

**A Study of the Impact of Financial Literacy on Nigerian Public Sector Employees’  
Financial Outcome**

**By**

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**February, 2018**

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A Dissertation Submitted to St. Clements University in Partial Fulfillment of the Requirements  
for the Award of Doctor of Philosophy in Finance St. Clements University, February , 2018

**DECLARATION**

I declare that this dissertation is an output of my own research endeavours. In pursuant of this research work, concerted efforts were made to duly acknowledge references, bibliography and all sources of data and information used. However, in case of inadvertent omissions or incomplete referencing, I nevertheless, still express the acknowledgement of such sources.

**Egbu, Christopher Achinike.....**

Signed

## CERTIFICATION

This is to certify that this dissertation titled “**A Study of the Impact of Financial Literacy on Nigerian Public Sector Employees’ Financial Outcome**” by Christopher Achinike Egbu is carried out under my supervision and guidance. Also, that the dissertation has been approved for submission to the St. Clements University for the award of the Degree of Doctor of Philosophy (PhD) in Finance.

.....

Professor David Iornem

Academic Adviser

.....

St. Clements University

## **DEDICATION**

This work is dedicated to Jehovah God, the source of wisdom who generously gave me the strength, health, finance and other resources to successfully accomplish this research amid other competing demands.

## **ACKNOWLEDGEMENT**

My unqualified gratitude goes to Jehovah God , The Merciful and The Provider, who lavishly gave me the endurance, resilience, foresight and thoughtfulness to undertake this project and to complete it to the satisfaction of St. Clements University

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**CHRIS EGBU**

**Lagos, Nigeria**

**February, 2018**

## Abstract

***Financial literacy ensures that an individual is able to match his income with his expenditure, lives within his means and forestall going broke or bankrupt. Like general or health literacy, financial literacy could be conceptualized as having two dimensions: understanding (personal finance knowledge) and use (personal finance application).***

*In this study, we review the literature on financial literacy, financial education, and consumer financial outcomes. We consider how financial literacy is measured in the current literature and examine how well the existing literature addresses whether financial literacy improves employees personal financial outcomes. We review the literature on alternative policies to improve financial outcomes and compare the evidence on whether financial literacy improves employees spending habits, retirement planning, psycho-social experience, savings, investments and standard of living*

*The sample size of this survey based study consists of 110 working men and women from non-financial public sector in Nigeria. Data was analyzed using simple percentage and frequency distribution. Responses to the items in the questionnaire were summarized and translated into tables. The Pearson product moment correlation was used to ascertain the association between the variables in the study, while the paired sample t test was used to determine the difference between employee financial literacy and employees' financial satisfaction in the selected organization. The Statistical Package for Social Sciences (SPSS) was used in the analysis of the data.*

***The major challenge in financial education has been how to measure the impact of financial education on the recipient standard of living. On the other hand what is the influence of financial literacy on employees' financial outcome. It can be observed that in some instances those who did not have formal financial education and those who are primary or secondary school dropout have risen to own successful business empire. However some who have tertiary financial education are struggling to survive.***

*A large proportion of the sampled employees are deficient in financial literacy notwithstanding their exposure to financial education. The results of this study indicate that financial literacy and spending habits of Nigerian public sector employees. are positively and significantly related. However, contrary to popular perception this research shows that there is no significant relationship between financial literacy and education level, retirement planning, psycho-social factors, savings culture and investments, of Nigerian public sector employees. Finally, we discuss directions for future research.*

**Keywords:** Financial behavior, financial literacy, investments, retirement planning, savings.

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## **Chapter 1**

### **Introduction**

#### **1.1 Background to the study**

General literacy refers to a person's ability to read and write (Zarcadoolas et al, 2006). The standard definition of literacy developed by the Literacy Definition Committee and used by the National Adult Literacy Survey is "using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential" (Kirsch et al. 2001, p. 3). When operationalized, this definition covers three broad areas: prose (written information), document (tabular/graphical information) and quantitative (arithmetic and numerical information), each with its own standardized testing instrument (Kirsch et al. 2001). Literacy in the broadest sense consists of understanding (i.e., knowledge of words, symbols and arithmetic operations) and use (ability to read, write and calculate) of materials related to prose, document and quantitative information. This idea of literacy has been expanded to the study of particular skill sets, for example computer literacy (Wecker, Kohnle, and Fischer 2007), statistical literacy (Callingham and Watson 2005) and health literacy (Baker 2006). The Educational Testing Service (ETS) identifies four types of literacy: prose, document, quantitative and health skills. ETS offers two sets of adult literacy tests (available at [www.ets.org](http://www.ets.org)). Each type of literacy measures how well an individual can understand and use information. For example, health literacy measures how well an individual can understand and use health-related information related to five activities (health promotion, health protection, disease prevention, health care maintenance and systems navigation).

Like general or health literacy, financial literacy could be conceptualized as having two dimensions: understanding (personal finance knowledge) and use (personal finance application). Although, several financial literacy definitions have been proposed, there is no universally accepted meaning. Huston (2010) defined financial literacy as measuring how well an individual can understand and use personal finance-related information. This definition is direct, does not contradict existing definitions within the literature and is consistent with other standardized literacy constructs, as shall be seen later. Therefore financial literacy is the education and understanding of various financial areas; it focuses on the ability to manage personal finance matters in an efficient manner, and it includes the knowledge of making

appropriate decisions about personal finance such as investing, insurance, real estate, paying for college, credit management, budgeting, retirement and tax planning. Financial literacy also involves the proficiency of financial principles and concepts such as financial planning, compound interest, managing debt, profitable savings techniques and the time value of money. The lack of financial literacy or financial illiteracy may lead to making poor financial choices that can have negative consequences on the financial well-being of an individual.(Investopedia, 2016)

This research will deal with estimating whether acquisition of financial education can empower employees financially. Consequently there is a need to understand the concept of empowerment. A business dictionary defines empowerment as a management practice of sharing information, *rewards, and power with employees* so that they can take initiative and make decisions to solve problems and improve service and performance. Empowerment is therefore based on the idea that giving employees skills, resources, authority, opportunity, motivation, as well holding them responsible and accountable for outcomes of their actions, will contribute to their competence and satisfaction. Some key words associated with empowerment imply that empowering employees requires providing resources, opportunity, motivation, rewards and satisfaction. Consequently we cannot truly empower an employee without considering his financial wellbeing. A staff that is unable to meet up with his financial obligations will normally have a divided mind and attention to his work; this situation certainly affects his performance and output. By extension, employees' financial wellbeing cannot be separated from the financial wellbeing of an organization. Egbu(2009) states that much have been heard about youth and women empowerment, but little is said about employee financial empowerment. While no one talks about how employees can be empowered; it is my belief that, a weak employee will produce a weak organization, and because of that the focus of this research is the way and manner of employee empowerment, and how to make them productive so that the organization can also be productive. To ensure also that Nigeria attains vision 2020, that is to make sure that Nigeria becomes one of the top 20 economies of the world, it is needful to develop the concept of empowering the employee who will drive the economy. For the economy to be driven higher, the people that are driving it have to be healthy, and have to be financially buoyant.

Financial literacy and financial knowledge are both human capital but different constructs. Financial knowledge is an integral dimension of, but not equivalent to, financial literacy. Financial literacy has an additional dimension which is that an individual must have the ability and confidence to use his/her financial knowledge to make financial decisions that will bring financial success. When developing an instrument to measure financial literacy, it would be important to determine not only if a person knows the information but also if he/she can apply it appropriately. In addition it seeks to determine whether the knowledge of financial literacy can lead to better and informed decisions which will improve one's wellbeing. (Huston, 2010). Consequently we have focused in this study the financial outcome of financial literacy. Financial literacy consists of both knowledge and application of human capital specific to personal finance. The level of overall endowed and attained human capital influences a person's financial literacy. For example, if an individual struggles with arithmetic skills, this will certainly impact his/her financial literacy. However, available tools (e.g., calculators, computer software) can compensate for these deficiencies; thus, information directly related to successfully navigating personal finance is a more appropriate focus than numeracy skills for a financial literacy measure.

Financial literacy is a component of human capital that can be used in financial activities to increase expected lifetime utility from consumption (i.e., behaviors that enhance financial well-being). Other influences (such as behavioral/cognitive biases, self-control problems, family, peer, economic, community and institutional) can affect financial behaviors and financial well-being. A person who is financially literate may not exhibit predicted behaviors or increases in financial well-being because of other influences, such as self-control problems, family, peer, economic, community and institutional pressures. This is the reason some bankers despite being well paid are indebted perpetually due to institutional pressure to live and dress glamorously. Financial education is an input intended to increase a person's human capital, specifically financial knowledge and/or application (i.e., financial literacy). A well-designed financial literacy instrument that adequately captures personal finance knowledge and application can provide insight into how well financial education improves the human capital needed to behave appropriately and enhance financial well-being.

Unless an individual becomes wise in making investment and savings decisions, wealth creation and financial stability will remain a distant dream. Financial literacy is helpful for people of all

ages; transition of economy from general literacy to financial literacy is really crucial for old and young, men and women, household and working class. Financial literacy has an important role in enabling individuals to achieve their long-term interests through making financial decisions in a timely, knowledgeable and coherent fashion (Lusardi and Mitchell, 2011; Van Rooij et al, 2011). In March 2006, the UK government in partnership with the Financial Services Authority (FSA) launched a seven point program aimed at substantially improving the levels of financial literacy among the population (Atkinson et al., 2007). However, some scholars doubt the ability of educators to provide the necessary skills (Willis, 2008; Mandell and Klein, 2009). At the same time, in an attempt to raise economic growth the various governments of the UK have tried to transform the UK economy into one of the most enterprising in the world (Department for Business, Innovation and Skills, 2010; BERR, 2008). Following calls for entrepreneurship to be embedded in all subjects and levels of education (Thursby, 2005), initiatives including compulsory provision of entrepreneurship education have been introduced (Gillie, 2012).

The Nigerian higher educational institutions have also included entrepreneurial education in all courses. However, the success of entrepreneurship education in increasing business start-up activity is questioned (Thompson and Kwong, 2015), with students often wishing to delay engagement with entrepreneurial activities until they have acquired more experience (Kwong and Thompson, 2016); this often leads them to the unemployment market. This delay can also lead to the dissipation of entrepreneurial intentions as other challenges in life take over (Kwong et al., 2012). Equally, engagement without sufficient skills such as financial literacy is also likely to negatively influence the success or performance of any business (Oseifuah, 2010). An area that is yet to receive adequate attention up until now is whether poor financial literacy is one of the primary factors affecting the pre and post retirement standard of living of Nigerian employees and to what extent current university courses are enabling students to overcome such barriers or to ensure that students are aware of the need for such skills.

A continuously changing financial market coupled with the increase in individual responsibility to informed financial decision making is becoming a necessity for economic empowerment. Having financial knowledge is the key element for making sound financial decisions. Financial literacy helps in developing the economy and ultimately encourages growth (Worthington, 2006). Equally, financial literacy helps to grow and manage finances in a proper way. The

importance of financial literacy can never be neglected as it not only contributes to the wellbeing of people but also assists them to become economically empowered. In the last few years, the economic empowerment of women through financial literacy has been the most vigorously explored area across the world (Al-Tamimi&Hussain, 2009; Lusardi and Mitchell, 2006, 2007, 2008, 2011; Bhushan et al, 2013; Arrondel et al, 2013; Rooij et al, 2011). Financial literacy and positive financial attitude are equally important for both men and women. Women being the major part of economy need to be financially empowered in order to manage the home and play their part in the society and economy. Women, as a significant part of the society, have constituted a larger part of the workforce and their involvement in financial matters has also increased. The participation of women in the labor force in USA is growing faster compared to men and almost 47 percent of the labor force consists of female (US Bureau of Labor Statistics, 2013).Moreover, women have a high level of education but experience a lower level of unemployment than men(Department of Labor, 2012).

## **1.2 Variables**

The independent variable in this study is financial literacy while the dependent variables are the following: level of education, spending habits, savings culture, investment culture, retirement planning, psycho-social experience, and standard of living.

### **Dependent variables**

#### **Employee level of education**

As a variable, it is posited that an employee's level of education will have an impact in his financial literacy. This is not to say that education translates to financial literacy, but that education has a way of exposing the individual to financial information and knowledge. In contrast, an illiterate may be financially savvy, but lack of education limits individuals to basic and pedestrian financial information. In this study, it shall be seen what impact and, to what degree education influences financial literacy.

#### **Employee spending habits**

Expenditure is a very crucial and common feature of individuals, firms and organisations, and one of the key areas where financial literacy is demonstrated. In other words, how employees spend their funds provides a cue to their financial literacy and overall financial profile.



Employees who spend their resources extravagantly are less likely to be financially stable than employees who are discreet. In this study, the spending habits of employees will be investigated for the purpose of estimating their financial literacy.

### **Employee savings culture**

The culture of savings is the standard practice of managing income adopted all over the world. Generally, individuals save a portion of their income for several reasons including a project and obviating the effects of a future economic melt-down. Savings is a lifestyle practiced by individuals who are financially disciplined and so do not want to waste their income. In this study, the savings culture of employees will be examined to find out its correlation with their financial literacy.

### **Employee investment culture**

Investment is the practice of putting money into profitable ventures, and this is the lifestyle of people who are financially savvy. Put differently, investment implies using an income to generate further income. On the contrary, when income is not reinvested the fund lies idle and is at the mercy of financial elements. This study will investigate the capacity of Nigerian employees to invest their income and this will help to ascertain the level of their financial literacy.

### **Employee retirement planning**

Retirement planning, as a construct refers to the concrete preparation made by an employee for life after he is no longer in paid employment; this preparation is notably made on the understanding that salaried work has a terminal date. The preparation fundamentally consists of how the employee will continue to earn money when he is no longer in service. This study will seek to know the capacity of the Nigerian employee to look beyond the service period and plan for post-service life, and how this relates to financial literacy.

### **Employee psycho-social experience**

Psycho-social experience refers to an employee's state of mind in relation to his general lifestyle. It is posited here that an employee's state of mind or emotional disposition has a demonstrable bearing on his financial situation, especially with respect to making choices and taking decisions. Usually a positive mindset would foster favourable financial outcomes than a negative mindset. In this study, the psycho-social experience of Nigerian employees will be investigated to estimate the relationship between financial literacy and their state of mind.

## **Employee standard of living**

There are basically two level of standard of living, high and low and so individuals either operate a low standard of living or high, depending on their financial level. It is generally acknowledged that those who adopt a high standard of living undertake a high-profile life while those who adopt a low standard of living undertake a low-profile life. This is a suggestion that, a high or low standard of living reflects an employee's understanding of how income is utilized. Consequently, in this study, the standard of living of Nigerian employees will be used to gauge the level of their financial literacy.

### **1.3 Objectives of the Research**

The aim of this research is to determine the extent to which financial education and literacy has affected the standard of living of Nigerian employees before and after retirement. The specific objectives include to

- i) examine financial literacy in connection to the education level of Nigerian employees.
- ii) evaluate financial literacy in relation to the spending habits of Nigerian employees.
- iii) examine financial literacy in regards to the savings culture of Nigerian employees.
- iv) investigate financial literacy in relation to the investment practices of Nigerian employees.
- v) examine financial literacy in connection with the retirement planning of Nigerian employees.
- vi) estimate financial literacy in relation to the psycho-social experiences of Nigerian employees.
- vii) evaluate financial literacy in relation to the standard of living of Nigerian employees.

### **1.4 Research Questions**

Based on the objectives, the following research questions were developed

- a) What is the effect of education level on the financial literacy of Nigerian employees?
- ii) What is the relationship between financial literacy and the spending habits of Nigerian employees?
- iii) What is the relationship between financial literacy and the savings culture of Nigerian employees?
- iv) What is the relationship between financial literacy and the investment practices of Nigerian employees?

- v) What is the relationship between financial literacy and the retirement planning of Nigerian employees?
- vi) What is the relationship between financial literacy and the psycho-social experience of Nigerian employees?
- vii) What is the relationship between financial literacy and the standard of living of Nigerian employees?

## **1.5 Research Hypotheses**

The following hypotheses are designed to test the relationship between financial literacy, and Nigerian Employees Financial Outcomes:

Ho1: There is no significant relationship between financial literacy and education level of Nigerian employees.

Ho2: There is no significant relationship between financial literacy and spending habits of Nigerian employees.

Ho3: There is no significant relationship between financial Literacy and savings culture of Nigerian employees.

Ho4: There is no significant relationship between financial literacy and Investments of Nigerian employees.

Ho5: There is no significant relationship between financial literacy and retirement planning of Nigerian employees.

Ho6: There is no significant relationship between financial literacy and psycho-social factors of Nigerian employees.

Ho7: There is no significant relationship between financial literacy and standard of living of Nigerian employees.

## **1.6 Statement of the Problem**

Most employees are locked in finding corporate financial solutions without giving attention to their future personal financial goals. They most often discover that they are insolvent after retirement when the monthly salary stops. This problem is not pronounced until they are out of employment or retired. Despite the increasing budgetary allocations in Nigeria the undeveloped economy syndrome still persists. There are manufacturing plants that produce below capacity, uncompetitive goods and services, millions of public sector workforce that are mostly under-

utilised, unproductive and poorly remunerated. If retired public servants had adequate financial literacy will they have accumulated savings, to be in the forefront of entrepreneurship and job creation? Is poor financial literacy affecting the productivity of Nigerian workers? Most of the unproductive public servants still remain un-productive after retirement depending solely on little monthly pension. Has this got to do with financial literacy level?

Nigeria's unemployment rate is at an all-time high. More than 70% of the Nigerian population is currently unemployed or under employed. More alarming is the fact that mostly youths and energetic adults share the huge burden. According to the latest report by the National Bureau of Statistics (NBS) released in December 2016, 3.67 million Nigerians became unemployed within a one-year period, October 2015 to September 2016. (*Business Hallmark* May 29, 2017). The report said the number of unemployed Nigerians rose from 7.51 million in the beginning of the October 2015 to 11.19 million at the end of September 2016, while the general unemployed population rose from 55.21 million in the beginning of the fourth quarter to 69.47 million as of the end of September, 2016. The NBS report showed that unemployment rate was highest for persons in the labour force between the ages of 15-24 and 25-34; and unemployment and underemployment were higher for women in the third quarter of 2016.

A significant number of the unemployed or underemployed have taken to riding commercial motorcycles; while others have taken to crime, including armed robbery, kidnapping and internet fraud , 419) etc . It is on this backdrop that this research will assist to empower the employed to be more financial literate , entrepreneurial and productive both during and after employment. These are issues and questions that require research and discussions. These issues should also concern every Nigerian because Olaoluwa(2017) states that Nigeria's youth unemployment rate has continued to rise unabated, with experts describing it as a ticking time bomb waiting to explode and ultimately shake the nation to its foundation.

## **1.7 Rationale for the Study**

**Financial Management focuses on optimal financing, investment and dividend decisions of firms. On the other hand Personal finance focuses more on personal financial planning, savings and individual investment decisions to ensure that an individual has a good financial health. Financial literacy ensures that an individual is able to match his income with his expenditure, lives within his means and forestall going broke or bankrupt. The major challenge in financial education has been how to measure the impact of financial education on the recipient standard of living. On the other hand what is the influence of financial literacy on employees' financial outcome. It can be observed that in some instances those who did not have formal financial education and those who are primary or secondary school dropout have risen to own successful business empire. However some who have tertiary financial education are struggling to survive.**

Being financially literate can help individuals to decide how they will spend their money and meet their financial obligations; make sense of the financial marketplace and buy the products and services best suited to their needs; manage their personal finances and plan ahead for life events, such as home ownership or retirement; ask and understand how they can benefit from local, state and national government programs and systems; assess the financial information and advice they receive from relatives and friends, professionals or the media, and; maximize the use of the resources they have access to, including workplace benefits, private and public pensions, tax credits, public benefits, investments, home equity, and access to credit (Canadian Task Force on Financial Literacy 2016). These benefits show that being financial literate will improve workplace benefits as it will enhance productivity and also increase investments which have great public benefits. Consequently a research into the influence of financial literacy on Nigerian employees' financial outcome will positively impact on Nigerian economy if results are implemented. Standard study on influence of financial Literacy on Employee Financial outcome in Nigeria does not exist. Therefore this study will

- 1. advance the study of personal Finance in relation to the well-being of the Nigerian employee.**
- 2. This research will fill the knowledge gap in areas of personal financial education which has impact on the standard of living and welfare of Nigerian employees.**

3. **This study will advance the study of Finance by providing evidence of areas of financial literacy that yield practical value to standard of living of Nigerian employees.**

### **1.8 Scope and Limitation of the Study**

This study is limited to public sector employees in Nigeria, and does not include employers of labour and private sector employees. In other words, the study is focused on public sector workers who receive salaries from their employers, and not private sector employees or entrepreneurs who establish and run their own businesses. The reason for limiting the study to public sector employees is essentially because they constitute a majority of the work force in Nigeria. Additionally, public sector employees in Nigeria belong to the middle class that have acquired, at least, basic education which puts them in pole position to be knowledgeable about financial matters.

The study is also limited to financial literacy and not basic literacy, in terms of the ability to read and write. Thus, the study is focused on public sector employees' knowledge of how to utilize money for their own interest, irrespective of their level of education.

### **1.9 Definition of Terms**

**Financial literacy** is having the knowledge, skills and confidence to make responsible financial decisions.

**Knowledge** refers to an understanding of personal and broader financial matters

**Skills** refer to the ability to apply that financial knowledge in everyday life

**Confidence** means having the self-assurance to make important decisions

**HRS** means Health and Retirement Study or Survey

**Responsible financial decision** refers to the ability of individuals to use the knowledge, skills and confidence they have gained to make choices appropriate to their own circumstances.

**Economic empowerment:** Organisation for Economic Co-operation and Development (OECD) defines Economic empowerment as the capacity of women and men to participate in, contribute to and benefit from growth processes in ways that recognise the value of their contributions, respect their dignity and make it possible to negotiate a fairer distribution of the benefits of growth. Economic empowerment increases access to economic resources and opportunities including jobs, financial services, property and other productive assets, skills development and market information. A business dictionary defines empowerment as A management practice of sharing information, rewards, and power with employees so that they can take initiative and make decisions to solve problems and improve service and performance. Empowerment is based on the idea that giving employees skills, resources, authority, opportunity, motivation, as well holding them responsible and accountable for outcomes of their actions, will contribute to their competence and satisfaction.

## Chapter II

### Literature Review

#### 2.1 The concept of financial literacy

The core concepts must be clearly defined in order to enhance comparability and consistency across the evidence base. Different researchers and organizations have defined financial literacy in many different ways. This section examines the breadth of existing conceptual and operational financial literacy definitions, compares financial literacy to other related but distinct concepts, and concludes with a discussion of the domain over which financial literacy applies. The Presidents' Advisory Council on Financial Literacy (PACFL, 2008), convened to "improve financial literacy among all Americans," defines financial literacy and financial education as follows:

**Financial literacy:** the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being. **Financial education:** the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being.

It is not clear how widely the PACFL definition is accepted. One of the striking things about the literature is that financial literacy has been variably defined as (a) a specific form of *knowledge*, (b) the *ability* or skills to apply that knowledge, (c) *perceived knowledge*, (d) good financial *behavior*, and even (e) financial *experiences*. Financial literacy as a construct was first championed by the Jump\$tart Coalition for Personal Financial Literacy in its inaugural 1997 study "Jump\$tart Survey of Financial Literacy among High School Students". In that study, Jump\$tart defined financial literacy as "the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security." As operationalized in the academic literature, financial literacy has taken on a variety of meanings; it has been used to refer to knowledge of financial products (e.g., what is a stock vs. a bond; the difference between a fixed vs. an adjustable rate mortgage), knowledge of financial concepts (inflation, compounding, diversification, credit scores), having the mathematical skills or numeracy necessary for effective financial decision making, and being engaged in certain activities such as financial planning (Hastings et al,2013).



Financial Literacy is inherent with the human rights and considered as the basic and fundamental privilege of human beings. Thilakam, (2012) stated that financial literacy is the ability to understand finance; more specifically, it refers to the set of skills and knowledge that allows an individual to make informed and effective decisions through their understanding of finances. Financially literate people can make sound financial decisions, so they are more inclined towards achieving their financial goals, have potentials to hedge themselves against economic shocks and associated risks and eventually contribute toward their economic development. Lack of financial knowledge is the main driver that pulls people away from financial markets (Bernheim& Garrett,2001; Lusardi and Mitchell, 2007; Van Rooji et al, 2011;Yoong, 2010).

Table 2.1, below illustrates the breadth of conceptual definitions, drawn from a number of studies and placed in chronological order. The most common basis for the definition is knowledge (or understanding), with some definitions merely requiring familiarity (arguably a limited form of knowledge). Still other definitions, such as those provided by Mandell(2007) and Lusardi and Tufano (2008), emphasize a judgment and decision-making aspect of financial literacy. Lusardi and Tufano also focus on a specific form of financial literacy – debt literacy. Moore (2003) goes so far as to include practical experience, on the argument that it provides the basis for knowledge and other aspects of financial literacy.

**Table 2.1**

Conceptual definitions of financial literacy (Hastings et al,2013)

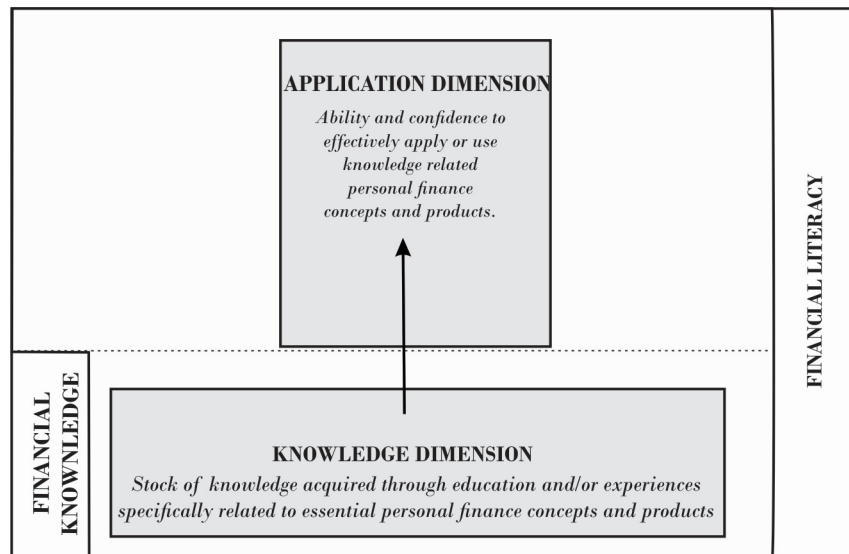
Source	Conceptual Definition <sup>a</sup>
Hilgert, Hogarth, & Beverley (2003)	Financial <i>knowledge</i>
FINRA (2003)	“The <i>understanding</i> ordinary investors have of market principles, instruments, organizations and regulations” (p. 2).
Moore (2003)	“Individuals are considered financially literate if they are competent and can demonstrate they <i>have used knowledge</i> they have learned. Financial literacy cannot be measured directly so proxies must be used. Literacy is obtained through practical <i>experience</i> and active <i>integration of knowledge</i> . As people become more literate they become increasingly more financially sophisticated and it is conjectured that this may also mean that an individual may be more competent” (p. 29).
National Council on Economic Education (NCEE) (2005) <sup>b</sup>	“ <i>Familiarity</i> with basic economic principles, knowledge about the U.S. economy, and <i>understanding</i> of some key economic terms” (p. 3).
Mandell (2007)	“The <i>ability</i> to evaluate the new and complex financial instruments and <i>make informed judgments</i> in both choice of instruments and extent of use that would be in their own best long-run interests” (pp. 163-164).
Lusardi and Mitchell (2007c)	[ <i>Familiarity</i> ] with “the most basic economic concepts needed to make sensible saving and investment decisions” (p. 36).
Lusardi and Tufano (2008)	Focus on debt literacy, a component of financial literacy, defining it as “the <i>ability to make simple decisions</i> regarding debt contracts, in particular how one <i>applies basic knowledge</i> about interest compounding, measured in the context of everyday financial choices” (p. 1).
ANZ Bank (2008), drawn from Schagen (2007)	“The <i>ability to make informed judgements</i> and to take effective decisions regarding the use and management of money” (p. 1).
Lusardi (2008a, 2008b)	“ <i>Knowledge</i> of basic financial concepts, such as the working of interest compounding, the difference between nominal and real values, and the basics of risk diversification” (p. 2).

<sup>a</sup> Italics have been added throughout to emphasize key definitional components.<sup>b</sup> This study labels the construct economic literacy.

In one of the first studies in this direction, Hilgert et al, (2003) document a strong relationship between financial knowledge and the likelihood of engaging in a number of financial practices: paying bills on time, tracking expenses, budgeting, paying credit card bills in full each month, saving out of each paycheck, maintaining an emergency fund, diversifying investments, and setting financial goals. Subsequent research has found that financial literacy is positively correlated with planning for retirement, savings and wealth accumulation (Ameriks et al, 2003; Lusardi, 2004; Lusardi & Mitchell, 2006, 2007; Stango & Zinman 2008; Hung et al, 2009; Van Rooij et al, 2012). Financial literacy is predictive of investment behaviors including stock market participation (Van Rooij et al, 2011; Kimball & Shumway 2006; Christelis et al, 2006), choosing a low fee investment portfolio (Choi et al, 2011; Hastings 2012), and better diversification and more frequent stock trading (Graham et al, 2009).

Finally, low financial literacy is associated with negative credit behaviors such as debt accumulation (Stango & Zinman, 2008; Lusardi & Tufano, 2009), high-cost borrowing (Lusardi & Tufano, 2009), poor mortgage choice (Moore 2003), and mortgage delinquency and home foreclosure (Gerardi et al. 2010). Other related researches document a relationship between either numeracy or more general cognitive abilities and financial outcomes. Although these concepts are distinct from financial literacy, they tend to be positively correlated; individuals with higher general cognitive abilities or greater facility with numbers and numerical calculations tend to have higher levels of financial literacy (Banks & Oldfield, 2007; Gerardi et al, 2010). Numeracy and more general cognitive ability predict stockholding (Banks & Oldfield, 2007; Christelis et al, 2010), wealth accumulation (Banks & Oldfield, 2007), and portfolio allocation (Grinblatt et al, 2009).

**Figure 2.1 Financial literacy concept**



Concept of Financial Literacy (Huston 2009)

## 2.2 Financial Literacy Domain Content

In search of various literatures about the domain content of financial literacy four main areas emerged. Huston, (2010) states that “After examination for commonality, four main categories emerged: personal finance basics, borrowing, saving/investing and protection”. Huston’s (2010) review of the literature over the last decade indicated that at least four distinct content areas were used to varying degrees in financial literacy study: money basics, inter-temporal transfer of resources, investment, and protection of resources. Money basics, including time value of money, purchasing power, personal financial accounting concepts. Inter-temporal transfer of resources between time periods, including both borrowing i.e. bringing future resources into the present through the use of credit cards, consumer loans or mortgages and Investing i.e. saving present resources for future use through the use of savings accounts, stocks, bonds or mutual funds. The fourth content area is protecting resources either through insurance products or other risk management techniques. As shown in Table 2.1, over half of the measures in prior studies included money basics, borrowing or saving/investment concepts, whereas one-third included resource protection concepts. Forty percent of the measures were comprised of two or three content areas. Just over one third (35%) were focused solely on one content area, with over one-half devoted to saving/investment items only. Only one-quarter of the measures incorporated all four of the content areas. Measures that incorporate all content areas are likely to be more accurate.

Table 2.2

Summary of Measures Used in the Compilation of Studies (Huston, 2010)

Category	Frequency
Construct	
Definition included	
Yes	13%
No	72%
Discussed somewhat	15%
Knowledge = literacy? (mixed constructs)	
Yes	47% (76%) <sup>a</sup>
No	15% (24%)
Only one (or neither) included in study	38%
Content	
Basic concepts	63%
Borrowing concepts	52%
Saving/investment concepts	69%
Protection concepts	33%
Single focus (one content area)	35%
Comprehensive (all four content areas)	25%
Structure	
Number of items (N=46, 8 not reported)	
Mean	16
Median	13
Mode	10
Minimum	3
Maximum	68
Data collection	
Interview	38%
Telephone	36% (95%) <sup>b</sup>
In person	2% (5%)
Self-report	58%
Internet	22% (38%)
Paper (either mail/in person)	36% (62%)
Not reported	4%
Rating	
Provided	6%
Not provided	88%
Ordinal rank imposed	6%
Other	
Audience	
General adult population	30%
Specific target group	68%
Not reported	2%
Sample size	
Mean	1,575
Median	1,000
Mode	1,000
Minimum	42
Maximum	12,140

<sup>a</sup>Values in parentheses refer to the frequency within the group of papers that report using both of the terms financial knowledge and financial literacy.

<sup>b</sup>Values in parentheses refer to the frequency within the group of studies that used the interview method for data collection.

<sup>c</sup>Values in parentheses refer to the frequency within the group of studies that used a self-report data collection technique.

Clarification of the financial literacy construct is the first step in understanding this research. Sandra J. Huston's (2010) proposed definition, a specific instrument developed to measure the financial literacy would include both knowledge and application items. In terms of content, it would seem reasonable to use the four personal finance content areas that currently exist in the literature, with a focus on designing items strongly linked to the most common and/or most detrimental financial mistakes. The specific number of instrument items primarily depends on adequate representation of each domain. Kim and Mueller (1978, p. 29) proposed one rule of thumb that the minimum number of items having meaningful loadings on a domain factor varies between three and five. Assuming four personal-finance-content areas would suggest the minimum items required would be between twelve and twenty. As for instrument structure, an accepted approach is to include at least three to five items per content factor resulting in initial instruments with twelve to twenty items (Kim and Mueller, 1978) if the four content areas are used. Thus, initial instruments consisting of as few as three items (Henry et al, 2001; Lusardi, 2008a; Lusardi and Mitchell, 2007a, 2007c, 2008c) would appear to be deficient to capture the breadth of human capital specifically related to personal finance. Attention to item wording and ordering is important regardless of the data collection technique used. In terms of a target audience, Huston (2010) suggests that it seems reasonable to begin with adult audiences because they control the greatest share of financial resources and other standardized literacy tests are aimed at an adult population. Finally, inclusion of a rating method, either a threshold or ranking system, is imperative to ensure common interpretation of the results.

Increasing consumer financial literacy is a public policy objective to improve welfare through better decision making (U.S. House of Representatives, Financial Services Committee 2009). To assess current levels of financial literacy and explore means to improve it, a construct is needed to measure consumers' ability to make effective financial decisions. Despite its importance, the academic literature has given little attention to how financial literacy is measured. This is amongst the reasons this study is significant especially in a developing country like Nigeria where such study is lacking.

### 2.3 The importance of financial literacy

Although financial literacy as a construct is a fairly recent development, financial education as an antidote to poor financial decision making is not. In the U.S., policy initiatives to improve the quality of personal financial decision-making through financial education extend back at least to the 1950s and 1960s when states began mandating inclusion of personal finance, economics, and other consumer education topics in the K-12 educational curriculum (Bernheim et al, 2001 citing Alexander 1979, Joint Council on Economic Education 1989, and National Coalition for Consumer Education 1990). Private financial and economic education initiatives have an even longer history; the Junior Achievement Organization had its genesis during World War I, and the Council for Economic Education goes back at least sixty years. Why are financial literacy and financial education as a tool to increase financial literacy potentially important? Hastings et al, (2013) state that it is useful to place financial literacy within the context of standard models of consumer financial decision-making and market competition. They formulated a simple two-period model of inter-temporal choice in the face of uncertainty. A household decides between consumption and savings at time 0, given an initial time 0 budget  $y$ , an expected real interest rate  $r$ , and current and future expected prices  $p$ , for goods consumed  $x$ , as represented below

$$\begin{aligned} & \max E[U(c_0, c_1)] \\ s.t. \quad & c_0 + s_0 \leq y \\ & c_1 \leq (1+r) s_0 \\ & c_t = \sum_{i=1}^N x_{it} p_{it} \end{aligned}$$

Solving this simple model requires both numeracy (the ability to add, subtract, and multiply), and some degree of financial literacy (an understanding of interest rates, market risks, real versus nominal returns, prices and inflation). A lack of financial literacy is problematic as it renders individuals unable to optimize their own welfare, especially when the stakes are high, or to exert the type of competitive pressure necessary for market efficiency. This deficiency has obvious

consequences for individual and social welfare. It also makes the standard models used to capture consumer behavior and shape economic policy less useful for these particular tasks.

Financial knowledge can also pay off in terms of saving and investment efficiency. In a recent study Lusardi and Mitchell, (2015) explored a unique dataset from a large financial institution which reported on employees' financial knowledge along with administrative information drawn from that firm's retirement plan (Clark et al, 2014). Their analysis of financial knowledge and investor performance showed that more knowledgeable individuals invest in more sophisticated assets, generating higher expected returns on retirement saving along with lower nonsystematic risk; similar findings are starting to emerge in more recent studies. Additionally they have shown that answering just one additional financial question correctly is associated with a 3-4 percentage point greater probability of planning for retirement in the United States, Japan, Canada, and Germany. Financial literacy has the strongest impact in the Netherlands, where knowing the right answer to one more financial literacy question is associated with a 10 percentage point higher probability of planning.

Financial literacy is also invaluable during the retirement phase: for instance, in an experimental setup, they have shown that many people do not understand lifetime income streams. In other words they indicate that they would pay very little if given a chance to *buy* \$100 more in lifetime retirement income, but they would also demand far more if asked to *sell* the same \$100 flow for a lump sum. Interestingly, the more financially literate provide more internally consistent answers, indicating they better understand the financial product and hence can better protect themselves against longevity risk in retirement (Brown et al, 2013). Recent work also shows that advisors sometimes influence workers to shift their retirement funds into high fee investment vehicles, casting doubt on whether the less-financially literate should rely on financial advice (Turner et al, 2015). Other studies show that financial literacy and financial advice are complements rather than substitutes (Collins, 2012).

