FINANCIAL LITERACY AND RETIREMENT PLANNING AMONG SELECTED WORKERS: A CASE STUDY OF TARKWA NSUAEM MUNICIPAL DISTRICT

By

ACKON KOFI QUARM (BA. ECONOMICS)

A Thesis Submitted to the Department of Accounting and Finance,

Kwame Nkrumah University of Science and Technology in

partial fulfilment of the requirements for the Degree

of

Master of Business Administration (Finance)

July, 2017

DECLARATION

I hereby declare that this submission is my own work towards the award of the degree of Master of Business Administration (Finance) and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any degree of any University, except where due acknowledgement has been made in the text.

ACKON KOFI QUARM (PG 2123714)	……	……
(Name of Student & ID)	Signature	Date

Certified by:

PROF. J. M. FRIMPONG	……	……
(Supervisor)	Signature	Date

DR. D. DOMEHER	……	……
(Head of Department)	Signature	Date

DEDICATION

This work is dedicated to my sisters, Aba Ackon and Sally Ama Ackon for their support, advice and encouragement throughout the pursuit of my second degree.

ACKNOWLEDGEMENT

I am very much grateful to my family for their support throughout the period I was undertaking my Master‟s Program. To my supervisor, Prof. J. M. Frimpong, I say thank you for guiding me through this dissertation with those valued comments, suggestions, materials and corrections. I finally wish to express my utmost gratitude to all my friends and course mates especially those who helped me in one way or the other through ideas, editing and additions.

ABSTRACT

The economics of financial illiteracy can be felt across all sectors of the economy if it is allowed to persist. In modern economies, income earned in the form of either interest, rent, wage or profit is either spent or saved. Savings from households serve as a source of funds from which businesses and government can finance their investments. In economies where the flow of funds from surplus units to deficits units through financial intermediaries is not frequent, economic growth is distorted. Aside the national growth, it is important for workers to make proper preparation for retirement in order to reduce the dependency ratio of this country.

This study examines financial literacy and retirement planning among selected workers in the Tarkwa Nsuaem Municipal Assembly. A total of 283 workers from public institutions were participated in this study. The respondents were quizzed on their knowledge in personal finance, savings and borrowing, insurance and investment. The findings of this study reveal that the financial knowledge of government workers in the study area is low. Public workers have higher knowledge in personal finance and savings and borrowing than investment and insurance. Demographic characteristics such as age, gender, work experience, educational background and occupation affect the financial literacy of government workers. Also this study documented a significant effect of financial literacy on the retirement planning of government workers

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Consumers all over the world are exposed to the challenges that risky and complex marketplaces exhibits. In the financial market, the abundance of products and the technicalities involved in obtaining the needed outcome from an individual or combination of the products is centered on the ability of the consumer to understand the various products. It is believed that financial illiteracy coupled with other factors accounts for the recent mortgage crisis, consumer indebtedness, and household bankruptcy rate (Huston 2010). The need for financial literacy cuts across all ages, cultures and income levels, as such it should not be perceived as a secondary matter.

The economics of financial illiteracy can be felt across all sectors of the economy if it is allowed to persist. In modern economies, income earned in the form of interest, rent, wage or profit is either spent or saved. Savings from households serve as a source of funds from which businesses and government can finance their investments. In economies where the flow of funds from surplus units to deficits units through financial intermediaries is not frequent, economic growth is distorted. It is in this vain that governments all over the world have recognized the need to close the financial illiteracy gap, through the implementation of policies to support financial education and formal education. The idea of a strong formal educational system as a solution to financial illiteracy is not farfetched as recent years have shown through the provision of empirical evidence by researchers to show the positive relationship between formal education and financial literacy (Lusardi and Mitchell 2007,2010; Mandell & Klein 2009).

The unfamiliarity of workers, who form part of financial illiterate group, to economic and financial instruments and concepts cans account for their low preparedness towards retirement. The low preparedness of workers towards retirement can lead to an increase in the dependency ratio in the economy as people in retirement would have little wealth to rely on. Therefore retirement planning can serve as a good proxy for retirement wealth. Evidence can be found in the research findings of Lusardi and Mitchell (2011), which states that workers which 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.

In Ghana, the establishment of the Social Security and National Trust (SSNIT) by the Government of Ghana in 1965, was intended to reduce the stress and economic pressures that retirees face after retirement. In addition to these reasons, the mandatory social security scheme is meant to aid financial illiterate workers in investing their funds by taking full responsibility over the funds from individual contributors and diversifying their systematic risk through profitable investment. In the National Pensions Act, 2008(Act 766) which was enacted on December 12th, 2008, under section three of the Act, employers must contribute 13% in addition to the employee‟s contribution of 5.5% to add up to 18.5% of the monthly wage of the employee. In order for a contributor to qualify, this sizable contribution must be made for a minimum of 15 years (180 months) and can be drawn from 55years onwards.

Aside increasing the contribution rate, the new SSNIT pension scheme has given private firms and workers-provident schemes to operate under the supervision of the

National Pension Regulatory Authority (NPRA). This means that workers can reduce their overdependence on SSNIT and avoid the delayed payment of benefits by government, by setting up their own provident funds or by joining private retirement and insurance schemes. It should however be noted that these options come with addition cost as commissions, salaries and other charges must be paid to fund managers and auditors.

Alternatively, workers can deiced to setup their own portfolio in addition to their existing mandatory social security contributions. However this requires some level of financial literacy and education from employers-organized workshops or other sources. Once this is achieved, the plight of the Ghanaian retiree shall be reduced and the trickledown effect would be felt in the whole economy as a whole.

1.1 STATEMENT OF THE PROBLEM

Research within the last decade has shown how low financial literacy in Ghana is. In 2009, the level of financial literacy stood at a national mean of 44% among adults. (USAID 2009). The high volumes of victims to Ponzi schemes coupled with the financial catastrophes perpetuated by microfinance institutions are evidence of the unabated existence of financial illiteracy (Mahama 2016). The domino effect that financial illiteracy has in an economy can be seen in the reduction of savings leading to unavailability of funds for deficits units (which include businesses), the reduction of productivity leading to unemployment and the rise in the dependency ratio.

In Ghana, firms do not place the needed emphasis on the financial planning and education. Research has shown that workers that receive financial education through employer-organized seminars helps employees to be more productive and also reduces absenteeism (Joo and Garman 1998). The government of Ghana in it effort to curb the financial illiteracy problem introduced an annual National Financial Literacy Week in September

2008. However the target group for this program is the youth, which leaves older and less financially literate citizens to acquire their financial education through other means.

With very little support and financial education, workers have resorted to over-relying on SSNIT as the major retirement account management body. This is very alarming because of the countless problems SSNIT faces in meeting the required payment of benefits to retirees. In 2015, In 2015, the then Minster of Employment and Labour Hon. Haruna Iddrisu in told parliament that the Government of Ghana had defaulted in the payment of workers contribution to the tier 2 pension scheme to the tune of GHc1 billion in addition to an already existing debt of GHC 288million owed as tier 1 contributions owed SSNIT (BFT Online 2015).

With the liberation of the pension scheme regulation and the introduction of private retirement funds management firms in Ghana, there is the opportunity for workers to plan their pensions properly. However these opportunities will be taken mostly by financially literate workers. The existence of low financial literacy rate, the inability of SSNIT to make prompt payment of pension benefits, and the inadequacy of research relating specifically to how financial literacy in public sector workers is helping them to adjust towards retirement are the factors that prompted this research to be undertaken.

1.2 OBJECTIVES OF THE STUDY

This study among other things, primarily investigate how financial literacy effects retirement planning. To achieve this aim, the study specifically addresses these specific objectives as a guide:

a) To examine the level of knowledge government workers have in money management, savings and borrowing, investment and insurance.

b) To identify which categories of workers are more financially knowledgeable and examine contributory factors that makes them more financially knowledgeable.

c) To examine how a worker‟s knowledge influences his or her personal opinions and decisions on retirement planning.

d) To examine the role employers paly in the financial education of employees and the personal efforts of employees towards financial education.

1.3 RESEARCH QUESTIONS

In order to meet the demands of the research problem and objectives set above, the following questions which served as a guide to attaining the needed results. The research questions to guide this study are;

a) What level of knowledge do government workers have in money management, savings and borrowing, investment and insurance?

b) Which categories of workers are more financially knowledgeable and why?

c) How does workers financial knowledge influences their personal opinions and decisions on retirement planning?

d) What are the challenges workers face when accessing financial knowledge?

1.4 SIGNIFICANCE OF THE STUDY

In the current economic hardship that most economies are facing, there is the need for improvement in financial education to help boost the economy. Financial literacy invariably will help individuals manage their little economic resources and reduce their over dependency on government. The plight of the Ghanaian retiree is felt across all focal sectors of the economy, as such, importance should be attached to its reduction through financial education.

In this vain, this study examines how government workers understand finance, and how this translates into proper retirement planning. The achievement of the stated objectives of this study can bring to light some key relationships between financial literacy and retirement planning in Ghana. Based on the results of the study, policymakers can reconfigure Ghana"s education system to promote financial literacy. In addition, employers can also reexamine the channels through which they can provide financial education. In addition to the stated benefits above, the study will contribute immensely to the little academic knowledge about the subject area in Ghana.

