacy such as the role of parents, financial literacy seminars/workshops, work and money management experiences, and coursework in personal finance offered at schools and colleges.

I further recommend that to promote financial literacy, personal finance or finance related courses be made mandatory for high school students as requirement for graduation. Consistent with Council for Economic Education (2012), "Early training in economics and finance will go a long way towards the creation of a stable society in the future" (p.5). (for more CEE recommendations, refer to Dissertation).

VII. CONCLUSION

Generally, African Americans demonstrated relatively low levels of financial competency in this study. This is not at variance with the hypothesis that African-Americans have low levels of financial literacy and the findings of previous studies. A low record of financial literacy is not only widespread in the United States but pronounced among the African-Americans. Findings of this study is a wake-up call for all policymakers, regulators, and educators to step up efforts to provide sustainable financial capabilities for individuals and families to be able to adjust to their new and financially challenging world.

REFERENCES

[1]. Amoah, R. A, (2016). Assessing the extent and impact of financial literacy on African Americans. Doctoral dissertations published in ProQuest.

[2]. Amoah, R. A, 2017). Bridging the gap between psychology and economics. The role of behavioral finance. International Journal of Business and Management Invention; 6(3), 24-47

[3]. Brown, K. A. (2009). Examining the influence of financial literacy education on financial decision-making among graduate level health professions students (Doctoral Dissertation Capella University). Retrieved from http://gradworks.umi.com/33/72/3372749.html

[4]. Bucher-Koenen, T., & Ziegelmeyer, M. (2013). Once burned, twice shy? Financial literacy and wealth losses during the financial crisis. Review of Finance. doi: 10.1093/rof/rft05

[5]. CFA Institute, (2012). Equity and fixed income. CFA program curriculum, level I, volume 5. Wiley Publication

[6]. Consumer Financial Protection Bureau. (2013). Financial literacy annual report. Retrieved from http://files.consumerfinance.gov/f/201307_cfpb_report_financial-literacy-annual.pdf

[7]. Council for Economic Education. (2012). Survey of the States. Economic and personal finance education in our nation's schools. Retrieved from http://www.councilforeconed.org/wp/wp-content/uploads/2011/11/2011- Surveyof the-States.pdf

[8]. Daniels, T. R. (2011). The debt we owe. Promoting financial literacy among minority groups. Retrieved from http://www.huffingtonpost.com/theodore-r-daniels/financial-literacy_b_817848.html

[9]. Eugster, M. (2013). Financial literacy and participation in risky asset markets. A spurious relationship? The University of Auckland Business School, 1-49. Retrieved from http://www.nzfc.ac.nz/archives/2014/papers/programme/I-3d.pdf

[10]. Financial Literacy and Education Commission. (2010). Why and how. Background report developing the 2011 national strategy. Retrieved from http://www.treasury.gov/resource-center/financial education/Documents/National%20Startegy%20Background.pdf

[11]. Financial Literacy and Education Commission. (2011). Promoting financial success in the United States.

[12]. National strategy for financial literacy. Retrieved from http://www.treasury.gov/resource-center/financial education/Documents/2012%20Research%20Priorities%20-%20May%2012.pdf

[13]. Grinblatt, M, Keloharju, M., & Linnainmaa, J. (2011). IQ and stock market participation.

[14]. The Journal of Financial, 66(6), 1221-2164. doi: 10.1111/j.1540-6261.2011.01701.x

[15]. Guiso, L. & Jappelli, T. (2005). Awareness and stock market participation. Review of Finance 9(4), 537-567. doi: 10.1007/s10679-005-5000-8

[16]. Guiso, L. & Jappelli, T. (2009). Financial literacy and portfolio diversification. Working Paper No. 212 Center for Studies of Economics and Finance. Retrieved from http://www.csef.it/WP/wp212.pdf

[17]. Harnisch, T. L. (2010). Boosting financial literacy in America. A role for State Colleges and Universities.

[18]. American Association of State Colleges and Universities,1-24. Retrieved from http://www.congressweb.com/aascu/docfiles/AASCU_Perspectives_Boosting_Financial_Literacy.pdf

[19]. Hogarth, J. M. (2006). Financial education and economic development. Paper prepared for Improving Financial Literacy, International Conference hosted by the Russian G8 Presidency in Cooperation with the OECD.