Several prior studies have shown that people who plan for retirement do, in fact, accumulate more retirement savings. For instance Lusardi (1999) showed that a 1992 HRS question asking people how much they thought about retirement (a lot, some, a little or hardly at all) was a strong predictor of retirement wealth. In addition, the impact was quantitatively important for the HRS



respondents in their mid 50s; those who thought about retirement had double the wealth of those who had not thought about retirement. Similar findings were measured in the 2004 HRS (Lusardi and Beeler, 2007). A different question in the 2004 HRS experimental module asked whether people had even *tried* to calculate how much they needed to save for their retirement to measure planning (Lusardi and Mitchell, 2011). This question has also been used in the Retirement Confidence Survey (Yakoboski and Dickemper, 1997) as a means of assessing whether individuals are forward-looking and attempt to calculate how much they need to save as the life cycle model implies. Results showed that those who planned for retirement accumulated three times as much wealth as those who did not (Lusardi and Mitchell, 2011). Planning has also been associated with higher wealth even among the better educated (Ameriks et al, 2003). It is also of interest that planning is important for the young and middle aged, as shown in the American Life Panel (Lusardi and Mitchell, 2009). Moreover, the nexus of causality goes from retirement planning to wealth, and not the other way around (Lusardi and Mitchell, 2009; Lusardi and Mitchell, 2007).

Lusardi and Tufano(2009) found that low literacy individuals are more likely to carry high-cost debt and to have problems with debt. More financially literate individuals tend to include stocks in their portfolios, as they better understand the principle of risk diversification (Van Rooij et al, 2011; Christelis et al, 2010). There are also other channels through which financial literacy operates; for example higher literacy individuals may be more likely to choose funds with lower fees or be more savvy about fund expenses; for instance there is a strong correlation between financial literacy and investment in lower cost funds (Hastings and Tejada-Ashton, 2008; Hastings et al, 2010; Hastings and Mitchell, 2011). Ultimately, we seek to learn not just how much people know, but also how financial literacy matters over the life cycle. Inter-temporal economic choice models posit that people formulate assumptions about their lifetime resources and make consumption decisions on those anticipated resources, rather than simply based on current income. Some degree of forward-looking perspective is required, so that people can save to smooth consumption over their lifetime. Yet implementing such life cycle model would require taking a stand on a host of assumptions about preferences and risk aversion as well as discount rates, expectations about lifetime income streams and capital market returns, borrowing possibilities, and income shocks (Chai et al. 2010), most of which are not particularly easily measured in empirical data.

## **2.4 Independent Evidence of the Importance of Financial Literacy**

Many employers, teachers, and policymakers have jumped on the financial literacy bandwagon in recent years, offering courses, programs, and new degrees. This provides some independent evidence of the importance of financial literacy, suggesting that many individuals and institutions are recognizing its relevance. Such programs offer another way to assess the effects of financial literacy, as reviewed in Lusardi and Mitchell,(2007, 2014). In view of the findings, two initiatives seem particularly well-suited to improve financial literacy. These are financial education in school, and in the workplace. As discussed earlier, financial literacy is low among high school students, even though these young people will soon need to make important decisions such as whether to go to college and how to finance the education. Similarly, workers are increasingly being asked to make decisions about their retirement savings, from how much to contribute to their accounts, how to invest their retirement savings, and how to draw down their wealth during retirement. Financial literacy can influence all of these decisions.

Evaluating the impact of financial education in school and in the workplace is certainly difficult, but the shift to quasi-experimental or experimental approaches has improved the rigor with which these initiatives are evaluated. The evidence is supportive of the importance of financial education. As an example, Walstad et al, (2010) found that financial education in high school is invaluable, a conclusion now confirmed in several European nations. Brown et al, (2014) examine the effectiveness of state mandated financial education for high-school students. The study shows that if a rigorous financial education program is carefully implemented, it can improve the credit scores and lower the probability of credit delinquency for young adults. In another case, Heinberger et al, (2014) designed and evaluated a program called “Five Steps” that taught financial planning concepts related to retirement and targeted at young workers. Participants received information about five core concepts underlying financial planning, using a program format amenable to easy, low-cost replication, and mass dissemination. Results showed that short (3 minute) videos and narratives had sizable short-run effects on objective measures of respondent knowledge. Follow-up tests of respondents’ knowledge approximately eight months after the interventions suggested that between one-quarter and one-third of the knowledge gain persisted. In other words, such a program can have both short and medium term positive effects, and it could readily be targeted to, for example, new employees and those entering the labor market.

## **2.5 Relationship between financial literacy, financial education and financial outcomes**

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 are currently no standardized instruments to measure financial literacy. Marcolin and Abraham, (2006) identified the need for research focused specifically on measurement of financial literacy. Typically, financial literacy and/or financial knowledge indicators are used as inputs to model the need for financial education and explain variation in financial outcomes such as savings, investing and debt behavior. Far fewer studies specifically emphasize measurement of financial literacy as an objective.

Consistent with the notion that financial literacy matters for financial optimization, a sizeable and growing literature has established a correlation between financial literacy and several different financial behaviors and outcomes. In one of the first studies in this vein, Hilgert et al (2003) document a strong relationship between financial knowledge and the likelihood of engaging in a number of financial practices: paying bills on time, tracking expenses, budgeting, paying credit card bills in full each month, saving out of each paycheck, maintaining an emergency fund, diversifying investments, and setting financial goals. Subsequent research has found that financial literacy is positively correlated with planning for retirement, savings and wealth accumulation (Ameriks et al, 2003; Lusardi 2004; Lusardi & Mitchell, 2006, 2007; Stango & Zinman, 2008; Hung et al, 2009; Van Rooij et al, 2012). Financial literacy is predictive of investment behaviors including stock market participation (Van Rooij et al, 2011; Kimball & Shumway, 2006; Christelis et al, 2006), choosing a low fee investment portfolio (Choi et al, 2011; Hastings, 2012), and better diversification and more frequent stock trading (Graham et al, 2009). Finally, low financial literacy is associated with negative credit behaviors such as debt accumulation (Stango & Zinman, 2008; Lusardi & Tufano, 2009), high-cost borrowing (Lusardi & Tufano, 2009), poor mortgage choice (Moore, 2003), and mortgage delinquency and home foreclosure (Gerardi et al, 2010).

Other related research documents a relationship between either numeracy or more general cognitive abilities and financial outcomes. Although these concepts are distinct from financial literacy, they tend to be positively correlated: individuals with higher general cognitive abilities or greater facility with numbers and numerical calculations tend to have higher levels of financial

literacy (Banks & Oldfield, 2007; Gerardi et al, 2010). Numeracy and more general cognitive ability predict stockholding (Banks & Oldfield, 2007;Christeliset al, 2010), wealth accumulation (Banks & Oldfield, 2007), and portfolio allocation(Grinblatt et al, 2009).Although this evidence might lead one to conclude that financial education should be an effective mechanism to improve financial outcomes, the causality in these relationships is inherently difficult to pin down. Does financial literacy lead to better economic outcomes? Or does being engaged in certain types of economic behaviors lead to greater financial literacy? Or does some underlying third factor (e.g., numerical ability, general intelligence, interest in financial matters, patience) contribute to both higher levels of financial literacy and better financial outcomes? To give a more concrete example, individuals with higher levels of financial literacy might better recognize the financial benefits and be more inclined to enroll in a savings plan offered by their employer. On the other hand, if an employer automatically enrolls employees in the firm's saving plan, the employees may acquire some level of financial literacy simply by virtue of their savings plan participation.

The finding noted earlier that most individuals cite personal experience as the most important source of their financial learning (Hilgert et al, 2003) suggests that some element of reverse causality is likely. While this endogeneity does not rule out the possibility that financial literacy improves financial outcomes, it does make interpreting the magnitudes of the effects estimated in the literature difficult to interpret as they are almost surely upwardly biased in magnitude. In addition, unobserved factors such as predisposition for patience or forward-looking behavior could contribute to both increased financial literacy and better financial outcomes. Meier &Sprenger, (2010) find that those who voluntarily participate in financial education opportunities are more future-oriented. Hastings & Mitchell, (2011) find that those who display patience in a field-experiment task are also more likely to invest in health and opt to save additional amounts for retirement in their mandatory pension accounts. Other unobserved factors like personality (Borgans et al. 2008) or family background (Cunha &Heckman, 2007; Cunha et al, 2010) could upwardly bias the observed relationship between financial education and financial behavior in non-experimental research.

Consequently, Children who grow up from families who are prone to savings, making prudent investment decision will acquire the skills if they are close to their parents. However if they are

only interested in learning how to spend money and instant gratification they will end up reversing the financial gains of the family. This means that it is associated with one's personality traits. This could explain why a lot of children whose parents were rich end up disposing the parents' assets and thus become poor. Despite the challenges in pinning down causality, understanding causal mechanisms is necessary to make effective policy prescriptions. If the policy goal is increased financial literacy, then we need to know how individuals acquire financial literacy. How important is financial education? And how important is personal experience? And how do they interact? If, on the other hand, the goal is to improve financial outcomes for employees, then there is need to know if financial education improves financial outcomes (assuming it increases literacy) and there is also the need to weigh the cost effectiveness of financial education against other policy options that also impact financial outcomes.

On the basis of the foregoing, what evidence is there that financial education actually increases financial literacy? The evidence is more limited, and not as encouraging as one might expect. An empirical strategy has been to exploit cross sectional variation in the receipt of financial education. Studies using this approach have often found almost no relationship between financial education and individual performance on financial literacy tests. For example, Jumps\$tart, (2006) and Mandell, (2008) document surprisingly little correlation between high school students' financial knowledge levels and whether or not they have completed a financial education class. This empirical approach has obvious problems for making causal inferences: the students who take financial education courses in districts where such courses are voluntary are likely to be different from the students who choose not to take such courses, and the districts who make such courses mandatory for all students are likely to be different from the districts that have no such mandate. Nonetheless, the lack of any compelling evidence of a positive impact is surprising. Carpena et al, (2011) use a more convincing empirical methodology to get at the impact of financial education on financial literacy and financial outcomes. They evaluate a relatively large randomized financial education intervention in India and find that while financial education does not improve financial decisions that require numeracy, it does improve financial product awareness and individuals' attitudes towards making financial decisions. There is definitely room in the literature for more research using credible empirical methodologies that

examine whether, or in what contexts, financial education actually impacts financial literacy. In the end, we are more interested in financial outcomes than financial knowledge per se.

The literature on financial education and financial outcomes includes several studies with plausibly exogenous sources of variation in the receipt of financial education, ranging from small-scale field experiments to large-scale natural experiments. The evidence in these papers on whether financial education actually improves financial outcomes is best described as contradictory. Several studies have looked toward natural experiments as a source of exogenous variation in who receives financial education. Skimmyhorn, (2012) uses administrative data to evaluate the effects of a mandatory eight-hour financial literacy course rolled out by the U.S. military during 2007 and 2008 for all new Army enlisted personnel. Because the roll-out of the financial education program was staggered across different military bases, we can rule out time effects as a confounding factor in the results. He finds that soldiers who joined the Army just after the financial education course was implemented have participation rates in and average monthly contributions to the Federal Thrift Savings Plan (a 401(k)-like savings account) that are roughly double those of personnel who joined the Army just prior to the introduction of the financial education course. The effects are present throughout the savings distribution and persist for at least 2 years (the duration of the data). Using individually matched credit data for a random subsample, he finds limited evidence of more wide spread improved financial outcomes as measured by credit card balances, auto loan balances, unpaid debts, and adverse legal actions (foreclosures, liens, judgments and repossessions).

Bernheim et al, (2001) and Cole & Shastry, (2012) examine another natural experiment which created variation in financial education exposure: the expansion over time and across states in high school financial education mandates. The first of these studies concludes that financial education mandates do have an impact on at least one measure of financial behavior: wealth accumulation. But Cole & Shastry, (2012), using a different data source and a more flexible empirical specification, examine the same natural experiment and conclude that there is no effect of the state high school financial education mandates on wealth accumulation, but rather, that the state adoption of these mandates was correlated with economic growth which could have had an independent effect on savings and wealth accumulation

In addition to examining natural experiments, researchers have also randomly assigned financial aid provision to evaluate the impact of financial education on financial outcomes. For example, Drexler et al, (2012) examine the impact of two different financial education programs targeted at micro-entrepreneurs in the Dominican Republic as part of a randomized controlled trial on the effects of financial education. Their sample of micro entrepreneurs was randomized to be in either a control group or one of two treatment groups. Members of one treatment group participated in several sessions of more traditional, principles-based financial education; members of the other treatment group participated in several sessions of financial education oriented around simple financial management rules of thumb. The authors examine participants' use of several different financial management practices approximately one year after the financial education courses were completed.

Relative to the control group, the authors find no difference in the financial behaviors of the treatment group who received the principles-based financial education; they do find statistically significant and economically meaningful improvements in the financial behavior of the treatment group who participated in the rule-of-thumb oriented financial education course. The results of this study suggest that how financial education is structured could matter in whether it has meaningful effects at the end of the day, and might help explain why many other studies have found much weaker links between financial education and economic outcomes. This can also explain why some graduates of finance and accountancy are unable to take care of their personal finance. The structure of the course is geared towards maximizing a firm's wealth rather than individual wealth accumulation. We have seen some employees who rose to the position of chief finance officer of their firm retiring poor. Gartner & Todd, (2005) evaluate a randomized credit education plan for first-year college students but find no statistically significant differences between the control and treatment groups in their credit balances or timeliness of payments. Servon&Kaestner, (2008) used random variation in financial literacy training and technology assistance program find virtually no differences between the control and treatment groups in a variety of financial behaviors (having investments, having a credit card, banking online, saving money, financial planning, timely bill payment and others), though they suspect that the program was implemented imperfectly. In a small randomized field experiment, Collins, (2010) evaluates

a financial education program for low and moderate income families and finds improvements in self-reported knowledge and behaviors (increased savings and small improvements in credit scores twelve months later), but the sample studied suffers from non-random attrition.

Furthermore, Choi et al, (2011) randomly assign some participants in a survey to an educational intervention designed to teach them about the value of the employer match in an employer sponsored savings plan. Using administrative data, they find statistically insignificant differences in future savings plan contributions between the treatment and the control group, even in the face of significant financial incentives for savings plan participation. Additional non-experimental research using self-reported outcomes and potentially endogenous selection into financial education suggests a positive relationship between financial education and financial behavior. This positive relationship has been documented for credit counseling (Staten 2006), retirement seminars (Lusardi, 2004; Bernheim & Garrett, 2003), optional high school programs (Boyce & Danes, 2004), more general financial literacy education (Lusardi & Mitchell, 2007), and in the military (Bell et al, 2008; 2009).

Altogether, there remains substantial disagreement over the efficacy of financial education. While the most recent reviews and meta-analyses of the non-experimental evidence (Collinset al, 2009; Gale & Levine, 2011) suggest that financial literacy can improve financial behavior, these reviews do not appear to fully discount non-experimental research and its limitations for causal inference. Of the few studies that exploit randomization or natural experiments, there is at best mixed evidence that financial education improves financial outcomes. The current literature is inadequate to draw conclusions about if and under what conditions financial education works. While there do not appear to be any negative effects of financial education other than increased expenditures, there are also almost no studies detailing the costs of financial education programs on small or large scales (Coussens, 2006), and few that causally identify their benefits towards improved financial outcomes. To inform policy discussion, the literatures need additional large-scale randomized interventions designed to effectively identify causal effects.

Hasting et al, (2013) suggest that randomized interventions coupled with measures of financial literacy could address the question of how best to measure financial literacy while also providing credible assessments of the effect of financial education on financial literacy and economic



outcomes. A starting point could be incorporating experimental components into existing large scale surveys like the NFCS; for example, a subset of respondents could be randomized to participate in an on-line financial education course or to receive a take-home reference guide to making better financial decisions. Measuring financial literacy before and immediately after the short course would test if financial education improves various measures of financial literacy in the short-run. A subsequent follow-up survey linked to administrative data on financial outcomes (e.g., credit scores) would measure if short-run improvements in financial literacy last, and which measures of financial literacy, if any, are correlated with improved financial outcomes.

## **2.6 Relevant financial education and knowledge**

Financial literacy has positive relationship with wealth accumulation and economic growth (Bhushan&Medury, 2013; Arrondel et.al, 2013; Beckmann, 2013). Therefore financial education has to be selective towards financial knowledge that will promote employees' economic empowerment. Relevant Financial literacy is the education and understanding of various topics focusing on employees ability to manage personal finance matters in an efficient manner, and it includes the knowledge of making appropriate decisions about personal finance such as investing, insurance, real estate, financial planning, compound interest, managing debt, profitable savings techniques, the time value of money, paying for college, budgeting, retirement and tax planning.

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## **2.7 Policy Implications of Financial knowledge**

Financial knowledge is critically important for many of today's policy debates. For instance, using an inter-temporal model of savings that incorporates many sources of risk, Lusardi and Mitchell, (2015) have demonstrated what can happen when financial knowledge helps people do a better job allocating their resources over their lifetimes (Lusardi et al, 2013). They concluded that more than one-third of U.S. wealth inequality could be accounted for by differences in financial knowledge. Additionally, they showed that consumers would be willing to give up three percent of their lifetime consumption in order to enhance their wellbeing via financial knowledge. These findings are relevant to national educational and retirement policy. For instance, personal accounts under Social Security and increased reliance on individually-managed retirement accounts would be anticipated to lead to higher financial knowledge. Providing financial education in high school could also enhance wellbeing, not only among the young, but over everyone's life course.

Viewing financial knowledge as an investment in human capital has potentially far-reaching consequences for education and training policy (c.f., Kim et al, 2013). When people make poor financial decisions, this can get them into deep financial trouble over their lifetimes. In turn, these difficulties can spill over to their families and the rest of the economy. Curing and preventing financial illiteracy is not costless, but investing in financial literacy is likely to bring high payoffs (Behrman et al, 2012; Hastings et al, 2011; and Lusardi, 2013). Moreover, their work demonstrates that financial literacy can benefit not only the economically vulnerable in society, but also the population at large.

Financial products and decisions about these products are likely to become increasingly complex in future years. Accordingly, they will expose people to additional financial risk and ever more sophisticated financial products. Naturally we caution that proper program evaluation requires carefully-designed experiments and follow-ups to determine the value-added of a specific financial literacy intervention. Those who regulate and supervise financial markets would do well to devote close attention to how well young people, employees, and retirees understand the economic world around them. Much remains to be done in this young field of financial literacy.

## **2.8 Financial Literacy and Economic Behavior**

While the low levels of financial literacy are troubling in and of themselves, policymakers are most concerned by the potential implications of financial illiteracy for economic behavior. Hogarth et al, (2005) demonstrate that consumers with low levels of education are disproportionately represented amongst the “unbanked,” those lacking any kind of transaction account. To further examine how financial illiteracy is tied to economic behavior, Lusardi and Mitchell, 2006 used the 2004 HRS to connect financial knowledge to retirement planning abilities. They found out that for population over the age of 50, those who are more financially knowledgeable are also much more likely to have thought about retirement. Further, planners are most likely to know about interest compounding, which makes sense in as much as it is critical for effective saving plans. Even after accounting for factors such as education, marital status, number of children, retirement status, race, and sex, they still found that financial literacy plays an independent role: those who understand compound interest and can do a simple lottery division are much more likely to have planned for retirement. This is important, since in related work, they have shown that lack of planning is tantamount to lack of saving (Lusardi and Mitchell, 2006; Lusardi, 1999).

Other authors have also confirmed the positive association between knowledge and financial behavior. For example, Calvet et al, (2005) find that more financially sophisticated households are more likely to buy risky assets and invest more efficiently. Kimball and Shumway (2006) report a large positive correlation between financial sophistication and portfolio choice. Hilgerth et al, (2003) also document a positive link between financial knowledge and financial behavior. Campbell, (2006) has highlighted how household mortgage decisions, particularly the refinancing of fixed-rate mortgages, should be understood in the larger context of ‘investment mistakes’ and their relation to consumers’ financial knowledge. This is a particularly important topic, given that most US families are homeowners and many have mortgages. The sad reality is that many households are confused about the terms of their mortgages. Campbell, (2006) also finds that younger, better-educated, better-off White consumers with more expensive houses were more likely to refinance their mortgages over the 2001-2003 period when interest rates were falling. His findings are confirmed by Bucks and Pence, (2006), who examine whether homeowners know the value of their home equity and the terms of their home mortgages. They show that many borrowers underestimate the amount by which their interest rates can change and

that low-income, low-educated households are least knowledgeable about the details of their mortgages (especially those with adjustable rate mortgages). Further evidence of biases is provided by Stango and Zinman, (2006) who well document the systematic tendency of people to underestimate the interest rate associated with a stream of loan payments. The consequences of this bias are important: those who underestimate the annual percentage rate (APR) on a loan are more likely to borrow and less likely to save.

Consumers are not only poorly informed about mortgages or incorrect about interest rates, they know little about Social Security and pensions, two of the most important components of retirement wealth. Close to half of workers in the HRS sample analyzed by Gustman and Steinmeier, (2004) could not report their type of pension plan, and an even larger portion was ignorant of future Social Security benefits, confirming earlier findings from Mitchell (1988). There is mounting evidence that knowledge about pensions and Social Security affects retirement decisions (Chan and Stevens, (2003) and Mastrobuoni, (2005).

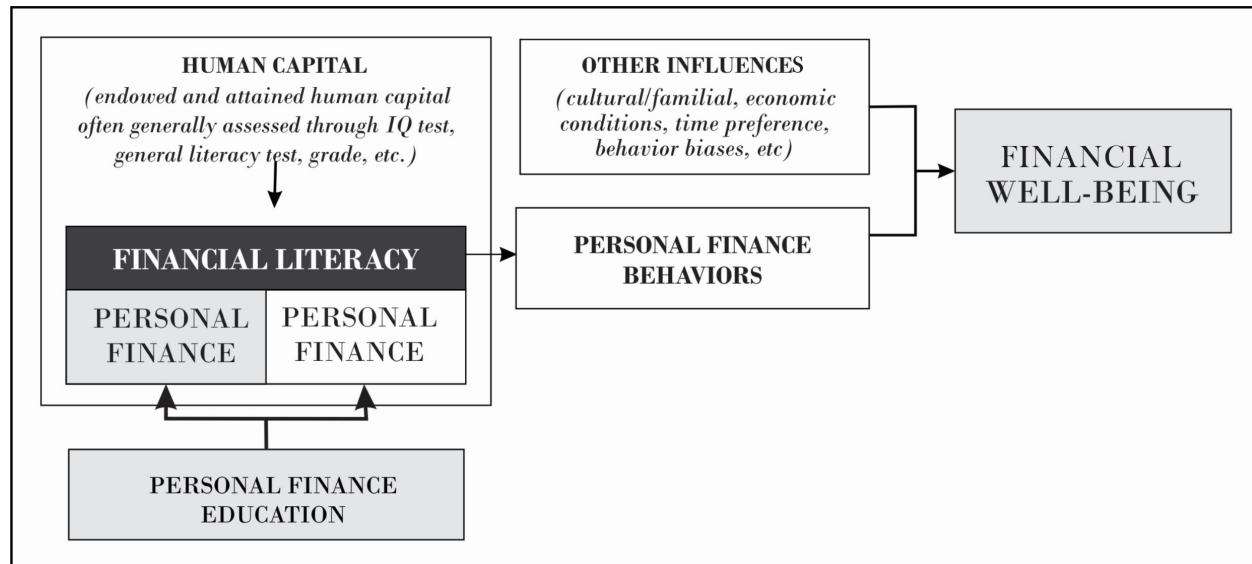
Lusardi and Mitchell, (2015) have established that financially literate individuals do plan better, save more, earn more on their investments, and manage their money better in retirement. Yet there remains the possibility of reverse causality: perhaps some people are savvier because they have the money in the first place. To unravel this causality question, they reviewed an extensive body of evidence on financial literacy and economic outcomes around the world. This comprehensive study (Lusardi and Mitchell, 2014) arrived at an unambiguous conclusion: even after correcting for a variety of econometric estimation issues, financial literacy proves to be even more powerful than can be concluded from simple correlations. This is important since more knowledgeable people are also more resilient in the face of economic shocks (including the 2008-09 financial crises). While some authors challenge the importance of financial literacy for financial decision making, arguing that financial literacy has little effect on economic outcomes, Lusardi and Mitchell, (2015) reading of the existing literature comes to different conclusions. Thus Fernandes et al, (2014) summarized several studies linking financial and educational measures with behavior, and they concluded that financial literacy could explain little of the variance in financial behavior, especially for the low-income population.

Hastings et al, (2013) also argue the effect of financial literacy on economic outcomes is mixed at best. These were useful exercises but they suffered from some important drawbacks. For instance, many of the prior studies examined differed enormously in terms of their approach and empirical rigor, type of intervention, and tests conducted, so grouping them together does not provide a coherent picture of financial literacy's impact. By contrast, studies using Lusardi and Mitchell, (2015) financial literacy questions tend to provide consistent and significantly positive results. Additionally, another recent meta-analysis by Miller et al, (2014) also comes to more positive conclusions than Fernandes et al. Another factor to consider is that some of the interventions studied involved interventions far in respondents' distant past (in the 1960s and '70s), including retirement seminars, sending employees to benefit fairs, or mandating financial literacy in high school. It is not surprising that these had little lasting impact on lifetime financial outcomes, not because financial literacy is ineffective, but because limited and far-ago interventions may not remedy widespread financial illiteracy. In other words, what could be called for is longer and continued treatment, rather than small and infrequent doses.

A related consideration is that many empirical studies on the topic have not relied on a theoretical model, though this is essential for evaluating how financial literacy should be expected to affect financial behavior (Lusardi et al, 2014). For example, if consumers have insufficient income to save, boosting financial literacy is unlikely to translate into higher saving. In other words, financial literacy may not be ineffective *per se*; rather it might not be able to translate into changes in financial behavior. Likewise, since financial knowledge is costly to acquire and does not provide the same benefit to all; some individuals will not invest in knowledge and will also let it depreciate. Again, this is not because financial knowledge does not work, but because different behavior is optimal for different people (Lusardi et al, 2013). This explains, for example, why financial literacy tends to be lower in low-income populations, and why one should logically anticipate a weaker effect of financial literacy for this group. This is not evidence of the ineffectiveness of financial literacy.

Figure 2.2

Relations among Financial Literacy, Knowledge, Education, Behavior and Well-Being (Huston 2010)



## 2.9 Financial Illiteracy and Costly Economic Behaviour

There are some aspects of financial Literacy that have positive correlation with wealth accumulation (Bhushan&Medury, 2013; Arrondel et.al, 2013; Beckmann, 2013). Some of these aspects will be highlighted in relation to the four main categories adopted from Huston (2010). “personal finance basics, borrowing, saving/investing and protection”. It is important to ask whether financial illiteracy translates into costly economic behavior and outright financial mistakes. Lusardi and Mitchell (2015) argue that there is substantial evidence that more financially savvy people are more likely to plan, save, invest in stocks, and accumulate more wealth (Lusardi and Mitchell, 2014). They also have been shown to be less likely to have credit card debt, and when they do borrow, they manage loans better, paying off the full amount each month rather than just the minimum due (Lusardi and Tufano, 2009, 2015). They also refinance their mortgages when it makes sense to do so, tend not to borrow against their 401(k) plans, and are less likely to use high-cost borrowing methods (e.g. payday loans, pawn shops, auto title loans, and refund anticipation loans). Debt behavior, in particular, has severe consequences, For example, Gerardi et al, (2013) showed that shortcomings in numerical ability (assessed with questions measuring financial literacy and math knowledge) contributed substantially to widespread defaults on subprime mortgages in the recent financial crisis.

Agarwal et al, (2009) focused on financial “mistakes” related to decisions about debt, showing not only that these were consequential in terms of costs but also that they were prevalent among the young and the old, groups with the lowest levels of financial literacy. It is worth highlighting Lusardi and Mitchell’s (2015) conclusion that financial literacy can be particularly important for the young. In the U.S., for instance, the so-called *Millennials* are now entering the labor market burdened by much credit card and student loan debt (de Bassa et al, 2014). Young people also rely on high-cost methods of borrowing (e.g., pay-day loans,(see de Bassa, 2013). Their lack of clear understanding regarding basic financial concepts is therefore likely to undermine efforts to establish themselves as well-functioning adults (Lusardi et al, 2010). Obviously, a lack of financial literacy or financial illiteracy may lead to making poor financial choices that can have negative consequences on the financial well-being of an individual. (Investopedia, 2016).

Previous Research has documented widespread and avoidable financial mistakes by consumers, some with non-trivial financial consequences. For example, in the U.S., Choi et al, (2011) examine contributions to 401(k) plans by employees over age 59 ½ who are eligible for an employer match, vested in their plan, and able to make immediate penalty-free withdrawals due to their age. They find that 36% of these employees either don't participate or contribute less than the amount that would garner the full employer match, essentially foregoing 1.6% of their annual pay in matching contributions; the cumulative losses over time for these individuals are likely to be much larger. This means that due to lack of adequate financial literacy these employees are losing a part of their salary which is accruable to them on retirement.

Duarte & Hastings, (2011) and Hastings et al, (2012) show that many participants in the private account Social Security system in Mexico invest their account balances with dominated financial providers who charge high fees that are not offset by higher returns, contributing to high management fees in the system overall. It is like paying for big names or brands irrespective of the return on investment. This is similar to consumers who go shopping in big departmental stores just to give a false impression of status. In the long run, they find out that they cannot sustain the high lifestyle or that they have consumed all they have without investment. Similarly, Choi et al, (2009) used a laboratory experiment that show that many investors, including the well-educated, fail to choose a fee minimizing portfolio even in a context (the choice between four different S&P 500 Index Funds) in which fees are the only significant distinguishing characteristic of the investments and the dispersion in fees is large. Campbell, (2006) highlights

several other financial mistakes such as low levels of stock market participation, inadequate diversification due to households' apparent preferences to invest in local firms and employer stock, individuals' tendencies to sell assets that have appreciated while holding on to assets whose value has declined even if future return prospects are the same as the disposition effect first documented in Odean(1998), and failing to refinance fixed rate mortgages in a period of declining interest rates.

Other financial mistakes discussed in the literature include purchasing whole life insurance rather than a cheaper combination of term life insurance in conjunction with a savings account (Anagol et al, 2012); simultaneously holding high-interest credit card debt and low interest checking account balances (Gross &Souleles, 2002); holding taxable assets in taxable accounts and non-taxable or tax-preferred assets in tax-deferred accounts (Bergstresser&Poterba, 2004; Barber &Odean, 2003); paying down a mortgage faster than the amortization schedule requires while failing to contribute to a matched tax-deferred savings account (Amromin et al, 2007); and borrowing from a payday lender when cheaper sources of credit are available (Agarwal et al, 2009b).

Agarwal et al, (2009a) document the prevalence of several different financial mistakes ranging from suboptimal credit card use after making a balance transfer to an account with a low teaser rate, to paying unnecessarily high interest rates on a home equity loan or line of credit. Hastings et al, (2013) find that across many domains, sizeable fractions of consumers make avoidable financial mistakes. They also find that the frequency of financial mistakes varies with age, following a U-shaped pattern: financial mistakes decline with age until individuals reach their early 50s, then begin to increase. The declining pattern up to the early 50s is consistent with the acquisition of increased financial decision-making capital over time, either formally or through learning from experience (Agarwal et al, 2011); but the reversal at older ages highlights the natural limits that the aging process places on individuals' financial decision-making capabilities, however those capabilities are acquired.

The constellation of findings described above has been cited by some as *prima facie* evidence that individuals lack the requisite levels of financial literacy for effective financial decision making. On the other hand, Milton Friedman, (1953) famously suggested that just as pool



players need not be experts in physics to play pool well, individuals need not be financial experts if they can learn to behave optimally through trial and error. There is some evidence that such personal financial learning does occur. Agarwal et al, (2011) find that in credit card markets during the first three years after an account is opened, the fees paid by new card holders' fall by 75% due to negative feedback: by paying a fee, consumers learn how to avoid triggering future fees. The role of experience is also evident in the answers to a University of Michigan Surveys of Consumers question that asked about the most important way respondents' learned about personal finance. Half of the respondents cited personal financial experience, more than twice the fraction who cited friends and family, and four to five times the fraction who credit formal financial education as their most important source of learning (Hilgert&Hogarth, 2003).

Although experiential learning may be an important self-correcting mechanism in financial markets, many important financial decisions like saving and investing for retirement, choosing a mortgage, or investing in an education, are undertaken only infrequently and have delayed outcomes that are subject to large random shocks. Learning by doing may not be an effective substitute for limited financial knowledge in these circumstances (Campbell et al, 2010), and consumers may instead rely on whatever limited institutional knowledge and numeracy skills they have. This is the reason most employees do not consider retirement planning until they discover that they have few years to retire. Then they start making last minute, ad hoc and panic measure that never lead to desired outcome.

To explore the financial literacy issue in more depth, Lusardi and Mitchell, (2006) have devised and fielded a purpose-built module on planning and financial literacy for the 2004 Health and Retirement Study (HRS), a survey that covers respondents over the age of 50 (Lusardi and Mitchell, 2006). Their research includes questions measuring how workers made savings decisions, how they collected the information for making these decisions, and, most importantly, whether they possessed the financial literacy needed to make informed decisions. Their research shows that only half of the HRS respondents surveyed could answer two simple questions regarding interest compounding and inflation correctly. Furthermore only one-third could correctly answer those two questions as well as an additional one on risk diversification. They also found that financial illiteracy was particularly acute for Blacks and Hispanics, women, and those with low educational attainment.

Specifically Lusardi and Mitchell, (2006) focused on some 1,700 Early Boomers age 51-56 in 2004. The following financial literacy questions were posed to these respondents: 1) *“If the chance of getting a disease is 10 percent, how many people out of 1,000 would be expected to get the disease?”* 2) *“If 5 people all have the winning number in the lottery and the prize is 2million dollars, how much will each of them get?”* For respondents who answered either the first or the second question correctly, the following question was asked:3) *“Let’s say you have 200 dollars in a savings account. The account earns 10 percent interest per year. How much would you have in the account at the end of two years?”* They called these variables, respectively, the “Percentage Calculation,” the “Lottery Division,” and the “Compound Interest” questions. They also determined whether the respondent could be deemed “Politically Literate,” by considering a question on whether he knew the names of the U.S. President and Vice President.

The good news is that over 80% got the Percentage Calculation question correct. But only about half could divide \$2 million by 5 to get the Lottery Division right. And more distressingly, only 18% correctly computed the compound interest question; of those who got that interest question wrong, 43% undertook a simple interest calculation, thereby ignoring the interest accruing on both principal and interest. These are uncomfortable findings, especially considering that these respondents are only a dozen years from retirement and, some have handled numerous financial decisions during their lives. It is also worth noting that fully one-fifth of the sample could not name either the U.S. President or Vice President. Further details on financial literacy reported on the distribution of correct responses for respondents in different educational and racial/ethnic groups. For all four measures, financial literacy rises steeply with education: the more educated are much more likely to answer the economic and political literacy queries correctly. Moreover, Blacks and Hispanics are less likely to answer correctly than Whites. There are also similarities across answers. For instance, all three racial/ethnic groups score over 50% on the percentage calculation, but all three score low on the compound interest question.

Lusardi and Mitchell’s (2006) findings confirm those provided by Bernheim, (1995, 1998), who was among the first to warn of the lack of financial literacy among savers and investors. It also confirms studies of smaller and more limited samples. For example, the State of Washington sponsored a survey to assess financial literacy among its residents (Moore, 2003) and concluded

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that people especially lack knowledge of financial instruments. Specifically, most respondents did not know the inverse relationship between bonds prices and interest rates. They were also uninformed about mutual funds: Many did not know what a no-load mutual fund was, or that mutual funds do not pay a guaranteed rate of return. More than one-third did not know that stocks had returned more than bonds over the last forty years, and many did not know about risk diversification. Finally, a large fraction of these respondents did not understand interest rates, which was especially troublesome since a subset of the respondents had applied for loans.

Similar findings are reported by Agnew and Szykman, (2005), who devised a financial literacy survey as part of an experiment held at a mid-size public university in the Southeast designed in the spirit of a John Hancock Financial Services Defined Contribution Plan Survey (2002). Their respondents—college employees, tourists, parents of students, and local construction workers—produced similar patterns. All knew little about mutual funds and they could not explain even simple differences between stocks, bonds, and money market mutual funds. Lusardi and Mitchell, (2006) also confirmed conclusions from surveys conducted by the Employee Benefit Research Institute. For example, their survey in 1996 showed that only 55 percent of workers knew that U.S. government bonds provided lower returns over the past 20 years, compared to the U.S. stock market.

## **2.10 Impact of Financial Literacy on Economic Conditions**

Current economic conditions have raised serious concerns about Nigerians' financial security, especially for those who lack the skills and resources to withstand financial market downswings and take advantage of upswings. Hung et al, (2009) state that individuals are taking responsibility for a growing number of financial decisions, the two most important arguably being the purchase and financing of a home and preparing for retirement. This is also the most tasking on employees' financial literacy. As these choices are becoming more complex, the stakes are also being raised: the current economic recession, for example, has brought to light the consequences of making far-reaching decisions without adequate tools.

Research in behavioral finance suggests that many employees and households do not in fact make optimal savings and investment decisions, and the realization that these choices may well lead to unacceptable standards of living has also increased economic anxiety. Recent evidence

suggests an underlying, more fundamental problem that has heightened such concerns: large segments of the US population have low levels of financial literacy. (Hunget al, 2009). The less financially literate may be more likely to unknowingly commit financial mistakes, less likely to engage in recommended financial practices, and less likely to be able to cope with sudden economic shocks as witnessed in Nigeria in the past years 2015-2017. Lusardi and Mitchell, (2007) point out that making financial decisions are far from simple, requiring consumers to gather, process, and project data on compound interest, risk diversification, inflation, and the asset universe. In other words, individuals need substantial knowledge and a large analytical toolkit simply to avoid making mistakes (Ferguson, 2002).