1.5 SCOPE OF THE STUDY

This study covers government workers in and around Tarkwa Nsuaem Municipal District. A sample of 283 respondents were used for the study. The sample included 93 nurses, 103 teachers and 87 workers from other government agencies. Public workers were used for this study because they constitute the highest and most accessible group of workers in the study area who can serve the purpose of this research. The information gathered were used to analyze the relationship between financial literacy and retirement planning. Microsoft Excel (2013 edition) and SPSS statistical packages

(version 19) were used for the analysis. The analysis took the form of both qualitative and quantitative. Quantitative analysis were carried out mainly to estimate the level of financial literacy and also to test if a relationship exists between financial literacy and retirement planning. Qualitative analysis was executed to interpret the results gathered from the field.

1.6 ORGANIZATION OF THE STUDY

The study is organized into five (5) main chapters with each chapter tackling a specified dimension of the research paper. The first chapter consist of the background of the study, the statement of the problem, the objectives of the study, its scope and significance among others.

The second chapter contains a review relevant literature pertaining to all the various measurements of financial literacy, before the discussion narrows down to empirical evidence about financial literacy. A logical insight is presented on the he second theme of the study which is retirement planning and further, expose the gap of knowledge that is yet-to-be explored in this area of study.

The third chapter highlights and defines the methodological approach that this study shall adopt, with particular efforts at defining the research methods and techniques employed in the conduct of this study. The method used to solve the problem is discussed thoroughly alongside the operationalization of all variables involved in the study.

The presentation of the survey‟s findings, analysis and discussions feature in the fourth chapter of this work whereas the fifth and final chapter relate with a summary of the study‟s concluding remarks, based on the discussions of findings on which some recommendations were made.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter presents a review of existing and relevant literature on financial literacy and retirement planning. For this purpose, this chapter is subdivided into several sub headings which cover the meaning of financial literacy, factors that affect financial literacy, challenges workers face in becoming financial literate, and the measurement of financial literacy. Other sections in this chapter cover retirement planning, factors that affect retirement planning and empirical evidence about the relationship between financial literacy and retirement planning. The final section of this chapter looks at the conceptual framework used to measure and explain the relationship between financial literacy and retirement planning.

2.1 MEANING AND OVERVIEW OF FINANCIAL LITERACY

Financial literacy as a concept was brought into the public domain quiet recently. Early studies in the field of financial literacy were conducted by financial services practitioners. According to (Lee 2010), a NatWest Bank sponsored study in 1992 was the first time the phrase 'financial literacy' was used. Scholars took a keen interest in the subject in the 1990's and this led to other stakeholders shifting their focus to the field in the twenty-first century. After several studies in financial literacy, different researchers and organizations have defined financial literacy in many ways. The Presidential Advisory Council on Financial Literacy (PACFL 2008) defines financial literacy as the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being. In line with this definition, the U.S Financial Literacy and Education

Commission (2007) explains financial literacy as the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being.

Beyond the ability to use knowledge and skills to manage financial resources, financial literacy has been described as the ability to read, analyze, manage and communicate the personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future and respond competently to life events that affect everyday financial decisions, including events in the general economy (ANZ 2008).

In offering a different definition, the Organization of Economic Co-operation and Development (OECD 2012) defines financial literacy as the knowledge and

understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life. According to Lusardi and Mitchell

(2014) financial literacy is an individual‟s ability to understand economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions.

A comparison of definitions given by the various researchers either delineate financial literacy into either one or a combination of the following:

a) A perceived knowledge

b) The ability or skills to apply that knowledge

c) Good financial behaviour
d) Financial experiences

Regardless of the various dimensions that researchers use to explain financial literacy, a critical analysis shows that financial literacy can be defined as the knowledge, usage and the ability to use financial information to make proper decisions regarding the financial wellbeing of an individual. However, the inability of researchers to converge on a single definition has led to development of various research instruments for measuring the dimensions of financial literacy.

2.1.1 Related Concepts to Financial Literacy

Financial literacy is used interchangeably with financial knowledge and financial education in several literatures to represent the same thing leading to inability of writers to construct a standardized test for measuring financial literacy (Huston 2010). However some writers have managed to show some boundaries between these three dimensions. These related concepts are reviewed below.

2.1.2 Financial Education

In an effort to understand financial literacy, various researchers have either tried to understand financial education and its impact on financial literacy or have likened financial literacy to financial education. Financial education as defined by the Presidential Advisory Council on Financial Literacy (PACFL 2008) as a means through which people upgrade the way they comprehend financial products, services and concepts, in efforts to empower themselves to make conscious decisions, avoid pitfalls, know where to go for guidance and take other actions to consolidate their current and future financial wellbeing.

The core theme in this definition is that financial education is seen as basically a processes for getting the required training and understanding of financial concepts and packages.

The OECD (2012) defines financial education as "the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial wellbeing". Again the major theme in the definition above is the improvement of the consumers understanding of financial products and their features.

By doing so, the consumer can use the knowledge acquired through training (education) to make sound financial judgments and take the right decisions to maximize their wealth.

Financial education is cardinal to consumers‟ comprehension of financial opportunities, decisions and payoffs. Financial education can translate into saving (wealth accumulation) and the proper management of debt as consumers come to understand the value of money and market forces (Lusardi and Mitchell 2005). Financial education programs in the United States and elsewhere have been implemented over the years in several different settings: in schools, workplaces, and libraries, and sometimes population subgroups have been targeted. As one example, several U.S. states mandated financial education in high school at different points in time, generating

"natural experiments" utilized by Bernheim, Garrett, and Maki (2001), one of the earliest studies in this literature.

To support the influence that financial education has on financial behaviour, international regulatory authorities have taken a keen interest in knowing the levels of financial literacy of various countries and sub regions and the implementation of policies and guidelines to establish financial education programs that would increase financial literacy rates and therefore positively influence the consumers‟ behavior related to financial products and services.

2.1.3 Financial Knowledge

Over the years, authors have used financial literacy and financial knowledge interchangeably in their literature to mean the same thing. Financial knowledge is the stock of knowledge acquired through education and/or experience specifically related to essential personal finance concepts and products (Huston 2010). Financial literacy on the other hand is the ability and confidence to apply or use knowledge related to personal finance concepts and products. Financial knowledge plays a key role in the drive to attain financial literacy as it can be seen as a foundation on which other dimensions of financial literacy depends on. Financial knowledge is a determinant of proper management of savings, retirement planning, debt management and other financial behaviours (Huston 2010).

A dissection of the financial literacy definition establishes the existence of two key dimensions. First, the consumer must have the knowledge to equip him or her to make financial and/or economic decisions. The second aspect dwells on the application dimension which is the ability and the confidence of the individual to use the knowledge he or she has acquired to make financial and/or economic decisions.

Therefore financial knowledge should not be expressed as financial literacy rather it is should be seen as a subset of it.

2.1.4 Financial Capability

In many studies about financial literacy mention is made of financial capabilities. The word capability can be best explained as explained by Harvard Professor Amartya Sen is the opportunity to achieve valuable combinations of human functioning , thus, what a person is able to do or be (Sen 2005). In this vain, financial capability is the ability of a consumer to use their knowledge about financial concepts and products and have access to financial products and services that allow them to act in their best financial interest. Thorough breakdown of the definition shows that capability takes into account not only the individuals‟ internal capabilities (i.e. knowledge and skills) but also the external conditions and array of opportunities available (e.g. access to products services and institutions).Financial capabilities stretches beyond an individual perspective to a structural extent. In a broader sense, financial capability to some extent depends on financial literacy and this serves as the bases for distinction between financial literacy and financial capabilities, as financial literacy is seen as a subset of financial

capabilities.

According to Nussbaum (2011) people may possess the required internal capabilities but the nonexistence of external conditions in the society makes them incapable and the reverse is true. He stresses the need for policy, lawmakers, and service providers to provide a framework that presents to the individual the full range of capabilities needed for their well-being. However in terms of dependency it not quite clear as to which of these two concepts leads to the other.

2.2 MEASURING FINANCIAL LITERACY

The diversity of conceptual definitions of financial literacy has translated into the development of varying measures for quantifying the level of financial literacy across several studies (Hung et al. 2009). The content areas used for measuring financial literacy encompass on a wide range of financial concepts, making the choice of a standard measure quiet uneasy for researchers to test financial literacy. In a research conducted by Huston (2010) entitled "Measuring Financial literacy", her review of seventy-two articles on financial literacy indicate that there are at least four unique content areas used to measure financial literacy by researchers. They include personal finance (understanding time value of money, and purchasing power), borrowing (using financial systems to make it possible to consume future products today), and investing (transferring present consumption to future dates) and sometimes the protection of assets (Insurance and risk management).

Aside the differences in content areas, a standardize test is yet to be developed that can be widely accepted on the basis of it results and potency. Authors have relied on numeracy multi-choice tests to measure financial knowledge and financial decision making. In Jump$tart Coalition and other financial literacy surveys conducted in the United States, the surveys were centered on numeracy tests which were used to justify the financial knowledge respondents possessed (Mandell and Klein 2009). These surveys failed to gather enough in depth information about the financial education and key variables that have an influence on financial behavior. Therefore the results of these surveys were bias towards some cognitive aspects of financial literacy.