[20]. Retrieved from http://www.oecd.org/finance/financial-education/37742200.pdf

[21]. Huston, S. J. (2010). Measuring financial literacy. The Journal of Consumer Affairs, 44(2), 296-316. doi: 10.1111/j.1745-6606.2010.01170.x

[22]. Jappelli, T. & Padula, M. (2011). Investment in financial literacy and saving decisions. Journalof Banking and Finance, 37(8). doi: 10.1016/j.jbankfin.2013.03.019

[23]. Jappelli, T. & Padula, M. (2013). Investment in financial literacy and saving decisions. Journal of Baking and Finance, 37(8), 2779-2792. doi:10.1016/j.jbankfin.2013.03.019

[24]. Jump$tart Coalition for Personal Financial Literacy. (2008). The financial literacy of young American adults. Retrieved from http://www.jumpstart.org/assets/files/2008SurveyBook.pdf

[25]. Kim. E. J., Hanna, S. D. Chatterjee, S. & Lindamood, S. (2012).Who among the elderly owns stocks? The role of cognitive ability and bequest motive. Journal of Family and Economic issues, 33(3), 338-352. doi: 10.1007/s10834-012-9295-2

[26]. Lee, A. (2013). What is financial literacy, and does financial literacy education achieve its objectives? Evidence from banks, government agencies, and financial literacy educators in England. Institute of Education University of London. Retrieved from http://www.academyfinancial.org/wpcontent/uploads/2013/10/E4-Lee.pdf

[27]. Levin Boum Report (2011). Final report of the national commission on the causes of the financial and economic crisis in the United States. The Official Government Edition.

[28]. Lusardi, A. (2012). Numeracy, financial literacy, and financial decision-making. Journal of pension Economics and Finance. 5(1), 1-14 doi:http://dx.doi.org/10.5038/1936-4660.5.1.2

[29]. Lusardi, A. & Mitchell, O. S. (2010). How ordinary consumers make complex economic decision. CFS Working Paper Series 2010/11, Center for Financial Studies (CFS). Retrieved from http://ideas.repec.org/p/fip/feddwp/1110.html

[30]. Lusardi, A., & Scheresberg, C. D. B. (2013). Financial literacy and high-cost borrowing in the United States. National Bureau of Economic Research. doi:10.3386/w18969

[31]. Lusardi, A., & Tufano, P. (2008). Debt literacy, financial experiences, and over indebtedness. National Bureau of Economic Research. doi=10.1.1.164.9853

[32]. Lusardi, A., & Tufano, P. (2009). Debt literacy, financial experiences, and over indebtedness. National Bureau of Economic Research. Retrieved from http://www.finrafoundation.org/web/groups/foundation/@foundation/documents/foundation/p122329.pdf

[33]. Mandel, L. & Klein, L.S. (2009). The impact of financial literacy education on subsequent financial Behavior. Journal of Financial Counseling and Planning, 20(1), 15 -34. Retrieved from http://eric.ed.gov/?id=EJ859556

[34]. Massimo, C. & Ornella, R. (2011). Impact of financial education and transparency on borrowing decisions. The case of consumer credit. Proceedings of ASBBS, 18(1), 1-19. Retrieved from http://asbbs.org/files/2011/ASBBS2011v1/PDF/C/Caratelli.pdf

[35]. Moore, D. (2003) Survey of financial literacy in Washington State. Knowledge, behavior, attitudes and experiences. Technical report 03-39. Social and Economic Sciences Research Center, Washington State University. Retrieved from http://www.sesrc.wsu.edu/sesrcsite/Papers/files/dfi-techreport-FINAL2-16-04.pdf

[36]. Norman, A. S. (2010). Importance of financial education in making informed decision on spending. Journal of Economics and International Finance, 2(10),199-207. Retrieved from http://www.academicjournals.org/JEIF ISSN 2006-9812

[37]. Organization for Economic Co-operation and Development. (2006). The importance of financial education. Organization for Economic Co-operation and Development. Retrieved from http://www.oecd.org/finance/financial-education/37087833.pdf

[38]. Schuchardt, et al. (2009). Financial literacy and education research priorities. Journal of Financial Counseling and Planning, 20(1), 84-95. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2225370##

[39]. van Rooij, M., Lusardi, A., & Allessie R. (2011). Financial literacy and stock market participation. Journal of Financial Economics, 101(2), 449-472. doi: 10.1016/j.jfineco.2011.03.006