Significant debate continues about the role of financial literacy, the extent of the problem it truly represents, and the best way to address it. This debate arises for several reasons: First, real knowledge gaps persist about fundamental relationships between literacy, education and behavior, partly because researchers lack the appropriate data. Few studies have been able to construct sophisticated measures of financial literacy and definitively establish causal links between financial education, literacy and behavior in the U.S. population. Researchers to date found that various segments of the U.S. population lack various types of financial skills (Hilgert et al, 2003; Lusardi and Mitchell, 2007). In 2004, only half of adults close to retirement age and older were able to correctly answer two simple questions regarding compound interest and inflation, and only one-third correctly answered these two questions and a question about risk diversification (Lusardi and Mitchell, 2006, 2007). Furthermore, large discrepancies in measured financial literacy exist, potentially placing some economically vulnerable groups (the poor, the less-educated, and minority households) at further disadvantage.

These measures have been linked to suboptimal behavior – Hilgert et al, (2003) find that individuals with more financial knowledge are more likely to engage in a wide range of recommended financial practices, while Lusardi and Mitchell, (2006, 2007) find that among older adults, those who displayed better financial knowledge were more likely to plan, to succeed in planning, and to invest in complex assets. However, other researchers argue that financial literacy is a secondary concern when it comes to decision making, partly because evidence on financial education programs has been mixed. Early evaluations, notably by Douglas Bernheim and a series of coauthors, suggested that workplace financial education initiatives increased

participation in savings plans (Bayer et al, 1996; Bernheim, 2003), while financial education mandates in high school significantly increased adult propensity to save (Bernheim et al, 2001). However, more recent research has found minimal impacts, particularly when benchmarked against other factors, including peer-effects and known behavioral biases like inertia (Duflo and Saez, 2004). This lack of consensus reflects the fact that, as noted in the 2006 report of the Financial Literacy and Education Commission, “a systematic method of evaluation of financial literacy programs does not exist.” A large part of this debate may be linked to the fact that a great deal of variation continues to exist in how researchers define and measure financial literacy itself.

Previous surveys that are purposively designed to measure financial literacy (such as the Washington Financial Literacy Survey, the Jump\$tart Coalition Survey, or the Survey of Consumer Finances 2001 module) rarely collect sufficiently detailed information on individuals’ financial education and variables related to financial decision making. In some instances (notably in the 2004 Health and Retirement Survey), more complete information has been successfully obtained, but the sample has been restricted to particular subgroups such as adults over 50, young people, or the subject pool for a particular program evaluation. In the policy and research literature, previous studies relating literacy to education and/or behavior have therefore been constrained either to the use of rudimentary literacy measures or to samples that are not population representative. The impact of financial illiteracy is felt in the economy especially in a developing economy where there is little or no social welfare. This means that in times of economic recession the financial illiterate suffers more.

## **2.11 Financial Literacy and Wealth Accumulation**

If financial illiteracy leads to poor or no planning, it may also affect wealth accumulation. Lusardi, (2003) finds that those who plan accumulate more wealth before retirement and are more likely to invest in stocks. Moreover, planners are more likely to experience a satisfying retirement, perhaps because they have higher financial resources to rely on after they stop working. In their study of relationship of financial literacy and wealth accumulation Lusardi and Mitchell, (2011) defined “wealth as the sum of checking and savings accounts, certificate of deposits and other short-term assets, bonds, stocks, other assets, housing equity, other real estate, Individual Retirement Savings Accounts ( IRAs ) , business equity, and vehicles minus all

debts”. Their results indicate that financial illiteracy is particularly pronounced among those with low income, low education, and those with low wealth holdings. Further, financial literacy is positively correlated with wealth at the bottom of the wealth distribution, which suggests that those who have basic financial knowledge are better able to save. Those having a command of basic numeracy and who understand risk diversification also have higher wealth holdings.

Basic numeracy also plays a role, but mostly for those with high education (defined as having more than a high school degree); this is true even after accounting for education and total net worth. These findings may help explain the “puzzle” of why so few households hold stocks (Haliassos and Bertaut, 1995). Moreover, they may shed light on another puzzling finding in household surveys such as the Survey of Consumer Finances. When asked how much risk respondents are willing to take, a large majority (more than 60 percent) state they are unwilling to take any financial risk. This may be due not only to strong risk aversion, but also to the fact that many respondents feel they simply do not understand risk diversification. (Lusardi and Mitchell, 2011).

## **2.12 Financial literacy around the world**

Economists have undertaken several recent studies of financial literacy in the United States. For instance, a survey conducted for the National Council on Economic Education (NCEE) by Harris Interactive in 2005 indicated that nearly all U.S. adults believe that it is “important to have a good understanding of economics.” But despite this lofty goal, the evidence shows that actual financial knowledge is sorely deficient for both high school students and working-age adults. The survey consisted of a 24-item questionnaire on topics grouped into categories including “Economics and the Consumer;” “Money, Interest Rates and Inflation;” and “Personal Finance.” When results were tallied using standard grading criterion, adults had an average score of C while the high school population fared even worse, with most earning an F (average score of 53%). Particularly troublesome were the sections dealing with money, interest rates, inflation, government and trade, and personal finance. The report also indicated gender and minority gaps: White students and adults tended to score higher than their Black and Hispanic peers, and women scored lower than men. Low levels of financial literacy are confirmed by related research by the Jump\$tart Coalition for Personal Financial Literacy focusing on U.S. high school students (Mandell, 2004).

That group's biannual survey on basic personal financial management skills and how to improve them showed in both 2004 and 2006 that students fared poorly on credit management and personal finance questions, and knew little about stocks, bonds, and other investments. Americans' lack of financial knowledge has been confirmed in the larger population by Hilgert and Hogarth, (2002) who used data from the University of Michigan's 2001 Survey of Consumers focusing on respondents age 18-97. Some 1000 respondents were given a 28-question True/False Financial Literacy quiz, with questions examining knowledge about credit (e.g. credit card statements, APR, debt payments); saving patterns (e.g. interest rates, mutual funds, insurance); mortgages (e.g. interest rate fluctuations, refinancing, use of one's home as collateral); and general financial management (e.g. emergency funds, employer responsibilities in retirement, bank obligations). Overall, that study found that Americans could correctly answer only two-thirds of the questions. They were best informed regarding mortgages (81% correct responses), followed by saving patterns (67% correct), credit cards (65% correct), and general financial management (60% correct). Respondents were less knowledgeable about mutual funds and the stock market: only half knew that mutual funds do not pay a guaranteed rate of return, and 56% knew that "over the long-term, stocks have the highest rate of return on money invested." On dividing respondents into two groups—those more and those less financially knowledgeable—the study confirmed that less financially knowledgeable respondents were more likely to be single, relatively uneducated, relatively low income, minority, and either young or old (not middle-aged).

In collaboration with several other teams from a wide range of countries, Lusardi and Mitchell, (2011) started to explore how the 2004 module HRS financial literacy questions work in the international context, as well as how they relate to patterns of retirement planning. They found several key lessons. First, financial illiteracy is widespread even when financial markets are well developed as in Germany, the Netherlands, Sweden, Italy, Japan, and New Zealand. Thus observed low levels of financial literacy in the U.S. are prevalent elsewhere, rather than specific to any given country or stage of economic development. Second, there are notable differences across countries. For example, where people score high on math and science tests, they also tend to score high also on questions measuring numeracy. As examples, respondents in Sweden and

the Netherlands do well on math tests (e.g. the Programme for International Student Assessment; OECD, 2005) and they also score high on numeracy. Third, people are more knowledgeable about inflation if their country has experienced it recently. For example, Italians are more likely to answer the question on inflation correctly. Conversely, in a country like Japan that experienced deflation, many fewer people answer the inflation question correctly. Fourth, people are more knowledgeable about risk diversification if the country recently experience pension privatization, as in Sweden. By contrast, Russians and people born in East Germany know less about risk diversification. It is notable, however, that even in countries with very developed financial markets, many respondents state they do not know about risk diversification; for example in the U.S, as many as one-third of respondents say they do not know how to answer the risk diversification question.(Lusardi and Mitchell , 2011)

The studies in this international project (Lusardi and Mitchell, 2011) also indicate that financial literacy differs by population subgroup. Age patterns are notable, in that financial knowledge follows an inverted U-shaped pattern, being lowest for the young and the older groups, but peaks in the middle of the life cycle. Another remarkable finding has to do with persistent international sex differences in financial literacy: in most cases, women are less financially knowledgeable than are men. Moreover, women are not only less likely to answer the questions correctly, but they are more likely to state they do not know the answers, compared to men. This is a systematic and persistent difference between men and women in financial literacy. In Russia and for residents of East Germany, there are no sex differences in financial knowledge – and both women and men are equally financially illiterate. But when comparing East versus West Germans, those living in the West are most financially knowledgeable, and financial knowledge in the West is sharply worse for women than for men. Thus it seems that women have more difficulty catching up with economic and financial market development, than do men. (Lusardi and Mitchell, 2011)

In all countries, higher educational attainment is strongly correlated with financial knowledge, but even at the highest level of schooling, financial literacy tends to be low. Moreover, education is not a good proxy for financial literacy. That is, when education and financial literacy are included in multivariate regression models, both tend to be statistically significant, indicating that financial literacy has an effect above and beyond education. Financial literacy is also higher



among those who are working, and in some countries among the self-employed, compared to those who do not work. This difference may in part result from financial education programs offered in the workplace (as in the United States); it could also be the effect of learning from colleagues or skills acquired on the job. (Lusardi and Mitchell, 2011)

Some countries report interesting patterns along other dimensions. For example, in the U.S., there are large racial/ethnic differences in financial knowledge: Whites and Asians are consistently more likely to be financially knowledgeable compared to African Americans and Hispanics. Moreover, there are large geographic differences in financial literacy. For instance, financial literacy in Italy is higher in the Northern and Central regions than the Southern regions, though not all of the Northern regions show high levels of financial knowledge. There are also urban/rural differences: people living in urban areas in Russia tend to be more financially literate than those living in rural areas. This may well be due to differential exposure to the modern financial sector in the last few decades. There are also notable differences in financial knowledge among people with different religious beliefs; in the Netherlands, those of other religion (which includes Muslims and other smaller religious groups) are less likely to be financially knowledgeable. Not only are there interesting patterns in measured financial literacy, but we also can compare what people actually know with their self-assessed financial literacy.

In 2005, the ANZ Banking Group conducted an extensive survey on the financial practices of consumers in Australia and New Zealand. The Australian survey of some 3,500 randomly chosen respondents age 18+ evaluated understanding of topics ranging from investment fundamentals, retirement planning and financial records, to basic arithmetic. In the Financial Terms section of the survey, 67% of respondents said they understood compound interest, but a mere 28% were rated as having a “good level” of comprehension when faced with an actual problem to solve. As in the United States case, those with low levels of financial literacy also had low education and income. This survey also confirmed the gender gap, with women concentrated in the lowest 20% of the literacy distribution. In the New Zealand survey of respondents age 18+, similar results obtained. Some 54% of respondents believed that fixed income investments would provide higher returns than stocks over an 18-year period, and again financial literacy was strongly positively correlated with socio-economic status.

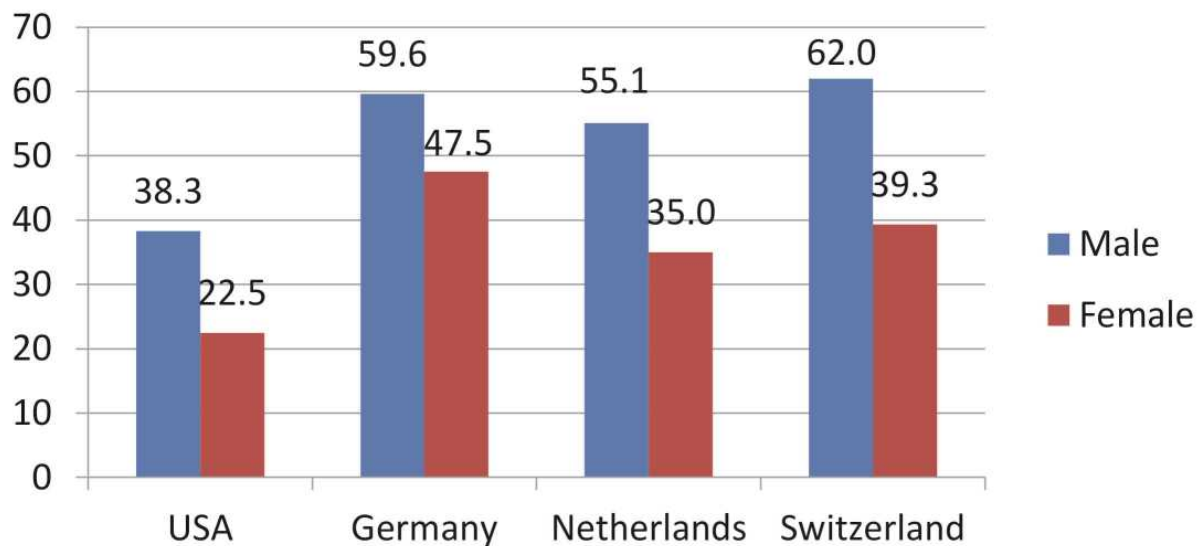
The results extend to Europe, where Miles, (2004) showed that UK borrowers display a weak understanding of mortgages and interest rates. The UK Financial Services Authority also concluded that younger people, those in low social classes, and those with low incomes, were the least sophisticated financial consumers. Christelis et al, (2005) documented that respondents in several European nations scored low on financial numeracy and literacy scales. Meanwhile, on the other side of the Pacific, a Japanese consumer finance survey showed that 71% of adult respondents knew little about equity and bond investments, and more than 50% lacked any knowledge of financial products (OECD 2005). A Korean youth survey conducted by the Jump\$tart coalition in 2000 showed that young Koreans fared no better than their American counterparts when tested on economics and finance knowledge, with most receiving a failing grade. Again, a positive correlation was detected between family income and education, and the students' performance on the financial literacy test (OECD, 2005). While financial knowledge is weak, it is also the case that people tend to be more confident in their abilities than should be warranted. For instance, a German survey conducted by Commerzbank AG in 2003 found that 80% of respondents were confident in their understanding of financial issues, but only 42% could answer half of the survey questions correctly (OECD,2005). Similar patterns are consistent in the United States, the United Kingdom, and Australia. Indeed, consumers' overconfidence regarding their financial knowledge may be a deterrent to seeking out professional advice, thus widening the 'knowledge gap'.

Lusardi and Mitchell, (2015) launched several comparable international surveys (see Lusardi and Mitchell, 2011; 2014; and Boisclair et al, 2014). Though some respondents responded more accurately than did Americans, they still found widespread financial illiteracy even in relatively rich countries with well-developed financial markets. These included Canada, Germany, the Netherlands, Switzerland, Sweden, Japan, Italy, France, Australia and New Zealand. Performance was markedly worse in Russia and Romania. Being better-educated was always associated with having more financial knowledge across the countries they examined, yet they also found that education is not enough. That is, even well-educated people are not necessarily savvy about money. Another striking finding common to the countries they studied is that men were much more likely than women to answer our questions correctly (Figure 2.3).

**Figure 2.3**

Financial Literacy by Sex: % providing correct answers to all three financial literacy questions

Source: Lusardi and Mitchell (2014).



Understanding why this is true and its potential consequences is an intriguing area for future research (Lusardi and Mitchell, 2008; Bucher-Koenen et al., 2014). It may result from traditional family structures in some countries: that is, to the extent that husbands traditionally worked for pay and wives were less exposed to the marketplace, men likely made more financial decisions than their wives. If so, one would anticipate the performance differences would narrow over time. Yet there is little evidence of a closing gap among the young (Lusardi et al, 2010; Bucher-Koenen et al, (2014) and the references therein Another striking finding which is also consistent across countries is that men are more confident about their financial knowledge than they should be. That is, even when they were wrong, they reported being ‘very confident’ about their answers. By contrast, women on average answered fewer of the financial knowledge questions correctly, but they were more likely to admit when they did not know how to answer the questions. This suggests that financial education may be more welcomed by women, should the opportunity arise. Lusardi and Mitchell (2015) also found low levels of financial literacy among younger respondents. For instance, respondents at the beginning of their work careers (age 23-28) display little knowledge of compound interest, inflation, and risk diversification (Lusardi, Mitchell, and Curto, 2010). Similar findings are reported among the so-called Millennials including those who have a college degree (de Bassa and Lusardi, 2014; de Bassa et al, 2014).

### 2.13 Measuring financial literacy

While it is important to assess how financially literate people are, in practice Lusardi and Mitchell, (2011) found that it is difficult to explore how people process economic information and make informed decisions about household finances. Perhaps because of this, relatively few researchers prior to 2000 incorporated financial literacy into theoretical models of savings and financial decision-making. Their effort, in the context of designing financial literacy measures for the US HRS, was to measure financial literacy keeping in mind four key principles: 1) *Simplicity*, aimed to measure basic financial concepts, akin to the notions of the rudimentary ABC's for reading literacy. 2) *Relevance*, questions had to relate to concepts pertinent to peoples' day-to-day financial decisions over the life cycle; moreover, they had to capture general rather than context specific ideas. 3) *Brevity*, few representative surveys can devote much time to financial literacy topics, so the number of questions had to be kept to a minimum in order to secure widespread adoption. 4) *Capacity to differentiate*, we needed questions that can differentiate between financial knowledge levels, so as to compare people in terms of their scores on a common set of questions.

Their questions were designed to be included in an experimental financial literacy module for the 2004 Health and Retirement Study. In doing so, they relied on economic models of savings and portfolio choice to identify three economic concepts that individuals should have some understanding of, if they are to use them when making financial decisions: i) *interest compounding*; ii) *inflation*; and iii) *risk diversification*. To keep these concepts simple in the context of telephone or face-to-face interviews, they did not require respondents to engage in complicated calculations; rather, they simply evaluated whether people could carry out elementary calculations related to these concepts. To this end, they designed three questions which have now become the benchmark by which a wide variety of analysts measure financial literacy:

- 1) *Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?*
- 2) *Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?*
- 3) *Please tell me whether this statement is true or false. "Buying a single company's stock usually provides a safer return than a stock mutual fund."*

The first question measures numeracy or the capacity to do a simple calculation related to compounding of interest rates. Of course complex interest compounding is also important, but they elected to focus instead on whether individuals could get the general idea of calculations relating to interest rates. Their second question measures understanding of inflation, again in the context of a simple financial decision. The third question gauges knowledge of risk diversification; it is a joint test of knowledge about “stocks” and “stock mutual funds,” and of risk diversification, since the answer to this question depends on knowing what a stock is and that a mutual fund is composed of many stocks. In view of the fact that employees are increasingly asked to select their pension investment portfolios, it is important to ask questions related to risk diversification.

After implementing these questions in the 2004 HRS module for a sample of over 1200 respondents age 50+ (Lusardi and Mitchell, 2011), they were then thoroughly tested in other datasets using respondents from different age groups and time periods, and using different data collection methods. For instance, they were added to wave 11 of the National Longitudinal Survey of Youth (NLSY) for 2007-08 covering respondents age 23-28 (Lusardi et al. 2010). These questions were also added to a module in the American Life Panel in 2008, an internet based panel data set (Lusardi and Mitchell, 2007). Finally, these questions were added to the 2009 Financial Capability Study (FINRA, 2010) which included both phone interviews with a representative sample of the U.S. population, and an internet survey of about 500 respondents in each state (Lusardi, 2010). Across the board, these variables do a good job of characterizing peoples’ levels of financial knowledge; moreover, they also strongly correlate with financial behaviors.

Efforts to measure financial literacy date back to at least the early 1990s when the Consumer Federation of America (1990; 1991; 1993; 1998) began conducting a series of “Consumer Knowledge” surveys among different populations which included questions on several personal finance topics: consumer credit, bank accounts, insurance, and major consumer expenditures areas such as housing, food and automobiles (Hastings et al, 2013). The 1997 Jump\$tart survey of high school students has been repeated biennially since 2000 and was expanded to include college students in 2008 (see Mandell, 2009, for an analysis of these surveys). Hilgert et al,

(2003) analyze a set of “Financial IQ” questions included in the University of Michigan's monthly Surveys of Consumers in November and December 2001. Lusardi & Mitchell, (2006) added a set of financial literacy questions to the 2004 Health and Retirement Study (HRS, a survey of U.S. households aged 50 and older) that have, in the past decade, served as the foundational questions in several surveys designed to measure financial literacy in the U.S. and other countries. The three core questions in the original 2004 HRS financial literacy module were designed to assess understanding of three core financial concepts: compound interest, real rates of return, and risk diversification (see Table 2.3). Because these questions are parsimonious and have been widely replicated and adapted, they have come to be known as the “Big Three” questions. These questions were incorporated into the 2009 National Financial Capability Study (NFCS) in the U.S., a large national survey of the financial capabilities of the adult population. The NFCS asked two additional financial literacy questions which, together with the “Big Three” have collectively come to be known as the “Big Five” questions.

These two additional questions test knowledge about mortgage interest and bond prices.

Table 2.3 lists the “Big Five” questions as asked with their potential answers (the correct answers are italicized). Because the “Big Three” questions have been more widely adopted in other surveys, we focus here on the answers to these three questions, although we return to the “Big Five” later.

**Table 2.3.** Financial literacy questions in the 2004 Health and Retirement Study and the 2009 National Financial Capability Study (NFCS)

Concept	Question	Answer options
Interest rates and compounding	Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	<i>More than \$102</i> Exactly \$102 Less than \$102 Don't know Refused
Inflation	Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy more than today, exactly the same as today, or less than today with the money in this account?	More than today Exactly the same as today <i>Less than today</i> Don't know Refused
Risk diversification	Do you think that the following statement is true or false: Buying a single company stock usually provides a safer return than a stock mutual fund?	True <i>False</i> Don't know Refused
Additional financial literacy questions in the 2009 NFCS		
Mortgages	Do you think that the following statement is true or false: A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest over the life of the loan will be less?	<i>True</i> False Don't know Refused
Bond pricing	If interest rates rise, what will typically happen to bond prices?	They will rise <i>They will fall</i> They will stay the same There is no relationship Don't know Refused

The answer categorized as correct is italicized in the last column.

The second and fourth columns of Table 2.4 report the percent of correct and “Don't know” responses to each of the “Big Three” questions for the 2004 HRS respondents and the 2009 NFCS respondents. Because the NFCS represents the entire adult population, they focus on those results here. Among respondents to the 2009 NFCS, 78% correctly answered the first question on interest rates and compounding, 65% correctly answered the second question on inflation and purchasing power, and 53% correctly answered the third question on risk diversification. Note that all three questions were multiple choice (rather than open ended), so that guessing would yield a correct answer to the first two questions 33% of the time and to the last question 50% of the time. Only 39% of respondents correctly answered all three questions.

**Table 2. 4.** Financial Literacy around the World(Hastings et al, 2013)

	Netherlands (2010)	United States (2004)	United States (2010)	United States (2009)	Japan (2010)	Germany (2009)	Chile (2009)	Chile (2012)	Mexico (2010)	Indonesia (2007)	India (2006)
	DHS <sup>a</sup>	HRS <sup>b</sup>	HRS <sup>b</sup>	NFCS <sup>b</sup>	SLPS <sup>a</sup>	SAVE <sup>a</sup>	EPS <sup>b</sup>	National student survey (TNE) <sup>b</sup>	EERA <sup>b</sup>	Household survey <sup>a</sup>	Household survey <sup>a</sup>
Compound interest											
Correct	85%	67%	71%	78%	71%	82%	47%	45%	45%	78%	59%
Don't know	9%	9%	4%	10%	13%	11%	32%	14%	2%	15%	30%
Inflation											
Correct	77%	75%	81%	65%	59%	78%	18%	36%	71%	61%	25%
Don't know	14%	10%	3%	19%	29%	17%	21%	38%	2%	16%	38%
Risk diversification											
Correct	52%	52%	64%	53%	40%	62%	41%	52%	47%	28%	31%
Don't know	33%	34%	18%	40%	56%	32%	33%	23%	1%	4%	6%
All questions											
Correct	45%	34%	43%	39%	27%	53%	8%	10%	15%	N/A	N/A
Sample description	Ages > 25	Ages > 50	Ages > 50	Population representative	Population representative	Population representative	Population representative	First-year college students	Ages 16-60 formal sector employees	Village participants	Village participants
Sample size	1,665	1,269	1,837	28,146	5,268	1,059	14,243	2,632	7,871	3,360	1,496

Countries ranked by 2010–2011 International Monetary Fund GDP per capita. Abbreviations: DHS, DNB House hold Survey; HRS, Health and Retirement Study; NFCS, National Financial Capability Study; SLPS, Survey of Living Preferences and Satisfaction. <sup>a</sup>Statistics directly drawn from publications. : The Netherlands (Alessie et al. 2011), Japan (Sekita 2011), and Germany (Bucher-Koenen & Lusardi 2011, Cole et al. 2011). <sup>b</sup> Authors' calculations from raw National Financial Capability Study data using the weights within the nation by age/gender, ethnicity, education, and census division (variablewgt\_n2).



Clearly individuals who cannot answer the first or second questions will have a difficult time navigating financial decisions that involve an investment today and real rates of return over time; they are likely to have trouble making even the basic calculations assumed in a rational intertemporal decision-making framework. The inability to correctly answer the third question demonstrates ignorance about the benefits of diversification (reduced risk) and casts doubt on whether individuals can effectively manage their financial assets. Instances where individuals are unable to diversify their assets have often resulted into a great loss.

Among respondents to the 2009 NFCS only 39% of the population is able to answer these three fairly basic financial literacy questions correctly, we might be justifiably concerned about how many individuals or employees make suboptimal financial decisions in everyday life and the types of marketplace distortions that could follow. Although the Lusardi and Mitchell “Big Three” questions from the 2004 HRS have quickly become an international standard in assessing financial literacy, there is remarkably little evidence on whether this set of survey questions is the best approach, or even a superior approach, to measuring financial literacy (Hastings et al, 2013). The question of how best to assess the desired behavioral capabilities remains open, both in terms of establishing whether survey questions are best-suited for the task or which questions are most effective. Longer financial literacy survey batteries do exist, including the National Financial Capability Study (NFCS) which asks the “Big Five” financial literacy questions described above along with an extensive set of questions on individual financial behaviors. The biennial Jump\$tart Coalition financial literacy surveys used to assess the financial literacy of high school and college students in the U.S. include more than fifty questions. Whether using additional survey questions (and how many more) better explains individual behavior is unclear as little research has evaluated the relative efficacy of different measurements.

Table 2.5 lists the fraction of respondents correctly answering the “Big Three” and “Big Five” financial literacy questions in the 2009 NFCS for various demographic subgroups. There is a strong positive correlation between the performance on the “Big Three” and the “Big Five” questions (although part of this correlation is mechanical as the “Big Three” are a subset of the “Big Five”). Table 2.5 also lists three other self-assessed measures of financial capability (self-

assessed overall financial knowledge, self-assessed mathematical knowledge and self-assessed capability at dealing with financial matters). These self-assessed measures are all highly correlated with each other, and fairly highly correlated with the performance-based measures of financial literacy in the first two columns. All of the measures of financial capability are also highly correlated with educational attainment, suggesting that traditional measures of education could also serve as proxies for financial literacy.

**Table 2.5**  
Measures of Financial Literacy (Hastings, Madrian, and Skimmyhorn,2013)

Individual characteristics	Respondents correctly answering the Big Three financial literacy questions	Respondents correctly answering the Big Five financial literacy questions	Mean level of self-assessed overall financial knowledge (scale 1–7)	Mean level of self-assessed mathematical knowledge (scale 1–7)	Mean level of self-assessed capability at dealing with financial matters (scale 1–7)
Gender					
Male	49%	21%	5.1	5.8	5.6
Female	29%	10%	4.8	5.4	5.6
Age					
18–24	22%	5%	4.6	5.4	5.1
25–34	32%	11%	4.8	5.5	5.4
35–44	38%	15%	4.8	5.6	5.5
45–54	43%	18%	5.0	5.6	5.7
55–64	48%	20%	5.1	5.7	5.8
65 and older	49%	19%	5.3	5.7	6.0
Education level					
Less than high school graduate	12%	2%	4.3	4.8	4.9
High school graduate	23%	7%	4.7	5.3	5.4
Some college	40%	14%	4.9	5.6	5.6
College graduate or above	60%	29%	5.3	5.9	5.8
Household income					
Less than \$15,000	21%	5%	4.4	5.2	5.0
\$15,000–\$24,000	26%	6%	4.7	5.3	5.4
\$25,000–\$34,000	30%	10%	4.8	5.4	5.5
\$35,000–\$49,000	36%	12%	4.9	5.6	5.6
\$50,000–\$74,000	45%	18%	5.1	5.7	5.7
\$75,000–\$99,000	55%	24%	5.2	5.8	5.8
\$100,000–\$149,000	60%	29%	5.3	5.9	5.9
More than \$150,000	66%	37%	5.6	6.0	6.0

Authors' calculations are from the 2009 National Financial Capability Study state-by-state survey (n = 28,146) using the weights within the nation by age/gender,ethnicity,education,and census division (variable wgt\_n2).The top panel of **Table 1** lists the Big Three questions referenced in column 1; the Big Five questions referenced in column 2 include the Big Three and the additional two questions from the bottom panel of **Table1**.Columns 3 through 5 report the mean of the participants' self-assessments based on a scale of 1 (strongly disagree) to 7 (strongly agree).

In a survey of 18 different financial literacy studies, Hung et al, (2009) report that the predominant approach used to measure the concept of financial literacy is either the number, or the fraction, of correct answers on some sort of performance test (measures akin to those in

columns 1 and 2 of Table 2.5 ). This approach was used in all of the studies they evaluated, although two adopted a more sophisticated methodology, using factor analysis to construct an index that assigned different weights to each question (Lusardi& Mitchell 2009;Van Rooij et al 2011).

In addition to evaluating how previous studies have operationalized the concept of financial literacy, Hung et al, (2009) also perform a construct validation of seven different financial literacy measures calculated from various question batteries administered to the same set of respondents in four different waves of the RAND American Life Panel. Their measures include three performance tests (one of which has three subtests) based on 13, 23, or 70 questions, and one behavioral outcome (performance in a hypothetical financial decision making task). They find that the measures based on the different performance tests are highly correlated with each other, and when the same questions are asked in multiple waves, the answers have high test-retest reliability. The outcomes of the performance tests are less highly correlated with outcomes in the decision-making task. The different financial literacy measures are more variable in their predictive relationships for actual financial behaviors such as planning for retirement, saving, and wealth accumulation. One unanswered question in this literature review is whether test-based measures provide an accurate measure of actual financial capability.

A second measure of financial literacy that has been operationalized in the literature is individuals' self-assessments of their financial knowledge or, alternatively, the level of confidence in their financial abilities. In the 18 studies evaluated by Hung et al. (2009) discussed above, one-third analyzed self-reported financial literacy in addition to a performance test-based measure. Two issues with such self-reporting warrant mention. First, individual self-reports and actual financial decisions do not always correlate strongly (Hastings & Mitchell, 2011, Collins et, Al, 2009). Second, consumers are often overly optimistic about how much they actually know (Agnew &Szykman, 2005, OECD 2005). Even so, in general the literature finds that self-assessed financial capabilities and more objective measures of financial literacy are positively correlated (e.g., Lusardi& Mitchell, 2009, Parker et al, 2012), and self-reported financial literacy or confidence often have independent predictive power for financial outcomes relative to more objective test-based measures of financial literacy. For example, Allgood&Walstad, (2012) find that in the 2009 NFCS State-by-State survey, both self-assessed financial literacy and the

fraction of correct answers on the “Big Five” financial literacy questions are predictive of financial behaviors in a variety of domains: credit cards (e.g., incurring interest charges or making only minimum payments), investments (e.g., holding stocks, bonds, mutual funds or other securities), loans (e.g., making late payments on a mortgage, comparison shopping for a mortgage or auto loan), insurance coverage, and financial counseling (e.g., seeking professional advice for a mortgage, loan, insurance, tax planning or debt counseling). Similarly, Parker et al (2012) find that both self-reported financial confidence and a test based measure of financial literacy predict self-reported retirement planning and saving, and van Rooij et al (2011) find that both self-perceived financial knowledge and a test-based measure of financial literacy predict stock market participation.

Although test-based and self-assessed measures of financial literacy are the norm in the literature, other approaches to measuring financial literacy may be worth considering. One alternative measurement strategy, limited by the requirement for robust administrative data, is to identify individuals exhibiting financially sophisticated behavior (e.g., capitalizing on matching contributions in an employer's savings plan, or consistently refinancing a mortgage when interest rates fall) and use these indicators to predict other outcomes. For example, Calvet et al (2009) use administrative data from Sweden to construct an index of financial sophistication based on whether individuals succumb to three different types of financial “mistakes”: under-diversification, inertia in risk taking, and the disposition effect in stock holding. An outcomes-based approach like this may be fruitful for predicting future behavior, more so than the traditionally used measures of financial literacy (although Calvet et al, 2009 do not perform such an exercise in their analysis). If we are interested in understanding the abilities that improve financial outcomes, we should define successful measures as those that, when changed, produce improved financial behavior. Such a strategy will likely generate greater internal validity for predicting consumer decisions in specific areas (e.g., portfolio choice or retirement savings), although it will significantly increase the requirements for research relative to strategies that rely on more general indicators of financial literacy (e.g., the “Big Three”).

Additionally, A few prior studies have sought to get at related concepts with different measures, though all have limitations. For instance the HRS ‘core’ had a handful of questions measuring *numeracy* (Lusardi and Mitchell, 2007), and the same numeracy questions were asked

(sometimes slightly modified) in the England Longitudinal Survey of Ageing (ELSA; Banks and Oldfield, 2007), and the Survey of Health Ageing, and Retirement in Europe (SHARE; Christelis et al, 2010). While numerical ability is no doubt important, particularly for younger persons, they believe that mature adults also need the ability to make sound financial decisions. Moreover, it may be difficult to enhance numeracy in the older adult population, whereas it may be easier to boost knowledge of a few financial concepts fundamental for making financial decisions.

Hilgert et al, (2003) and Moore, (2003) developed a rather lengthy set of questions and were stand-alone financial literacy surveys, rather than brief questions offered as part of a larger socioeconomic data collection effort. The National Council on Economic Education (NCEE, 2005) measured financial knowledge among children and adults, but that survey did not gather ancillary information to evaluate whether financial literacy affects behavior. In Lusardi and Mitchell, 2011 view, short financial literacy modules are best included in national surveys (rather than fielding surveys on financial literacy only), because financial literacy responses can then be linked to other causes and effects. The OECD report (2005) provides an overview of financial literacy questions in several countries. While providing very useful information, it is not possible to perform international comparisons as the questions differ a lot across countries.

## **2.14 Obstacles to a standard financial literacy measurement**

Examination of the studies by Huston, (2010) revealed three main barriers to developing a standardized approach to measure financial literacy: the lack of conceptualization and definition of the construct financial literacy, content of the instrument and instrument interpretation. The first is the most important. Nearly three-quarters of the studies did not elaborate on the construct used; the remainder used definitions with varying elements (e.g., knowledge, ability, outcomes). Also, the majority that included the constructs of both financial literacy and financial knowledge used these terms interchangeably, providing more evidence of a need for construct clarification. Not having a precise and consistent construct conception limits the ability to conduct comparative analyses or assess financial literacy rates and their subsequent impact on financial well-being. This is a critical barrier because all other stages of instrument development depend on having a complete and well-defined construct.

A second barrier to developing a standardized approach to financial literacy is the use of measures that are not comprehensive. Only one quarter of the studies included all of the personal finance components in their measure. Finally, an overwhelming majority of the studies (88%) reviewed did not include a guide for measurement interpretation. This lack of clarity is a barrier to a common or general understanding of the financial literacy construct.

## **2.15 Measurement error issues**

Despite best efforts, any measure of financial literacy is likely to be affected by measurement error. On the one hand, people may simply guess the answers at random, and on the other hand, people may misunderstand question, especially when they listen to questions over the telephone. To evaluate these potential problems, they inverted the question wording in some cases, randomly asking two groups of respondents the same question but with inverted wording. For example when asking about risk diversification, they asked half the group using format (a) and the other half format (b):

- (a) Buying a company stock usually provides a safer return than a stock mutual fund. True or false?*
- (b) Buying a stock mutual fund usually provides a safer return than a company stock. True or false?*

The outcome shows that the answers do appear sensitive to how the question is worded in both the U.S. American Life Panel (Lusardi and Mitchell, 2007) and the Dutch DNB Household Survey (DHS) (Van Rooij et al, 2011). For example, in the DHS, few people answer correctly when the question is whether “buying a stock mutual fund usually provides a safer return than a company stock;” correct responses double the same question is asked in inverted order: “buying a company stock usually provides a safer return than a stock mutual fund.” This is not simply due to people using a crude rule of thumb such as always picking the first option as correct, since this would lead to a lower rather than higher percentage of correct answers for version (a). In other words, some respondents do not understand the questions and do not know what stocks, bonds, and mutual funds are. Accordingly some correct answers are the result of guessing; implying that empirical analysis to the advanced financial literacy questions should take into account that these measures can be noisy proxies of true financial knowledge levels.

## 2.16 Financial Literacy and Planning

Lusardi and Mitchell, (2011) said that one reason people fail to plan for retirement, or do so unsuccessfully, may be because they are financially illiterate. In this case, they may fail to appreciate the role of (or may have a hard time solving problems with) compound interest, inflation, and risk. They concluded by stating that first, financial literacy is strongly and positively associated with planning. Second, knowledge about risk diversification best differentiates between sophisticated and unsophisticated planners. Third, lack of knowledge also matters. Even with respect to those answering incorrectly, those who cannot answer the questions are much less likely to plan and to succeed in their planning effort. What appears most crucial is a lack of knowledge about interest compounding, which makes sense since basic numeracy is crucial for doing calculations about retirement saving.