Alternatively the Health and Retirement Survey (2004) addressed the problem with studies capturing in depth information about financial education and other key factors not captured by previous literature. However the 2004 Health and Retirement Survey failed to do so, in terms of being representative of the population, as it focus was on the elderly whose ages were over 50 years, which is just a subgroup of the population. So far several studies have attempted to measure financial literacy with various numeracy test and failed to capture key variable while others have captured the variables but are limited to some subgroups even though they may agree on what constitute financial (Hung et al. 2009).

Using the numeracy test to quantify financial literacy is objective as it is devoid of any control from the researcher (Huston 2010). As explained earlier in this section, the numeracy test which are used to measure financial literacy center on savings and borrowing, protection of assets, and basic finance. The grading system for numeracy tests over the years have not been static (Huston 2010). For example early writers such as Chen, Volpe and Pavlicko (1996) pegged their pass mark at an investment IQ score of 70%. Other studies use the standard education grading of A to F, where an inference can be made that persons with a grade. The Jump$tart survey has moved its pass mark for student respondents from 60% to 70% (Mandell and Klein 2009).

2.3 DETERMINANTS OF FINANCIAL LITERACY

Financial literacy is a multifaceted concepts that depends on several factors. Among the many factors that influence financial literacy, the most notable ones include age, gender, income, level of education, financial inclusion, among others. The relationship and level of influence that these variables have on financial literacy varies across samples, and countries (Lusardi and Mitchell 2005). In addition, other variables may combine with

some of these key variable to give a meaningful explanation for the level of financial knowledge.

In terms of gender, there is a wide and persistent gap difference between men and women across several countries in empirical literature (Lusardi and Mitchell, 2014). Lusardi et al. (2010) report that both older men and younger men are more financially knowledgeable than both older females and younger females. According to a study conducted by Fornero and Monticone (2013) in Italy, men answered most of the numeracy test question correctly and had fewer " Don"t Know" (DK) answers than women even at a significance level of 1%. They were however quick to explain that the difference may be due to the homogeneity of the sample, age differences and marital status. The ANZ Banking Group (2005) report that women in Australia are concentrated in the lowest 20% of the literacy distribution, while in New Zealand women over the ages of eighteen exhibited similar characteristics. A possible explanation to the gender gap can be given using internal factors such as risk preference and confidence. Generally, women lack the confidence, interest and are risk adverse when it comes to financial education and decision making (Chen and Volpe, 2002). In the case of Africa, men are seen as the heads of the family, therefore they are more likely to make financial decisions than their women counterparts. This invariably puts women in a position where they have to develop more interest in financial education training. Also in cases where they do not have financial education, their experiences as heads of their families over the years provides them with the advantage over women. This study did exploit the gender gap as no concrete comparison between males and female was made.

Another factor that influences the level of financial literacy among individuals in several studies is age difference. Generally older people are supposed to be financially

knowledgeable than younger people. However Mendes (2013) demonstrates that it is not clear as to how financial literacy increases with age because in his findings, younger respondents below 28 years were more financially literate and exhibited control over financial issues than older respondents. The case is however not clear as Lusardi and Mitchell (2011) report that age pattern in financial literacy follows an inverted "U shaped" pattern with younger and older people having lower financial literacy as against middle-aged people. They suggest that the difference could be dues to financial knowledge and experience rises as an individual grows and declines as he or she gets older. The initial increase in financial knowledge as a person grows is caused by an increase in exposure to financial decision making through daily life experiences (Agrawal et al., 2009). The decline at the latter stages in life is due to a reduction in cognitive functions.

Studies in the field of financial literacy have shown that financial literacy is highly correlated with income levels. Financial literacy among people within lower income groups is lower than people in higher income groups in several literature. The financial literacy gap widens as income increases and even when employment status changes, such that employed and self-employed individuals are more financially literate than the unemployed (Lusardi and Mitchell, 2014). This means that countries with higher unemployment rates and income distribution gaps will experience lower financial literacy than countries with the opposite characteristics. Combine the effect of gender and income Hung et al. (2009) report that older men with higher income at a confidence level of 99%. Several research works have shown that financial literacy is very low among persons with little or no education (Lusardi, 2012). Education plays a role in the level of financial literacy that exist in a society at large. Through education, individuals are given the required skills to aid them to make meaning of financial issues and products. The basic

assumption here is that, as a person climbs the education ladder, the greater the information he or she gets about financial matters. However this may not always be true due to empirical evidence presented by researchers which prove that the level of education is not always positively correlated with financial literacy. Hastings and Mitchell (2011) report in their research conducted in Chile with 14,000 respondents about how financial literacy and impatience shapes financial decisions, that those who answered questions correctly were more likely than those who did not know the correct answers to have higher monthly income, more education, and savings.

2.4 THE CONCEPT OF RETIREMENT

Retirement is a broad concept that has several meanings yet it presence cuts across different economies. Retirement as a complex phenomenon involves several procedures and aspects which link the preparation for retirement to other key aspects like when to retire simultaneously (Topa et al. 2009). According to Ross (2009), retirement is best explained as an instant switch from paid work or being employed to a complete end of work activity. The complex nature of retirement is evident in how it can be expanded into several concepts such as voluntary retirement, perceived retirement, partial retirement, early retirement and social security eligibility.

Until recently, retirement was seen as a simple process meant for the elderly to endure till their death, however changes in economy and research have extended the concept to other cohorts. This is because older workers and the youth have come to realize that retirement defines an increasing proportion of human life activities which can determine how long you live and how you live for the rest of your life (Adams et al. 2011). In a dichotomous

concept such as retirement, the young and working population are interested in the first aspect of the concept which involves planning for future consumption by making adjustments to their present consumption whereas the elderly who are approaching the retirement age are concerned about when to make the decision that draws the curtain on their working life (Topa et al. 2009).

From the discussion so far, the transition into retirement can be seen as a process that span over three phases. The first phase which is mostly referred to as the preretirement phase involves planning for the event. The second phase involves the making the decision to end active work and go on "retirement". This phase can be voluntary and involuntary and vary from country to country. The last phase is the postretirement phase which involves living on the accumulated wealth from your working years. This phase can last for at least fifteen years and the number can sometimes rise to a quarter of a workers entire life (Adams et al. 2011). Holding other factors constant, proper financial planning can extend the level of satisfaction that a retiree attains during the postretirement phase. Relaxing this assumption will give rise to the introduction of other key factors such as good health, well established social relationships, access to leisure activities and sometimes paid or unpaid work (Petkoska and Earl 2009).

2.5 RETIREMENT PLANNING

One factor that accounts for a peaceful and successful retirement is planning and research over the years has shown. According to Hershey et al (2007), a good retirement plan in the financial sense covers all the desired standard and quality of living in the golden years of the retiree if resources are gathered over the working years of the retiree. This brings into the picture the question of whether authors should rely solely on the accumulation of

wealth to explaining retirement planning or focus on key factors such as health, and social relationships. To best explain retirement planning reference is mostly made to the classical life cycle economic theory (Ando and

Modiglaini, 1963) or the work-role theory (Adams et al 2002).

2.5.1 Life cycle theory

The life cycle theory is used to explain how rational consumers plan their consumption and wealth accumulation over their life span. Ando and Modigliani (1963) suggest in thier theory that, for an individual to have a stable life they must even out consumption throughout their lives. Thus, they store assets during the early stages of their working lives, then during the latter part of their lives fall on the stock of assets. To smoothing out consumption, the average propensity to consume must be higher in the early stages in life because individuals would have to use their savings or borrow money against future income, while older or middle aged individuals must have a greater propensity to save as they get closer to retirement (Ando and Modigliani 1963).

Although the life cycle economic theory as a model does not give a complete and exact representation of the realities of retirement planning, the ideas within the model are laudable (Burtless 2006). The life cycle economic theory gives researchers and financial practitioners a stepping stone to build an understanding of retirement as not a single event in the lives of individuals but as a transition which encompasses contextual and psychological factors that come together to explaining the retirement process holistically (Adams et al 2002). This theory has invariable been hailed as the foundation for our knowledge in financial preparation. However there are flaws in the assumptions that are

raised by the life cycle economic theory due to the fact that though people know their current earnings, they may not know their future earnings (Adams et al. 2011).

2.5.2 Work-role Attachment Theory

An alternative theory which is used to explaining retirement planning is the work-role attachment theory which looks at the psychological aspects of work. The work-role attachment theory posits that the level of commitment that individuals attach to their work-role influences their desire to remain in active work and not retire (Adams et al., 2011). Generally, there are three sub dimensions of the work- role attachment theory that are used to explain the behaviour of workers towards retirement and retirement planning: job involvement, company identification and professional attachment. According to Carter & Cook (1995) workers who value their role in a firm are likely to suffer from job involvement psychologically. Workers in the second sub-dimension are workers who work at prestigious and renowned firms and develop some attachment to the firm and would like to be identified in society with the firm. The final subdimension includes classifies workers who have developed an attachment and value their role in their profession.

Workers with higher degrees of attachment in any of these three sub-dimensions are prone to avoid retirement and ultimately planning for retirement as well (Adams et al. 2011). Though in literature authors have advanced their arguments about relationship that exist between work-role attachment theory to retirement and retirement planning, there is little empirical evidence to support any concrete relationships.

2.6 FACTORS THAT AFFECT RETIREMENT PLANNING

Retirement planning is important to workers because it eases their transition into retirement by given them a better understanding of the realities of retirement and helps them to form informed expectations about retirement. The expectations of an employee are linked to how he perceives retirement and serves as a drive towards his attitudes towards planning. However there are some key factors that dictate the pace at which an individual plans his or her retirement. Demographic factors such as income, education, age and gender have been identified as influential on retirement planning (Petkoska and Earl 2009). Though these factors may not always be the collectively influence retirement planning, there is the possibility that they can be used as a basis for distinguishing between planners and non-planers.

Retirement education and certain related programs also affect the retirement planning behaviors (Joo and Grable 2001). According to Taylor and Geldhuaser (2007), a thorough examination of how different forms of factors impact on retirement planning behavior is needed, and this is more important for older, low-income workers, specifically women and ethnic minorities due to the fact that these groups have not been engaged in managing their financial resources prior to retirement.

2.6.1 Income

Income level can be used to explain how individuals plan their retirement on the basis that an individual must have money in order to have command over other resources needed for planning his retirement. Individuals within the same income group are more likely to exhibit similar attitudes towards retirement planning becuse they have access to almost the same resources (Rooji et al. 2009). The level of income of employees have been

known to influence the form of financial education an employee obtains. This, according to Mansor et al (2011) lends an explanation to the fact that people who have higher income are more motivated to seek professionals help regarding investment-related decision, but the people who come from lower income group which had less income are less likely to look for professional help on retirement investment decisions.

An assessment of the monthly salary of workers have provided evidence that people in lower income groups are more likely to invest in financial education that provides information about debt management, the mechanics of mortgage purchasing and income budgeting while high income earners are primary concerned about financial education that is centered on the estate planning and portfolio management (Joo and

Grable 2001).

In a study conducted by Goda et al (2013) 17000 workers of Minnesota University were grouped into four categories; control, income, balanced and planning. Their findings suggest that the combined effect of providing retirement information and income projections for retirement plans encouraged an increase in the savings of members in the income group. Also the overall effect of an increase income is seen in the translation of the extra income into savings. In line with this are the findings of (Lusardi and Mitchell 2014) where financial savviness and planning were correlated with employment and income. The results for income showed that persistently across countries lower paid individuals had lower financial literacy which translated into the inability to plan their retirement privately and forced them to rely on compulsory social security schemes and employee endowment funds.

However the strength of income level as a predictor of retirement planning is not quite strong and significant as some studies have shown (Beckmann 2013; Fornero and Monticone 2013). Evidence from these two studies have shown that households with higher income are associated with having pension plan but the explanatory power of income level of retirement planning in both occasions was weak. In some instances empirical evidence provided by authors have gone against the positive relationship between income levels and retirement planning to such an extent that lower income earners planned their retirement than high income earners (Lusardi and Mitchell 2007).

2.6.2 Education level

Extensive studies have been done to establish the relationship between level of education and retirement planning and other financial behaviours. The overall result from many researches have laid to bear the argument that the level of education of an individual is correlated with savings behaviour (Lusardi and Mitchell 2007, 2011; Joo and Grable 2001; Beckmann 2013; Lusardi 2004). This could be attributed to the fact that at some point of one‟s education he or she will undertake some form of financial education or gain knowledge about the need to plan for retirement. . According to Joo and Grable (2001) education helps employees to gain the advantage of being able to probe further for more information linked across several platforms on retirement planning and enable them adjust their attitudes towards retirement planning unlike uneducated and less educated employees.

The arguments raised so far point out that causality runs from education to planning in so far one is educated. Using information on economics education Adams et al. (2011) posits

that though the nexus of causality goes from literacy to planning rather than the other way, higher education does not guarantee retirement planning. This is also explained by Lusardi and Mitchell (2007) in a study involving 1000 respondents, they found that in all countries included in the study, higher educational attainment is strongly correlated with financial knowledge, but even at the highest level of schooling, financial literacy and retirement planning tends to be low. This shows that the influence education has on financial behaviours such as retirement planning is limited.

2.6.3 Financial Education

Savings, credit management, investing and borrowing all form part of financial behaviours which are imperative in retirement planning. Therefore the relationship between financial education and retirement planning can be used as a proxy for explaining the relationship between financial literacy and retirement planning. In order for retirement planning to take place there is the need for employers to organize seminars for their employees with the aim of providing financial education but for the effect of financial education to be potent on retirement planning, a "one-size-fits-all" education program cannot serve as a cure for unplanned retirement due to the difference in the levels of financial literacy among workers (Lusardi and Mitchell 2007). The aim of financial education is to help recipients to recognize and take advantage of the opportunities around them.

There are variations in the how employees respond to financial education with regards to retirement planning. Women are more likely to be responsive to financial education seminars by increasing their planned retirement age, raise their target income goal for retirement and improve their savings behaviour to suit it (Clark et al. 2008). Another

variation can be seen where workers who gain extra personal finance education outperform their colleagues, who have the same educational qualifications, in making financial decisions (Mansor et al. 2011). It on this bases that Mansor et al (2011) contends that the improvement of financial behaviours towards retirement preparedness relies on the education that the worker receives cum other relevant information available to ease the decision making process.

In a Survey conducted by the Employee Benefit Research Institute (EBRI, 2010) in the United States, financial literacy was found to accounts for people‟s ability to have a savings account and save regularly and meet credit cards payments. In the same study the findings lend an explanation to the idea that financial education prepares individuals to make important decisions at key stages in life such as altering their savings goal to meet their retirement goals. Ina related research, Bernheim, and Garrett (2001) find that there is a positive and meaningful link between financial education and retirement planning. Making a comparison of firms that provide financial education for their workers against those that do not, the scores for financial literacy test for those that partook in the seminars were higher than those who did not. Also participants of seminars organized by their employers changed their savings behaviours, especially employees who saved little prior to receiving financial education.

While more is being learnt 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. The costs of financial education programs may outweigh potential benefits they provide. A study conducted by Mandell and Klein (2009) with a sample size of 400 high school students answering 49 questions adopted from the

2004 jump$tart questionnaire and a $25 incentive for respondents, yielded a results that shows that half of the respondent who took courses in personal finance against the others who did not take the course, did demonstrate a meaningful positive impact in their financial behaviours.

On the Health and Retirement Survey (HRS), Lusardi (2003) investigated the effect of retirement seminars on savings and wealth. A direct positive link was found between education level and permanent income. Retirement education was found to increases liquid wealth (savings) by approximately 18 percent overall. The seminal work on the impact of financial education by Bernheim et al. (2001) revealed that middle age individuals who took a personal financial management course in high school saved more than those who didn‟t pursue the course. (Lusardi and Mitchell (2007) observed that households with low levels of financial literacy tend not to plan for retirement, acquire fewer assets, borrow at higher interest rates (Lusardi and Tufano 2008) and participate less in the formal financial system relative to their more financially literate counterparts.

2.7 FINANCIAL LITERACY, RETIREMENT PLANNING AND ECONOMIC DEVELOPMENT

Financial literacy stretches beyond the frontiers of microeconomic gains to macroeconomic developments if it well entrenched in a society. Between the microeconomic to the macroeconomic spectrum, the impact of economic gains can mostly be observed in three dimensions: households, market systems and government policies.

At the lowest level of the spectrum, financial literacy has an influence on the savings and consumption of income earned by households. As established earlier in this chapter, financial literacy serves as a catalyst in the choice and implementation of good retirement planning. Retirement planning involves savings and borrowing as well as investing in the best means possible. In terms of savings, research has shown that financial education coupled with financial capability contribute to the usage of financial services. In a study conducted by Beckmann (2013) in Romania, it was established that household usage of financial services was positively correlated with financial literacy. This implies that as the level of financial literacy of individuals increases so does their willingness to save of borrow from financial services. The economic impact of a vibrant financial sector is seen in the growth in GDP.

On a much higher level, financial literacy improves market systems in an economy by improving the competition among firms by way quality products and pricing (Cole 2011). As the level of financial literacy improves in an economy the demand for complex but affordable financial products increases. In a competitive financial market like that of Ghana, the forces of demand and supply are allowed to play their role in the determining the type and volumes of financial products in the form of investment, savings and debts instruments in the economy. A rise in financial literacy in an economy increases the financial inclusion (Cole 2011), this triggers the competition between financial service providers to provide the best products in order to have higher market shares. In terms of risk, markets are safer when participants are well informed and financially literate, because they have a good idea of the implications of their actions and also read meanings into the actions of service providers as well.