Aberdeen (2008) defines **financial planning** as the process by which a business documents and communicates its strategic objectives in financial terms. A financial planning exercise typically contains detailed plans and budgets, as well as analysis capabilities to show how the objectives are to be realized. Thus financial planning is important for the survival of any organization. It is often said that if you fail to plan you plan to fail. A financial plan is the process a company lays out, typically broken down into a step-by-step format, for utilizing its available capital and other assets to meet its goals for growth or profit based on a reasonable financial forecast. A financial plan can be considered synonymous with a business plan in that it lays out what a company plans to do in terms of putting resources to work to generate maximum possible revenues.

Financial Planning and forecast is not limited to companies, institutions or organizations. Individuals like organizations plans too. However, few individuals have written financial plan. Those with written financial plans attain it faster. For an individual, Financial Planning is the process of meeting your life goals through the proper management of your finances. Life goals can include buying a house, saving for your child's higher education or planning for retirement. The process involves gathering relevant financial information, setting life goals, examining your current financial status and coming up with a strategy or plan for how you can meet your goals given your current situation and future plans.

## **2.17 Financial planning and Forecasting**

Forecasting is a process by which businesses adjust future expectations based on recent actual performance resulting in the production of an updated forecast document. This can (but does not typically) include adjustments to the budget. Forecasting, re-forecasting, or “rolling-forecasting” can occur multiple times during a budget period, and can span time from one fiscal period to the next. A financial forecast is an estimation or projection of likely future income or revenue and expenses,(based on recent actual performance) while a financial plan lays out the necessary steps to generate future income and cover future expenses. Alternatively, a financial plan can be looked at as what an individual or company plans to do with income or revenue received.(Maverick, 2015). In light of changes in economy, businesses need to adjust their future expectations. For instance Nigeria entered into recession from the second quarter of 2016 with continuous decline of GDP in two quarters. This means that businesses expectations in terms of sales and profit will be negatively affected.

For an individual, a financial forecast is an estimate of his income and expenses over a period of time. Based on that forecast, the individual can then construct a financial plan that includes saving, investing or planning for obtaining additional income to supplement his personal finances. Financial planning might also involve putting appropriate wills in place to protect your family, thinking about how your family will manage without your income should you fall ill or die prematurely, spending money differently, but it involves thinking about all of these things together i.e. your 'plan'. Financial forecasting is critical for business success. To effectively manage working capital and cash flow, a company must have a reasonable idea of how much revenue it plans to receive over a given time period and what its necessary expenses will be over that same period of time. Financial forecasts are commonly reviewed and revised annually as new information regarding income and costs becomes available and as additional data enables an individual or business to make more accurate financial projections. It is easier for established companies that generate steady revenues to make accurate financial forecasts than it is for new businesses or companies whose revenue is subject to significant seasonal or cyclical fluctuation. Some at times confuse Forecasting with budgeting. There are differences between budgeting and forecasting.



A budget estimates the amount of revenues and expenses a company may incur over a future period. Budgeting represents a business' financial position, cash flows and goals. A company's budget is usually re-evaluated periodically, usually once per fiscal year, depending on how management wants to update the information. Budgeting creates a baseline to compare actual results to determine how the results vary from the expected performance. On the other hand, financial forecasting estimates a company's future financial outcomes by examining historical data. Financial forecasting allows management teams to anticipate end results based on previous financial data. Companies use financial forecasting to determine how they should allocate their budgets for a future period. Unlike budgeting, financial forecasting does not analyze the variance between financial forecasts and actual performance. Financial forecasts are updated regularly when there is a change in operations, inventory and business plan.(Nickolas,2015).In today's dynamic business environment individuals and organizations need to plan and forecast on a regular basis. It is important for business and individual survival.

## **2.18 Financial Literacy and Retirement Planning**

How often do people plan for their retirement? This is a question that requires to be answered because it is an aspect of financial literacy. It not only affects individuals but also the society at large. Lusardi and Mitchell, (2011) seeks to find this out through the hypothesis that people look ahead and calculate how much they need to save for retirement. To this end, they asked respondents whether they ever tried to figure out how much they need to save for retirement and Table 2.6 reports the results. Somewhat discouragingly, less than one-third of the sample respondents (31 percent) indicated that they actually attempted to do a retirement saving calculation; these they call the *Simple Planners*. The small size of this group confirms summaries of older HRS waves where many people indicated they had given little thought to retirement even when they were just a few years away from leaving the workforce (Lusardi 1999, 2002, 2003). Their findings also confirm a widespread lack of retirement planning, even among the educated (Yakobosky and Dickempers, 1997; Ameriks et al, 2004). It is also consistent with work by Mitchell, (1988) and Gustman and Steinmeier, (1999) who found that workers seem to know very little about their Social Security and pension benefits, two of the most important components of retirement wealth. In fact, close to half of workers in the HRS analyzed by Gustman and Steinmeier,(2004) could not report their type of pension plan, and an even larger portion was ignorant of future Social Security benefits.

**Table 2.6. Prevalence of Retirement Planning Calculations**

(Source: Lusardi and Mitchell (2011) calculations based on 2004 Health and Retirement Survey, Planning Module - unweighted data)

**Panel A. Proportion of Planners in Respective Sub-Groups**

Did you try to figure out how much to save for retirement?					
Yes 31.3%			No 67.8%	Refuse/DK 0.9%	
Did you develop a plan?					
Yes 58.4%	More or Less 9.0%	No 32.0%			Refuse/DK 0.6%
Were you able to stick to the plan?					
Always 37.7%	Mostly 50.0%	Rarely 8.0%	Never 2.6%	Refuse/DK 1.0%	

**Panel B. Proportion of Planners in the Full Sample**

<i>Question</i>	<i>Proportion of Sample</i>
<b>Simple Planners</b> Yes to “tried to figure out how much to save for retirement”	31.3%
<b>Serious Planners</b> Replied Yes/More or less to “developed a plan”	21.1%
<b>Successful Planners</b> Replied Always/Mostly to “able to stick to the plan”	18.5%

A key advantage of their module, compared to previous core HRS questions and other surveys, is that they probe further to inquire about the outcomes associated with undertaking planning and related calculations. Panel A of Table 6 indicates that only 58 percent of those who tried to develop a plan actually did so, while another handful “more or less” developed a plan (nine percent). Both of these groups they refer to below as the *Serious Planners*. The high failure rate, so far as developing a plan is concerned, underscores the fact that retirement projections are difficult to do. If we consider those who responded positively to the question, as many as half of simple planners did not succeed in developing a plan, another disappointing finding. Furthermore, of the subset of serious planners, only one-third (38 percent) was always able to stick to its plan, while half were “mostly” able to stick to their plans. This group of respondents they call *Successful Planners*. In the sample as a whole, this represents a meager 19 percent

overall rate of successful planning. Of course, households may face unexpected shocks making them deviate from plans, but the fact remains that few respondents do what financial literacy suggest that they should. In other words, planning for retirement is difficult, few do it, and fewer still think they get it right whereas they are not.

To further evaluate what planning means and what people actually do when planning for retirement, they also asked respondents to indicate which tools they used in the process. It is possible that those who used crude or inaccurate tools were also those who had low planning success. In fact, respondents used a wide variety of tools to calculate their retirement needs (see Panel A of Table 2.7; note that these questions were asked only of those who reported they attempted a retirement saving calculations). Results show that between one-quarter and one-fifth of respondents talked to family/relatives or coworkers/friends, while one-third or more used formal means such as retirement calculators, retirement seminars, or financial experts. *Successful Planners* were more likely to use formal means (over 40 percent), whereas *Simple Planners* – some of whom tried and failed – tended to rely on less formal approaches. The Table 2.7 also shows that financial literacy is correlated with planning tools, even though unevenly. The list of tools does not exhaust what people might do; in fact, as many as one quarter of the self-reported planners indicated that they did not use any of the listed tools. Those who were correct regarding compound interest and inflation were more likely to have attended a retirement seminar, suggesting that such seminars may provide information. Those knowledgeable about risk diversification also tend to use formal rather than informal tools for planning. Panel B of Table 2.7 also reveals what the correlations were between planners' levels of financial literacy and the tools they used in their planning efforts.

**Table 2.7**

Links between Planning Tools, Planning Success, and Financial Literacy (Source: Lusardi and Mitchell (2011) calculations based on 2004 Health and Retirement Survey, Planning Module - unweighted data)

**Panel A: Tools Planners Report Using**

<i>Tools</i>	<i>Simple Planners</i> <i>n = 397</i>	<i>Successful Planners</i> <i>n = 235</i>
Talk to family/friends	21.1% (.409)	17.4% (.380)
Talk to coworkers/friends	24.7% (.432)	21.3% (.410)
Attend retirement seminar	35.3% (.479)	40.4% (.492)
Use calculator/worksheet	37.8% (.485)	43.4% (.497)
<b>Consult financial planner</b>	39.0% (.488)	49.4% (.501)

**Panel B: Correlation Between Planning, Tools Used, and Financial Literacy**

	<i>Simple Planners</i> <i>n = 397</i>	<i>Talk to family/friends</i> <i>n = 84</i>	<i>Talk to coworkers/friends</i> <i>n = 98</i>	<i>Attend retirement seminar</i> <i>n = 140</i>	<i>Use calculator/worksheet</i> <i>n = 150</i>	<i>Consult financial planner</i> <i>n = 155</i>
Correct on Compound Interest	75.3%	65.5%	69.4%	77.9%	83.3%	80.6%
Correct on Inflation	84.4%	82.1%	88.8%	88.6%	89.3%	86.5%
Correct on Stock Risk	52.2%	65.5%	71.4%	80.0%	79.3%	73.5%

**Panel C. Budgeting Questions: All Respondents**

	<i>Always</i>	<i>Mostly</i>	<i>Rarely</i>	<i>Never</i>	<i>Do not know/Refuse</i>
Track spending	43.2%	30.8%	14.7%	11.0%	0.3%
Set spending budget	23.6%	27.6%	22.4%	26.0%	0.5%

Those who used more sophisticated tools were always more likely to get the financial literacy questions right, as compared to those who relied on personal communications; furthermore, the knowledge gap was relatively the greatest for the compound interest question. Lusardi and Mitchell, (2011) research shows that a very large segment – almost three-quarters (74 percent) of

the respondent pool – indicates that it always or mostly tracks its spending, and over half(51 percent) always or mostly tries to set spending budget targets. This is impressive given the low level of planning for retirement. It is unclear whether those undertaking the spending budget efforts did so simply to get through the month without running out of money, or whether these efforts indicate a greater sensitivity of retirement saving needs and plans. Prior work has established that planning has important implications for wealth accumulation (Lusardi and Mitchell, 2007). To this end, they emphasize that, at the median, planners accumulate three times the amount of wealth than non-planners. Moreover, the amount of planning also matters: Those who are able to develop a plan and those who can stick to the plan accumulate much more wealth than simple planners.

Lusardi and Mitchell, (2011) tend to see that younger people know very little and acknowledge it. By contrast, older people consistently rate themselves as very knowledgeable despite the fact that they are actually less literate than average. There are also important international differences in self-reports: in the U.S., for instance, a majority of respondents give themselves high scores, whereas in Japan people score themselves quite low. Lusardi and Mitchell's(2011) international studies of financial literacy also explore how financial literacy relates to retirement planning. In the majority of the countries studied, those who are more financially literate are more likely to plan for retirement, even after accounting for a large set of economic characteristics and economic circumstances. Given the many differences in pension schemes, privatization of pensions, and generosity of the pension system across countries, this is a remarkably consistent result. While some may argue that financial literacy is itself a choice variable so that the association between financial literacy and retirement planning may not be causal, the studies reported herein find little evidence that people invest much in financial knowledge. Indeed, it is unclear how people could improve their financial knowledge even if they wished to, given the paucity of adult education programs in several of the countries they reviewed.

In addition, the country studies also allow the authors to control for unobservable factors that would otherwise make results difficult to interpret in terms of causation. For example, in the Netherlands, information about financial literacy and retirement planning was collected at two different time periods, with the panel feature of the data permitting the analysts to control for unobservables such as cognitive skills, intelligence, or interest in financial matters. In some cases

researchers can also examine whether financial literacy at one point is correlated with retirement planning at some future point. More generally, the nexus of causality can be explored with an instrumental variables (IV) approach, to examine whether exogenous factors correlated with financial literacy but uncorrelated with retirement planning can shed light on the relationship between these factors. (IV is also useful when financial literacy is measured with error, as noted above). Several different IV approaches are used. One is to assert that a respondent might not be in a position to influence the behavior of others. In the Netherlands, for example, Lusardi and Mitchell,( 2011) found that people whose oldest siblings are in worse financial condition than the respondent's and whose parents have low understanding of financial matters are more likely to display high financial literacy. In Germany, the fraction of people voting for market-oriented parties is used to proxy for having well-informed peers. Here the results indicate that those having more informed peers are more likely to have higher financial knowledge.

Last, but certainly not least, the conclusions from the country studies examined by Lusardi and Mitchell, (2011) show that financial literacy is an important predictor of retirement planning, for both instrumented and non-instrumented empirical models. Answering one additional financial question correctly is associated with a 3 to 4 percentage point higher probability to plan for retirement in countries as diverse as Germany, the United States, Japan and Sweden. The effect of literacy is highest in the Netherlands, where answering an additional financial literacy question is associated with a 10 percentage point higher probability of planning for retirement. Thus, around the world, Lusardi and Mitchell,(2011) uncover the same finding, financial literacy makes people plan more enabling them to be more financially secure in their retirement.

## 2.19 Reasons for non-retirement planning

Brian Tracy (2004) then asked why it is that people don't become wealthy? In a country like ours, with the opportunities that we have, why is it that so few people retire financially independent? And he eventually found the answers. Here are what Brian Tracy (2004) explained as the five reasons why people don't become wealthy. The five reasons (Brian Tracy, 2004) gave why people retire poor are: 1) it never occurs to them; 2) they never *decide* to become wealthy; 3) they *procrastinate*, sometimes all their lives; 4) they cannot discipline themselves to delay gratification, and 5) they operate with a short time perspective. These factors are elaborated below.

### Non-realization

First, at the top of the list, is that it never *occurs* to them. The average person has grown up in a family where he has never met or known anyone who was wealthy. He goes to school and socializes with people who are not wealthy. He works with people who are not wealthy. He has a *reference group* or a social circle outside of work that are not wealthy. He has no role models who are wealthy. If this has happened to you throughout your formative years, up to the age of twenty, you can grow up and become a fully mature adult in our society, and it may never occur to you that it's just as possible for you to become wealthy as for anyone else. This is why people who grow up in homes where their parents are wealthy are much more likely to become wealthy as adults than people who grew up in homes where their parents are not. So the first reason why people don't become wealthy is that it never occurs to them that it is possible. And of course, if it never occurs to them, then they never take any of the steps necessary to make it a reality.

### Indecision

The second reason that people don't become wealthy is that they never *decide* to. Even if a person reads a book, attends a lecture, or associates with people who are financially successful, nothing changes until he makes a decision to do something different. Even if it occurs to a person that he could become wealthy if he just did certain things in a specific way, if he doesn't decide to take the first step, he ends up staying as he is. *If you continue to do what you've always done, you'll continue to get what you've always got.* The primary reason for under achievement and failure is that the great majority of people don't decide to be successful. They never make a firm,

unequivocal commitment or definite decision that they are going to become wealthy. They mean to, and they intend to, and they hope to and they're going to, *someday*. They wish and hope and pray that they will make a lot of money, but they never decide. I am going to do what it takes ! This decision is an essential first step to becoming financially independent.

### **Procrastination**

The third reason that people don't become wealthy is *procrastination*. People always have a good reason not to begin doing what they know they need to do to achieve financial independence. It is always the wrong month, the wrong season, or the wrong year. Business conditions in their industry are no good, or they may be too good. The market isn't right. They may have to take a risk, or give up their security. There always seems to be a reason to procrastinate. As a result, they keep putting it off, month by month, year by year, until it's too late. Even if it has occurred to a person that they can become wealthy, and they have made a decision to change, procrastination will push all their plans into the indefinite future.

### **Indiscipline**

The fourth reason that people retire poor is what economists call the *inability to delay gratification*. The great majority of people have an irresistible temptation to spend every single penny they make and whatever else they can borrow or buy on credit. If you cannot delay gratification, and discipline yourself to refrain from spending everything you make, you cannot become wealthy. If you cannot practice frugality as a lifelong habit, it will be impossible for you to achieve financial independence. As W.Clement Stone said, *.If you cannot save money, the seeds of greatness are not in you.*

### **Short-term perspective**

The fifth reason that people retire poor is perhaps as important, if not more important, than all the others. It is *lack of time perspective*. In a longitudinal study conducted by Dr Edward Banfield at Harvard University in the 1950s and published in 1964 as *The Unheavenly City*, he studied the reasons for upward socio-economic mobility. He wanted to know how you could predict whether an individual or a family was going to move upward one or more socio-economic groupings and be wealthier in the next generation than they were this generation. Banfield studied and compared his findings against the most common explanations for economic



success in America, and in other countries. Was it education? No. Many people with good education actually moved down economically. Was it intelligence? No. A lot of very intelligent people are poor and can't earn a living. Was it being born into the right family? No. Many people born into affluent families did poorly as adults, while many people with poor education became very successful. Was it being in the right part of the country? Was it being in the right industry? Was it luck? What factors were best at predicting that a person would move up economically over the years?

All his research brought him to a single factor that he concluded was more accurate than any other in predicting success in America. They called it *time perspective*. This was defined as the amount of time that you take into consideration when planning your day-to-day activities and when making important decisions in your life. Time perspective referred to how far you projected into the future when you decided what you were going to do or not do in the present. An example of long time perspective is the common habit of upper class families in England to register their children at Oxford or Cambridge as soon as the child is born, even though he or she will not be attending for eighteen or nineteen years. This long term thinking is what causes parents to open a savings account for their young children to assure that they will be able to attend a good college when they graduate from high school. This is long time perspective in action. The young couple that begins putting \$50 dollars a month aside in a scholarship fund so that their newborn child can go to the college or university of his or her choice is a couple with long time perspective. They are willing to sacrifice in the short term to assure better results and outcomes in the long term. People with long time perspective almost invariably move up economically in the course of their lifetimes.

## **2.20 Guidelines for starting a Private Business after Retirement**

In terms of the effect of non-retirement planning, Egbu, (2009) reported that in a particular ministry in Nigeria, fifty five staff were laid off, out of about thirty three thousand civil servants that were retrenched by the Obasanjo administration between 1999 and 2006. It was reported that out of the fifty five persons that were retired, in three months eleven of them died. What do you think was responsible for their deaths? It is lack of retirement or exit plan. They had been in the ministry for twenty years onward and believed that life will continue as it were. Every month they received money and they spent it, thinking that after all the money is not enough so there

was no need to save. So the moment they received their retirement letter, it was like throwing someone who can't swim into the Atlantic Ocean; consequently a part of retirement training is having a guide to starting your business. Egbu, (2009) gave ten guidelines for starting a private business, after retirement.

### **Choose a business you have been involved in**

You can look at your experiences over the years. What is it that you have experience in? Is it cooking? Is it dress making? Is decoration that you have been involved in? Or have you been a secretary who produces document? Then you might be thinking about a business center. Anything you have been involved in, that you have experience in, you should think about it.

### **Set aside time to study the business**

Do not start a business in an unfamiliar industry. Don't suppose you know everything about a business thinking it is very easy to set up, just by watching from outside. In most if not all cases it is not as easy as you think. For example those women who deal in clothing business, by touching a particular material or fabric they will tell you the kind of fabric it is and the quality. They even tell you the country of make. You might go to the market and buy a fake material they sell N1, 000 for N3, 000 the price of original whereas it is fake. So, before you know it your own gratuity and pension is gone. That is why we advise that you do not start a business that you are not familiar with. So set out time to study the business, what we call apprenticeship, so go and do your apprenticeship.

### **Carry out a research and prove your business idea**

Some people today will go and start a business just because Mr. A or Mr. B is doing it. But they don't know why Mr. A or Mr. B is succeeding in that business, and that is why research is important. For instance you go and set up a school and you don't have any idea about running a school but you set it up anyway because Dr. Joel is doing well in school, he has a very big school, he is doing very well. What you don't know is that Dr. Joel has taught for the past twenty years and knows everything about running a school. So you will find out that you will fail in that business. You may see someone in Consulting business who is making money and as a result of that you want to join the business, but you don't know that he has been in that business line for a very long time working with various experienced consultants and under studying them, but you

just come and start your own consulting business and say what is in consulting. If you go into a business without sufficient knowledge because you have not carried out your research, what do you expect? It is needful to carry out a research and prove the business idea. That research means that you have to carry out a feasibility study; where do they buy? How do they get their raw material? How do they process it? What is the quality of the material? What are the critical factors of success in that business? All these are things you have to determine. A sample outline for a business plan (format A and B) is included in later sections for your guidance.

### **Talk to entrepreneurs who are doing well in the same field**

Look around you. Take note of the entrepreneurs who have succeeded in your field of interest. For instance, you want to establish a photography business. Which photography outlet is doing well in your area? Go and talk to them. Beg them. Tell them you want them to mentor you as to how you go about the business and the pitfalls in the business. That way you get to the problems they face and you don't have to go through a painful learning curve, that is starting and making the same mistakes that others have made and before you know it you are out of business.

### **Do a business you have pleasure in**

If you engage in a business that you don't enjoy it reflects in the way you carry out that business and others will notice. Who will be a customer to a business owner who takes no pride in what he does?

### **Judge your ability and your capability to handle the business**

If you want to start a restaurant business for example then it means you have to wake up very early. In a family home at times, if you are the wife, when you can't wake up early enough your husband can wake up, boil water, make tea to drink, give the children also and go to work. But, if you start a restaurant business, your husband would not wake early to start cooking for you because he has his own job, rather you will be the one to wake up by five o'clock (5.00am) and start doing the cooking before your customer's start coming by seven o'clock (7.00am). You may have money, you may have the interest, you may have the experience needed, but do you have the ability and capability to wake up every day by five o'clock in the morning. Even if you know it and you don't have the ability and capability, then don't do it, because by the time you

do it for about a week and some of the days your restaurant is closed your customers will all run away saying that you are not serious.

### **Nurture the business before it becomes profitable**

Mothers know that before a child becomes useful where by you can send that child on errands, you must have nurtured the child for many years. If you cannot nurture a business before it starts being profitable you may get discouraged and close the business before it becomes profitable. That is to say that it takes strength and patience to nurture a business just like it does for a mother to nurture a child.

### **Appraise the hazards**

Every business has its hazard. For instance if you are a married woman and you open a bar, there are hazards. Sometimes people will come to the bar and drink very well and get drunk, forget that you are a married woman and start touching your body everywhere. At times also fights break out in your bar and they destroy your property. Those are business hazards so appraise the hazards and see if you can cope with it or manage it.

### **Start with what you have**

You don't have to wait until you have two million naira. The Tantalizers you are hearing of today did not start that way. The owner started small as a caterer at times going outside to cater for people in their offices and business place; but the last private placement they had they got more than N10 billion and their business today is rapidly progressing. You can go to Tantalizer Fast Foods today with your children and husband and the place is very fine, air-conditioned and neat, and you want to start a fast food business and you tell your husband you need about N10 million to start. Who told you that that place started with N10, 000,000? It did not. So, start with what you have.

You may start with N5, 000 or N10, 000, you cook for parties, and you make some money and plough back. You start with sweat capital. Sweat Capital means that you use your sweat or labour to augment your inadequate capital. When the owner of Tantalizers started she had to participate in cooking, but today she no longer cooks for all the outlets. That is sweat capital. In fact you may be the one doing all the cooking, the supplying and even the serving, because you don't have enough money.

### **Cash your passion**

When you have started a business that you are interested in, you have trained, you are a known entrepreneur in it and you know what it takes. You should know when you will cash that business. This is when you have branded it, that is to say your name have become known; before branding people come to your restaurant for example and you sell your food for N100 per plate. The moment you are branded, that is to say you have upgraded the look of your restaurant, and people have come to know that your food is good, then you may increase the price to say N400 per plate, then you can be said to be cashing your passion. The same food that you sold earlier at N100 the difference of N300 is as a result of the goodwill you have built over the years.

### **2.21 Results of lack of planning**

Lack of planning is manifested in all aspect of life. Some wake up in the morning and have no direction of what they want to accomplish in that day. Egbu (2009) recommends that you plan your day prior to that day before leaving your home. This enables you to manage your time very well.

A friends who is a Chief Accountant in a government agency, before he comes to the office, he knows how many files he wants to treat and he treats them fast, and by the time he is through with that, he uses his time to do things that will benefit him. But the thing is that nobody comes to his table and says that there is a file that has not been treated. He can do whatever he wants as far as the job does not suffer, because the truth is that most jobs at times do not take more than thirty percent of our capacity. For example, when I was in the bank, I got to level that my job was just to countersign vouchers, so you can imagine, another person raises a voucher and I countersign. That was not up to ten percent of my capacity, so I had to use my time wisely, writing papers, consulting, preparing accounts for people, carrying out audit and so forth, because if you do not use your time very wisely then you will use it in a useless way either to gossip in the office, to chat away and things that are foolish, at times you may use your time to put yourself in problems, so we must use our time wisely.

## **2.22 Focus on your financial goals when income increases**

Uko, (2013) observed that some always remain broke irrespective of their income levels. As their income increases they increase their spending. They always ensure that the increase in spending is always higher than the increase in income. This ensures that they are in perpetual state of deficit. Such people are operating under Murphy's Law of expenditure which states that expenditure will always grow to meet income. This means that as your income increases, your expenditure catches up; you return to your financial comfort zone, the place you are used to, which for many is being broke. Uko, (2013) correctly states that there is a way we instinctively act anytime money comes into our hands. If you think back, to each time money gets into your hands, you will notice a pattern. Your money reflex kicks in. You do what you normally do with money and end up how you normally end up, usually where Murphy's Law said you would. For some it is with an empty wallet and increased debt. Increasing your expenditure when your income goes up is due to inability to delay gratification. We want to enjoy life now by acquiring things that we think will make life easier and make us feel happier. Consequently, as our income rises, we are better able to pander to our wants list; hence the truism in Murphy's Law. Wanting better things is not wrong in itself. Life is supposed to get better and more fun. The challenge is doing the right thing at the wrong time, spending in the season for saving and investment.

### **Increase your savings as income goes up**

If we want to move ahead financially, we have to break Murphy's Law over our finances so that we can have money work for us. That means we have to fix our expenditure and increase our savings when our income goes up. Prices of things do not go up in the market when you get a pay increase, promotion or bonus. The market does not know, hence your expenditure should not go up when your income goes up; rather your savings and investment should go up. Your expenditure should go up by reason of inflation, not pay raise. Uko, (2013) explains how to achieve this objective. The best way to escape the pull of Murphy's Law of expenditure is to switch our mindset from spending first and saving what is left (often nothing) to saving first and spending what is left. It means cultivating the habit of paying yourself first. When you cultivate the discipline of saving first and sticking to a fixed recurrent expenditure, you have escaped the gravitational pull of Murphy's Law of expenditure. More money now translates to moving faster towards your financial goals.

## **Derive pleasure from saving**

Shopping makes us happy. As children, we loved new toys and were forever pestering our parents to buy us things. Anytime a visitor gave us money, the first thing that came to mind was what to buy. This habit has been carried over into adulthood and taken to a whole new level. If you feel bored or down, go to the mall and let retail therapy work its magic on you. Hence spending makes us happy while saving is boring and painful (being deprived of instant gratification), so we gravitate towards spending. We naturally seek pleasure and avoid pain hence we love to spend and procrastinate on saving. We give our money away instinctively. Therefore the idea of our savings growing month by month does not fascinate us. We believe the future will take care of itself, and so we simply enjoy the moment.

We can turn it around. We can link pain to shopping and pleasure to saving. When you meditate on how much money has passed through your hands in the past five to ten years with precious little to show for it, it makes you angry, especially if you are trapped in a job you hate. When you think about what you could have done with that money – your sweat and blood – if you dwell on it long enough, you will start to feel different about giving your money away just like that. When you start to see your money as potential employees capable of working long and hard for you come rain or shine 24/7 public holidays inclusive, you want to invest more, even in fixed deposits or treasury bills if you have no idea what else to do (Uko, 2013).

## **Focus on your financial goals**

When you set clear financial goals and focus on achieving them, you find it easier to delay gratification and save towards your goal. When you have a goal, nothing motivates like making steady progress towards that goal. If you put money aside from your salary every month, your pile grows each month. You look towards each pay day with anticipation because your portfolio is going to grow yet again. If you are investing, it means the returns are going up each month. No paid job comes with a pay hike each month, but that is what happens when you add to your portfolio each month. As you practice delayed gratification, it becomes a habit. You start to prioritize your financial goals above spending, accumulating stuff that will eventually end up in the trash. More pay speeds up the process, moving you faster towards financial independence, where your monthly returns grows to cover your monthly expenses thereby giving you the power

of choice. Powered by the magic of compound interest, you begin to gather momentum and acceleration towards your financial goals. When you get to this place, you have escaped Murphy's Law of expenditure. Your savings grow to meet your income rather than your expenditure. You are now in control of your finances and fully back in the game(Uko, 2013)

## **2.23 Planning and Sustainability**

There is no end to financial literacy. One should always endeavor to build and maintain his financial house. Thus Punch of August 26,2016 listed seven ways to continue making ones financial house to be healthy.

### **1. Get educated**

Take the time to educate yourself about various personal finance topics. Schedule weekly money dates with yourself and spend a few hours managing your personal finances and reading financial books, blogs or magazines. The more you know about your own finances, the more confident you will feel about managing your money for the long haul. If you need even more support, consider hiring a certified financial planner, who can help you to understand your money and create a financial plan to help you reach your goals.

### **2. Check your credit regularly**

Your credit report is like a file on you and your credit history. It basically tells lenders how risky a borrower you are. When it comes to time to purchase a new home or car, you want your credit report and credit score to be in top financial shape so that you can qualify for good interest rates. Get in the habit of checking your credit report and credit score at least annually to confirm its accuracy. Do it on your birthday to make keeping track easy. You can access your credit report for free once per year at <http://www.annualcreditreport.com/>, then pay an additional fee to get your credit scores. Nigeria is basically a cash based economy. Except when one wants to borrow from bank does bank do credit status of enquiry. This involves the expected lender writing to other bankers of the same customer on his credit history and status to date.



### **3. Create a budget**

Although this sounds very basic, many entrepreneurs and employees have no budget in place to track their monthly personal income and expenses. You can use online systems like [mint.com](https://www.mint.com) to track your income and expenses, or simply an Excel spreadsheet. In Newways Consulting we use Excel spreadsheet to track our budget and cash flow management. Whatever budgeting system you decide to use, just make sure it works for you and your lifestyle. If you're serious about cleaning up your finances and getting ahead financially, you must allocate time and energy to updating your budget every week. This will ensure you're not spending more than you earn and that you're able to save for your financial goals.

### **4 Automate your finances**

Technology makes it super easy to manage day-to-day finances. Set up your finances so that a majority of the process is automated. You can use online bill pay or set up automatic transfers every month for your bills. That way you don't have to worry about whether you're paying your bills on time or being charged late fees for late payments. If you're concerned about having all your bills automated, set up corresponding calendar alerts to check your statements and payments to ensure accuracy. Also, strive to automate your savings every month. The more you can automate your finances, the less you have to worry about it on a day-to-day basis.

### **5. Pay off debts**

Make a plan to pay off your personal debts as soon as possible. Start by making a list of all your debts – car loans, credit cards, student loans, etc. Include the current balance, minimum monthly payment and interest rate. Then review your budget to determine how much money you can add toward additional debt payments. From there, you can do some more research on the best debt-reduction strategy to confirm you're paying off your debts in the most efficient and effective manner. When working on debt reduction, it is important that you have an adequate cash cushion or money in the bank for any short-term emergencies that may arise.

## **6. Build your own cash cushion**

Having a cash cushion is an integral part of your financial foundation. It allows you to use cash to pay for those random expenses or emergencies that arise in your day-to-day life instead of creating more debt or tapping into long-term investments. As an entrepreneur, you should strive to have a cash cushion of six to 12 months of your committed expenses. A cash cushion will allow you to pay for your personal bills and not worry about making ends meet if you need to reduce your income due to tight business cash flow.

## **7. Start investing outside your business**

While it is very important to always invest in yourself and your business, you don't want to have all your eggs in one basket. Diversification is extremely important, as it will help to spread out your investment risk over the long haul. Work with a financial planner to create a long-term investment portfolio of stocks, bonds and real estate that is aligned with your financial goals and risk tolerance.

### **2.24 Early planning**

Financial expert Ejembi, (2013) states that it is uncommon to see a 25 year-old saving to build a house. Neither is it common to see one saving for retirement. According to him, what are common are young adults thinking of what car they will buy and what time they will get married, etc. Many young adults erroneously believe that certain things such as building a house are meant for the elderly. Consequently, even when presented with a great opportunity to own a home, they let it pass believing there is still enough time for that. This approach has cost many young people financial freedom as they found out too late that some opportunities are meant to be seized, regardless of when they come up. This affected me when I was in my early thirties. I was working in a bank. I had opportunity to buy land in several areas but I preferred to buy a car. Ejembi, (2013) enumerates seven basic tips on learning to budget, save and invest:

#### **Have a clear goal**

To avoid wasting funds and to properly utilise money, it is important for young people to set goals for themselves and find a purpose for their lives. To do this, there is the need for them to

determine their talent and understand their capabilities. They also need to discover what they have the most pleasure doing. Apart from aiding them to understand what they want to do with their lives, it helps them to determine the best way to go about achieving that.

### **Self-control is important**

Young people believe that the key to financial freedom is the ability to earn a lot of money. They, however, stress that the reality is that it takes more than that. This, they say, is because for some people, the more they earn, the more their financial problems, while some others find a way to be financially stable even though they earn a little. According to them, whatever is an individual's earning, with self-control, the person can achieve a lot with it. To have self-control, they say an individual needs to learn to delay gratification. For example, a promotion does not have to be accompanied by a party; neither does it have to mean paying more rent for a duplex. If the additional earnings and funds for 'the party' are invested, experts are of the view that the future can be filled with parties and houses later with little or no risk of financial distress. In essence, young adults must avoid buying items or spending money just because they can or they feel they should do so. That can be achieved with proper budgeting and a good saving plan.

### **Keep the future always in view**

For some young people, it takes a while before their parents or guardians allow them to be fully responsible for their needs. It is not surprising to find young adults living with their parents for up to five years after they start working. Several of such people are not required to pay house rents or feed themselves, as their parents take care of all that. Such a period presents the individual with a huge opportunity to take major steps towards financial freedom. By keeping the future in view and realizing that they would eventually have to secure their own accommodation, they could start saving towards owning their own homes or investing in a long-term instrument with the goal of financing a business, among other things. If the individual were to rent a house at N150,000 per annum. In five years, he or she would have spent N750,000. That is just a moderate estimate for rent. When the estimates for feeding and utility bills are added, the amount would shoot beyond N1m. As little as that amount may appear to be, it can be used to finance projects that can help to secure the future financially.

## **Protect your health**

From arguing over who can stare at the sun for a longer period as a child to ignoring a doctor's directive, people tend to take a lot of health risks in their younger days. The implications of these actions are often not felt until much later in life and they could create serious financial troubles for an individual. It is important for young people to take their health seriously and ensure that they are prepared for a medical emergency as the cost of a minor medical treatment can run into thousands of naira, while the cost of surgeries could run into millions of naira. The reality is that many health problems can be avoided; exercising regularly and eating balanced meals and drinking a lot of water can go a long way in keeping an individual healthy. And once you stay healthy, you end up saving a fortune.

## **Take self-development seriously**

The skills required to stay employable in the world today are ever-changing. Whether a young adult works for an organization or runs his own firm, it is important for him to continually seek personal development. This is because an investment in self-development is sure to pay off. In today's global world, it is difficult for a young adult to be a huge success without the ability to use certain gadgets and the social networks. Considering that most elderly people need to get training to adapt to the new world, young individuals cannot afford to ignore changes in educational or skill requirements. Neither can they afford to stop striving to function effectively at all times.

## **Keep records**

Young adults should strive to keep records at all costs. It is important to keep as much records as possible; from having a form of diary to keeping records of expenses, agreements or business deals and tax payments. When it comes to running a business, keeping up-to-date records plays a huge role in the ability to raise additional funds for the business and to manage it effectively. By keeping adequate records, a young adult is in a position to manage his finances, time and activities in a more effective way. Poor record keeping is the reason why many young adults earn millions annually, yet they have no clue about what they do with the money.

## **Have a retirement plan**

It can be a bit tough for an individual who is just starting out to be bothered about an ‘exit plan.’ However, the benefits of doing so are numerous. For instance, a decision to start a retirement savings account early means the individual has a greater chance of taking care of his or her financial needs after retirement. They add that in the course of implementing a retirement plan, the individual is also likely to get an insurance cover and write a will; all of which are important in today’s world.

### **2.25 Know your net worth**

Akinkugbe, (2013) explains that it is important to know where you stand financially today for you to be able to plan successfully for the future. Understanding your net worth is a significant step to organizing and building your finances as you strive to attain your financial goals. Whatever those goals are, whether you are saving towards a large purchase such as a property, for your children’s education or planning for your retirement, your net worth statement provides you with important information. Your net worth statement should present you with a true picture of your financial condition at a point in time; it is a snapshot of your current financial standing. Potential lenders will ask for a net worth statement when you apply for a loan such as a car loan, a mortgage or a credit card. If you have fairly up-to-date documentation on hand, it will be that much easier completing the loan application.

#### **Calculating your net worth: Total assets – total liabilities = net worth**

Calculating your net worth is a fairly straightforward process. It lists your assets (all that you own and value) and subtracts your liabilities (all that you owe). Before you embark on this exercise, get yourself organised and gather all your financial documentation; your bank statements, investment advices, receipts and so on. Here are some simple steps to help you to calculate your net worth.(Akinkugbe,2013). List your major assets. What is the value of your car, your home and any other property you might own? It is best to be conservative in your estimates so that you do not distort the true picture of your net worth. Your home is likely to be your largest single asset and your mortgage, your biggest liability. You can get a fairly accurate idea of what it’s really “worth” by finding out what homes are selling for in your area. Particularly

during a recession or periods of economic difficulty, real estate is not easily marketable so be realistic in your estimates. List other assets such as cash, bank accounts, certificates of deposit, stocks, bonds, mutual funds, retirement savings and life insurance policies that have accumulated cash value. Do you have any valuable personal effects such as jewelry, an expensive wristwatch, a significant musical instrument, some valuable artwork, or any precious family heirlooms? Don't list everything, just things of significant value. Again, be sure to list the market value of such assets, as their real value is only what the market is prepared to pay for them and not what you would like the value to be.