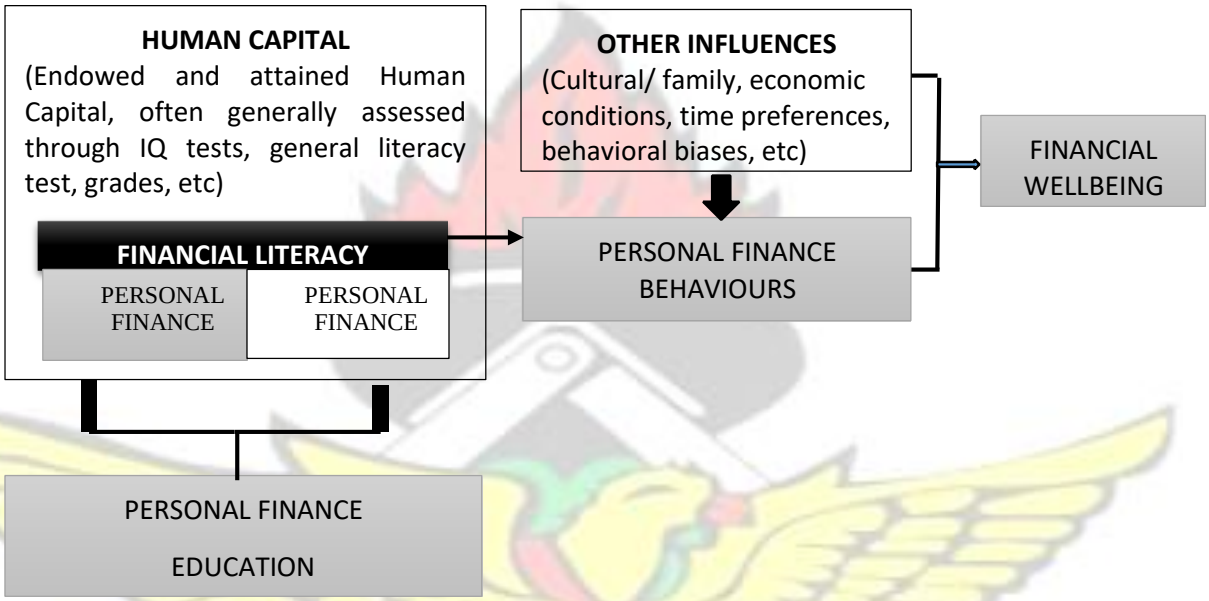
On a macroeconomic level, financial literacy helps individuals to understand and capitalize on government economic policies to their advantage. When individuals and market participants have a good understanding of financial sector reforms and policies they can adjust to them easily as compared to an economy that has a low financial literacy rate. Though political reforms may be complex as compared to financial sector reforms, consumers and market participants require more understanding in financial sector reforms because the impact of such reforms is very extensive as compared to other types of reforms. In the case of Ghana, aside increasing the contribution rate, the new SSNIT pension scheme has given private firms and workers-provident schemes to operate under the supervision of the National Pension Regulatory Authority (NPRA). This means that workers can reduce their overdependence on SSNIT and avoid the delayed payment of benefits by government, by setting up their own provident funds or by joining private retirement and insurance schemes. However this will only work to the advantage of financial literate employees who are either ready to come together to form provident funds or operate sell-funded retirement accounts.

2.8 CONCEPTUAL FRAMEWORK

The conceptual framework that was used for this study was adopted from a study centered on measuring financial literacy by Huston (2010). The framework specified the study explains the relationship between financial knowledge, financial education, financial behaviours and well-being. The link between these variables is drawn from the human capital point of view. Ideally as suggested by Huston (2010) financial literacy is dependent on the level of human capital both inherent and acquired in a person‟s life. The level of human capital is one area that is mostly explored by financial literacy studies through various numeracy tests and grading systems. This study adapted the conceptual framework from Huston (2010) because it uses numeracy test and other tests to measure

financial literacy among government workers and how it translates into retirement planning.

Figure 1: Relationship between Financial Knowledge, Knowledge, Education, Behaviour and Wellbeing



Source: Huston (2010)

2.8.1 Human Capital

The first phase looks at how human capital and personal finance education influence personal finance decisions. Human capital is a multidimensional concept which is defined as a collection of intangible resources that is inherent in individuals or groups within a given population (Sen 2005). The components of human capital include skills, abilities, experiences, training, talents and judgments which together are used by individuals or groups to generate wealth for firms and individuals. According to Huston

(2010), people who lack arithmetic skills are more likely to be less financially literate. This is because generally human capital is assessed through IQ tests, general literacy tests

and education grades. However the existence of computers and calculators can reduce the deficiency in financial literacy that people who struggle with arithmetic have.

2.8.2 Personal Finance Education

Lusardi & Mitchell (2014) suggest that researchers in the field of financial literacy should see financial knowledge as part of human capital and this could be the reason behind it inclusion an influence on financial literacy at the first phase of the conceptual framework presented by Huston (2010). Personal finance education encompasses guidelines on credit management, savings and borrowing and investment management. PACFL (as cited in young) have exposure to a basic comprehension of capital market and money market systems, household budgeting and the need for precautionary budgeting. Personal finance education is expected to lead to a positive change in financial literacy and subsequent behaviours (Lusardi and Mitchell 2007). However receipt of personal financial education must be accompanied by the presence of both internal and external capabilities to form financial literacy.

2.8.3 Personal Finance Behaviours

The second phase of the framework specifies how financial literacy leads to changes in finance behaviours. Finance behaviours within the specified framework constitute savings, borrowing, investing and debt management. These behaviours are as a product of the level of financial literacy in addition to other environmental factors such as time preference, cultural, family, economic conditions, friends, behaviourial biases, availability of financial services and institutions and many more (Huston 2010). The environmental variables aside influencing financial behaviours also influence financial wellbeing directly. A typical example is the effect that economic conditions such as interest rates and inflation have on the purchasing power of individuals in the economy.

2.8.4 Financial Wellbeing

Financial wellbeing is at the final stage of the framework and is the output of financial behaviours and other influencers. According to Huston (2010) other factors specified in the framework such as peers, economic conditions, cognitive biases, etc. can explain why a person that has the knowledge and the ability to apply the knowledge may not exhibit the standard personal finance behaviours or improve their financial wellbeing. Retirees experience financial wellbeing if they are able to enjoy their planned consumption from the wealth they accumulated in as a result of earlier financial behaviours during their active working years.

CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

Research methodology is a way to systematically solve the research problem (Kothari, 2004). The choice of methodology can determine the results the research. This chapter covers the various scientific approaches and tools that were used to achieve the aims and objectives of the study. The first section of this chapter examines the various research paradigm available for the research. The second section covers the research design used for the study. This section is followed by a definition of the population, sample and sampling techniques employed by the researcher for the study. The next two sections cover the data sources and data collection techniques respectively. The chapter ends with how the data gathered was analyzed and presented.

3.1 RESEARCH PARADIGM

Researchers all over the world are guided by research paradigms in the understanding, organization and observation of concept understudy. The philosophy that the researcher may use as a tool for understanding the social world is all imbibed in his choice of research paradigm (Neuman 2006). Therefore the research paradigm influences the researcher‟s research design, his or her data collection methods and tools and the analysis of the data as well (Bhattacherjee, 2012). In research, there are four main paradigms that researchers use as a guide to obtaining their desired result, namely, positivism, pragmatism, constructivism and advocacy (Neuman 2006).

Postpositivism reflects a deterministic philosophy in which causes probably determine effects or outcomes. Thus, the problems studied by postpositivists reflect a need to examine causes that influence outcomes, such as issues examined in experiments (Saunders et al. 2007). This position is sometimes called the "scientific method" or doing "science" research. It is also called quantitative research, positivist/postpositivists research, and empirical science. Researchers that are in the advocacy line of thinking believe that inquiry needs to be intertwined with politics and a political agenda (Kothari 2004) Thus, the research should contain an action agenda for reform that may change the lives of the participants, the institutions in which individuals work or live, and the researcher's life. Moreover, specific issues needed to be addressed that speak to important social issues of the day, issues such as empowerment, inequality, oppression, domination, suppression, and alienation.

Pragmatism is another worldview of research. Pragmatism is based on the principle that instead of methods being important, the problem is most important, and researchers use all approaches to understand the problem (Saunders et al., 2007). For many of them, knowledge claims arise out of actions, situations, and consequences rather than antecedent conditions as seen in postpositivism. According to the constructivism paradigm of research people interpret different meanings to situations, which affect their actions and interactions with the environment within the context of their socially constructed perception of reality. Researchers adopting this paradigm seek to comprehend the subjective meanings people socially construct and appreciate the complexities of human experience, motivations and interactions (Neuman 2006; Saunders et al. 2007).

This research will employ a positivist paradigm since it seeks to objectively investigate the level of financial literacy among selected government workers using procedures and approaches that can be replicated. It seeks to establish the relationship between several factors and financial literacy by gathering quantitative data through a survey instrument.

3.2 RESEARCH DESIGN

Research design is a comprehensive plan for data collection in an empirical research project. It is a "blueprint" for empirical research aimed at answering specific research questions or testing specific hypotheses, and must specify at least three processes: the data collection process, the instrument development process, and the sampling process (Bhattacherjee 2012). The research design of any research can take any of these three forms: explanatory, exploratory and descriptive.

Explanatory research is positioned towards attaining explanations of observed phenomena, concepts, problems and behaviours (Kothari 2004). Explanatory research identifies the phenomenon and considers all the approaches in research that are suitable for attaining answer that can explain the why and how the phenomenon operates. Descriptive research studies are primarily aim at describing the relationship and characteristics of a particular individual or a group (Bhattacherjee 2012). This type of research approach does not attempt to establish a rigorous relationship by testing relationships or forecasting relationships among variables, instead, it illuminates answers about the "what" type of questions. According to Neuman (2006) exploratory research is organized a manner that permits the researcher to gain insight into a research problem or issue which has very little or no information for reference about the issue or problem.

This study‟s research design is a combination of the descriptive and explanatory designs. , to provide valid conclusions and recommendations, descriptive and explanatory research designs were adopted for this study. Descriptive research serves as a means of depicting the facts about workers financial knowledge and behaviours. This study is deemed to be explanatory since it seeks to establish and explain the relationship between financial literacy, retirement planning and personal characteristics of government workers. Also, it goes a step further to ascertain whether there is a causal relationship between level of financial literacy and a worker‟s retirement planning.

3.3 POPULATION, SAMPLING AND SAMPLING TECHNIQUE

The population or the universal set of any study is the finite or infinite set of objects, elements, people or items that possesses the characteristics of interest to the researcher (Kothari 2004). The identification of the population for a study is the first step in drawing a sample for measurement of the characteristics of interest. The population of this research includes all licensed nurses, public school teachers, district assembly administrators, Ghana revenue Authority workers and other government workers that are below the retirement age, who work in selected area of the research (Tarkwa). Therefore workers that fall within this category will be considered for this study. Public workers were used for this study because they constitute the highest and most accessible group of workers in the study area who can serve the purpose of this research.

For every scientific study, the sample size is the number of items that is selected from the universal set (Neuman 2006). Selecting an optimum sample size is the key to attaining the efficiency, representativeness, reliability and flexibility (Saunder et al. 2007). This study selected a sample size of 300 workers as possible respondents at a confidence

interval of 95%. Out of the 300 sample size chosen, 100 nurses were drawn from public hospitals and 100 teachers and 100 workers from other government institutions. This sample size addresses the challenge of access to the complete population and is cost and time effective.

This study combines probability and non-probability sampling techniques in selecting the institutions from which the workers are selected. The nine public institutions were selected using purposive sampling technique because they are the government institutions which can be found in the Tarkwa Nsuaem Municipal District and also they have more workers together than private hospitals. The nine public institutions selected for the study include workers from the Old Tarkwa Government hospital, Simpa hospital, and Bonsa RCH and Nsuaem Government Hospital. Workers from the Tarkwa Nsuaem Municipal Assembly, State Insurance company, Ghana Revenue Authority, Lands Commission and Ghana Cultural Center. Whereas a simple random sampling technique was used to select the public institutions.

3.4 SOURCES OF DATA AND DATA COLLECTION

The research was based on the primary data collected by the researcher on the field. The primary data was gathered through the use of a structured self-administered questionnaire. The questionnaire was designed to cover all the aims and objectives set by the research. The questionnaires encompassed questions about financial literacy such personal finance, general knowledge, savings and investment and insurance. This study adopted the questionnaire of Mireku (2015) due to it applicability and ability to measure the characteristics of interest.

The questionnaire was divided into seven categories. The first section of the questionnaire covered the demographics about the possible respondents such as age, gender, level of education, area of study, level of income and others. The second section sought to obtain data on respondent‟s knowledge of basic personal finance issues such financial planning, budgeting, cash management and others. The third section covers knowledge in savings and borrowing such bank loans, frequency of savings and credit management. The fourth section examines workers knowledge of basic issues in investment such as risk return relationship, short term and long term investment. These are fundamental questions on investment that financially literate persons are expected to know. Section five gathers respondents‟ knowledge of basic issues in insurance such as premium, rationale for taking an insurance policy and the health insurance. Workers were also asked questions on their personal financial decisions and practices with regards to retirement under section six. The main objective of tailoring this section to suit the research was because it serves as means for testing how financial literacy translates into retirement planning. The seventh and final part of the questionnaire focuses on questions that measure how workers are exposed to financial issues and challenges they face in getting financial education.

3.5 DATA ANALYSIS

Data collected from the field was analyzed using statistical packages and presented in the form of tables and charts. Statistical package that were used in analyzing the data gathered from the field were SPSS and Microsoft Excel. The analysis of the data include an analysis of the mean percentage correct scores of questions on the level of financial literacy from the first to the fifth section of the questionnaire. The choice of this techniques of analysis was arrived at after a careful consideration of the various methods

used by renowned researchers in the field from existing literature (Chen and Volpe 1998; Lusardi et al. 2010).

A standard grading system developed by past studies divided respondents into three groups. Respondents that score 80% and above and 60% to 79% together represent people with high financial knowledge while respondents who score below 60% represent people with low level of financial literacy (Chen and Volpe, 1998). However this study adopted the grading system from Mireku (2015) which grades respondents who score 70% and above (A - Excellent), 60-69% (B - Very Good), 50-59% (C - Good), 40-49% (D - Satisfactory) and below 40% (F - Fail). The mean percentage scores are grouped under correct, incorrect and don‟t know (Lusardi et al. 2010).

The analyses covered the descriptive statistics of the sample; the literacy level of workers in general money management, savings and borrowing, investment and insurance; and univariate analysis of differences in the financial literacy level among subgroup of workers. This study provides further evidence of the differences using analysis of variance (ANOVA) and Chi-Square tests.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.0 INTRODUCTION

This chapter covers analysis of the data which was collected using the questionnaire that was specified in the previous chapter. This chapter includes univariate analysis of workers knowledge in investment, insurance, personal finance and savings and borrowing. The latter section of this chapter covers retirement planning practices and financial literacy. All results are presented in tables.

4.1 UNIVARIATE ANALYSIS

4.1.1 Descriptive Statistics On Knowledge In Finance

In order to test the financial literacy of respondents, a questionnaire which covers the four key areas of financial literacy was administered to respondents. The four key areas captured workers knowledge in general finance, savings and borrowing, investment and insurance. These four components were measured in a study conducted Mireku (2015) among 3931 students in various universities in Ghana. All had several options among which one option was correct and the remainder wrong. A „Don‟t know‟ option was provided to prevent respondents from guessing the answers. The „Don‟t know‟ option during analysis of the correct responses was captured as a wrong answer as was the case in several studies (Lusardi and Mitchell 2006; Lusardi and Tufano 2009).

The first section covered respondents‟ knowledge in personal finance and specifically touched on the need for financial literacy and planning. This was followed by questions about personal budgeting, assets liquidity, net asset value and a comparison of interest rate and inflation. A total of 58.7% provided the correct answer for the question bordering

on the need for financial literacy. Out of the remaining respondents 39.2% gave a wrong response while 2.1% chose “don‟t know”. The results for the question on the need for financial planning gave a similar result as 50.9% of respondents gave the correct answer, 43.1% the wrong answer and 6% gave “don‟t know” responses.

Workers showed they had much knowledge about the purpose of a personal budget. Out of the responses they gave to this question, 55.8% were correct, 36.7% were wrong and 7.4% did not know the answer.

The performance of students on the question of asset liquidity was below their previous performance. About 43.8% of the responses given were correct, 39.2% were wrong and 17% of respondents did not know the answer. This means that workers have little knowledge about which assets they can easily turn into cash in times of need. Out of the total respondents 33.2% of them knew their net worth, 47% provided a wrong answer and 19.8% indicated they did not know. The question about respondent‟s net worth produced the percentage of wrong answers and “don‟t know” responses in this section. This implies that workers cannot tell their net worth and decide on which assets are most liquid as well. The final question in this section sought the knowledge of respondents on about their purchasing power when inflation is higher that interest rate after a period of time. A total of 51.2 of respondents gave the correct answer while

48.8% responded wrongly or did not know.

Table 4.1: Patterns of Response to Financial Literacy Questions

	Correct Answer	Wrong Answer	Don‟t Know Response

General Finance knowledge			
Personal Financial literacy	58.7	39.2	2.1
Personal financial planning	50.9	43.1	6
Personal budget	55.8	36.7	7.4
Asset liquidity	43.8	39.2	17
Net asset value	33.2	47	19.8
Interest rate and Inflation rate	51.2	34.2	14.5
Mean percentage score	49		
Savings and Borrowing Knowledge			
Highest interest paying account	50.9	34.3	14.8
Loan guarantee	55.1	35	9.9
Compound interest	46.3	38.9	14.8
Simple interest	47	35.7	17.3
Higher borrowing source	56.2	26.1	17.7
Overdraft	38.2	35.3	26.5
Leading factors that affect lending	45.9	35.7	18.4
Mean percentage score	48.5		
Investment Knowledge			
Securities market	53	34.6	12.4
Short-term investment	39.9	36.4	23.7
Mutual fund	32.9	43.8	23.3
Diversification	41.3	43.5	15.2
Risk-return relationship	42	36	21.9
Mean percentage score	41.8		
Insurance Knowledge			
Car insurance premium	39.2	43.1	17.7
Purpose of insurance	41	40.6	18.4
Comprehensive insurance	46.3	36.7	17
Health insurance	50.5	39.2	10.2
Life insurance	50.5	36.7	12.7
Third party insurance	41.3	39.9	18.7
Mean percentage score	44.8		

Source: Field Survey, 2016

Going according to the pattern of response for questions about general financial knowledge displayed in table 4.2, 4.2% of respondents had all answers wrong or did not know the answers, while 8.5% had one answer correct, 22.6% had two answers correct,

32.9% had three answers correct, 20.5% had four answers correct, 8.5% had five answers correct and 2.8% had all answers correct. This result shows that workers in the municipality have little knowledge in general personal finance as 68.2 respondents had at most three out of the six questions correct. These findings are in line with research findings reviewed in literature review (Chen and Volpe 1998; Mireku 2015). One key finding in this study was workers low knowledge about asset liquidity and net worth. These two subject are key in retirement planning because knowledge about asset liquidity will help a retiree decide which kind of investment to choose to suit their cash flow during their pension.