Add up all the assets that you have listed to get your total asset figure. Determining the value of your valuables is not only necessary to figure your net worth; this information will also be very useful in ensuring that you are better able to protect your assets by having adequate insurance coverage. Now list and add up your liabilities or what you owe such as your mortgage loan balance, car loans, and outstanding balances on your credit cards and any other personal debt obligations. Finally, simply subtract the sum of your liabilities from the sum of your assets and the result is your net worth. The ultimate objective of this financial exercise should be to increase your net worth. Ideally, your net worth should be positive and steadily increasing over time. It has little to do with how much you earn; as the old saying goes, "it's not what you make, it's what you keep." If you have a positive net worth, you can start working on building on this momentum.

If your net worth is negative, with your liabilities greater than your assets, don't be discouraged. That is the purpose of this exercise. This should jolt you into making necessary changes in your financial situation. No matter where you find yourself today, now that you know exactly where you stand, you can begin to set personal financial objectives and take deliberate steps to work towards achieving them. There are personal finance software packages such as Quicken that will easily compute your net worth for you once you have inputted all the necessary information. These programmes are designed specifically for tracking investments and other assets as well as any debts and can support you in your personal financial management.

## **How to grow your net worth**

If you have no debts except your mortgage, you can start to build a surplus that can be invested in assets that are likely to appreciate more than the inflation rate over time; such as property, shares, mutual funds and other investments. Remember to take advantage of any windfall income such as bonuses; instead of spending them, funnel such unexpected proceeds into productive assets or into reducing or paying off your debt. If you have some outstanding high-interest loans, you should be paying those off as quickly as possible. That will give you the highest return for your money. It pays to keep your liabilities manageable.

## **Track your progress**

For many people, computing their net worth is purely an academic exercise with very little impact on the way they handle their finances. For others, it can be a powerful motivator. Try to go through this process at least once a year and track your progress. The raw net worth number itself isn't really all that meaningful; what is much more useful is how it changes over time. As you work towards increasing your net worth there will be a natural incentive for you to check any excess spending, to work to pay off your debts, and to save and invest towards a secure financial future.

### **2.26 Financial literacy and retirement preparedness among seniors and near-seniors**

Shek-wai et al, (2016) report that it has become increasingly important for Canadians to equip themselves with sufficient knowledge, skills, and confidence for the purpose of managing their personal finances, before and during retirement; as highlighted in the National Strategy for Financial Literacy, Canadians are living longer and leading more active lives than ever before. It is estimated that the average Canadian currently approaching retirement age can expect to live until the age of 86. This is to suggest that those who retire at the age of 65 will have to live on their pensions and savings for an average of 21 years and possibly longer. With the decline in coverage of workers through employer-sponsored pension plans, Canadians face an increasing personal responsibility to plan for their own retirement. Since an average Canadian will live for additional 21 years the import of this report is that the employers provide pension will not take

care of the individual until he dies. In spite of this, one in three Canadian adults is not financially preparing for retirement, according to findings from the 2014 Canadian Financial Capability Survey.

Furthermore, when compared to youth and prime age adults, seniors score the lowest on objective assessments of financial knowledge, yet they rate their financial confidence as the highest of any age group. Shek-waiHui et al, (2016) study seeks to determine the impact that this difference between financial knowledge and financial confidence has on seniors and their ability to meet their financial needs in retirement. Their study makes use of micro-data from the 2014 Canadian Financial Capability Survey to examine financial knowledge and financial confidence among seniors (aged 65 and over) and near-seniors (aged 55 to 64). The study considers how knowledge and confidence are related to three domains of financial behaviour that are critical for retirement preparedness: money and debt management, future planning and savings, and best financial practices and protection measures. The study also compares individuals' financial knowledge levels with their financial confidence assessments. People are classified as either under-confident, confident or over-confident, according to their financial confidence relative to their financial knowledge.

The results of the quantitative analysis suggest that financial confidence has important effects on retirement preparedness among seniors and near-seniors. This goes beyond the simplistic view equating cautiousness with low confidence or recklessness with over-confidence. Their findings show that the effects of financial confidence vary according to the levels of financial knowledge. First, high knowledge alone is not enough to lead to financially desirable behaviours: Among the high-knowledge population of seniors and near-seniors, a lack of financial confidence can hinder good practices in personal finance. At the same time, high financial confidence can help to compensate for a lack of financial knowledge. Second, confidence seems to direct seniors and near-seniors with low knowledge toward financially desirable behaviours in several key domains: Highly confident individuals who are less knowledgeable are doing well in managing their debt, keeping up with their bills, checking their bank accounts frequently, having some savings or assets, having multiple insurance products, and being better prepared for unexpected changes in financial needs. Third, overconfidence can lead seniors and near-seniors with high knowledge to make poorer financial decisions in some areas: Those who are financially



knowledgeable but over-confident are less likely to be able to keep up with bills or pay for large unexpected expenses. They are also more likely to take on consumer debt than their counterparts whose level of confidence is aligned with their knowledge. Fourth, under-confident seniors and near-seniors are at a higher risk of poor financial outcomes: Under-confident seniors and near-seniors are generally worse off than those who are confident or over-confident, in all three behavioural domains examined: money and debt management, future planning and savings, and protection measures.

Overall, the findings suggest that financial education programs and initiatives need to enhance not only objective knowledge but also financial confidence in seniors and near-seniors. When designing and targeting programs to enhance financial capability, it is important to consider not only seniors' and near-seniors' cognitive ability, but also their changing financial confidence in key skill domains. With respect to current money and debt management, their findings suggest that programs to improve budgeting may be better targeted to under-confident seniors and near-seniors with low knowledge. For debt management more specifically, some over-confident groups with higher levels of financial knowledge may also benefit from educational programs to improve their handling of debt and their awareness of high-cost credit usage.

When we consider financial planning for the future, Shek-waiHui et al (2016) findings suggest that under-confident seniors and near-seniors are systematically at risk of insufficient planning and saving. Educational and support programs need to focus on improving confidence as a means of developing good planning and saving habits. The results also indicate that additional effort may be needed to promote insurance-based products among the under-confident groups with financial knowledge in particular, as these groups appear to be under-insured. As for ensuring best financial practices and protection measures, efforts should be focused on increasing seniors' and near-seniors' objective financial knowledge, as well as their financial confidence in financial decision-making. Financial confidence appears to compensate for many deficits in objectively assessed knowledge with respect to adopting best financial practices and protecting one's interests. This is particularly important for seniors and near-seniors that may not have high levels of financial knowledge as compared with other groups of Canadians. More generally, their findings suggest that financial literacy programs should incorporate critical activities to raise participants' awareness of their own skills, which can include various forms of

pre- and post-learning assessments. This can provide feedback mechanisms that, for the under-confident, can bolster financial confidence and, for the over-confident, can help set realistic expectations based on their actual skills, financial behaviours, and retirement preparedness.

## **2.27 Employers' programs aimed at fostering retirement savings**

Responding to reports of widespread financial illiteracy and workers' under-saving, some employers have begun to offer employees financial education in the workplace. For instance, retirement seminars are often provided by firms that offer defined contribution pensions (DC), in order to enhance employee interest in and willingness to participate in these voluntary saving programs. Whether such programs have an impact is, of course, a key question. The idea is that if seminars provide financial information and improve financial literacy, they should reduce workers' planning costs and thus enhance retirement saving. Yet it is difficult to evaluate the impact of such retirement seminars for several reasons. First is that participation in these seminars is typically voluntary, so workers who attend them probably differ from those who do not (for instance, they may have more retirement wealth and thus, stand to benefit differently from seminars than low wealth workers). Second, Lusardi and Mitchell, (2006) state that workers who participate in a retirement seminar may also be more patient or diligent, personal characteristics associated with higher wealth accumulation. Third, as noted by Bernheim and Garrett, (2003), employers may offer retirement education as a remedial device, when they perceive workers to be under-saving.

This leads to a negative rather than positive correlation between seminars and saving. These complexities have meant that few researchers have been able to sort out the effects of seminars cleanly, and empirical findings are mixed. Fortunately, the HRS can overcome some of these data challenges. For instance, Lusardi, (2002, 2004) posits that if financial education is offered to those who need it most, the saving impacts would be strongest among the least educated and least wealthy. As shown in Table 2.8, the HRS data bear this out: retirement seminars are found to have a positive wealth effect mainly in the lower half of the wealth distribution and particularly for the least educated. Estimated effects are sizable, particularly for the least wealthy, for whom attending seminars appears to increase financial wealth (a measure of retirement savings that excludes housing equity) by approximately 18%.

**Table 2.8**

The Effect of Retirement Seminars on Retirement Accumulation (Lusardi and Mitchell , 2006)

	Total sample	1 <sup>st</sup> quartile	median	3 <sup>rd</sup> quartile
<i>a. Financial net worth</i>				
Total sample	17.6 %**	78.7%**	32.8%**	10.0%
Low education	19.5%	95.2%**	30.0%**	8.8%
High education	13.1%	70.0%**	19.4%**	10.2%
<i>b. Total net worth</i>				
Total sample	5.7%	29.2%**	8.7%	0.5%
Low education	3.4%	27.0%**	7.1%	4.0%
High education	7.3%	26.5%**	6.5%	3.6%
<i>c. Total net worth + Pensions</i>				
Total sample	20.5%**	32.7%**	26.8%**	19.5%**
Low education	20.7%**	31.4%**	14.6%*	18.2%**
High education	19.4%**	39.3%**	31.2%**	17.6%**
<i>d. Total net worth + Pensions and Social Security</i>				
Total sample	16.0%**	18.6%**	20.4%**	17.2%**
Low education	12.7%**	14.7%**	12.7%**	9.5%**
High education	17.7%**	25.4%**	25.8%**	17.0%**

Note: This table reports the percentage changes in different measures of retirement accumulation resulting from attending retirement seminars. Adapted from Lusardi (2004).

\* indicates that the estimates from which percentages are based are statistically significant at the 10% level

\*\* indicates that the estimates from which percentages are based are statistically significant at the 5% level

This effect derives mainly from the very poorest, where wealth increased by more than 70%. The effect of financial education is also large for those with low education, where financial wealth rose almost 100%. Of course these large percentage changes are measured off a low base, of only about \$2000 (Lusardi, 2004). Other authors have also suggested that financial education can be effective when targeted at the least well-off. For instance, Caskey, (2006) finds that personal financial management education has positive impacts on the wealth and credit patterns of low- and moderate-income households.

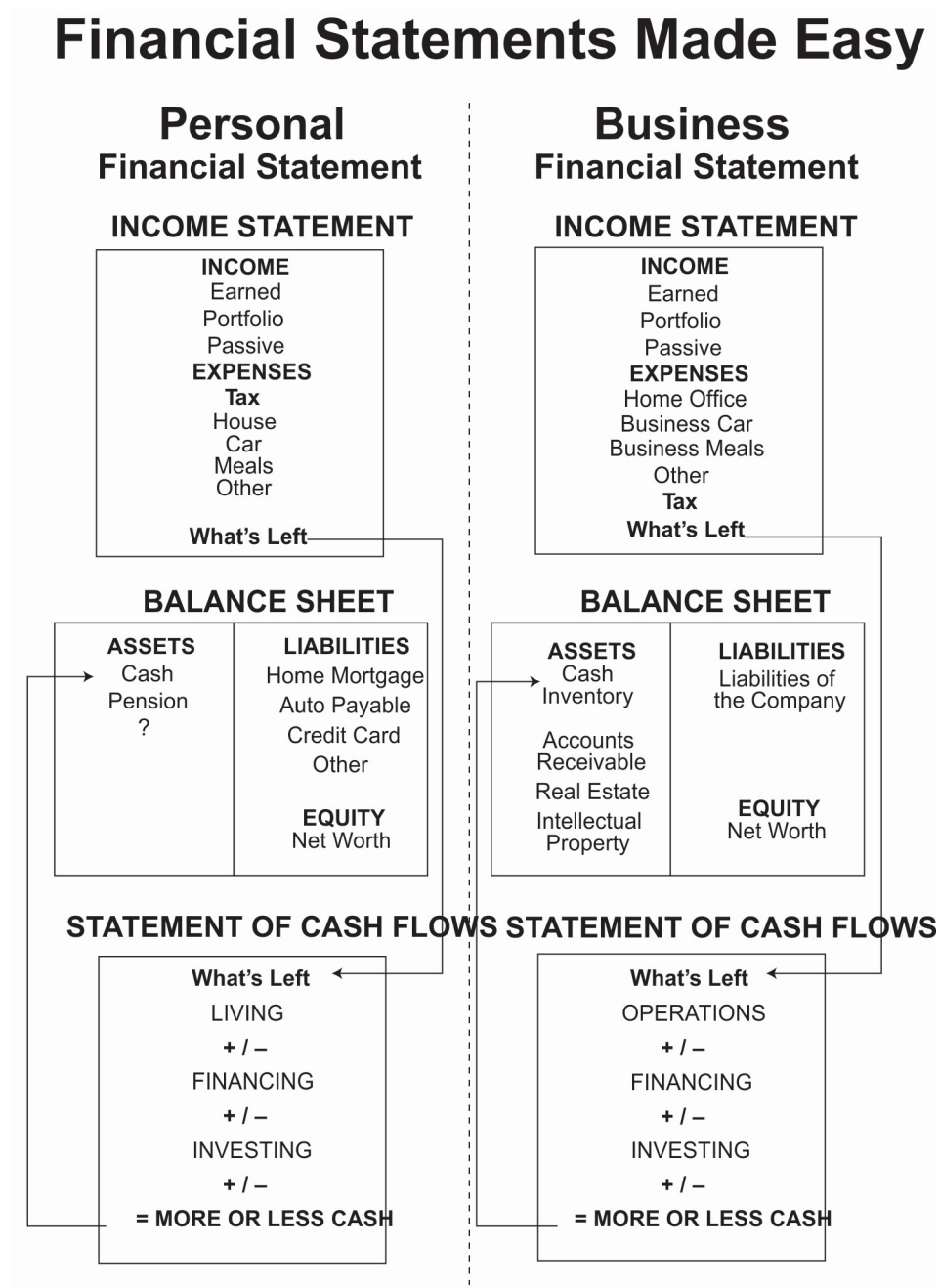
Yet even when the impacts work in the predicted direction, they can be rather small in dollar terms. Thus Duflo and Saez, (2003; 2004) focus on non-faculty employees at a large university who were given financial incentives to participate in an employee benefits fair. The authors compared pension participation and contributions in that group with that of employees not induced to participate. Overall, they found that the program had fairly small effects: attending the fair did induce more employees to participate in the pension, but the increase in contributions was negligible. And good intentions do not always translate into desired behavior. For instance, Clark and D'Ambrosio, (2003) and Clark et al, (2003) report that exposing workers to retirement seminars does influence workers stated desire to save more. Yet several authors, including Choi et al, (2004) and Madrian and Shea, (2001) show that seminar participants who say they will start contributing to pensions or boost their contributions often fail to actually do so.

Further findings on the impact of financial education programs are available from Schreiner et al, (2002). They studied the effectiveness of Individual Development Accounts (IDAs), which are subsidized savings accounts targeted at the poor that provide matching contributions if the balance is used for a specific purpose (e.g. home purchase, starting a business, etc.). As part of the American Dream Demonstration, that study included 2,364 participants (in 2001) age 13-72, of whom 80% were female. The project had a financial education component, and the authors found that those with no financial education saved less than those exposed to financial educational program. But the effect was nonlinear: after 8–10 hours of financial education, the result tapered off with no appreciable additional increases in saving after that.

## 2.28 Common Mistakes in Financial Planning

Kennedy (2005) looks at common financial planning mistakes that people make. This mistake can lead to poor financial outcome even if one has financial education. Fig 2.4

FIGURE2. 4, Financial Statements Made Easy ( Diane Kennedy, 2005)



From Figure 2.4, it is important that an individual should always re-evaluate his personal financial statement. This is to ensure that income is always higher than expenses. It is only when income is greater than expenses that you will have a positive cash flow. Consequently having a positive cash flow will increase investing activities which will further increase the income. If income steadily increase and living expenses remain constant or increases at slower rate, then wealth building is accelerated.

## **2.29 Financial Literacy and Psychosocial Factors**

Many researchers have suggested that financial literacy affects psycho-social factors. How does financial literacy influence psycho-social factors such as financial stress, hostility, depression and hopelessness? If your income suddenly drops, for whatever reason, you must cope with worry as well as the daily reminders — the bill spiling up, the children needing shoes, school fees, medical treatment and supplies etc. Regardless of the source of stress, your body may react to it in three stages: alarm, resistance, and exhaustion. When alarmed, your body senses a threat and prepares for fight or flight. The most important physical reactions accompanying alarm are a faster heartbeat, rapid breathing, a rise in blood sugar, increased perspiration, muscular tension, and slowed digestion. (Barbara Rowe and Denise Schroeder, 2003)

### ***Financial Satisfaction***

Existing research generally hypothesizes that financial satisfaction is an outcome of financial literacy. (John L. Murphy, 2013) In this construct, greater financial literacy improves financial satisfaction by helping individuals develop the skills necessary to meet large expenses, develop savings goals, save money, control finances, and estate plan (Loibl and Hira, 2005; Mezas 1994; Walker, 1996). However, some research suggests that financial dissatisfaction fosters greater financial literacy overtime. Financial stressors can be psychologically deleterious and create financial dissatisfaction (Holmes and Rahe 1967; Krause, Jay, and Liang 1991; Price, Choi and Vinokur, 2002; Warr and Jackson, 1985). The anxiety and trauma engendered by financial dissatisfaction takes a detrimental psychological toll and may, over time, encourage individuals to become more financially literate so that they can improve their financial and psychological situations (Folkman et al, 1986; Liem and Liem 1988; Ullah 1990; Walker 1996).

### ***Hopelessness***

Research on hopelessness has underscored its negative effects on various components of financial behavior and well-being. For example, Brown (2011) finds that persons with depression and feelings of hopelessness held more debt and had less wealth at retirement. Brown advises providing such persons with financial education to protect against retirement insecurity. Other work indicates depression and hopelessness diminish financial status (Montgomery et al,2007), retirement security (Lamberget al, 2010),and financial planning (Zivinet al, 2009).The Diagnostic and Statistical Manual of Mental Disorders (DSM IV-TR) defines several criteria for depression. They include depressed or hopeless mood, decreased interest in activities, and inability to concentrate or be decisive (APA 2000; Price et al, 2002). The inability to concentrate may impede financial literacy, which requires considerable thought and retention. In addition, those who feel that their retirement goals are beyond reach may have no incentive to work to become more financially knowledgeable.(Murphy,2013).

The relationship between hopelessness and financial literacy may also run in the opposite direction, with poor financial literacy leading to an increased feeling of hopelessness. The theory of "learned helplessness "posits that inescapable events diminish people's motivation to change their situation (Dweck1975;Diener and Dweck1980; Hiroto and Seligman,1975;Maier and Seligman,1976). Learned helplessness has been widely studied and accepted, and although it has not been applied to retirement security or financial decision-making, one can reasonably assume that less financially literate individuals may have more difficulty advancing financially and may thus lose hope that they can affect their financial position.

### ***Religiosity***

Religion is a powerful influence on human behavior and previous research has identified a variety of factors associated with religiosity that may ultimately affect financial literacy. For example, Avantset al,(2003)indicate that those who are more religious may be more likely to take risks, as they have a greater faith that a higher being will provide for them. In addition, some individuals, for cultural or religious reasons, may expect family support at retirement and thus feel less need to prepare for retirement (Barnesand Taylor,2006).This is true especially in a country like Nigeria where dependency in family support is so pronounced. Quite a good number

of individuals do not plan for their retirement. Some believe that their children will take care; others believe that God is in control, yet some believe that planning is an academic exercise. This is because some have gotten rich without being financially literate. However, such people have passed through one form of apprenticeship or the other. This means that they are financially literate but informally trained.

These characteristics appear to reduce the perceived need for financial literacy among religious individuals. However, other factors suggest that religiosity could positively affect financial literacy. Renneboog and Spaenjers (2009) find a positive relationship between religion and savings among the Dutch, and suggest that religious teachings encouraging thrift could be an important factor. Additionally, a number of churches in Nigeria such as Winners, Redeemers etc, have begun to provide financial education. They play an important role in augmenting their members' financial literacy and self-management (*USA Today* 2010) and provide an informal source of financial information in their communities (Olsen and Whitman, 2007). Thus, religiosity may be correlated with increased access to financial education. Past research illustrates the theoretical basis for correlating financial satisfaction, hopelessness, and religiosity with financial literacy through multiple mechanisms. Murphy, (2013) explores the linkages between the psychosocial variables and financial literacy. However, determining whether those relationships are positive or negative will require further work.

## **Motivation**

Motivation has long been recognized as a key driver of individual behavior. Starting as early as Tolman, (1932) and Lewin, (1938), expectancy theory ties perception to behavior. Since then, extensive academic research has been focused on developing our understanding of motivation. Both the force model (Vroom, 1964) and the utility model (Samuelson, 1967), provide a theoretical grounding for explaining the motivational influences underlying human behavior as a function of expectancy, instrumentality, and valence or utility. Expectancy relates to the expectation or likelihood that specific actions will yield a certain outcome, alternately that performance is based on effort.

Based on these theories, individuals are motivated by things that can successfully lead to valued outcomes. According to Pinder, (1998) expectancy and valence theory is the most widely



accepted expectancy theory in research on work motivation, Stahl and Harrell, (1981) and Harrell and Stahl (1986) use a behavioral decision model approach to test expectation theory on individual decision making. Their findings demonstrate that motivational decision making is an additive process rather than Vroom's multiplicative process. This implies that motivation can still be significant even when expectations of success are small if the value or utility of the outcome is large.' In some cases, individual behavior may not result in the optimal outcome, A limited number of options may be considered (Wanous et al, 1983), information processing may be suboptimal (Bowen & Qiu, 1992; Park, 1978), or individuals exhibit behavior that is satisfying or simply "good enough" (Wabba & House, 1974). More recently, expectancy theory has been integrated with goal setting theory (Hollenbeck & Klein, 1987), Goal setting theory is grounded in the belief that conscious goals and intentions drive results. Based on goal setting theory of motivation, Locke, (1968) and Locke and Latham, (1990) find that individual goals are likely to determine how well they perform related tasks. Specifically, clearly defined and more challenging goals yield higher performance than vague, easy or do-your-best goals. To be effective, goal setting theory assumes that individuals must be committed to the goal, must get feedback and must have the ability to perform the task. Based on motivational and goal setting theory, financial literacy programs should be more effective when they are motivated by perceptions and concerns about financial well-being later in life. (Mandell and Klein, 2007)

Motivational theory suggests that measures of financial literacy should be related to financial behavior that is in the consumer's best interests, Hilgert et al, (2003) formed a "Financial Practices Index" based upon (self-benefiting) behavior in cash-flow management, credit management, saving and investment practices. When they compared the results of this index with scores on a financial literacy quiz, they found a positive relation between financial literacy scores and Financial Practices Index scores. Their results suggest that financial knowledge is related to financial practices.

### **2.30 Financial literacy and spending habits / Expenditure**

Spending habits affect people financial wellbeing for good or bad. Robert T. Kiyosaki (2011) states "that people go into tremendous personal debt for homes, furnishings, clothes, vacations, and cars because they lack control over that human emotion called temptation. Today, people works

harder and harder to buy things they think are assets, but their spending habits will never allow them to acquire real assets.” Robert T. Kiyosaki (2011) definition of real assets is assets that have the capacity to generate income. When people have financial literacy they change their spending habits such that they spend less than their income. When we reduce our personal expenses and change our spending habits we are more careful with debit and credit cards. This will results to taking an active interest in learning to invest and build our real asset. In other to achieve sustainable financial health we need to “sit down and map out a plan to get control of our spending habits. Minimize our debt and liabilities. Live within our means, and then expand our means.” Robert T. Kiyosaki (2011)

Most people never review their spending habits for the previous 12 months; if they do they will be shocked to see how their money are going. What causes people to have impulsive spending habits is the “inability to tune out the media hype that urges them to consume, at any cost. These same people long to have more money for retirement, for their children’s education, for vacations, and yet they realize they’re not saving anything. Unfortunately, they have not yet seen the correlation between their enslavement to credit issuers and their inability to save for the future.” (Williams et al 2002). The authors also suggested how victims of impulsive spending habits can curb it. “With a good system, tracking your spending can actually take as little as seven seconds for each transaction. If you compared how much you are paid on an hourly basis against that seven seconds of time, you might find that tracking your spending will actually be the *most money* you have ever paid yourself in the *shortest* amount of time because of all the things you will discover about your spending habits, your emotional needs, and your actual monetary losses.” (Williams et al, 2002)

### **Financial literacy and capital expenditure**

Capital Expenditure entails a commitment of capital and managerial effort that may or may not be justified by later performance. How should a limited supply of capital and managerial talent be allocated among an unlimited number of possible projects and corporate initiatives? A common set of tools can be applied to assess these seemingly very different propositions. The financial analysis used to assess such projects is known as “capital budgeting.” The perspective of financial analysis is that capital investment belongs to the investors. The goal of the firm is to

maximize investors' wealth. If building a brewery would create \$1 million of new wealth. If there were no other proposed projects that would create more wealth than this, then the beer company would be well advised to build the new brewery. Other factors are important and should be considered, but this is the primary objective. In the case of nonprofit organizations, wealth and return on investment need not be measured in dollars and cents but rather can be measured in terms of benefits to society. But in the case of for-profit companies, wealth is monetary. One of the methods used to compute the viability of future projects is net present value (NPV)

The concept that future cash flows have a lower present value and the set of tools used to discount future cash flows to their present values are collectively known as "time value of money" (TVOM) analysis. Suppose a project has positive NPV, but the NPV is small, say, only a few hundred dollars. The firm should nevertheless undertake that project if there are no alternative projects with higher NPV. The reason is that a firm's value is increased every time it undertakes a positive-NPV project. For maximum wealth-creation efficiency, the firm's managerial resources should be committed toward undertaking maximum NPV projects.

In Summary, Capital budgeting is the process by which a firm chooses which projects to adopt and which to reject. It is an extremely important endeavor because it ultimately shapes the firm and the economy as a whole. The fundamental principle underlying capital budgeting is that a firm should adopt the projects that create the most wealth. Net present value (NPV) measures how much wealth a project creates. NPV is computed by forecasting a project's cash flows, discounting those cash flows at the project's weighted average cost of capital (WACC), and then summing the discounted cash flows. The cost of capital used to discount the cash flows is a function of the riskiness of the project and the financing mix selected.

Measures such as payback period, discounted payback period, and internal rate of return (IRR) give rise to alternative project decision rules. These rules, however, are flawed and can potentially lead a company to adopt an inferior project or reject an optimal one. Economic value added is a new tool recently introduced to help managers choose among projects and then manage the projects once started. The real options paradigm is another recent innovation that

aims to capture the value of strategic flexibility created by projects. The tools of capital budgeting can be applied to large-scale corporate decisions, such as whether or not to build a new plant, but they can also be applied to smaller personal decisions, such as which home mortgage program to choose or whether to invest in new office equipment. Learning the language and tools of capital budgeting can help entrepreneurs better pitch their projects to investors or to the top executives at their own firms. Whether the decision is large or small, the fundamental principle is the same: A good project is ultimately worth more than it costs to set up and thereby generates wealth.

### **2.31 Invest in human education**

Investment in human education can improve financial literacy. No wonder Uko(2013) explains that when it comes to investing, our first inclination is to think about what to invest in immediately. We want to act first before taking time to know what we are doing. The most common question you get is “I have so much saved what should I invest in?” The desire to invest first before acquiring the skills or financial education to invest arises from the inability to delay gratification. We want to take a short cut. We want results now. Stressing the importance of being financially literate before planning for investment, Uko (2013) advises to learn before practicing, thus:

If you really stop to think, if you don't know what you are doing, you are gambling. Your chances are 50 – 50 or even worse. Any time there is a market slump, there are winners and losers. Those who know what they are doing win while those who are clueless wonder what happened to their money. *For every investment, you need an entry and exit strategy. You need to know when to go in, when to hold, when to walk away and when to cut your losses and run.*

There is no area in life you want to excel in that does not require learning and practice. Even in marriage, learning is required if you desire a never ending honeymoon. To become a good driver, you need to learn first before you enter the road. How come we think that we can just wake up one morning and start investing because it is a good idea? Even when it comes to picking a financial adviser or broker, how can you tell a good one from a mediocre one? What questions do you ask if you do not know your left from right? In the last Nigerian stock market crash,(2007-2009) everyone had a broker, most had their fingers burnt and vowed never again,

while others laughed all the way to the bank, exiting at the peak and coming back to pick off shares at a discount.

### **Not knowing what you are doing is risky**

Investment is not risky if you know what you are doing. Investment itself has risks, same as leaving home to go to work. You can have an accident on your way to work and maybe even end up in hospital. If you want a totally risk free environment, then you may consider not leaving home at all, but still cars run into buildings, airplanes drop on buildings, storms pull off roofs and buildings collapse. There is always a level of risk. Our job is to reduce that risk by knowing what we are doing. Not investing is risky. If you keep your money in the bank, you either spend it, friends borrow it and not pay back or inflation eats into it for you. To remain in the game, the less risky option is to grow your money through investing. The greatest risk in investing comes from the ‘investor’ who does not know what he is doing; the more illiterate and inexperienced the investor, the more risky the investment. When you have no clue what you are doing, you believe everything you are told, and virtually throw your money away. Herein lays the greatest risk. Not being financially literate is where the most risk is.

When you are financially literate enough, you invest with insurance which means you take a covered position. You have a plan for when the market goes up and when the market goes down. The market can only go in two directions – remain flat, go up or go down. When you have a plan for each scenario, nothing takes you by surprise. You simply activate your plan – take profit or stop loss. Your rate of return depends on how good you are in investing. How good you are in investing depends on how financial literate you are. The better you get, the higher your returns. It then makes sense that the best place to start investing would be in investing in financial education.

### **Learning is the key**

The easiest way to acquire financial education is by reading books on personal finance, listening to tapes and watching videos and programs (including talk shows), attend seminars on personal finance. As a rule, if you want to keep growing as a person, you need to allocate funds from your monthly budget to personal growth and development. Uko (2013) suggest 3% of your income as

a guide. You are to spend more on your growth and development as a person than you spend on your car or on your electronic toys. Your investment in yourself brings the highest dividends. Cars, clothes, phones, household items etc. come and go, but a better you brings a better result which puts you on an upward spiral of growth and achievement. The better you become the better results you get. This holds true in every area of your life, including your finances. Reading good books is the best way to achieve that change. It could be any book. There comes a time you come upon information that opens your mind in a certain direction and you start a journey that changes your life. It is said that the biggest influences in life is your environment – the places you lived (especially grew up in), the people you interacted with and the books you read. These influences affect what you do and what results you get.

### **Investing while in school**

In the meantime, what do you do with your savings while acquiring financial education? The answer is to keep your money in a safe place, safe from your long spending arms and the ravages of inflation. Put your money in the money market to earn interest. The risk is zero but the return is low. This is better than leaving your money in a savings account with close to zero interest rate. Have a chat with your banking officer to explain to you the different money market instrument available. The money market is not just about fixed deposits. There are much more options, including tenor funds, commercial papers, treasury bills, bonds etc. some attract taxes while others don't. You may choose to start your financial education from this bus stop. With treasury bills, you can get interest rates up to and above 10%, same with bonds. Just make the decision to start somewhere and build up your capital. Do not look for readymade answers. Find answers that work for you. Also do not despise the days of small beginnings, scoffing at interest income below one thousand naira. Keep adding to it and reinvesting your interest and you will be amazed at the size of your portfolio and interest income in five years.

### **2.32 Financial literacy and savings**

If you were looking for a simple formula for financial success, Tracy (2004) suggests the five words: “Spend less than you earn. The place to start is for you to take any amount of money that you can save right now, open a special bank account for financial independence and begin to save”. Explaining how savings leads to wealth accumulation the popular author Brian Tracy

(2004) states that when you begin to save money, you set up a force field of energy around that money that begins to attract more and more money into your life. As you add these additional amounts to your wealth account, you create an even greater magnetic force that attracts even more money into your life. Some who lack financial education always feel that money can be made in one sweep. Therefore they spend and spend all they earn with hope that they will hit a jackpot one day and become rich instantly. Brian Tracy (2004) disagrees and states that every large fortune is an accumulation of hundreds and thousands of small amounts of money. Riches seldom start with great financial breakthroughs or jackpots, even though that is what most people believe and strive for in their twenties and thirties. Instead, riches and wealth grow and accumulate slowly at first, one step at a time, and only go to those special people who demonstrate an ability to earn the money and then hold onto it.

The place to begin on your road to wealth is right where you are, right now. If you cannot discipline yourself to practice frugality, and begin saving your money in your current circumstances, you cannot expect to develop these qualities later on. One of the great success classics, *The Richest Man in Babylon*, by George Classon, was written many years ago. His central idea is still valid today. The book is a classic on financial success because its principles are simple, direct and guaranteed to work. What Classon said throughout the book was that the starting point of financial success is to pay yourself first. Take 10% off the top of your income, every time you receive money, and put it aside in your financial independence account. Once you have put it aside, never touch it or spend it for any other reason except to become financially independent. After you have paid yourself first, by putting 10% of your income away, you then learn to live on 90% or less of your gross income. Fortunately, human beings are creatures of habit. In no time at all, you will develop the habit of living on 90% or less of your income. From that point forward, your financial success is largely assured.

Egbu(2009) also discussed so much on how we can achieve our aspiration as employees by cultivating a savings culture “Most experts in Personal Financial Planning agree that you should at least set aside a minimum of ten percent (10%) of your salary every month. That ten percent should be regarded as your own pay. Setting it aside means saving it. Consequently, you start spending the rest which is ninety percent(90%). If you take that ten percent out first, you will find out that you will make do with the remaining ninety percent, because you will assume that

the ninety percent is your total salary. Assuming you are receiving \$ 1,000 and you remove \$ 100 immediately you get your salary you will understand that your salary is \$ 900. The ten percent (10%) you have set side should be put in an investment account which you will realize when you want to start a business.

### **Employees Saving Problems**

If savings is a problem for adults it is more challenging for employees who earn their income monthly. Egbu (2009) states “One of the most difficult problems an employee has is savings. No matter how much you earn, you find out that the more you earn the more you have to spend. There is a law in economics that says “marginal propensity to consume will always be higher than marginal propensity to save”. ( $MPC > MPS$ ) Now under these circumstances how can you be an employee and still save? I have been an employee and started working with a salary per month of ₦100, around 1981. So when I am talking about savings or being a millionaire, do not feel that this guy does not understand what we are going through. I understand and also know that at times your salary can not be enough for up to two weeks. Even when I was in the bank, with what I was earning, riding car, having car loan and so on and so forth, even as a graduate and a chartered Accountant, my salary hardly lasts for two weeks. But then will you now give up and recline to faith? That will not be the best thing to do.

On how to cultivate savings culture Egbu (2009) advises: One thing I have also observed is that when most people earn money, they pay their tailors, carpenters, transporters, children’s school fees and so forth, and at the end of the day they spend more than they are earning and get indebted in the process. You may say that is because your salary is small, but I will tell you that it is not. Saving and financial planning is a culture which you must imbibe before you finish reading this book or after reading this book, the option is yours. Why do I say so? This is because you find out that, it has nothing to do with how much you are earning. I have seen Bank Managers and Directors who are highly indebted. Why is this so? You find out that if you are living in a house where you are paying ₦5,000 per month, as a grade level eight officer,(GL8) by the time you become a grade level fifteen or sixteen officer (GL 15 or 16) you will not like that house again. You will want to move to a place you will pay twenty or thirty thousand naira per a month,(₦ 20,000- ₦ 30,000) thereby making your additional income not to be sufficient again. If your children are in a public school, by the time you move up and start earning higher you will



want to put them in a private school, and as I am talking right now, we have private schools of ₦ 20,000 per term and those of ₦ 200,000 per term. Yes in Lagos we have a lot of private schools including higher schools and for those who have children or relatives in higher schools; you know that we have higher schools where you pay millions, like ABTI University in Yola.

All these buttress the fact that what you are earning has nothing to do with your savings ability. You have to set a goal and determine your own mission. Some people don't have goals or missions. What goals do you have for this year, next year, or even five years, ten years or twenty year time? And your goal has to change as the years get by. Why do we say so? Some of you are working today, some have ten years to go; others have fifteen years, while others have just five years to retire. So what are your plans? We see also that lack of goals is a problem most people are facing which makes them to spend all they have worked. Most experts in Personal Financial Planning agree that you should at least set aside a minimum of ten percent (10%) of your salary every month. That ten percent should be regarded as your own pay. Setting it aside means saving it. Consequently, you start spending the rest which is ninety percent (90%). If you take that ten percent out first, you will find out that you will make do with the remaining ninety percent, because you will assume that that ninety percent is your total salary. Assuming you are receiving ₦ 10,000 and you remove ₦1, 000 immediately you get your salary you will know that your salary is ₦ N9, 000. We are going to discuss what you will do with that ten percent you have set aside, because if you put it in the bank it is as good as spent, because money in the bank can easily be withdrawn at any little provocation. But then I also want to say that why many people do not save is not because they cannot save, but because of lack of goal. (Egbu 2009)

### **The miracle of compound interest**

Tracy, (2004) refers to getting rich through regular savings as miracle of compound interest He explains how this miracle works as follows: I knew that if a person saved \$100 dollars per month from the age of 21 to the age of 65, and he earned an average return of 10% on his savings over that time period, he would be worth more than \$1,000,000 by the time he retired. I suddenly realized that that a young man, living in a group home, repairing furniture, with no advantages or opportunities, could actually become wealthy. If he just kept saving one hundred dollars per month, he would retire wealthier than 95% percent of the population. He would end up better off than most doctors, dentists, lawyers, architects, engineers, salespeople, small business owners,

corporate executives, and people in show business. All he had to do is save \$100 dollars per month and he would retire financially independent. If he could discipline himself to save every month, the power of compound interest would do the rest. However some people see making money as an instant thing. When they see someone who is rich they just believe that it a breakthrough, luck, magic or charm. The \$100 dollars a month savings is something most people can do, why are many not millionaire. They see it as small and properly do not understand the power of compound interest.