Table 4.2: Pattern of correct answers for general finance knowledge

	Frequency	Percent
All wrong/Don"t Know	12	4.2
One correct	24	8.5
Two correct	64	22.6
Three correct	93	32.9
Four correct	58	20.5
Five correct	24	8.5
Six correct	8	2.8
Total	283	100

Source: Field Survey, 2016

4.1.2 Knowledge in Savings and Borrowing

The third section of the questionnaire gathered data about the level of understanding respondents have in savings and borrowing. This section begun with a question about the highest interest paying account among a list of accounts provided. Out of the responses given, 50.9% were correct, 34.2% were wrong and 14.8% indicated they did not know

the answer. This shows that half of the workers know which account bears the highest interest while the remaining half do not. The results for the next question on the consequence of guaranteeing a loan was impressive. A total of 55.1% answered correctly, 35% answered wrongly and 9.9% indicated they did not know. This can be attributed to past experiences workers have with regards to guaranteeing loans for others.

The correct answers for the question on compound interest was 46.3% while the wrong answers amounted to 53.7% of the valid responses given. The same pattern emerged in the follow up question about simple interest with 47% correct responses, and 53% wrong responses given. These results show that workers do not understand how the compound interest and simple interest on their investments are calculated as such they may encounter problems in making projections for their retirement during planning. Workers performed well on the question about sources of borrowing with highest interest charges. Out of the total responses given 56.2% were correct, 26.1% were wrong and 17.7% indicated they did not know. Again the result obtained about this question on borrowing can be attributed to the life experiences workers have with regards to borrowing from the sources that were provided.

The next question bordered on the meaning of bank overdrafts. An aggregate of 38.2 had the question correct while 61.8% provided a wrong answer. The same pattern emerged for the question that followed which touched on the factors that affect bank lending. The percentage of correct, incorrect and don‟t know responses produced by respondents were 45.9, 35.7 and 18.4. These two questions together produced some of the highest incorrect and don‟t know responses. Also the pattern of responses for these questions show that workers do not use overdraft facilities and that led to their little knowledge about the debt

instrument. Furthermore the respondents also do not understand what goes into risk assessment for their loan applications at the bank. Perhaps these result can be attributed to the fact that workers borrow from friends and private lenders more than from financial institutions.

Table 4.3: Pattern of correct answers for respondents knowledge in savings and borrowing

	Frequency	Percent
All wrong/Don‟t Know	13	4.6
One correct	27	9.5
Two correct	46	16.3
Three correct	73	25.8
Four correct	52	18.4
Five correct	38	13.4
Six correct	13	4.6
Seven correct	21	7.4
Total	283	100

Source: Field Survey, 2016

From Table 4.3 above, only 4.6% of respondents had all the questions wrong or did not know the answers to the questions in this section. The following pattern emerged, 9.5% had one correct, 16.3% had two correct, 25.8% had three correct, 18.4% had four correct, 13.4% had five correct, 4.6% had six correct and 7.4% had all seven questions correct. This result indicate that workers have a fair idea about savings and borrowing but their knowledge is limited mostly in the case of the latter. Workers do not have enough knowledge about how interest are compounded, overdrafts facilities and the topmost factor that commercial banks consider before granting one.

4.1.2 Knowledge in Investment

Investment is an important aspect of financial planning towards retirement. As such a section was provided in the questionnaire to test the knowledge of government workers about investment. The first question centered on their knowledge about the long-term securities market in Ghana. The percentage of responses were 56, 34.6 and 12.4 for correct, wrong and don‟t know responses. The performance of respondents dwindled on the follow up question about short-term investment. About 39.9% correct responses and 60.1% wrong responses were given. This shows that workers have very low knowledge about short-term securities that are in the financial market and how they operate. An abysmal performance was produced by respondents about the test question on mutual funds. Only 32.9% of responses were correct, 43.8% were wrong and 23.3% indicated they do not know the answer. Diversification is equally important as the ability of an investor to identify interest bearing assets. When asked a question about the diversification, 43.3% of respondents answered correctly, 43.5% of respondents answered wrongly and 23.3% indicated they didn‟t know the answer. The last question in this section bordered on risk-return relationship. Out of the total valid responses given, 42% were correct, 36% were wrong and 21.9% indicated they did not know the answer.

The pattern of correct answers which is displayed in Table 4.4 reflects the performance of workers in the discussion above. Over 64% got at most two question correct. Among the 64%, 9.9% had all questions wrong, 26.5% had one correct answer and 28.3% had two correct answers. Out of the remaining respondents, 18.7% recorded three correct answers, 13.1% had four questions correct and 3.5% had all questions correct.

Table 4.4: Pattern of correct answers for respondents knowledge in investment

	Frequency	Percent
All wrong/Don‟t Know	28	9.9
One correct	75	26.5
Two correct	80	28.3
Three correct	53	18.7
Four correct	37	13.1
Five correct	10	3.5
Total	283	100

Source: Field Survey, 2016

Workers knowledge in investment is lower than their knowledge in savings and borrowing. This is shown in the difference in the mean score for the two sections. The mean score for workers knowledge in savings and borrowing was 42% as compared to 41.2% for investment. Most respondents got questions on short-term securities and mutual funds wrong. This supposes that though respondents have knowledge about the existence of a long-term securities market their participation in both the long-term and short term money markets is quiet low. This accounts for their low knowledge about mutual funds and treasury bills.

4.1.3 Workers knowledge in insurance

Workers were asked questions about insurance in the final section of the financial literacy test. The first question was about what goes into the computation of vehicle insurance premiums. Exactly 39.2% of workers knew the correct answer and 60.8% got the answer wrong. This was not quiet surprising as the more than half (59%) of workers did not know the purpose of insurance. This shows that workers have low knowledge in the need for insurance and what factors that insurance firms look at before quoting insurance premiums. With regards to the various types of insurance, 46.3% respondents knew what comprehensive insurance is, as against 53.7% which either did not know or had the answer wrong. In similar fashion, 41.3% of respondents answered the question on third-

party insurance correctly as against a majority of 58.7% who did not know the answer to the question. An equal percentage of correct answers (50.5) was however given for questions about health insurance and life insurance. This shows the exposure of workers to life insurance and health insurance products more than non-life insurance products and policies

Table 4.5: Pattern of correct answers for respondents' knowledge in insurance

	Frequency	Percent
All wrong/Don"t Know	17	6.0
One correct	52	18.4
Two correct	57	20.1
Three correct	76	26.9
Four correct	49	17.3
Five correct	21	7.4
Six correct	11	3.9
Total	283	100

Source: Field Survey, 2016

From Table 4.5 above, only 6.0% of respondents had all the questions wrong or did not know the answers to the questions in this section. The following pattern emerged, 18.4% had one correct, 20.1% had two correct, 26.9% had three correct, 17.3% had four correct, 7.4% had five correct, and 3.9% had six correct. This result in addition to the fact that the average mean score for questions in this section is 44.8% indicates that workers have a fair idea about insurance policies but their knowledge is limited mostly in the case of non-life insurance policies.

4.1.4 Overall Measure of Financial Literacy of Workers

The overall scores of respondents in all the four sections of financial literacy test were calculated through the computations of the mean score of respondents in each section and the result presented in Table 4.6 below. Such that, average scores that respondents had was used to determine whether they failed that section or passed it. The mean score for respondent‟s knowledge in general finance was 49%, savings and borrowing 48.5%, investment 41.8% and insurance 44.8%. The financial knowledge of workers in general finance was close to average, however their knowledge in savings and borrowing, investment and insurance are low. In all, 39.2% of workers sampled failed the financial literacy test while 60.8% passed the test. A further breakdown is presented in Table 4.6 according to the KNUST grading system. Going according to the grading system specified by the study, 33.9% of respondents had grade F, 21.2% had grade D, 7.8% had grade C, 10.6% had grade B and 26.5% had grade A.

Table 4.6: Financial Literacy Grades of Respondents

Grading system	Frequency	Percentage	Grade
<=39%	96	33.9	F
40-49	75	21.2	D
50-59	60	7.8	C
60-69	22	10.6	B
70 and above	30	26.5	A
Total	283	100.0	

Source: Field Survey, 2016

4.2 FINANCIAL LITERACY AND WORKERS CHARACTERISTICS

The second objective for this study was to identify which categories of workers are more financially literate and why. In order to present a comparison between the various groups and subgroups which were carved out of the sample, a one way Analysis of Variances (ANOVA) test was used to determine whether there is any significant difference in the mean scores of respondents. The relevance of this test is seen in the ability of the test to separate and present the difference in performance by each group regardless of the general poor performance that was recorded by the this study so far. The performance of respondents were evaluated with the ANOVA test in their overall score, general knowledge in personal finance, savings and borrowing, investment and insurance. All differences are reported in Table 4.7 by way of mean percentage correct scores per each category with their F-Statistics displayed beneath them.

4.2.1 Financial literacy and occupation

Table 4.7 reports the difference in mean scores between various government workers. In terms of overall mean scores, workers from the Ghana revenue authority had the highest significant score (65.3%), followed by workers the State Insurance Company (64.5%), then workers at the municipal assembly workers (47.2%), then administrative staff (44.8%), teachers (44.7%) and nurses (43%). Nurses had the lowest overall means score in the financial literacy test with a mean difference of 22.3 percentage point between them and GRA. Notably nurses failed had the lowest mean score in questions on investment (35.7%). The highest percentage score for savings and invest was obtained by GRA (81%) whereas administrative staff obtained the lowest (39.4%).