Tracy, (2004) also stated that “Making money is a basic skill. It takes knowledge and practice to master, but since hundreds of thousands, and even millions, of men and women have learned how to make money over the years, it is obviously a *learnable* skill. In fact, if you can drive a car, operate a cell phone, use a computer, or carry out many of the standard tasks that are a part of daily life, you definitely have all the intelligence and ability you need to earn all the money you want”. Tracy (2004) argues that if someone with limited abilities can become rich, why is it that so few people become wealthy? Even though we live in the most affluent country in the world, where most people earn and spend a fortune in the course of their working lifetimes, why is it that the majority ends up dependent on social security, pensions and relatives when they retire? If a person earning \$25,000 dollars per years would just save \$2500 dollars per year, ten percent of his income, and invest it carefully to earn a return of ten percent compounded over the course of his working lifetime, the years from age 21 to age 65 (44 years), it would grow to \$1,794,762 dollars through the miracle of compound interest. If a mentally retarded boy without a single advantage in the world can become a millionaire, and a person earning \$25,000 dollars a year saving ten percent of his income can become a millionaire or a multi-millionaire, then almost anyone can become a millionaire.

### **Target savings**

Individuals who are unable to meet their plan of target savings can appraise themselves by completing a Personal Target Savings Worksheet such as shown in appendix 2. Such reviews will show areas where there are leakages. It can also show areas where we can improve our income potentials

## **Daily contribution**

If personal savings is difficult, consider daily contribution. This is an age long practice whereby you set aside a fixed sum of money given to a daily money collector. The pepper sellers, artisans, newspaper vendors, drivers etc. use this means to gather their money and achieve a lot. At the end of the month the collector returns the money to the owner and takes one day contribution as payment for his services or whatever sum is agreed. The advantage is that the collector has assisted you to gather the money for banking or expansion of your business. Some collectors can also give you loan up to twice, your monthly contribution with little or no interest charge. An aspiring business owner can explore this opportunity to raise money to start or expand his businesses.

## **2.33 Financial literacy and Investment**

Personal investment strategies should be geared towards achieving the main purpose of creating wealth and fund i.e. making money available as at when due, therefore the aims is to structure investment outlook by considering the following fundamentals:

- Adequate funding of personal needs
- Safety of Investment and Security of Fund.
- Return/Capital Appreciation of investment
- Liquidity
- Matching investment/ fund maturities with emerging obligations.
- Diversification of investment portfolio.
- Valuation of investments.

### **Forms of Investments**

In other to meet the above personal goals an individual should have a mix portfolio or diversified portfolio.eg

- Cash & easily convertible instruments (Commercial Paper, Cash, Certificate Of Deposit)
- Govt./Corp. Securities (Bonds, T/Bills, CBN Certificates)
- Quoted Shares/Equities
- Real Estate and Mortgage Investments (land & buildings)

Andrew Willis (2001) gives several strategic tips for success in stock market:

- i. If news that could potentially affect the price of a stock is announced on TV, don't run with all the amateurs, giving it an upward throttle. The more experienced market makers and traders will sit in a corner, biding their time until the stock is right for shorting it and driving it back down. As the stock price plummets, these amateurs that purchased it at the highest price of the day now have no one to sell it to.
- ii. Don't ever trade with money that you can't afford to lose such as bill money, retirement money, or any other finances that could affect your living style if you were to lose it. Only trade with a stash of money that you have saved up for the specific purpose of trading. Just as a few people have been very successful at the stock markets, there are even more who have failed, losing homes, cars and furniture, and nearly everything. Don't be one of them!
- iii. Never get into a trade that has a poor risk-to-reward ratio. You should only consider trades that will bring you a decent profit, otherwise, the risk isn't worth it.
- iv. Get out of the trade as soon as you realize the odds are against you. The longer you wait, hoping that the tide will turn again in your favor, the more money you could be losing. Plus, you might find it very difficult to sell.

While investing in Properties one can seek for advice from successful investors. One of the greatest and successful property investors is Donald Trump. George H. Ross and Andrew J. McLean (2005) gives highlights on how Donald Trump chooses properties for investment.

#### KEY POINTS

- Be willing to pay a premium for a prime location.
- Don't buy without a creative vision for adding significant value.
- Creative problem solving leads to big profits.
- Write a preliminary business plan before you buy.

Four things Trump looks for in a location are: *Great Views, Prestige, Growth Potential, Convenience.*

### *Great Views*

People want to live near great scenery. The importance of views depends on the particular use of the property you have in mind. Certainly, nobody wants to live near a dumpsite or a sewerage treatment plant but a quiet street is a good view for a modest residential building. At a minimum, look for a view that is compatible with the life style of the occupants of your property and you've passed the view requirement.

### *Prestige*

The neighborhood of a property most often determines the property value. A small investor purchasing a real estate parcel should consider whether or not the location or the address is desirable for the people you intend to attract. If your target is high-income families, then you have to buy in an area that already contains luxury residences. If your intended target is middle-income families or low-income families, pick an area considered to be desirable among members of that group.

### *Growth Potential*

One of the great profits from investing in properties is appreciation in value of the land. Land banking may be appropriate in many cases. Land banking is buying land on the theory that, in time, it's going to go up in value, perhaps because it's in a strategic location. Land banking is always a risky investment but one that can be extremely profitable if you guess right.

### *Convenience*

Another thing Trump looks for in a location is the convenience of the location for his intended customers whether they are apartment owners or office tenants. Convenience encompasses the proximity of shopping facilities, transportation, schools, houses of worship, and other amenities. Availability of a suitable labor force is a factor to be considered in determining the desirability of office or commercial space. If you intend to live or work in the property you are planning to buy, just ask yourself does this property meet your needs; can you picture yourself being happy there and in the neighborhood. If the answer is "yes" it should be a good buy.

**Inflation Factor** - Conscious effort should be exercised to invest in high and fixed yield investments that could curtail fluctuations in return. The effective return on Investment should always strive to exceed the prevailing inflation rate. Options and strategies for personal fund

investments are the basic decisions that we must get right to enhance a pleasurable retirement life.

### **2.34 Financial Literacy and Standard of Living**

Standard of living generally refers to the level of wealth, comfort, material goods and necessities available to a certain socioeconomic class, in a certain geographic area. (Amy Fontinelle, 2017). In evaluation of factors affecting standard of living, Amy (2017) includes the following :

- income
- quality and availability of employment
- class disparity
- poverty rate
- quality and affordability of housing
- hours of work required to purchase necessities
- gross domestic product (GDP)
- inflation rate
- number of paid vacation days per year
- affordable access to quality health care
- quality and availability of education
- life expectancy
- incidence of disease
- cost of goods and services
- infrastructure
- national economic growth
- economic and political stability
- political and religious freedom
- environmental quality
- climate
- safety

Since quality and availability of education is included in the factors affecting standard of living we are going to consider in this research whether financial education or financial literacy has an influence on standard of living of an individual. When you think about standard of living, you can

think about things that are easy to quantify. We can measure factors like life expectancy, inflation rate and the average number of paid vacation days workers receive each year but can we also measure financial literacy?.Financial literacy can be measured and as such its impact on standard of living can also be assessed. (Angela A. H, Andrew M. P. and Joanne Y. 2009,.Annamaria, L and Olivia S. M. 2011,.Annamaria, L Olivia S. M. 2006).

### **2.35 Financial Literacy and Level of Education**

Previous researches have been carried out on the relationship between financial literacy and level of education. It may be assumed that education is positively related to financial literacy, that is, the more education one acquires, the more financial knowledge the individual has. Studies conducted on this subject involving secondary and university students have found varying results. Bernhaim et al's (2001) study on students who had obtained their secondary school diploma between 12 and 31 years before their study showed that exposure to financial concepts in secondary school had a positive effect on the students' financial literacy, in terms of savings culture. Murphy's (2005) study carried out among students at an African-American University revealed that the students' financial literacy grew as they progressed in their studies. On the reverse, Peng et al (2007) found that there was no significant relationship between a programme in finance in the secondary school level and knowledge of investment, but there is a significant relationship between running a course in finance in the university level, in terms of investment. This difference is as a result of the fact that courses at the university level were more likely to include information on investment concepts as against courses offered at the secondary school level. This is a suggestion that, at the secondary school level, there is no difference in students' financial knowledge and behavior, irrespective of the course offered, but there is a difference in the university.

Peng et al's (2007) position is corroborated by Mandell and Klein's (2009) study which found that students at the secondary school level who completed courses in finance and business did not manifest higher levels of financial literacy compared to those who had not taken such courses after some years. In other words, the acquisition of financial literacy at that level did not have any effect among the secondary school students as to distinguish them from their colleagues who did not acquire the knowledge. On a different scale, Chung and Park (2014) carried out a comparative study and found a link between the financial literacy score and certain fields of

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study at the university level. They compared the scores of students in Economics, Finance and Accounting with the scores of students in Marketing and Management, and found that students of Economics, Finance and Accounting had a higher financial literacy scores than students of Marketing and Management.

The research of Tania and Vivi (2015) focused on the relationship between the level of acquired knowledge in financial literacy and prior relevant education from high school to the university levels, among Canadian students. The results indicate that students who had obtained an average academic score between 80% and 89% obtained a high financial literacy score than those who had received an average academic score lower than 80%. Additionally, those who had obtained an average academic score higher than 90% obtained an even higher financial literacy score. This is a demonstration of the fact that academic scores were positively related to financial literacy levels. In terms of the field of study variable, they found that all the variables related to the fields of study had negative and significant effects on financial literacy of the students. Students who studied Arts, Humanities, Engineering, Nursing science, Pure science, and Social science courses, all obtained low financial literacy scores. On the contrary, students who studied Business administration and Finance had high financial literacy scores. This result is in conformity with Peng et al (2007). They also found that having studied a course in a field related to financial literacy at the secondary school level, and continuing in the field of business at university level, allows for the strongest improvement in financial literacy, especially in relation to investment.

Marian et al (2015) found that education had a significant impact on financial literacy among students in Slovakia. They found that Bachelor school graduates with IFIG average 0.658 answered almost one out of ten questions more correct when compared to high school graduates. This is to suggest that, the higher the education, the higher the level of financial literacy. Also, they found that the economic focus of education has significant and positive impact on the level of financial literacy. This is to say that, those who studied finance related courses were more financially savvy than those from other disciplines; thus supporting Tania and Vivi (2015).

Although financial behavior seems to be positively affected by financial literacy, the long-term effects of financial education on financial behavior are less certain, Bemheim et al, (2001) found that those who took a financial management course in high school tended in middle age to save a



higher proportion of their incomes than others. On the other hand, Mandell, (2006) found little positive impact of a well-regarded high school personal finance course on post high school financial behavior from one to five years after taking such a course. In addition, as Table 2.9 shows, every Jump\$Start survey since 2000 found that high school seniors who have completed a full-semester high school course in money management or personal finance are no more financially literate than students who have not taken such a course.

**Table 2.9**

Test results by money management education (Mandell and Klein, 2007)

	Mean 1997 score	Mean 2000 score	Mean 2002 score	Mean 2004 score	Mean 2006 score	Proportion 2006 of students	Percent C 2006 or better	Percent 2006 failing
All students	57,3%	51,9%	50,2%	52,3%	52,4%	100,0%	6,9%	62,0%
Classes in H.S.								
Entire course, money mgt./ personal finance		51,4	48,2	53,5	51,6	16,7	6,8	62,4
Portion of course, money mgt./personal finance		52,9	49,8	52,7	53,4	29,3	7,3	59,7
Entire course, economics		51,0-	49,8	53,0	53,2	38,1	7,8	59,9
Portion course, economics		52,1	51,1	53,2	53,0	27,4	7,9	60,0
Stock mkt game in class		55,1	52,4	55,8	55,0	27,7	10,0	55,0

The ineffectiveness of high school classes that teach financial literacy to measurably increase literacy levels among students that have taken such classes stands in stark contrast to the current efforts to *mandate* such classes throughout the U.S. Mandell and Klein, (2007) suggests that students retain little of what they learn in personal finance and money management classes because they do not perceive that it is relevant to their lives. In his book *Engaging Minds: Motivation & Learning in America's Schools*, Goslin, (2003) states that the perceived relevance or irrelevance of the subject matter is an important determinant of whether a learner will "become engaged and stay engaged in any learning task."

## 2.36 Conclusion

The highlights of the literature review are:

- a) Lusardi, (2003) finds that those who plan accumulate more wealth before retirement and are more likely to invest in stocks. Moreover, planners are more likely to experience a satisfying retirement, perhaps because they have higher financial resources to rely on after they stop working.
- b) Prior work has established that planning has important implications for wealth accumulation (Lusardi and Mitchell, 2007). To this end, they emphasize that, at the median, planners accumulate three times the amount of wealth than non-planners. Moreover, the amount of planning also matters: Those who are able to develop a plan and those who can stick to the plan accumulate much more wealth than simple planners.
- c) In collaboration with several other teams from a wide range of countries, Lusardi and Mitchell, (2011) started to explore how the 2004 module HRS financial literacy questions work in the international context, as well as how they relate to patterns of retirement planning. They found several key lessons. First, financial illiteracy is widespread even when financial markets are well developed as in Germany, the Netherlands, Sweden, Italy, Japan, and New Zealand. Thus observed low levels of financial literacy in the U.S. are prevalent elsewhere, rather than specific to any given country or stage of economic development.
- d) The studies in this international project (Lusardi and Mitchell, 2011) also indicate that financial literacy differs by population subgroup. Age patterns are notable, in that financial knowledge follows an inverted U-shaped pattern, being lowest for the young and the older groups, but peaks in the middle of the life cycle.
- e) A German survey conducted by Commerzbank AG in 2003 found that 80% of respondents were confident in their understanding of financial issues, but only 42% could answer half of the survey questions correctly (OECD,2005). Similar patterns are consistent in the United States, the United Kingdom, and Australia. Indeed, consumers' overconfidence regarding their financial knowledge may be a deterrent to seeking out professional advice, thus widening the 'knowledge gap'.
- f) In four different waves of the RAND American Life Panel. Their measures include three performance tests (one of which has three subtests) based on 13, 23, or 70 questions, and one behavioral outcome (performance in a hypothetical financial decision making task).

The outcomes of the performance tests are less highly correlated with outcomes in the decision-making task. The different financial literacy measures are more variable in their predictive relationships for actual financial behaviors such as planning for retirement, saving, and wealth accumulation. One unanswered question in this literature review is whether test-based measures provide an accurate measure of actual financial capability.

- g) In the Netherlands, for example, Lusardi and Mitchell,( 2011) found that people whose oldest siblings are in worse financial condition than the respondent's and whose parents have low understanding of financial matters are more likely to display high financial literacy.
- h) The effect of literacy is highest in the Netherland, where answering an additional financial literacy question is associated with a 10 percentage point higher probability of planning for retirement. Thus, around the world, Lusardi and Mitchell,(2011) uncover the same finding, financial literacy makes people plan more enabling them to be more financially secure in their retirement.
- i) Brian Tracy (2004) explained as the five reasons why people don't become wealthy. The five reasons (Brian Tracy, 2004) gave why people retire poor are: 1) it never occurs to them; 2) they never *decide* to become wealthy; 3) they *procrastinate*, sometimes all their lives; 4) they cannot discipline themselves to delay gratification, and 5)they operate with a short time perspective.
- j) Clark and D'Ambrosio, (2003) and Clark et al, (2003) report that exposing workers to retirement seminars does influence workers stated desire to save more. Yet several authors, including Choi et al, (2004) and Madrian and Shea, (2001) show that seminar participants who say they will start contributing to pensions or boost their contributions often fail to actually do so.
- k) Although financial behavior seems to be positively affected by financial literacy, the long-term effects of financial education on financial behavior are less certain, Bemheim et al, (2001) found that those who took a financial management course in high school tended in middle age to save a higher proportion of their incomes than others. On the other hand, Mandell, (2006) found little positive impact of a well-regarded high school personal finance course on post high school financial behavior from one to five years after taking such a course.

Consequently we arrived in course of this literature review to some of these conclusions, first, that education in Nigeria is based on a 6-3-3-4 system, which involves three levels of institutional learning processes, the primary school level, the secondary school level, and at the tertiary level. There are various opportunities for Nigerian employees to improve their education level formally or informally, on full time or part-time basis.

Second, the review showed that “today, people work harder and harder to buy things they think are assets, but their spending habits will never allow them to acquire real assets.” Robert T. Kiyosaki (2011) definition of real assets is assets that have the capacity to generate income. Alan Williams, Peter Jeppson and Sanford Botkin (2002) opined that what causes people to have impulsive spending habits is “inability to tune out the media hype that urges them to consume, at any cost. These same people long to have more money for retirement, for their children’s education, for vacations, and yet they realize they’re not saving anything.”

Thirdly, one of the most difficult problems an employee has is savings. No matter how much you earn, you find out that the more you earn the more you have to spend. Readings on savings culture showed that “most experts in Personal Financial Planning agree that you should at least set aside a minimum of ten percent (10%) of your salary every month. That ten percent should be regarded as your own pay. Setting it aside means saving it. Consequently, you start spending the rest which is ninety percent(90%). If you take that ten percent out first, you will find out that you will make do with the remaining ninety percent, because you will assume that the ninety percent is your total salary.” Egbu C.A (2009)

Fourth, the reviews show that financial literates will improve workplace benefits as it will enhance productivity and also increase personal investments which have great public benefits. (Canadian Task Force on Financial Literacy 2016). Consequently, conscious effort should be exercised to invest in high and fixed yield investments that could curtail fluctuations in return. The effective return on Investment should always strive to exceed the prevailing inflation rate

Fifth, retirement planning, as a construct refers to the concrete preparation made by an employee for life after he is no longer in paid employment; this preparation is notably made on the understanding that salaried work has a terminal date. Findings also confirm a widespread lack of

retirement planning, even among the educated (Yakobosky and Dickempers, 1997; Ameriks et al, 2004).

Sixth, many researchers suggests that financial literacy affects psycho-social factors. How does financial literacy influence psycho-social factors such as financial stress, hostility, depression and hopelessness? If your income suddenly drops, for whatever reason, you must cope with worry as well as the daily reminders — the bill spiling up, the children needing shoes, medical treatment, school fees and supplies etc. Regardless of the source of stress, your body may react to it in three stages: alarm, resistance, and exhaustion.(Barbara R. Rowe and Denise Schroeder, 2003). Existing research generally hypothesizes that financial satisfaction is an outcome of financial literacy. (John L. Murphy, 2013).

Seventh, Standard of living generally refers to the level of wealth, comfort, material goods and necessities available to a certain socioeconomic class, in a certain geographic area. (Amy Fontinelle, 2017)Financial literacy can be measured and as such its impact on standard of living can also be assessed. (Angela A. H, Andrew M. P. and Joanne Y. 2009,.Annamaria, L and Olivia S. M. 2011,.Annamaria, L Olivia S. M. 2006).

## Chapter Three

### RESEARCH METHODOLOGY

#### 3.1 Introduction

Irny and Rose (2005) define methodology as the systematic analysis of the methods applied to a field of study which comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Baskerville (2008) views methodology as the analysis of the principles of methods, rules and postulates employed by a discipline, or the systematic study of methods that are, can be, or have been applied within a discipline. Clark (2005) notes that methodology is not the same as method of data collection, and that over the years the term methodology has been erroneously used interchangeably as data collection methods in scientific and technical contexts. The wrong application of the term obscures an important conceptual and epistemological distinction between the tools of scientific investigation and the principles that account for how such tools are deployed and interpreted. Creswell (2003) observes that confusing methodology with methods of data collection reduces it to being the process or procedure instead of being the knowledge framework on which the process is based. It therefore follows that methodology is the design framework for undertaking a research and is not an instrument itself for collection of data; employing it as a synonym for method leads to misinterpretation, and undermines the actual analysis that should go into research design, (Irny and Rose 2005). Comparatively, methodology represents the cause while method of data collection is the effect. In other words, methodology is the body of knowledge in a specific discipline which influences the means or methods of data collection (Seema, 2013)

There are different types of methodologies: the quantitative, qualitative, experimental and non-experimental, and scientific methodologies. The study will be based on the Mixed Approach incorporating the Quantitative and Qualitative methodologies.

## **Quantitative Methodology**

Quantitative method is an empirical investigation which focuses on verifiable observation as opposed to theory or logic. Quantitative research methodology is a non-experimental paradigm which usually involves collecting and converting data into numerical form so that statistical calculations can be done before conclusions are drawn (Baskerville, 2008). Quantitative research is generally connected with the positivist paradigm and usually involves collecting and converting data into numerical form so that statistical calculations can be carried out and conclusion drawn (Clarke, 2005). In quantitative analysis, objectivity is very vital. As a result researchers take great care to avoid their own presence, behaviour, or attitude from influencing the result. They also critically examine their methods and conclusions for any possible bias. There are four basic types of quantitative research: correlation, causal-comparative, experimental research, and survey.

## **Qualitative Methodology**

This is the non-experimental paradigm which emphasizes the socially constituted nature of reality (Tashakori and Teddle, 2009). It is about recording, analyzing and attempting to reveal the deeper meaning and significance of human behavior and experience including contradictory beliefs, behaviors and emotions. Compared to the quantitative method, researchers are interested in gaining a rich and complex understanding of people's experience and not in obtaining information which can be generalized to other larger groups. The approach adopted by qualitative research tends to be inductive which implies searching for a pattern of meaning on the basis of the data that have been collected. According to William (2006), the principle involves using methods which give participants a certain degree of freedom and permit spontaneity instead of forcing them to select from a set of pre-determined responses (of which, none might be appropriate or accurately describe the participants' thoughts, feelings, attitudes or behavior) and to try to create the right atmosphere to enable people to express themselves. Qualitative research often involves a smaller number of participants. This may be because the methods used such as in-depth interviews are time and labor intensive, but also because a large number of people are not needed to make generalizations from the result. Examples of qualitative methodology include observation methods (participant observation, non-participant observation, structured observation, unstructured observation, naturalistic observation).

There are several benefits of combining the two methods. Greene et al, (1989) state that combining the two paradigms is beneficial for constructing comprehensive accounts and providing answers to a wider range of research questions. Tashakkori and Teddlie (2009) suggest that mixed methods provide ways of answering research questions which could not be answered in any other way.

### **3.2 Research Design**

Burns and Grove (2003) define a research design as a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings. The research design is used to structure or plot a research for the purpose of showing how all of the major components of the study work together to address the central research question (Creswell, 2003). According to Williams (2006) the research design provides the glue that holds the research project together. Additionally, it is a detailed outline or blue print of how a study will take place and typically includes how data is to be collected, what instruments will be adopted for collecting data, how the instruments will be used and the statistical means or methods for analyzing the data collected. In other words, it is the arrangement of conditions for collection and analysis of data in a definite manner. There are two major research designs in the literature: experimental and non-experimental research design.

#### **Experimental Design**

Experimental designs are research designs where the researcher actively and deliberately attempts to manipulate the situation, circumstances, or experience of participants which may lead to a change in behavior or outcome for the participants in the study (David 2009). In this situation, the researcher randomly assigns participants to different conditions, measures the variables of interest and tries to control for some variables. As a result, experiments are often highly fixed even before the data collection (Creswell, 2012)

#### **Non-experimental research design**

Non-experimental research designs do not involve a manipulative of the situation, circumstances, or experience of the participants (Seema, 2013) There are 3 classes: relational or correlation designs in which a range of variables is measured. In this type, correlation identifies the dependence of one variable on another. The second type of non-experimental design is comparative research. This design comprises two or more groups on one or more variables, such as the effect of gender on grades. The third type of non-experimental research is a longitudinal design. A longitudinal design examines variables such as performance exhibited by a group or groups over time (Cohen et al, 2002).



The design to be adopted in the present study is the survey method which is a non- experimental design. It may be complex but its primary goal is simple. Gabriella(2008) posits that Survey research is useful when the intention is to collect data on a phenomenon that cannot be directly observed such as opinions on certain areas of study, by asking questions, collecting responses, processing and analyzing the data to determine the general direction of opinions. This method makes it possible to draw conclusions from the findings with appropriate recommendations for action with room for further studies.

### **3.3 Population of the Study**

A sampling is a representative of whole population of universe. Borg and Gall (1989) define population as all members of a real or hypothetical set of people, events or objects to which an investigator wishes to generalize the results of a research study. Schvenbeck (2005) posit that a research population is generally a large collection of individuals or objects that is the main focus of a scientific investigation. Research is actually carried out for the benefit of the population. However, due to the large size of a population, researchers often cannot test every individual in the population because it is too expensive and time-consuming. A population comprises all the possible cases (persons, objects, events) that constitute a known whole. The entire employees of four selected public service: education sector, medical sector, Local Government and Export sector represents the population of study. This was made up of different levels of staff in the organizations.

#### **Sample size**

The size of the sample represents a fraction of the total population of subjects under investigation (Braine and Manheim, 2011). Basically, a sampling frame is a microcosm, a miniature model of the population from which it was drawn. From a list of these subjects, you can then randomly select an appropriate number as representative of the population who will take part in the research. The sample must be representative of the population, and it must have an appreciable size to warrant statistical analysis. Otherwise, the result will be misleading when applied to the population as a whole, thus indicating a bias, (Currivan, 2013). The main function of the sample is to allow the researcher to conduct the study on individuals from the population so that the result of the study can be used to derive conclusions that will apply to the entire population.

For the purpose of this dissertation, the study population or sample size is 120 employees in the public sector entities in Nigeria. The reason for using a limited number is due to constraints of time and resources. The 120 employees were randomly sourced from four sectors, education, medical, local government and export sectors. In order to obtain a sample from the population, the researcher took into cognizance those occupying various positions.

### **3.4 Sampling Procedure**

Mettenberg and Hand (2008) state, that survey sampling is the process of selecting a sample of subjects from a target population to conduct a research. Mostly, it involves a questionnaire used to measure the features or attributes of people. There are two types of survey sampling: Probability, and non-probability samples. The probability sampling method is a process where each member of the target population has a good chance of inclusion in the sample, hence the tag probability (Weisberg, 2005). According to Groves, et al (2009) a survey based on a probability sample can in theory produce statistical measurements of the target population that are not biased. Examples of probabilistic sample include random sampling, systematic sampling, stratified sampling, cluster sampling. Non-probabilistic sampling is a non-scientific sampling method that does not involve randomization in their sampling. In other words, subjects are selected from the population in some non-random manner. Non probability sampling is the type that is not truly representative of the sample, and so is less desirable than probability sampling. This is often the type chosen when the researcher does not care about generalizing to a larger population. Examples include Quota sampling, purposive sampling, snowball sampling, convenience sampling.

The probabilistic sampling approach will be used in this study, for reasons of representativeness, and avoidance of bias. Specifically, the present study will employ the stratified random sampling technique

#### **Stratified random sampling**

Babble, (2011) is of the opinion that stratification is the process of dividing subjects of a population into homogenous sub groups before sampling. This is a commonly used probability method. In this method a subset of the population is used, known as a stratum before selection based on random sampling. Kaplan (2012) postulates that the first step in stratified random sampling is to split the population into strata and defines strata as a section or a segment of the population under investigation. The strata are chosen for the purpose of dividing the population into important categories relevant to the research interest. The second step, in the process is to take a simple random sample within each stratum. In other words, the researcher first identifies the particular strata and their actual representation in the population. Random sampling is then

applied to select a sufficient number of subjects from each stratum. Graddy, et al (2008) state that if one of the strata is significantly smaller than the rest, it should be over sampled, in order to increase their sample size which is necessary to conduct proper statistical analysis.

Stratified random sampling is used to highlight a specific sub group within the population. Its use is adequate in this regard because it ensures the presence of important sub groups within the sample (Aggrestical and Finlay, 2008). Researchers also use stratified random sampling when the intention is to observe the relationship between two or more sub groups (Castillo, 2009). Given this sampling variety subjects from each sub group are included in the final sample. The technique is useful in terms of reflecting the diversity of a sample population. Consequently, if there is a variation or disparity in the population of the sample, stratified sampling ensures that allocation of the total population size can be made with equal accuracy in different parts of the sample region (Grady et al, 2008). As a result, comparison between or among sub groups can be made without error. Going by the stratified/random sampling technique, education sector represents a stratum, medical sector is a stratum, and local government sector is a stratum. Randomization was then applied in selecting the participants used in the study.

### 3.5 Justification of Sample

The justification for sample selection procedure/sample size and the justification for using a particular sample may entail the limitations, which herein represent those external elements which constrain the researcher from achieving the objectives of the study *Ajala (1996 p.22)* opines the distinctions between delimitation and limitations as portrayed thus:-

*“While determination is imposed by the researcher in order to capture accurately the focus of the problem, limitations are restrictions imposed by the environment of the study area. Such restrictions could be experienced in course of data collection”.*

Therefore, the justification for this sample selection procedure / sample size and the jurisdiction for using this particular sample is as a result of these factors;

- (a) Time: The time to prepare the questionnaires to be administered and collected from the respondent who are always very busy and lack time to go through the questionnaires and answering same.
- (b) Finance: The cost of producing the questionnaires, the research materials which are difficult to get, typing and binding of the work are all prohibitive.
- (c) It is true that some of the respondents actually cooperated with the researcher, but some were indifferent and adamant.

### 3.6 Data Collection Instrument

A survey instrument is a tool for obtaining data from respondents. Accurate and systematic data collection is critical to conducting scientific research. The data collection helps the researcher to collect information that is necessary for the study (Abawi, 2013; Freedman, 2005; Carter and Little, 2007). Instruments are used to gauge the quality or ability of research subjects. The purpose of the instrument is to elicit data for a study or investigation. There are different instruments used in eliciting data in a research undertaking. Some of these instruments include a check list, oral interviews, questionnaires (postal or personal), observations, diaries, reviews, self-reports, etc. Among them, questionnaires and interviews are the commonest means of collecting information, in quantitative and qualitative studies. Questionnaires are the easiest means of gathering a large data while interviews are the best means of collecting respondents' subjective opinion, for analysis. . In this study, three instruments were used to elicit information from the participants. These are Structured questionnaire, interviews and direct observation. The major instrument used by the researcher to gather quantitative data needed for the study is the questionnaire. According to Asika (1991:21) primary data consists of responses collected from respondents using the instrument of structured questionnaire. This form of data is subjected to analysis using percentage frequency and tabular Presentation, as well as histograms as necessary. The questionnaires were pre-tested before embarking on full scale field work in order to finalize the design structure and ensure that the instrument can provide the desired data. The responses from the employee within Yaba LGA where the questionnaires were pre-tested assisted significantly in modifying it before the field administration.

As stated above, the reason for the choice of this instrument is to collect a large data. Additionally, questionnaires are time efficient, and less expensive. Furthermore, the anonymity of the questionnaire (respondents do not need to include their names) helps the respondents to express their views confidently. However, the questionnaire has its drawbacks which include the fact that the respondent may not understand some of the answers and so may provide no answer or wrong answers. The respondent may be influenced by the opinion of others, and the respondent may omit certain parts of the questionnaire which may be crucial to the investigation (Korth, 2005). However, the advantages of using the questionnaire far outweigh the drawbacks and so were used in this study.

The questionnaire was structured as follows: Section A (Introduction: Demographic Information), Section B (Financial Literacy Questions), Section C (Financial outcome tests). Needless to say, the questions asked reflected the variables under investigation. All the questions used were closed questions. Closed questions are useful in that they make analysis simple and uncomplicated (Guerini, 2006). A total of one hundred and twenty (120) questionnaires were administered while 110 questionnaires were properly filled and returned representing a return rate of 91.2%. The following steps were taken to improve on return rates for distributed questionnaires:

- questionnaire length was made very limited to elicit ease of response.
- cover letters were used to dispatch the questionnaires. It is considered a logical vehicle for persuading individuals to respond.
- repeated visits and phone calls to the respondents though costly, assisted to ensure good response.

Invariably, the Total Design Method (TDM) as reported by Muo (2000) was applied. The TDM procedures suggest minimizing the burden on the respondent with questionnaires that meet the following objectives:

- Design surveys that are easy to read
- Offer clear response directions;
- Provide information about the survey in a cover letter of advance notification;
- Personalize all communication with the respondent, and
- Follow-up contacts through phone and visits to encourage response

### **The Interview**

Additionally, the researcher used the interview method and direct observation to elicit qualitative data. The method used to distribute the questionnaire is the convenience sampling method. As the name implies in convenience sampling technique, the sample is selected because it is convenient. Participants are chosen, based on their relative ease of access. Such subjects may include friends, family members or co-workers, which incidentally generates a biased sample. It is often used during preliminary research efforts to obtain a gross estimate of the result. (Lucas, 2014).

## **Validity Test**

According to Braine and Manheim (2011) validity defines the extent to which an idea, conclusion or measurement is adequately founded and accurately corresponds to the real world. The validity of a research instrument is seen as the degree to which the instrument measures what it is meant to measure or whether a study is able to scientifically answer the question it is intended to answer. However, it is rare, if not impossible for an instrument to be 100% valid. Consequently validity is generally measured in degrees. The importance of validity cannot be over emphasized because it helps to ensure that a researcher has used methods that truly measures the idea for which the research was undertaken, and not something else instead (Foxcroft, et al, 2004). There are different types of validity: convergent validity, content validity, construct validity, representation validity, face validity, criterion validity, concurrent validity, predictive validity, experimental validity, statistical conclusion validity, internal validity, external validity, ecological validity, diagnostic validity. Some of them are described below. In this study content validity and sampling validity were employed.

Content validity refers to the appropriateness of the content of an instrument. In other words, it tries to establish and ensure that the measure (questions, observations, logic etc) accurately assesses what you want to know. Sampling validity is used to ensure that the measurement covers the broad range of areas within the concept under study (Cozby, 2001). Of course, everything will not be covered but the sampled items will reflect the broad range of areas within the subject matter under investigation. This validation will be achieved in the following ways: The sampling mechanism will be submitted to experts for their opinion and input, in order to ensure that the content area is adequately sampled. It will be ensured that the objectives are clearly defined and operationalized. It will be ensured that ambiguous words, spelling and typographic errors are ruled out.

Asika (2001) observed that research design may be said to be valid if it enable the researcher elicit the correct responses from the sample subjects. In this study, the research design was considered valid based on the fact that the desired responses were gotten from sample population. Furthermore, the content validity was determined by ensuring that all the questions asked in the questionnaire fully addressed the research objectives and hypotheses. To validate the research instrument the researcher seeks supervisor consent to help validate instrument. The Supervisor's expertise was brought to bear on whether the questions were relevant, clear and unambiguous. Furthermore, it was to ensure that the questions had covered all the dimensions of the variables included in the study. The expert approved the questionnaire used in the study after some modification.

### **Reliability Test**

Reliability test refers to the degree to which a research instrument produces stable and consistent result and used to describe the overall consistency of a measure. A measure is said to have a high reliability if it produces similar results under consistent conditions (Neil, 2009). Polit and Beck, (2012) stress that the central idea behind reliability is that any significant results must be more than a solitary finding and be inherently repeatable. In other word, other researchers must be able to perform exactly the same experiment, under the same or similar conditions and generate the same result. This will strengthen the findings and confirm that the wider scientific community will accept the hypotheses. Reliability is a necessary ingredient for determining the overall validity of a scientific experiment and enhancing the strength of the result.

There are different types of reliability tests: Test-retest reliability, parallel forms reliability, inter-rater reliability, internal consistency reliability. In this study, the internal consistency reliability will be used. Internal consistency reliability is a measure of reliability used to evaluate the degree to which different test items that investigate the same variables produce the same or similar result.

### **Direct Observation**

The third approach used to collect data is direct observation. Some of the explanatory procedures are based on the researchers' observations and his experiences, as he visited various places for on-the-spot assessment of events for onward inclusion into his findings.

## **3.7 QUALITY OF RESEARCH DATA**

The issue of the credibility of research findings was seriously considered in the research design. Reducing the possibility of doubting the credibility of research findings informed why attention was paid to the issue of reliability and validity. Two critical questions the researcher tried to address in the course of carrying out this study as noted by Asika, (2001) were;

- will the methods adopted yield the same result on different occasions?
- Will similar observations be made by different researchers on different occasions?

Silver (2007) identified four threats to reliability of research results to include subject error, subject bias, observer error and observer bias. The researcher was aware of the potential problems extraneous influences will have on respondents in offering valid and candid answers to questions asked during the field study. Consequently, elaborate steps were taken to ensure confidentiality and anonymity of respondents to questionnaires. Also, care was taken to ensure that the data

derived from the study are valid and relevant to the research objectives. Specifically, steps were taken to ensure that proper things were done as it relates to the following:

- *Identification of the research population*: Efforts were made to ensure that the choice of the population was logical to guarantee generalizations to be made across the whole population.
- *Data collection*: Concerted efforts were also made to ensure that the processes adopted to collect data yielded valid data.
- *Data interpretation*: Appropriate theoretical frameworks were chosen in data interpretation. Induction and deduction processes were employed to arrive at the conclusion on each of the hypotheses. This implies that conclusions were drawn from both existing facts and valid reasons given by respondents to questions asked.
- *Development of conclusions*: The researcher was conscious of the need to ensure that conclusions made should stand up to the closest scrutiny.

## **(ii) Secondary Data**

The secondary data consist of information that already exists somewhere, having been collected for another purpose (Kotler, 1997). It consists of published articles, textbooks, magazines, newspapers, project and materials on the related subject from the internet etc. This source of data has been helpful in getting deep insight into the subject of the challenge of financial literacy in Nigeria. The importance of consulting secondary sources of data and information was recognized in this study. Ejemibi (1990) noted the need for researchers to consider the possibility of re-analyzing an existing data in order to answer their research questions and meet their research objectives. Muo (2007) recognized the importance of secondary data, especially where comparisons are made in order to answer research questions and address the research objectives. It is therefore imperative to address the research questions using a combination of secondary and primary data. The secondary data consulted include both quantitative and qualitative data. The sources of secondary data were ascertained through literature review, informal discussions with experts, colleagues, seminars and conferences as well as published guides.

Data on the Internet were located using search tools. The World Wide Web was searched for information. The convenience of the Web and the extraordinary amount of information to be found on it are compelling reasons for using it as an information source (Cooper and Schindler, 2001). Search engines such as Yahoo (<http://www.yahoo.com>), Google (<http://www.google.com>)



and MSN (<http://www.msn.com>) were used to access vast information on financial literacy especially in public sector in Nigeria. Other sources of information used include personal or informal discussions with associates and friends in the Key sub-sectors relevant to the study as well as personal documents provided by them. Abdullahi (2005) noted the need to meet the following criteria in using personal documents in a study of this nature: the document must be a written one; the document must have been produced on the authors initiative or if not, in such a way that their introspective content has been determined entirely by the author, and the document focused on the authors personal experiences. The researcher was mindful of these criteria which exclude interview materials used in the study. All sources of data, both primary and secondary sources were evaluated to ensure that they are relevant to the research objectives as well as assist the researcher to answer the research questions.

### **3.8 Data Analysis**

Shields and Rangarjan (2013) highlight several analytical techniques used in quantitative studies. Some of them are regression, correlation analysis, factor analysis, Structural Equation Model (SEM). Out of the number of analytical techniques available to quantitative researchers, this study will make use of two analytical tools: correlation analysis and regression analysis

#### **Correlation analysis**

Correlation analysis is an analytical tool used to identify the dependence of variables. The choice of the analytical approach is motivated by the need to identify the relation of one variable on another. Correlation analysis is also useful because they can indicate a predictive relationship that can be explained in practice (Cohen et al, 2012). However, it should be noted that correlation does not necessarily imply causation. This is to suggest that correlation cannot be used to infer a causal relationship between variables (Buda and Jarynowski, 2010). Although correlation can indicate the potential existence of a causal relation, the underlying causes may be indirect and unknown. As a result, establishing a correlation between two variables is not a sufficient condition to conclude that there is a causal relationship, it can only be used to suggest the availability of an evidence for a cause.

Cohen et al, (2012) explains that correlation analysis is a measure of linear association between two variables. Values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 is an indication that two variables are significantly related in a positive sense; a

correlation coefficient of -1 is an indication that two variables are significantly related in a negative sense; and a correlation coefficient of 0 is an indication that there is no linear relationship between two variables.

Data was analyzed using simple percentage and frequency distribution. Responses to the items in the questionnaire were summarized and translated into tables. The Pearson correlation was used to ascertain the association between the variables in the study, while the paired sample t test was used to determine the difference between employee financial literacy and employees' financial satisfaction in the selected organization. The Statistical Package for Social Sciences (SPSS) was used in the analysis of the data. The Package has the capabilities of executing such high-level analysis as analysis of variance (ANOVA), chi-square tests, multivariate analysis, correlation and regression analysis, tests of statistical hypotheses, time series analysis, estimations, confidence interval estimation, comparison of several means, goodness of fit tests and analysis of contingency table, etc. The SPSS has the incredible capabilities and flexibilities of analyzing huge data within seconds and generating an unlimited gamut of simple and sophisticated statistical results including simple frequency distribution tables, polygons, graphs, pie charts, percentages, cumulative frequencies, binomial and other distributions.

### **Ethical Considerations**

This study was sensitive to the feelings and sensibilities of respondents in some ways. The questionnaire was anonymous, which is to say that respondents were not required to write their names on the questionnaire. Additionally, the respondents were assured that the results of the survey will not be made public, or used outside the academic community, without their consent and approval.

## CHAPTER 4

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

This chapter focuses on the analysis of data collected based on questionnaires administered to respondents in the study area. The responses were presented using frequency distribution table and percentage. The major challenge in financial Literacy has been how to measure the impact of financial education on the recipient standard of living. On the other hand what is the influence of financial literacy on employees' financial outcome. It can be observed that in some instances those who did not have formal financial education and those who are primary or secondary school dropout have risen to own successful business empire. However some who have tertiary financial education are struggling to survive. This situation is a tangle of paradoxes. It is therefore important at this point in time to obtain answers to pertinent questions in assessing the impact of financial literacy on Nigerian employees financial outcome. The questions include but are not limited to the following:

- a. What is the difference in the level of standard of living of employees with little or no higher financial education?
- b. What is the difference in the savings and investment habit of employees with little or no financial literacy?
- c. What is the difference in the spending habit of employees' with little or no financial education?
- d. Why employees of public sector in Nigeria have reversal of personal finance after employment?
- e. What do most public servants in Nigeria know about personal finance?
- f. Do most public servants have personal financial retirement plan?
- g. Do most public servants possess financial literacy to derive their desired life after retirement?
- h. How is the missing personal financial literacy impact on their present/future economic wellbeing?
- i. Does financial education affect the standard of living of Nigerian employee pre and post retirement?

- j. Will adequate financial literacy while in employment prevent a life of penury and hardship depending only on little irregular monthly pension?.

The answers to these questions are only obtainable from an impact assessment study. The wide scope and disclosure / supply of informed responses from employees in assessed public sector organisation is a constraint but to the extent that responders did not have to write their names, the respondents participated willing and very positively. The quality of data would be regarded as genuine and authentic. The knowledge gained from this impact study will provide critical inputs and guide to the employee's financial literacy training. The data is presented below and analyzed.

Table 4.1

List of Organizations Surveyed and the Distribution of sectors covered

No	Organisations	Sectors	Respondents	% Response
1	Nigeria Export Processing Zones, Abuja	Export	5	100
2	Orile / Agege Local Government, Lagos	Local Govt	26	100
3	Alimosho Local Government, Lagos	Local Govt	15	100
4	Nigeria Institute of Medical Research, Lagos	Medical	6	100
5	Alimosho General Hospital, Lagos	Medical	7	100
6	National Orthopedic Hospital, Lagos	Medical	15	100
7	University of Maiduguri, Bornu State	Education	5	100
8	Federal Polytechnic, Owerri	Education	5	100
9	University of Nigeria, Nsukka	Education	5	100
10	Nigeria Police Academy, Wudil, Kano	Education	6	100
11	Zamfra State College of Education, Maru	Education	5	100
12	Federal University, Otuoke, Bayelsa State	Education	5	100
13	Federal Polytechnic, Oko, Anambra State	Education	5	100
			110	

Source: Field Survey, 2017

**Table 4.2 Frequency Distribution of Respondents Opinion**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Age	20- 30years	5%	14%	19%	2%	16%	18%
	31-40years	5%	34%	39%	1%	39%	40%
	41-50years	4%	25%	29%	2%	27%	29%
	Above 50 years	2%	11%	13%	0%	13%	13%
	TOTAL	16%	84%	100%	5%	95%	100%
Gender	Male	7%	36%	43%	2%	40%	42%
	Female	9%	48%	57%	3%	55%	57%
	TOTAL	16%	84%	100%	5%	95%	100%
Education	WAEC/SSCE	1%	11%	12%	1%	11%	12%
	OND/NCE	0%	21%	21%	0%	21%	21%
	HND/BSC	7%	35%	42%	2%	40%	42%
	MSC	6%	11%	17%	2%	15%	17%
	PROFESSIONAL	1%	4%	5%	0%	5%	5%
	OTHERS	1%	3%	4%	0%	4%	4%
	TOTAL	16%	84%	100%	5%	95%	100%
Monthly income	Less than 25,000	0%	12%	12%	0%	12%	12%
	25,000 - 50,000	5%	21%	25%	2%	24%	25%
	51,000 - 100,000	6%	30%	36%	2%	35%	36%
	101,000 - 200,000	5%	18%	24%	1%	23%	24%
	More than 200,000	0%	3%	3%	0%	3%	3%
	TOTAL	16%	84%	100%	5%	95%	100%
Work sector	Education sector	5%	27%	33%	0%	33%	33%
	Medical sector	7%	17%	25%	1%	24%	25%
	Export sector	0%	5%	5%	0%	5%	5%
	LGA	4%	34%	37%	4%	34%	37%
	TOTAL	16%	84%	100%	5%	95%	100%
Marital status	Married	15%	67%	82%	4%	78%	82%
	Single	2%	8%	10%	1%	9%	10%
	Separated/divorced	0%	5%	5%	0%	5%	5%
	Widowed	0%	3%	3%	0%	3%	3%
	TOTAL	16%	84%	100%	5%	95%	100%
Number of earning hands	Only myself	7%	25%	33%	3%	30%	33%
	Myself and spouse	6%	25%	31%	2%	29%	31%
	Myself and father/mother	2%	14%	15%	0%	15%	15%
	Three or more	1%	20%	21%	0%	21%	21%
	TOTAL	16%	84%	100%	5%	95%	100%

*Source: Field Survey, 2017*

*Interpretation According to Age Distribution of Respondent (3 big financial literacy questions)*

Table 4.2 above shows a cross tabulation of respondents' opinion by demographic characteristics and financial literacy questions. Respondents' opinion revealed that 5% of respondents between the ages of 20-30years correctly answered the big three financial literacy questions, while 14% incorrectly answered the questions. 5% of respondents between the ages of 31-40 years correctly answered the big three questions, while 34% incorrectly answered the questions. 4% of respondents between the ages of 41-50 years correctly answered the big three financial literacy questions, while 25% incorrectly answered the questions. 2% of respondents with ages of above 50 years correctly answered the big three financial literacy questions, while 11% incorrectly answered the questions. In totality 16% of respondents in the sampled ages correctly answered the 3 big financial literacy questions while the remaining 84% incorrectly answered the 3 big questions.

*Interpretation According to Age Distribution of Respondent (5 big financial literacy questions)*

Respondents' opinion revealed that 2% of respondents between the ages of 20-30years correctly answered the big five financial literacy questions, while 16% incorrectly answered the questions. 1% of respondents between the ages of 31-40 years correctly answered the big five questions, while 39% incorrectly answered the questions. 2% of respondents between the ages of 41-50 years correctly answered the big five financial literacy questions, while 27% incorrectly answered the questions. None of the respondents with ages of above 50 years correctly answered the big 5 questions, while 13% incorrectly answered the questions. In totality, 5% of respondents in the sampled ages correctly answered the 5 big financial literacy questions while the remaining 95% incorrectly answered the 5 big questions.

*Interpretation According to gender Distribution of Respondent (3 big financial literacy questions)*

Respondents opinion revealed that 7% of male respondents correctly answered the big three questions, while 36% incorrectly answered the questions. 9% of female respondents correctly answered the big three questions, while 48% incorrectly answered the questions. In totality 16% of respondents in the sample correctly answered the 3 big questions while the remaining 84% incorrectly answered the 3 big questions.

*Interpretation According to gender Distribution of Respondent (5 big financial literacy questions)*

Respondents' opinion revealed that 2% of male respondents correctly answered the big five financial literacy questions, while 40% incorrectly answered the questions. 3% of female respondents correctly answered the big five financial literacy questions, while 55% incorrectly

answered the questions. In totality 5% of respondents in the sample correctly answered the 5 big questions while the remaining 95% incorrectly answered the 5 big questions.

*Interpretation According to Educational Qualification of Respondent (3 big financial literacy questions)*

Respondents opinion revealed that 1% of respondents with secondary school leaving certificate correctly answered the big three questions, while 11% incorrectly answered the questions. None of the respondents with OND or equivalent qualifications correctly answered the big three questions, while 21% incorrectly answered the questions. 7% of respondents with HND/BSC qualifications correctly answered the big three questions, while 35% incorrectly answered the questions. 6% of respondents with masters degrees qualifications correctly answered the big three questions, while 11% incorrectly answered the questions. 1% of respondents with professional qualifications correctly answered the big three questions, while 4% incorrectly answered the questions. 1% of respondents with other qualifications correctly answered the big three questions, while 3% incorrectly answered the questions.

*Interpretation According to Educational Qualification of Respondent (5 big financial literacy questions)*

Respondents opinion revealed that 1% of respondents with secondary school leaving certificate correctly answered the big five questions, while 11% incorrectly answered the questions. None of the respondents with OND or equivalent qualifications correctly answered the big five questions, while 21% incorrectly answered the questions. 2% of respondents with HND/BSC qualifications correctly answered the big five questions, while 40% incorrectly answered the questions. 2% of respondents with masters degrees qualifications correctly answered the big five questions, while 15% incorrectly answered the questions. None of the respondents with professional qualifications correctly answered the big five questions, while 5% incorrectly answered the questions. None of the respondents with other qualifications correctly answered the big five questions, while 4% incorrectly answered the questions.

*Interpretation According to Monthly Income of Respondent (3 big financial literacy questions)*

Respondent's opinion revealed that none of respondents with earning less than 25,000 correctly answered the big three questions, while 12% incorrectly answered the questions. 5% of respondents earning between 25,000 -50,000 correctly answered the big three questions, while 21% incorrectly answered the questions. 6% of respondents earning between 51,000 -100,000 correctly answered the big three questions, while 30% incorrectly answered the questions. 5% of respondents earning between 101,000 -200,000 correctly answered the big three questions, while 18% incorrectly answered the questions. 0% of respondents earning more than 200,000 correctly answered the big three questions, while 3% incorrectly answered the questions.

*Interpretation According to Educational Qualification of Respondent (5 big financial literacy questions)*

Respondent's opinion revealed that none of the respondents with earning less than 25,000 correctly answered the big five questions, while 12% incorrectly answered the questions. 2% of respondents earning between 25,000 -50,000 correctly answered the big five questions, while 24% incorrectly answered the questions. 2% of respondents earning between 51,000 -100,000 correctly answered the big five questions, while 35% incorrectly answered the questions. 1% of the respondents earning between 101,000-200,000 correctly answered the big five questions, while 23% incorrectly answered the questions. 0% of respondents earning more than 200,000 correctly answered the big five questions, while 3% incorrectly answered the questions.

*Interpretation According to Work Sector of Respondent (3 big financial literacy questions)*

Respondent's opinion revealed that 5% of respondents in the education sector correctly answered the big three questions, while 27% incorrectly answered the questions. 7% of respondents in the medical sector correctly answered the big three questions, while 17% incorrectly answered the questions. 0% of respondents in the local government sector correctly answered the big three questions, while 5% incorrectly answered the questions. 4% of respondents from export public sectors correctly answered the big three questions, while 34% incorrectly answered the questions.

*Interpretation According to Work Sector of Respondent (5 big financial literacy questions)*

Respondent's opinion revealed that 0% of respondents in the education sector correctly answered the big five questions, while 33% incorrectly answered the questions. 1% of respondents in the medical sector correctly answered the big five questions, while 24% incorrectly answered the questions. 0% of respondents in the local government sector correctly answered the big five questions, while 5% incorrectly answered the questions. 4% of respondents from export sectors correctly answered the big five questions, while 34% incorrectly answered the questions.

*Interpretation According to Number Earning Hands of Respondent (3 big financial literacy questions)*

Respondent's opinion revealed that 7% of respondents that solely earns a living for the household correctly answered the big three questions, while 25% incorrectly answered the questions. 6% of respondents with husband and wife earning a living for the household correctly answered the big three questions, while 25% incorrectly answered the questions. 2% of respondents who work with parents to earn a living for the household correctly answered the big three questions, while 14% incorrectly answered the questions. 1% of respondents with three or more earning hands correctly answered the big three questions, while 20% incorrectly answered the questions.



*Interpretation According to Number Earning Hands of Respondent (5 big financial literacy questions)*

Respondent's opinion revealed that 3% of respondents that solely earns a living for the household correctly answered the big five questions, while 30% incorrectly answered the questions. 2% of respondents with husband and wife earning a living for the household correctly answered the big five questions, while 29% incorrectly answered the questions. 0% of respondents who work with parents to earn a living for the household correctly answered the big five questions, while 15% incorrectly answered the questions. 0% of respondents with three or more earning hands correctly answered the big five questions, while 21% incorrectly answered the questions.

**Table 4.3: Have you had financial education in course of your schooling/training?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Have you had financial education in course of your schooling/training?	YES	10%	44%	54%	2%	52%	54%
	NO	6%	40%	46%	3%	44%	46%

From table 4.3 above, 54% of respondents had financial education in the course of schooling, while 46% did not. 10% of respondents that correctly attempted the big three questions have had financial education in the course of schooling, while 44% with financial education in the course of study incorrectly answered the three big questions. 2% of respondents that correctly attempted the big five questions have had financial education in the course of schooling, while 44% with financial education in the course of study incorrectly answered the five big questions.

**Table 4.4: Have you ever tried to figure out how much your household would need to save for retirement?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Have you ever tried to figure out how much your household would need to save for retirement?	YES	3%	35%	38%	0%	38%	38%
	NO	14%	48%	62%	5%	57%	62%
	TOTAL	17%	83%	100%	5%	95%	100%

## Big Three Questions

From table 4.4 above, 38% of respondents have tried to figure out how much their household would need to save for retirement, while 62% did not. 3% of respondents that correctly attempted the big three question have tried to figure out how much their household would need to save for retirement, while 35% that have tried to figure out how much their household would need to save for retirement incorrectly answered the three big questions. 14% of respondents that correctly attempted the big three questions have not tried to figure out how much their household would need to save for retirement, while 48% that have not tried to figure out how much their household would need to save for retirement incorrectly answered the three big questions.

## Big Five Questions

The table 4.4 revealed that 0% of respondents that correctly attempted the big five questions have tried to figure out how much their household would need to save for retirement, while 38% that have tried to figure out how much their household would need to save for retirement incorrectly answered the five big questions. 5% of respondents that correctly attempted the big five questions have not tried to figure out how much their household would need to save for retirement, while 57% that have not tried to figure out how much their household would need to save for retirement incorrectly answered the three five questions.

**Table 4.5 Tell me about the ways you tried to figure out how much your household will need?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Tell me about the ways you tried to figure out how much your household will need?	Did you talk to family and relatives?	5%	34%	38%	2%	36%	38%
	Did you talk to co-workers or friends?	7%	29%	36%	2%	35%	36%
	Did you use calculators or worksheets that are computer or internet based	5%	12%	16%	1%	15%	16%
	Did you consult a financial planner or advisor or an accountant	0%	9%	9%	0%	9%	9%
TOTAL		16%	84%	100%	5%	95%	100%

From table 4.5 above, 38% of respondents talked to family and relatives on ways to figure out how much their household will need, 36% talked to co-workers or friends; 16% used calculators or worksheets that are computer or internet based while the remaining 9% consulted a financial planner or advisor or an accountant.

### **Big Three Questions**

The table 4.5 shows that 5% of respondents that correctly attempted the big three questions talked to family and relatives on ways to figure out how much their household will need, while 34% that talked to family and relatives on ways to figure out how much their household will need incorrectly answered the three big questions. 7% of respondents that talked to co-workers or friends correctly attempted the big three question on ways to figure out how much their household will need, while 29% that talked to co-workers or friends incorrectly attempted the big three question on ways to figure out how much their household will need. 5% of respondents that used calculators or worksheets that are computer or internet based correctly attempted the big three question on ways to figure out how much their household will need, while 12% that used calculators or worksheets that are computer or internet based incorrectly attempted the big three question on ways to figure out how much their household will need. Additionally, 0% of respondents that consulted a financial planner or advisor or an accountant correctly attempted the big three question on ways to figure out how much their household will need, while 9% that consulted a financial planner or advisor or an accountant incorrectly attempted the big three question on ways to figure out how much their household will need.

### **Big Five Questions**

It is shown in the table 4.5 that 2% of respondents that correctly attempted the big five questions talked to family and relatives on ways to figure out how much their household will need, while 36% that talked to family and relatives on ways to figure out how much their household will need incorrectly answered the five big questions. 2% of respondents that talked to co-workers or friends correctly attempted the big five questions on ways to figure out how much their household will need, while 35% that talked to co-workers or friends incorrectly attempted the big five question on ways to figure out how much their household will need. 1% of respondents that used calculators or worksheets that are computer or internet based correctly attempted the big five question on ways to figure out how much their household will need, while 15% that used calculators or worksheets that are computer or internet based incorrectly attempted the big five question on ways to figure out how much their household will need. 0% of respondents that consulted a financial planner or advisor or an accountant correctly attempted the big five question on ways to figure out how much their household will need, while 9% that consulted a financial planner or advisor or an accountant incorrectly attempted the big five question on ways to figure out how much their household will need.

**Table 4.6: Have you ever tried to save for retirement?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Have you ever tried to save for retirement?	Yes	13%	61%	74%	5%	69%	74%
	NO	4%	23%	26%	0%	26%	26%
	TOTAL	16%	84%	100%	5%	95%	100%

**Big Three Questions**

From table 4.6 above, 74% of respondents have affirmed that they have tried to save for retirement, while 26% did not. 13% of respondents that correctly attempted the big three questions have tried to figure out how much their household would need to save for retirement, while 61% that have affirmed that they have tried to save for retirement incorrectly answered the three big questions. 4% of respondents that correctly attempted the big three question have not tried to figure out how much their household would need to save for retirement, while 23% that have not tried to figure out how much their household would need to save for retirement incorrectly answered the three big questions.

**Big Five Questions**

The table 4.6 revealed that 5% of respondents that correctly attempted the big five questions have tried to figure out how much their household would need to save for retirement, while 69% that have affirmed that they have tried to save for retirement incorrectly answered the five big questions. 0% of respondents that correctly attempted the big five questions have not tried to figure out how much their household would need to save for retirement, while 26% that have not tried to figure out how much their household would need to save for retirement incorrectly answered the five big questions.

**Table 4.7: Did you ever make a plan for retirement savings?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Did you ever make a plan for retirement savings?	Yes	10%	72%	82%	5%	77%	82%
	NO	6%	12%	18%	0%	18%	18%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.7 above, 82% of respondents that affirmed that they made plans for retirement, while 18% did not. 10% of respondents that correctly attempted the big three questions have made plans for retirement, while 72% that made plans for retirement incorrectly answered the three big questions. 6% of respondents that incorrectly attempted the big three questions have not made plans for retirement, while 12% that have not made plans for retirement incorrectly answered the three big questions.

### Big Five Questions

The table 4.7 also indicates that 5% of respondents that correctly attempted the big five questions have made plans for retirement, while 77% that made plans for retirement incorrectly answered the five big questions. 0% of respondents that correctly attempted the big five questions have not made plans for retirement, while 18% that have not made plans for retirement incorrectly answered the five big questions.

**Table 4.8: Are you able to implement your retirement savings plan?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
Are you able to implement your retirement savings plan?	YES	9%	58%	67%	5%	63%	67%
	NO	7%	25%	33%	0%	33%	33%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.8 above, 67% of respondents affirmed that they were able to implement retirement savings plan, while 33% did not. 9% of respondents that correctly attempted the big three questions affirmed that they were able to implement retirement savings plan, while 58% affirmed that they were able to implement retirement savings plan and incorrectly answered the three big questions. 7% of respondents that incorrectly attempted the big three questions reported that they were not able to implement retirement savings plan, while 25% that affirmed that they were not able to implement retirement savings plan incorrectly answered the three big questions.

### Big Five Questions

It is shown that 5% of respondents that correctly attempted the big five questions affirmed that they were able to implement retirement savings plan, while 63% that affirmed that they were able to implement retirement savings plan incorrectly answered the five big questions. 0% of respondents that incorrectly attempted the big five question reported that they were not able to implement retirement savings plan, while 33% that affirmed that they were not able to implement retirement savings plan incorrectly answered the five big questions.

**Table 4.9: How often were you able to stick to your retirement plan?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
How often were you able to stick to your retirement plan?	Always	5%	33%	37%	1%	36%	37%
	Mostly	3%	26%	29%	2%	27%	29%
	Rarely	6%	18%	25%	2%	23%	25%
	Never	3%	6%	9%	0%	9%	9%
	TOTAL	16%	84%	100%	5%	95%	100%

**Big Three Questions**

From table 8 above, 37% of respondents affirmed that they always stick to their retirement plan. 29% mostly stick to their retirement plan, and 25% rarely stick to their retirement plan, while the remaining 9% never stick to their retirement plan. 5% of respondents that correctly attempted the big three questions affirmed that they always stick to their retirement plan. 3% mostly stick to their retirement plan, and 6% rarely stick to their retirement plan, while the remaining 3% never stick to their retirement plan. 33% of respondents that incorrectly attempted the big three questions affirmed that they always stick to their retirement plan. 26% mostly stick to their retirement plan, and 18% rarely stick to their retirement plan, while the remaining 6% never stick to their retirement plan.

**Big Five Questions**

It is indicated that 1% of respondents that correctly attempted the big five questions affirmed that they always stick to their retirement plan. 2% mostly stick to their retirement plan, and 2% rarely stick to their retirement plan, while the remaining 0% never stick to their retirement plan. 36% of respondents that incorrectly attempted the big five questions affirmed that they always stick to their retirement plan. 27% mostly stick to their retirement plan, and 23% rarely stick to their retirement plan, while the remaining 9% never stick to their retirement plan..

**Table 4.10: How often do you keep track of your actual spending?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
How often do you keep track of your actual spending?	Always	3%	20%	23%	0%	23%	23%
	Mostly	10%	30%	40%	5%	35%	40%
	Rarely	1%	28%	29%	0%	29%	29%
	Never	3%	5%	8%	0%	8%	8%
	TOTAL	16%	84%	100%	5%	95%	100%

**Big Three Questions**

From table 4.10 above, 23% of respondents affirmed that they always keep track of their actual spending. 40% mostly keep track of their actual spending, and 29% rarely keep track of their actual spending, while the remaining 8% never keep track of their actual spending. 3% of respondents that correctly attempted the big three questions affirmed that they always keep track of their actual spending. 10% mostly keep track of their actual spending, and 1% rarely keep track of their actual spending, while the remaining 3% never keep track of their actual spending. 20% of respondents that incorrectly attempted the big three questions affirmed that they always keep track of their actual spending. 30% mostly keep track of their actual spending, and 28% rarely keep track of their actual spending, while the remaining 5% never keep track of their actual spending.

### Big Five Questions

It is shown that 0% of respondents that correctly attempted the big five questions affirmed that they always keep track of your actual spending, 5% mostly keep track of your actual spending, and 0% rarely keep track of your actual spending, while the remaining 0% never keep track of your actual spending. 23% of respondents that incorrectly attempted the big three question that the big five questions affirmed that they always keep track of your actual spending, 35% mostly keep track of your actual spending, and 29% rarely keep track of your actual spending, while the remaining 8% never keep track of your actual spending.

**Table 4.11: How often do you set budget targets for your spending?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
How often do you set budget targets for your spending?	Always	5%	25%	29%	3%	26%	29%
	Mostly	6%	36%	43%	2%	41%	43%
	Rarely	3%	13%	15%	0%	15%	15%
	Never	3%	10%	13%	0%	13%	13%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.11 above, 29% of respondents affirmed that they always set budget targets for their spending. 43% mostly set budget targets for their spending, and 15% rarely set budget targets for their spending, while the remaining 13% never set budget targets for their spending. 5% of respondents that correctly attempted the big three questions affirmed that they always set budget targets for their spending. 6% mostly set budget targets for their spending, and 3% rarely set budget targets for their spending, while the remaining 3% never set budget targets for their spending. 25% of respondents that incorrectly attempted the big three question affirmed that they always keep set budget targets for their spending. 36% mostly set budget targets for their

spending, and 13% rarely set budget targets for their spending, while the remaining 10% never set budget targets for their spending.

### Big Five Questions

The table 4.11 revealed that 3% of respondents that correctly attempted the big five questions affirmed that they always set budget targets for their spending. 2% mostly set budget targets for their spending, and 0% rarely set budget targets for their spending, while the remaining 0% never set budget targets for their spending. 26% of respondents that incorrectly attempted the big five question affirmed that they always keep set budget targets for their spending. 41% mostly set budget targets for their spending, and 15% rarely set budget targets for their spending, while the remaining 13% never set budget targets for their spending.

**Table 4.12: How often do you try to invest your savings for your retirement?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
How often do you try to invest your savings for your retirement?	Always	5%	22%	27%	3%	25%	27%
	Mostly	4%	19%	23%	2%	21%	23%
	Rarely	5%	29%	35%	0%	35%	35%
	Never	2%	14%	15%	0%	15%	15%
TOTAL		16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.12 above, 27% of respondents affirmed that they always try to invest their savings for retirement. 23% mostly try to invest their savings for retirement, and 35% rarely try to invest their savings for retirement, while the remaining 15% never try to invest their savings for retirement. 5% of respondents that correctly attempted the big three questions affirmed that they always try to invest their savings for retirement. 4% mostly try to invest their savings for retirement, and 5% rarely try to invest their savings for retirement, while the remaining 2% never try to invest their savings for retirement. 22% of respondents that incorrectly attempted the big three question affirmed that they always try to invest their savings for retirement. 19% mostly try to invest their savings for retirement, and 29% rarely try to invest their savings for retirement, while the remaining 14% never try to invest their savings for retirement.

### Big Five Questions

It is shown that 3% of respondents that correctly attempted the big five questions affirmed that they always try to invest their savings for retirement. 2% mostly try to invest their savings for retirement, and 0% rarely try to invest their savings for retirement, while the remaining 0% never try to invest their savings for retirement. 25% of respondents that incorrectly attempted the big five question affirmed that they always try to invest their savings for retirement. 21% mostly try



to invest their savings for retirement, and 35% rarely try to invest their savings for retirement, while the remaining 15% never try to invest their savings for retirement.

**Table 4.13: How satisfied are you with (your family's) present financial situation**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
How satisfied are you with (your family's) present financial situation	Not at all satisfied	2%	23%	25%	0%	25%	25%
	Not satisfied	6%	20%	26%	2%	24%	26%
	Fairly satisfied	5%	30%	35%	2%	33%	35%
	Satisfied	3%	8%	11%	1%	10%	11%
	Completely satisfied	0%	3%	3%	0%	3%	3%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.13 above, 25% of respondents affirmed that they were not at all satisfied with their present financial situation. 26% were not satisfied with their present financial situation, and 35% were fairly satisfied with their present financial situation. 11% were satisfied with their present financial situation, while the remaining 3% were completely satisfied with their present financial situation. 2% of respondents that correctly attempted the big three questions affirmed that they were not at all satisfied with their present financial situation. 6% were not satisfied with their present financial situation, and 5% were fairly satisfied with their present financial situation. 3% were satisfied with their present financial situation while the remaining 0% were completely satisfied with their present financial situation. 23% of respondents that incorrectly attempted the big three question affirmed that that they were not at all satisfied with their present financial situation. 20% were not satisfied with their present financial situation, and 30% were fairly satisfied with their present financial situation. 8% were satisfied with their present financial situation while the remaining 3% were completely satisfied with their present financial situation.

### Big Five Questions

The table 4.13 shows that 0% of respondents that correctly attempted the big five questions affirmed that that they are not at all satisfied with their present financial situation. 2% were not satisfied with their present financial situation, and 2% were fairly satisfied with their present financial situation. 1% were satisfied with their present financial situation while the remaining 0% were completely satisfied with their present financial situation. 25% of respondents that incorrectly attempted the big five question affirmed that that they are not at all satisfied with their present financial situation. 24% were not satisfied with their present financial situation, and 33% were fairly satisfied with their present financial situation. 10% were satisfied with their

present financial situation while the remaining 3% were completely satisfied with their present financial situation.

**Table 4.14: How difficult is it for (you/your family) to meet monthly payments on (your family's) bills?**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
How difficult is it for (you/your family) to meet monthly payments on (your family's) bills?	Not at all difficult	1%	13%	14%	0%	14%	14%
	Not difficult	4%	15%	19%	0%	19%	19%
	Sometimes difficult	9%	44%	53%	5%	48%	53%
	Difficult	2%	9%	11%	0%	11%	11%
	Completely difficult	1%	3%	4%	0%	4%	4%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.14 above, 14% of respondents affirmed that it is not at all difficult to meet monthly payments on (your family's) bills, and 19% affirmed that that it is not difficult to meet monthly payments on (your family's) bills. 53% affirmed that it is sometimes difficult to meet monthly payments on (your family's) bills, while 11% affirmed that it is difficult to meet monthly payments on (your family's) bills. The remaining 4% affirmed that it is completely difficult to meet monthly payments on (your family's) bills. 1% of respondents that correctly attempted the big three questions affirmed that it is not at all difficult to meet monthly payments on (your family's) bills, and 4% affirmed that it is not difficult to meet monthly payments on (your family's) bills. 9% affirmed that it is sometimes difficult to meet monthly payments on (your family's) bills, while 2% affirmed that it is difficult to meet monthly payments on (your family's) bills. The remaining 1% affirmed that it is completely difficult to meet monthly payments on (your family's) bills. 13% of respondents that incorrectly attempted the big three question affirmed that it is not at all difficult to meet monthly payments on (your family's) bills, and 15% affirmed that that it is not difficult to meet monthly payments on (your family's) bills. 44% affirmed that it is sometimes difficult to meet monthly payments on (your family's) bills, while 9% affirmed that it is difficult to meet monthly payments on (your family's) bills. The remaining 3% affirmed that it is completely difficult to meet monthly payments on (your family's) bills.

### Big Five Questions

It is shown that 0% of respondents that correctly attempted the big five questions affirmed that it is not at all difficult to meet monthly payments on (your family's) bills, and 0% affirmed that it is not difficult to meet monthly payments on (your family's) bills. 5% affirmed that it is sometimes difficult to meet monthly payments on (your family's) bills, while 0% affirmed that it is difficult to meet monthly payments on (your family's) bills. The remaining 0% affirmed that it is

completely difficult to meet monthly payments on (your family's) bills. 14% of respondents that incorrectly attempted the big five question affirmed that it is not at all difficult to meet monthly payments on (your family's) bills, and 19% affirmed that it is not difficult to meet monthly payments on (your family's) bills. 48% affirmed that it is sometimes difficult to meet monthly payments on (your family's) bills, while 11% affirmed that it is difficult to meet monthly payments on (your family's) bills. The remaining 4% affirmed that it is completely difficult to meet monthly payments on (your family's) bills.

**Table 4.15: I feel it is impossible for me to reach the goals that i would like to strive for**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
I feel it is impossible for me to reach the goals that i would like to strive for	Strongly disagree	4%	34%	38%	0%	38%	38%
	Disagree	8%	24%	32%	5%	27%	32%
	Undecided	1%	15%	16%	0%	16%	16%
	Agreed	2%	5%	7%	0%	7%	7%
	Strongly agree	2%	5%	7%	0%	7%	7%
TOTAL		16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.15 above, 38% of respondents strongly disagreed that it is impossible for them to reach the goals that they would like to strive for. 32% disagreed that it is impossible for them to reach the goals that they would like to strive for, while 16% were undecided. 7% agreed it is impossible for them to reach the goals that they would like to strive for, while the remaining 7% strongly agreed that it is impossible for them to reach the goals that they would like to strive for. 4% of respondents that correctly attempted the big three questions strongly disagreed that it is impossible for them to reach the goals that they would like to strive for, while 8% disagreed that it is impossible for them to reach the goals that they would like to strive for. 1% were undecided, 2% agreed it is impossible for them to reach the goals that they would like to strive for, while the remaining 2% strongly agreed that it is impossible for them to reach the goals that they would like to strive for. 34% of respondents that incorrectly attempted the big three question affirmed strongly that it is impossible for them to reach the goals that they would like to strive for, while 24% disagreed that it is impossible for them to reach the goals that they would like to strive for. 15% were undecided, 5%, agreed it is impossible for them to reach the goals that they would like to strive for, while the remaining 5% strongly agreed that it is impossible for them to reach the goals that they would like to strive for.

### Big Five Questions

The table shows that 0% of respondents that correctly attempted the big five questions strongly disagreed that it is impossible for them to reach the goals that they would like to strive for. 5%

disagreed that it is impossible for them to reach the goals that they would like to strive for, while 0% were undecided. 0%, agreed it is impossible for them to reach the goals that they would like to strive for, while the remaining 0% strongly agreed that it is impossible for them to reach the goals that they would like to strive for. 38% of respondents that incorrectly attempted the big five questions strongly disagreed that it is impossible for them to reach the goals that they would like to strive for, while 27% disagreed that it is impossible for them to reach the goals that they would like to strive for. 16% were undecided and 7%, agreed it is impossible for them to reach the goals that they would like to strive for, while the remaining 7% strongly agreed that it is impossible for them to reach the goals that they would like to strive for.

**Table 4.16: The future seems hopeless to me and i cannot believe that things are changing for better**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
The future seems hopeless to me and i cannot believe that things are changing for better	Strongly disagree	5%	44%	48%	0%	48%	48%
	Disagree	8%	16%	25%	5%	20%	25%
	Undecided	1%	8%	9%	0%	9%	9%
	Agreed	2%	11%	13%	0%	13%	13%
	Strongly agreed	1%	5%	5%	0%	5%	5%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.16 above, 48% of respondents strongly disagreed that the future seems hopeless to them and they cannot believe that things are changing for better. 25% disagreed that the future seems hopeless to them and they cannot believe that things are changing for better, while 9% were undecided. 13%, agreed the future seems hopeless to them and they cannot believe that things are changing for better, while the remaining 5% strongly agreed that the future seems hopeless to them and they cannot believe that things are changing for better. 5% of respondents that correctly attempted the big three questions strongly disagreed that the future seems hopeless to them and they cannot believe that things are changing for better. 8% disagreed that the future seems hopeless to them and they cannot believe that things are changing for better, while 1% were undecided. 2%, agreed the future seems hopeless to them and they cannot believe that things are changing for better, while the remaining 1% strongly agreed that the future seems hopeless to them and they cannot believe that things are changing for better. 44% of respondents that incorrectly attempted the big three questions strongly disagreed that the future seems hopeless to them and they cannot believe that things are changing for better. 16% disagreed that

the future seems hopeless to them and they cannot believe that things are changing for better, while 8% were undecided. 11%, agreed the future seems hopeless to them and they cannot believe that things are changing for better, while the remaining 5% strongly agreed that the future seems hopeless to them and they cannot believe that things are changing for better.

### Big Five Questions

It is indicated that 0% of respondents that correctly attempted the big five questions strongly disagreed that the future seems hopeless to them and they cannot believe that things are changing for better. 5% disagreed that the future seems hopeless to them and they cannot believe that things are changing for better, while 0% were undecided. 0%, agreed the future seems hopeless to them and they cannot believe that things are changing for better, while the remaining 0% strongly agreed that the future seems hopeless to them and they cannot believe that things are changing for better.. 48% of respondents that incorrectly attempted the big five question strongly disagreed that the future seems hopeless to them and they cannot believe that things are changing for better. 20% disagreed that the future seems hopeless to them and they cannot believe that things are changing for better, while 9% were undecided. 13%, agreed the future seems hopeless to them and they cannot believe that things are changing for better, while the remaining 5% strongly agreed that the future seems hopeless to them and they cannot believe that things are changing for better.

**Table 4.17: There is no use in really trying to get something i want because i probably won't get it**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
There is no use in really trying to get something i want because i probably won't get it	Strongly disagree	9%	38%	47%	1%	46%	47%
	Disagree	5%	32%	37%	4%	33%	37%
	Undecided	0%	7%	7%	0%	7%	7%
	Agreed	2%	2%	4%	0%	4%	4%
	Strongly agreed	0%	5%	5%	0%	5%	5%
	TOTAL	16%	84%	100%	5%	95%	100%

### **Big Three Questions**

From table 4.17 above, 47% of respondents strongly disagreed that there is no use in really trying to get something they want because they probably won't get it. 37% disagreed that there is no use in really trying to get something they want because they probably won't get it, while 7% were undecided. 4%, agreed that there is no use in really trying to get something they want because they probably won't get it, while the remaining 5% strongly agreed that there is no use in really trying to get something they want because they probably won't get it. 9% of respondents that correctly attempted the big three questions strongly disagreed that there is no use in really trying to get something they want because they probably won't get it. 5% disagreed that there is no use in really trying to get something they want because they probably won't get it, while 0% were undecided. 2%, agreed that there is no use in really trying to get something they want because they probably won't get it, while the remaining 0% strongly agreed that there is no use in really trying to get something they want because they probably won't get it. 38% of respondents that incorrectly attempted the big three questions strongly disagreed that there is no use in really trying to get something they want because they probably won't get it. 32% disagreed that there is no use in really trying to get something they want because they probably won't get it, while 7% were undecided. 2%, agreed that there is no use in really trying to get something they want because they probably won't get it, while the remaining 5% strongly agreed that there is no use in really trying to get something they want because they probably won't get it.

### **Big Five Questions**

The table 4.17 shows that 1% of respondents that correctly attempted the big five questions strongly disagreed that there is no use in really trying to get something they want because they probably won't get it. 4% disagreed that there is no use in really trying to get something they want because they probably won't get it, while 0% were undecided. 0%, agreed that there is no use in really trying to get something they want because they probably won't get it, while the remaining 0% strongly agreed that there is no use in really trying to get something they want because they probably won't get it. 46% of respondents that incorrectly attempted the big three question affirmed that there is no use in really trying to get something they want because they probably won't get it. 33% disagreed that there is no use in really trying to get something they want because they probably won't get it, while 7% were undecided. 4%, agreed that there is no use in really trying to get something they want because they probably won't get it, while the remaining 5% strongly agreed that there is no use in really trying to get something they want because they probably won't get it.

**Table 4.18: I do not expect to get what i really want**

		BIG 3 Questions			BIG 5 Questions		
		CORRECT	INCORRECT	TOTAL	CORRECT	INCORRECT	TOTAL
I do not expect to get what i really want	Strongly disagree	10%	38%	48%	4%	45%	48%
	Disagree	6%	30%	36%	1%	35%	36%
	Undecided	0%	9%	9%	0%	9%	9%
	Agreed	0%	5%	5%	0%	5%	5%
	Strongly agreed	0%	2%	2%	0%	2%	2%
	TOTAL	16%	84%	100%	5%	95%	100%

### Big Three Questions

From table 4.18 above, 48% of respondents strongly disagreed that they do not expect to get what they really want. 36% disagreed that they do not expect to get what they really want, while 9% were undecided. 5%, agreed that they do not expect to get what they really want, while the remaining 2% strongly agreed that they do not expect to get what they really want. 10% of respondents that correctly attempted the big three questions strongly disagreed that they do not expect to get what they really want. 6% disagreed that they do not expect to get what they really want, while 0% were undecided. 0%, agreed that they do not expect to get what they really want, while the remaining 0% strongly agreed that they do not expect to get what they really want. 38% of respondents that incorrectly attempted the big three question strongly disagreed that they do not expect to get what they really want. 30% disagreed that they do not expect to get what they really want, while 9% were undecided. 5% agreed that they do not expect to get what they really want, while the remaining 2% strongly agreed that they do not expect to get what they really want.

### Big Five Questions

It is shown that 4% of respondents that correctly attempted the big five questions strongly disagreed that they do not expect to get what they really want. 1% disagreed that they do not expect to get what they really want, while 0% were undecided. 0% agreed that they do not expect to get what they really want, while the remaining 0% strongly agreed that they do not expect to get what they really want. 45% of respondents that incorrectly attempted the big three questions strongly disagreed that they do not expect to get what they really want. 35% disagreed that they do not expect to get what they really want, while 9% were undecided. 5%, agreed that they do not expect to get what they really want, while the remaining 2% strongly agreed that they do not expect to get what they really want.

## Chapter 5

### Discussion of Results

#### 5.1 Introduction

The last Chapter (4) has empirically examined the influence of financial literacy on public sector employee's financial empowerment. In this chapter, the hypotheses designed for this study will be put to the test, and thereafter the results will be discussed.

#### 5.2 Proof of Hypothesis

**Table 5.1 Hypothesis One**

**H<sub>01</sub>: There is no significant relationship between financial literacy and education level of Nigerian employees.**

Correlations			
		Respondents' Education	Financial Literacy
Respondents' Education	Pearson Correlation	1	.054
	Sig. (2-tailed)		.577
	N	110	110
Financial Literacy	Pearson Correlation	.054	1
	Sig. (2-tailed)	.577	
	N	110	110

The table above shows the result of correlation between financial literacy and education level of Nigerian employees. The result revealed that: a positive correlation exist between financial literacy and education level of Nigerian employees. This was affirmed by the correlation coefficient of 0.054. The result further affirms that the correlation is not statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed)* = 0.577) is greater than 5% (0.05), there is no evidence against the null hypothesis. Therefore, the null hypothesis will be accepted at 5% level of significance. Conclusion: It is therefore concluded that there is no significant relationship between financial literacy and education level of Nigerian employees.



**Table 5.2 Hypothesis Two**

**H<sub>02</sub>: There is no significant relationship between financial literacy and spending habits of Nigerian employees.**

Correlations			
		Financial Literacy	How often do you keep track of your actual spending?
Financial Literacy	Pearson Correlation	1	.257**
	Sig. (2-tailed)		.007
	N	110	110
How often do you keep track of your actual spending?	Pearson Correlation	.257**	1
	Sig. (2-tailed)	.007	
	N	110	110
**. Correlation is significant at the 0.01 level (2-tailed).			

The table above shows the result of correlation between financial literacy and spending habits of Nigerian employees. The result revealed that: a positive correlation exist between financial literacy and spending habits of Nigerian employees. This was affirmed by the correlation coefficient of 0.257. The result further affirms that the correlation is statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed)* = 0.007) is less than 5% (0.05), there is enough evidence against the null hypothesis. Therefore, the null hypothesis will be rejected at 5% level of significance. Conclusion: It is therefore concluded that there is significant relationship between financial literacy and spending habits of Nigerian employees.

**Table 5.3 Hypothesis Three**

**H<sub>03</sub>: There is no significant relationship between financial Literacy and savings culture of Nigerian employees.**

Correlations			
		Financial literacy	Have you ever tried to save for retirement?
Financial literacy	Pearson Correlation	1	.060
	Sig. (2-tailed)		.531
	N	110	110
Have you ever tried to save for retirement?	Pearson Correlation	.060	1
	Sig. (2-tailed)	.531	
	N	110	110

The table above shows the result of correlation between financial Literacy and savings culture of Nigerian employees. The result revealed that: a positive correlation exist between financial Literacy and savings culture of Nigerian employees. This was affirmed by the correlation coefficient of 0.060. The result further affirms that the correlation is not statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed)* = 0.531) is greater than 5% (0.05), there is no evidence against the null hypothesis. Therefore, the null hypothesis will be accepted at 5% level of significance. Conclusion: It is therefore concluded that there is no significant relationship between financial Literacy and savings culture of Nigerian employees.

**Table 5.4 Hypothesis Four**

**H<sub>04</sub>: There is no significant relationship between financial literacy and Investments of Nigerian employees.**

Correlations			
		Financial literacy	How often do you try to invest your savings for your retirement?
Financial literacy	Pearson Correlation	1	.159
	Sig. (2-tailed)		.096
	N	110	110
How often do you try to invest your savings for your retirement?	Pearson Correlation	.159	1
	Sig. (2-tailed)	.096	
	N	110	110

The table above shows the result of correlation between financial literacy and Investments of Nigerian employees. The result revealed that: a positive correlation exist between financial literacy and Investments of Nigerian employees.. This was affirmed by the correlation coefficient of 0.159. The result further affirms that the correlation is not statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed) = 0.096*) is greater than 5% (0.05), there is no evidence against the null hypothesis. Therefore, the null hypothesis will be accepted at 5% level of significance. Conclusion: It is therefore concluded that there is no significant relationship between financial literacy and Investments of Nigerian employees.

**Table 5.5 Hypothesis Five**

**H<sub>05</sub>: There is no significant relationship between financial literacy and retirement planning of Nigerian employees.**

Correlations			
		Financial literacy	Did you ever make a plan for retirement savings?
Financial literacy	Pearson Correlation	1	.094
	Sig. (2-tailed)		.326
	N	110	110
Did you ever make a plan for retirement savings?	Pearson Correlation	.094	1
	Sig. (2-tailed)	.326	
	N	110	110

The table above shows the result of correlation between financial literacy and retirement planning of Nigerian employees. The result revealed that: a positive correlation exist between financial literacy and retirement planning of Nigerian employees. This was affirmed by the correlation coefficient of 0.094. The result further affirms that the correlation is not statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed)* = 0.326) is greater than 5% (0.05), there is no evidence against the null hypothesis. Therefore, the null hypothesis will be accepted at 5% level of significance. Conclusion: It is therefore concluded that there is no significant relationship between financial literacy and retirement planning of Nigerian employees

**Table 5.6 Hypothesis Six**

**H<sub>06</sub>: There is no significant relationship between financial literacy and psycho-social factors of Nigerian employees.**

Correlations			
		financial literacy	Psycho-social factor
financial literacy	Pearson Correlation	1	.052
	Sig. (2-tailed)		.592
	N	110	110
Psycho-social factor	Pearson Correlation	.052	1
	Sig. (2-tailed)	.592	
	N	110	110

The table above shows the result of correlation between financial literacy and psycho-social factors of Nigerian employees. The result revealed that: a positive correlation exist between financial literacy and psycho-social factors of Nigerian employees. This was affirmed by the correlation coefficient of 0.052. The result further affirms that the correlation is not statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed)* = 0.592) is greater than 5% (0.05), there is no evidence against the null hypothesis. Therefore, the null hypothesis will be accepted at 5% level of significance. Conclusion: It is therefore concluded that there is no significant relationship between financial literacy and psycho-social factors of Nigerian employees.

**Table 5.7 Hypothesis Seven**

**Ho7: There is no significant relationship between financial literacy and standard of living of Nigerian employees.**

Correlations			
		Financial Literacy	How difficult is it for (you/your family) to meet monthly payments on (your family's) bills?
Financial Literacy	Pearson Correlation	1	.123
	Sig. (2-tailed)		.199
	N	110	110
How difficult is it for (you/your family) to meet monthly payments on (your family's) bills?	Pearson Correlation	.123	1
	Sig. (2-tailed)	.199	
	N	110	110

The table above shows the result of correlation between financial literacy and standard of living of Nigerian employees. The result revealed that: a positive correlation exist between financial literacy and standard of living of Nigerian employees. This was affirmed by the correlation coefficient of 0.123. The result further affirms that the correlation is not statistically significant at 5% level of significant. Decision Rule: since the probability value (*Sig. (2-tailed) = 0.199*) is greater than 5% (0.05), there is no evidence against the null hypothesis. Therefore, the null hypothesis will be accepted at 5% level of significance. Conclusion: It is therefore concluded that there is no significant relationship between financial literacy and standard of living of Nigerian employees.

### **5.3 Discussions**

The analysis revealed the following;

- i. Respondents opinion from those who answered the three (3) and five (5) big financial literacy questions revealed that a large proportion of the sampled audience are deficient in financial literacy notwithstanding the exposure of some of the sampled audience to financial education and work sector.
- ii. This research shows that there is no significant relationship between financial literacy and education level of Nigerian public sector employees. This differs with earlier finding

“financial literacy increases with education and income, as one would expect” Angela , Andrew and Joanne (2009) The difference in finding is due to the present research focused on public sector employees who hardly exercise their financial literacy in earning income. Angela, Andrew and Joanne (2009) reviewed earlier research targeted on individuals without restriction on public sector. Individuals in private sector and entrepreneurs as their education level increases consequently increase their financial literacy for the purposes of increasing their personal and organizational financial wealth. On the other hand those in public sector increases their education level for the purpose of gaining promotion, thus are mindless of increasing financial literacy since they are not entrepreneurs.

- iii. This research shows that there is significant relationship between financial literacy and spending habits of Nigerian public sector employees. When asked how often do you keep track of your actual spending? It was found that those who are financial literate are more likely to keep track of their spending. In other words they are rational spenders. They are able to track their spending than those who are not financial literate. However their ability to track their spending did not have any impact on their savings or investment.
- iv. This research shows that there is no significant relationship between financial Literacy and savings culture of Nigerian public sector employees. This agrees with Angela , Andrew and Joanne (2009) that “financial literacy is *not* consistently predictive of total savings measures ”This is because most public sector employees rely on the compulsory defined Contributory pension plan to save for their future retirement. Therefore the savings is in accordance with salary grade and not determine by financial literacy. Furthermore it shows that majority do not have personal savings for retirement apart from the one provided by Pension Act. Annamaria and Olivia (2006) supports this finding thus “while more is being learned about the causes and consequences of financial illiteracy, it is still the case that one must be cautious when concluding that financial education has a potent effect on retirement saving.”
- v. This research shows that there is no significant relationship between financial literacy and Investments of Nigerian public sector employees.

Since this research has earlier shown that there is no significant relationship between financial Literacy and savings culture of Nigerian public sector employees. Consequently it

follows public sector employees financial literacy will not impact on their investment. This is because savings and investment are equal and autonomous. Similarly Angela , Andrew and Joanne (2009) states “One interpretation of these results is that, in the domain of savings and investments for retirement, although these financial literacy measures may be strongly predictive of consumers’ *intentions*, they do not have the same predictive power when applied to long term *outcomes*”. This is because contextual and other factors can interfere with translating knowledge and intention into action (see e.g., Ajzen, 1991; Fishbein& Ajzen,1975).

- vi. This research shows that there is no significant relationship between financial literacy and retirement planning of Nigerian public sector employees.

Earlier research by Angela , Andrew and Joanne (2009) supports this findings “Financial literacy also predicts self-reported saving and retirement planning, although did not predict a measure of actual retirement savings. It should be noted that the current analyses, while suggestive, do not firmly establish causality”. In somewhat different conclusion Annamaria and Olivia (2011).states that “ financial knowledge and *retirement* planning are clearly interrelated, and keeping track of spending and budgeting appears conducive to retirement saving” This difference is due to the fact that Annamaria and Olivia (2011) research is not focused on public sector which has different orientation. Hence they argue that “this relationship is causal: that is, financial literacy influences retirement planning, and not the other way around”. However the observation of what happens to Nigerian public servants after retirement supports this research findings that that there is no significant relationship between financial literacy and retirement planning of Nigerian public sector employees. Most of them live a life of want and poverty on retirement.

- vii. This research shows that there is no significant relationship between financial literacy and psycho-social factors of Nigerian public sector employees. This means that psycho-social factors such as stress, hostility, depression and hopelessness affects equally both financial literates and illiterates in Nigerian public service. This leads at times to hopelessness. However, Murphy,(2013) states that “the relationship between hopelessness and financial

literacy may also run in the opposite direction, with poor financial literacy leading to an increased feeling of hopelessness.” He concludes that “Financial satisfaction was positively correlated with financial literacy.” His conclusion was based on representative longitudinal survey of individuals older than age **50** and their spouses in United States of America (USA). The outcome will definitely be different because the senior USA citizens have state social security which guarantees a pleasurable life during and after retirement. On the other hand the Nigerian Public sector employees are not assured of their monthly salaries. Presently (2017) 20 states and local government are owing workers and pensioners ( public servants ) between one to - 36 months’ salaries and entitlements , a BudgetIT nationwide survey revealed(Punch June 6, 2017)

From the foregoing, it is given that, irrespective of financial literacy of Nigerian public sector employees, stress, hostility, depression and hopelessness affects equally both financial literates and illiterates who have been traumatized by poor and irregular salary, as evidenced by this research.

viii) This research also shows that there no significant relationship between financial literacy and standard of living of Nigerian public sector employees. When asked how difficult is it for (you/your family) to meet monthly payments on (your family's) bills? It was discovered that there is no significant difference between financial literate and non-financial literate standard of living in Nigerian public sector .This is because most financial literate in public sector depends mostly on poor remuneration the public sector has to offer. Evaluation of standard of living commonly includes the following factors [income](#), poverty rate, quality and affordability of housing, hours of work required to purchase necessities, gross domestic product, inflation rate, number of paid vacation days per year, affordable access to quality health care, [infrastructure](#) and safety. These indices does not favour Nigerian public sector worker whether financially literate or not. Moreover because of poverty rate and high rate of unemployment (14.2% as at 4<sup>th</sup> quarter 2016- Nigeria Bureau of Statistics) a worker in Nigeria ends up taking care many relatives and friends who either are poor or unemployed. The absence of social security tends to ensure that the standard of living of most Nigerian workers irrespective of income is relatively low.



## Chapter 6

### Summary of Findings, Conclusion and Recommendations

#### 6.1 Summary of Findings

This study empirically examined the influence of financial literacy on Nigerian public sector employee's financial empowerment. The summary of findings revealed that;

- i. A large proportion of the sampled audience is deficient in financial literacy notwithstanding the exposure of some of the sampled audience to financial education and work sector. This research shows that there is no significant relationship between financial literacy and education level of Nigerian public sector employees. This differs with earlier finding “financial literacy increases with education and income, as one would expect” Angela , Andrew and Joanne (2009)
- ii. This research shows that there is significant relationship between financial literacy and spending habits of Nigerian public sector employees. This means that most financial literates are able to track their spending than those who are not financial literate. However their ability to track their spending did not have any impact on their savings or investment.
- iii. This research shows that there is no significant relationship between financial Literacy and savings culture of Nigerian public sector employees. This agrees with Angela , Andrew and Joanne (2009) that “financial literacy is *not* consistently predictive of total savings measures”
- iv. This research shows that there is no significant relationship between financial literacy and Investments of Nigerian public sector employees. This means that even financial literate public sector employees are not better in terms of investment. This is because savings and investment are equal and autonomous. In addition contextual and other factors can interfere with translating knowledge and intention into action (see e.g., Ajzen, 1991; Fishbein& Ajzen,1975).
- v. This research revealed that there is no significant relationship between financial literacy and retirement planning of Nigerian public sector employees. Earlier research by Angela , Andrew and Joanne (2009) supports this findings “Financial literacy also predicts self-reported saving and retirement planning, although did not predict a measure of actual

retirement savings. It should be noted that the current analyses, while suggestive, do not firmly establish causality”.

- vi. This research shows that there is no significant relationship between financial literacy and psycho-social factors of Nigerian public sector employees. Presently (2017) 20 states and local government are owing workers and pensioners ( public servants ) between one to - 36 months’ salaries and entitlements , a BudgetIT nationwide survey revealed(Punch June 6, 2017) Therefore irrespective financial literacy of Nigerian public sector employees - stress, hostility, depression and hopelessness affects equally both financial literates and illiterates in Nigerian public service who have been traumatized by poor and irregular salary as evidenced by this research.

viii) This research also shows that there no significant relationship between financial literacy and standard of living of Nigerian public sector employees. When asked how difficult is it for (you/your family) to meet monthly payments on (your family's) bills? It was discovered that there is no significant difference between financial literate and non financial literate standard of living in Nigerian public sector .This is because of poverty rate and high rate of unemployment (14.2% as at 4<sup>th</sup> quarter 2016- Nigeria Bureau of Statistics) a worker in Nigeria ends up taking care of many relatives and friends who either are poor or unemployed. The absence of social security tends to ensure that the standard of living of most Nigerian workers irrespective of income is averagely low relatively.

ix) Therefore the summary of findings has revealed that:

- k. Most employees of public sector in Nigeria have reversal of personal finance after employment due to lack of retirement planning.
- l. Most employees of public sector in Nigeria have reversal of personal finance after employment due to lack of financial literacy while in employment
- m. A financial literate public servant will be more productivity in the organization
- n. Most public servants in Nigeria know little about personal finance.
- o. Most public servants have no savings and investment culture
- p. Many public servants lack financial skill to derive their desired economic ambition

- q. Lack of personal financial literacy has impact on low productivity in public sector as many lack job satisfaction.

## **6.2 Conclusion**

First, it is disturbing that only 16% of the Nigerian public sector employees respondents can correctly answer questions regarding interest compounding, inflation, and a question about risk diversification. (The big three questions) A comparable study of USA respondents age 50+ has 33.33% answering same questions correctly (Lusardi and Mitchell, 2011). This suggests widespread financial illiteracy (higher by 17.33%) among Nigerian public sector employees than older Americans. We conclude that financial literacy is very low among Nigeria public sector employees, irrespective of the level of education, age and gender. Low levels of financial knowledge in the public sector populations also suggest that these groups may be particularly vulnerable during and after retirement. This is troubling, in that financial illiteracy may stunt peoples' ability to save and invest for retirement, undermining their well-being in old age.

Second, we also found that most public sector employees do not have personal savings nor investment to augment their compulsory retirement savings account. This means that they have not efficiently and effectively planned for their retirement. The implication is that they are programmed to misery and want on retirement. The reason is because “retirement planning is a good proxy for retirement wealth; those who have calculated how much they need to save for their own retirement reach retirement age with three times the wealth of those who did no such calculations” Annamaria and Olivia (2011)

Third, the poor financial literacy amongst public servants will likely affect the economy because people, who are unable to save, invest or care for themselves will be unable to grow the economy or contribute to Gross Domestic Product. When people make poor financial decisions, this can get them into deep financial trouble over their lifetimes; In turn, these difficulties can spill over to their

families and the rest of the economy” Annamaria and Olivia (2015).This explains reasons why Nigeria borrows heavily to sustain itself.

Fourth, the enactment of the Pension Act 2004 as amended, emphasis has shifted from defined pension scheme to contributory pension scheme in Nigeria. This means that public servants are required to care for themselves on retirement. Government assistance is limited to their own contribution before retirement without any social security in view. The implication is that the balance in the retirement savings account (RSA) may be unable to care for a retiree till dead.

### **6.3 Recommendations**

The results of this study have important implication for public servants, regulatory bodies that empower employees and the policy makers. Financially empowered workers are better able to perform at work place by increasing productivity, enhancing possibilities and opportunities This study also highlight the areas, like inadequate financial literacy in the public sector and less trend regarding investment and savings, that are required to improve life during and after retirement.

Thus, we recommend the following:

Financial literacy programs should be schedules for public servants regularly. Retirement training should not wait till about six months to retirement as presently the norm. It should be an annual activity. This is because some retires pre-maturely due to redundancy, dismissal, voluntary disengagement, sickness, deaths etc. New ways should be established for developing positive financial attitude in public servants and proper attention should be given for financial wellbeing of public sector employees during and after retirement. Nigerian government should make budget for financial literacy education. Curing and preventing financial illiteracy requires money, however investing in financial literacy is likely to bring high dividends to the country as a whole; if applied financial literacy will increase savings and Investment this will equally increase our gross domestic products (GDP).

Financial literacy should be incorporated into the three Rs and taught in Nigerian schools. The three Rs refers to the foundations of a basic skills-oriented education program in schools: reading, writing and arithmetic. “Providing financial education in high school could also enhance wellbeing, not only among the young, but over everyone’s life course” (Annamaria and Olivia 2015) Just as in past eras citizens were encouraged to become literate for effective participation in the society and economy, today they are encouraged to become financially literate. Literacy in finances is becoming a necessary skill for the new citizen.

Therefore public servants are called upon to personally set up individually-managed retirement accounts to augment the provisions of statutory contributory pension scheme. Just as American households are being increasingly called upon to undertake their own financial planning for retirement, Similarly Nigerian workers should think more about their financial planning for retirement instead of trusting on uncertainties such as government, children or relatives assistance.

It is important to give employees the tools to change their behaviors, rather than simply delivering financial education; Just as the former National housing fund was intended to simulate workers’ savings towards owning their own houses. It is recommended that more innovative financial products should be created and made compulsory to the benefit of workers at old age. A retirement mortgage savings scheme should be set up for public servants. Those who have worked for above 3 years should be given Mortgage Loan, collateralized through a mortgage bank and deductible from monthly salaries. This is not because financial education is ineffective, but rather that the cure is inadequate for the disease of financial illiteracy in public sector.

Employers, Higher Institutions and Non-governmental organizations should sponsor programs and research on various areas of personal finance targeted at various sub groups of employees. Education programs targeted specifically to particular subgroups may be better suited to address substantial differences in preferences, *investment* and saving needs.

Employee should not work harder and harder to buy things they think are assets, but acquire real assets.” Real assets are assets that have the capacity to generate income.

Consequently, conscious effort should be exercised to invest in high and fixed yield investments that could curtail fluctuations in return. The effective return on Investment should always strive to exceed the prevailing inflation rate. Employees should invest in treasury bills, bonds, rental properties etc which will give them additional income to augment their poor salaries. In other words they should “tune out the media hype that urges them to consume, at any cost and realize they’re not saving anything.” (Williams et al, 2002)

Employees should save at least a minimum of ten percent (10%) of their salary every month. That ten percent should be regarded as your own pay. Consequently, you start spending the rest which is ninety percent(90%). If you take that ten percent out first, you will find out that you will make do with the remaining ninety percent, because you will assume that the ninety percent is your total salary.(Egbu 2009)

#### **6.4 Directions for Future Research**

The study is only analyzing the effect of financial literacy on financial wellbeing of Nigerian public sector employees, whereas private sector employees and unemployed are also prominent part of society. Future studies should include financial literacy of other sectors and sections of Nigerians. In this research, we have evaluated the literature on financial literacy and employees financial outcomes. The literature review consistently finds that many individuals perform poorly on test-based measures of financial literacy. These findings, coupled with a growing literature on impact of financial illiteracy on the individuals financial outcome documents a positive correlation between financial literacy and suboptimal financial outcomes, have driven research interest in efforts to increase financial literacy through financial education.

There are difference opinions depending on the researcher. Some research outcome shows that financial literacy leads to positive financial outcome some states otherwise. However, there is little consensus in the literature on the efficacy of financial education. The existing research is inadequate for drawing conclusions about if and under what conditions financial literacy works. Justine et al, (2013) provides some directions for future research depending in part on the goal at hand. If the goal is to improve financial literacy, the directions for future research that follow hinge on financial literacy and the role of financial education in enhancing financial literacy.

Then the direction will be: What are the basic financial competencies that individuals need? What financial decisions should we expect individuals to successfully make independently, and what decisions are best relegated to an expert? For instance, we don't expect individuals to be experts in all domains of life—that is the essence of comparative advantage. Most of us consult doctors when we are ill and mechanics when our cars are broken, but we are mostly able to care for a common cold and fill the car with gas and check our tire pressure independently. What level of financial literacy is necessary or desirable? And should certain financial transactions be predicated on demonstrating an adequate level of financial literacy, much like taking a driver's education course or passing a driver's education test is a prerequisite for getting a driver's license. If so, for what types of financial decisions would such a licensing approach make most sense?

Another set of open questions relate to measurement. How do we best measure financial literacy? Which measurement approaches work best at predicting financial outcomes? What are the tradeoffs implicit in using different measures of financial literacy (e.g., how does the marginal cost compare to the marginal benefit of having a more effective measure?). A third set of issues surrounds how individuals acquire financial literacy and the mechanisms that link financial literacy to financial outcomes. How important are skills like numeracy or general cognitive ability in determining financial literacy, and can those skills be taught? To the extent that financial literacy is acquired through experience, how do we limit the potential harm that consumers suffer in the process of learning by doing? Is financial education a substitute or a complement for personal experience? Does financial education work, and if so, what types of financial education are most cost effective? Much of the literature on financial education focuses on traditional, classroom based courses. Is this the best way to deliver financial education? More generally, how does this approach compare with other alternatives? Is a course of a few hours length enough, or should we think more expansively about integrated approaches to financial education over the lifecycle? Or, on the other extreme, should financial education be episodic and narrowly focused to coincide with specific financial tasks?

There are many other ways to deliver educational content that could improve financial decision making: internet-based instruction, podcasts, web sites, games, apps, printed material. How effective (and how cost effective) are these different delivery mechanisms, and are some better-suited to some groups of individuals or types of problems than others? Should the content of financial education initiatives be focused on teaching financial principles, or rules of thumb?

Even if we can develop effective mechanisms to deliver financial education, how do we induce the people who most need financial education to get it? School-based financial education programs have the advantage that, while in school, students are a captive audience. But schools can only teach so much. Many of the financial decisions that individuals will face in their adult lives have little relevance to a 17-year-old high school student: purchasing life insurance, picking a fixed vs. an adjustable rate mortgage, choosing an asset allocation in a retirement savings account, whether to file for bankruptcy. How do we deliver financial education to adults before they make financial mistakes, or in ways that limit their financial mistakes, when we don't have a captive audience and financial education is only one of many things competing for time and attention?

Finally, what is the appropriate role of government in either directly providing or funding the private provision of financial education? If financial education is a public good (Hastings et al., 2013), would industry support a tax to finance publically-provided financial education? If so, what form would that take? If instead of improving financial literacy our goal is to improve financial outcomes, then the directions for future research are slightly different. The overarching questions in this case center on the tools that are available to improve financial outcomes. This might include financial education, but it might also include better financial market regulation, different approaches to changing the institutional framework for individual and household financial decision making, or incentives for innovation to create products that improve financial outcomes. With this broader frame, one important question on which we have little evidence is which tools are most cost effective at improving financial outcomes? For some outcomes, the most cost effective tool might be financial education, but for other outcomes, different approaches might work better. For example, financial education programs have had only little success at increasing participation in voluntary employees savings scheme in contrast with employer-sponsored compulsory retirement savings scheme; which has automatic enrollment and automatic contribution escalation lead to dramatic increases in savings plan participation and contributions (Madrian& Shea 2001, Beshears et al. 2008, Thaler&Benartzi 2004). Moreover, automatic enrollment and contribution escalation are less expensive to implement than financial education programs. What approaches to changing financial behavior generate the biggest result for employees savings and investment. How does financial education compare to other levers that can be used to change outcomes? Despite the contradictory evidence on the effectiveness of



financial education, financial literacy is in short supply and increasing the financial capabilities of the population is a desirable and socially beneficial goal. We believe that well designed and well executed financial education initiatives can have an effect. But to design cost effective financial education programs, we need better research on what does and does not work. We also should not lose sight of the larger goal—financial education is a tool, one of many, for improving financial outcomes. Financial education programs that don't improve financial outcomes can hardly be considered a success. Unfortunately, we have little concrete evidence to provide answers. We have a pressing need for more and better research to inform the design of financial education interventions and to prioritize where financial education resources can be best spent. To achieve this, funding for financial education needs to be coupled with funding for evaluation, and the design and implementation of financial education interventions needs to be done in a way that facilitates rigorous evaluation.

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## Appendix 1

### Research Questionnaire



**Dear Respondent,**

I am carrying out a survey to determine how financial literacy affects the welfare of Nigerian Workers. This survey is designed to ascertain the impact of financial literacy on Nigerian employees' financial outcome.

Please note that names of respondents are not required. The forms should be completed as best as you can and all information supplied is confidential.

This study should assist in identifying the impact of financial literacy that promotes employees wellbeing. The results would be used in planning and designing financial education programs that will empower Nigerian employees in the immediate future.

Thank you.  
With Best Regards,

**CHRIS EGBU**

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## Questionnaire

### SECTION A

#### Demographic Information

Please tick as appropriate (✓) or **BOLD** (if submitted electronically) as appropriate in one of the boxes provided for each question.

**Age:** Years 20-30 ( ) 31-40 ( ) 41-50 ( ) Above 50 ( ) **Sex:** Male ( ) Female ( )

**Education:** WAEC/SSCE ( ) OND/NCE ( ) HND/BSc ( ) Masters ( ) Professional ( ) Others..... ( )

**Monthly Income N:** Less than 25,000 ( ) 25,000- 50,000 ( ) 51,000-100,000 ( ) 101,000-200,000 ( ) More than 200,000 ( )

**Work Sector:** Education Sector ( ) Medical Sector ( ) LGA Sector ( ) Export/Others..... ( )

**Marital Status:** Married ( ) Single ( ) Separated/Divorced ( ) Widowed ( )

**Number of Earning Hands:** Only Myself ( ) Myself and Spouse ( ) Myself and Father/Mother ( ) Three or More ( )

### SECTION B

Concept	Question	Answer options
Interest rates and compounding	Suppose you had N100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	More than \$102 ( ) Exactly \$102 ( ) Less than \$102 ( ) Don't know ( ) Refused ( )
Inflation	Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy more than today, exactly the same as today, or less than today with the money in this account?	More than today ( ) Exactly the same as today ( ) Less than today ( ) Don't know ( ) Refused ( )
Risk diversification	Do you think that the following statement is true or false: Buying a single company stock usually provides a safer return than a stock mutual fund?	True ( ) False ( ) Don't know ( ) Refused ( )
Mortgages	Do you think that the following statement is true or false: A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest over the life of the loan will be less?	True ( ) False ( ) Don't know ( ) Refused ( )
Bond pricing	If interest rates rise, what will typically happen to bond prices?	They will rise ( ) They will fall ( ) They will stay the same ( ) There is no relationship ( ) Don't know ( ) Refused ( )

## SECTION C

6. Have you had financial education in course of your schooling/Training

Yes ( ) or NO ( )

7. Have you ever tried to figure out how much your household would need to save for retirement? Yes ( ) or NO ( )

If Yes

8. Tell me about the ways you tried to figure out how much your household would need.

- Did you talk to family and relatives? ( )
- Did you talk to co-workers or friends? ( )
- Did you talk to co-workers or friends? ( )
- Did you use calculators or worksheets that are computer or Internet-based? ( )
- Did you consult a financial planner or advisor or an accountant? ( )

Yes or No

9. Have You Ever Tried To Save for Retirement? Yes ( ) No ( )

10. Did You Ever Make a Plan for Retirement Savings? Yes ( ) No ( )

11. Are you able to implement your retirement savings plan? Yes ( ) No ( )

### Multiple Choices

12. How often were you able to stick to your retirement plan: Would you say always ( ), mostly( ),rarely( ), or never( )?

13. How often do you keep track of your actual spending: would you say: always( ),mostly( ), rarely( ), or never( )?

14. How often do you set budget targets for your spending: would you say: always( ), mostly( ), rarely( ), or never( )?

15. How often do you try to invest your savings for your retirement would you say: always( ),mostly( ), rarely( ), or never( )?.

16. How satisfied are you with (your/your family's) present financial situation?

**1** (not at all satisfied), **2** (not satisfied) **3** (Fairly satisfied), **4** (Satisfied) , **5** (completely satisfied).

17. How difficult is it for (you/your family) to meet monthly payments on (your/your family's) bills? **1** (not at all difficult), **2** (not difficult) **3** (Sometimes difficult), **4** (Difficult) , **5** (completely difficult).

18. I feel it is impossible for me to reach the goals that **I** would like to strive for.  
1 (strongly disagree) 2 (disagree) 3 (undecided) 4 (agreed) 5(strongly agreed)
19. The future seems hopeless to me and **I** can't believe that things are changing for the better.  
1 (strongly disagree) 2 (disagree) 3 (undecided) 4 (agreed) 5(strongly agreed)
20. There's no use in really trying to get something **I** want because **I** probably won't get it.  
1 (strongly disagree) 2 (disagree) 3 (undecided) 4 (agreed) 5(strongly agreed)
21. I don't expect to get what **I** really want.  
1 (strongly disagree) 2 (disagree) 3 (undecided) 4 (agreed) 5(strongly agreed)

## Appendix 2

### PERSONAL TARGET SAVINGS WORKSHEET

Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

I am not able to meet my monthly target savings of \_\_\_\_\_ (amount currently due) on my monthly income because I am experiencing a financial hardship.

\_\_\_\_\_ I have attached my most recent pay slips, bank statement, or other documentation that may help to verify the amounts listed on this worksheet  
(mark an X to the left if included)

INCOME: (ex. monthly take home pay)	
	N
	N
A. Total Income:	N

Living Expenses: (ex. Housing, Feeding, Provisions, utilities, telephone, transportation, insurance)	
	N
	N
	N
	N
	N

	N
	N
	N
	N
<b>B. Total Expenses:</b>	<b>N</b>

<b>Maximum Available for Savings/ Investments</b> <i>(Total Income Minus Total Expenses)</i>	<b>N</b> _____
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