Table 4.7: Mean % of Correct Responses by Characteristics and Results of ANOVA

*P<0.1, **P<0.05 and ***P<0.001

Source: Field Survey, 2016

	General Knowledge	Savings & Borrowings	Investment	Insurance	Overall Score
Occupation					
a) Nurses	48.2	44.2	35.7	40.7	43
b) Teachers	46.2	47.4	41.6	42.7	44.7
c) SIC	57.8	72.3	68.2	58.8	64.5
d) GRA	59.7	81	60	56.9	65.3
e) Municipal Assembly	48.7	49.1	41.6	48	47.2
f) Administrative Staff	51	39.4	40	49	44.8
F-Statistics	(1.52)	(9.67)***	(6.3)***	(2.68)***	(8.65)***
Gender					
a) Male	50.9	51	44.2	49.4	49.1
b) Female	47.2	46.2	39.7	40.7	43.7
F-Statistics	(1.98)**	(2.53)**	(2.05)**	(9.02)***	(6.96)**
Age					
a) 25-29	47.3	48.5	40	40.2	44.4
b) 30-34	50.3	45.6	41.9	44.7	45.8
c) 35-39	51.5	52.9	46.3	47.3	49.8
d) 40-44	47.5	49.2	39.3	45.1	45.7
e) 45-49	48.2	41.3	34.8	49.4	43.4
Above 50	44.8	51.8	50	42.7	47.4
F-Statistics	(0.45)	(1.08)	(1.27)	(0.728)	(8.25)*
Experience					
Work Experience					
a) Less than 2 yrs	38.1	46.9	30	36.9	38.7
b) 2-5 yrs	50.2	47.1	42.6	44.2	46.2
c) 5-10 yrs	49.8	44.7	40.9	44.6	45.1
d) 10-15 yrs	50	55.8	48.1	46.2	50.3
e) Above 15yrs	46.5	48.5	38.5	46.2	45.4
F-Statistics	(2.02)**	(2.13)**	(1.51)	(8.44)**	(2.36)***
Academic Discipline (SHS)					
a) Business	58.2	57.1	47.4	46.5	52.7
b) General arts with Economics	48.7	47.4	38.5	43.4	44.9
c) General arts without Economics	47.4	44.2	38.5	49	45
d) Sciences	48.6	52.6	46.1	41.7	47.5
e) Visual arts	45.8	41.1	38.8	56.3	45.6
f) Agriculture	35.7	42.9	22.9	28.6	33.3
g) Home economics	38.5	35.2	38.5	41.7	38.3
F-Statistics	(3.33)***	(3.33)***	(1.81)	(1.68)	(3.15)***

GRA recorded a mean percentage score of 56.9% whereas nurses had 40.7% on questions in insurance. All score were significant at P<0.01 except for mean score differences in general finance knowledge.

4.2.2 Financial Literacy and Gender

Several researchers have tested the difference in financial literacy among male and females. The average overall literacy score for male workers (49.1%) is higher than female workers (43.7%) at a significance level of 0.001. The average percentage point‟s difference between male and female workers was 5.4%. This result is 0.3 percentage points short of the results obtained by Mireku (2015) who recorded a 5.7% point difference in gender.

A breakdown of the mean percent difference in correct answers in all four components of the test shows that male workers are more knowledgeable than female workers in all four components. The percentage point difference between male and female respondents is 3.7, 4.8, 4.5, and 8.7 in general financial knowledge, savings and borrowing, insurance and investment, respectively. Lusardi et al (2010) report a gender gap in financial knowledge of 12% in a study conducted among consumers in the United States of America. A much lower financial literacy gender gap of 7% was reported by Chen and Volpe (1998) and no significant difference was reported by

Lusardi, Mitchell and Curto (2010).

4.2.3 Financial Literacy and Age

The result from Table 4.7 indicate that workers within the age group of 21-25 years recorded 47.3%,48.5%,40%,40.2% and 44.4% in general finance knowledge, savings and borrowing, investment, insurance and in the overall test respectively. Workers in the age group of 30-34 had mean correct responses of 50.3%, 45.6%, 41.9%, 44.7%, and 45.8% in knowledge in general finance, savings and borrowing, investment, insurance and overall test score. Older worker with

the ages of 35-39 years also recorded mean correct scores of 51.5%,52.9%, 46.3%, 47.3% and 49.8% in general finance knowledge, savings and borrowing, investment, insurance and overall test respectively. Respondents in between the ages of 40 to 44 years had mean correct scores of 47.5%, 49.2%, 39.2%, 45.1%, and 45.7% in the four sections of the test and overall test respectively. Workers who fall in the age group of 45 to 49 years also recorded mean correct sores of 48.2%, 41.3%34.8%, 49.4% and 43.4% in the four sections of the test and overall test respectively. The last age group considered in this study are were workers with 50 years and above. Workers who are 50 years and above had mean correct scores of 46.5%in general knowledge in finance, 51.8% in savings and borrowing, 50% in investment, 42.7% in insurance and 47.4% in the overall test.

A comparison of the test result from Table 4.7 against the various age groups shows that workers in the age range of 35-39 years had the highest score (49.8%), followed by workers with age 50 and above. The third highest overall correct mean score was obtained by workers with ages 30 to 34 years (45.8%), followed by workers with ages 40 to 44 years (45.7%). The fifth highest average mean correct score in the overall test was recorded by workers in age range of 25 to 29 years (44.4%) and the lowest score by workers in age range of 45 to 49 years (43.5%). The mean difference for this dimension is significant at 0.10. The results show that workers who are 35 years old and above tend to be more financially knowledgeable than workers who are younger than that. That as workers grow their financial knowledge grows as they gain experience through their interaction.

4.2.4 Financial Literacy and Work Experience

The test results al raveled that workers with 10 to 15 years of experience are more financially knowledgeable (50.3%) than workers with lower years of experience. Workers with less than 2 years of working experience had the lowest mean correct responses of 38.7%. Workers with 2 to 5 years of experience had the second highest mean correct responses of 46.2%, they were followed by workers with above 15 years work experience (45.4%) and then those with 5 to 10 years work experience (45.1%). This result confirms that younger employees are less financially literate than older employees. However beyond a certain age, workers begin to gain more exposure to the business environment and grasp how it works. This could be the reason behind workers with 2 to 5 years of experience being more financially literate than those with lower years of experience. However beyond a certain age workers begin to lose their financial knowledge as shown by the difference in mean between workers with 10 to 15 years vs. workers with above 15 years work experience. This result is in line with the findings of Mireku (2015), Chen and Volpe (1998), and Ansong and Gyensare (2012) who found that as a worker gains more work experience the more exposure he or she gets to financial matters.

4.2.5 Financial Literacy and Education

Due to the diversity of programmes read by workers at tertiary level of education, this study gathered information about the basic education courses that workers read at the secondary level before branching off. It is assumed that students are bound to get exposure to financial issues and education during their secondary school education either through the boarding house system or through taught courses. By way of academic discipline in SHS, workers who undertook business courses in the SHS had the highest mean correct response of 52.7%. They were followed by workers who read science (47.5%) and those

that read visual arts (45.6%). The fourth highest correct mean response was recorded by workers that read general arts without economics (45%) and those that read general arts with economics (44.9%). Workers that read home economics had mean correct response of 38.3% whereas those that read agriculture had 33.3%. The result were significant at 0.001. The result deviate from the findings of Chen and Volpe (1998) and Lusardi and Mitchell (2007), who found students with business and economics major more financially knowledgeable than students with other majors. The findings are not consistent with the findings of Mireku

(2015) and Oppong-Boakye and Kansaba (2013).

4.3 FINANCIAL OPINIONS OF WORKERS

The financial opinions of workers about financial issues and practices was measured in this study. To assess workers opinions, workers were asked five questions with responses measured with a five Likert scale. The Likert scale was defined as 1 (very unimportant), 2 (unimportant), 3(not sure), 4(important) and 5 (very important). Workers were asked to choose one response for each question. The mean response and percentage of response given by respondents for the five questions are displayed in Table 4.8.

Respondents were asked to rate the importance of maintaining adequate financial records. Out of the 283 respondents, 13.1% had the view that keeping financial records is very unimportant, 19.8% view it as unimportant, 17.3% were not sure, 29% view it as important and 20.8% view it as very important. The mean for this statement was 3.25, which is closer to the opinion that respondents are not sure about the importance of maintaining adequate financial records. Majority (83.4%) of respondents were of the view

that spending less than their income whereas 10.2 % out of the remainder had a negative opinion. The mean response for this statement is 4.14 which is in line with the previous statement.

Table 4.8: Financial Opinions in Percentage

STATEMENTS	1	2	3	4	5	Mean
Maintaining adequate financial records	13.1	19.8	17.3	29	20.8	3.25
Spending less than your income	5.3	4.9	6.4	37.1	46.3	4.14
Maintaining Adequate life insurance coverage	9.2	17	17	33.2	23.7	3.45
Maintaining adequate non-life insurance	11.7	26.9	24.0	22.3	15.2	3.02
Planning and implementing regular investment programme	11.3	19.4	15.5	26.9	26.9	3.39
Opinion Index = 3.45						

Source: Field Survey, 2016

The next statement sought the opinion of respondents on the need to maintain adequate life insurance coverage, 9.2% of respondents see this very unimportant, 17% view it as unimportant, 17% indicated that they are not sure, 33.2% view it as important while 23.7% view it as very important. The mean response for the statement of 3.45 (3.5 approximately) shows that respondents are of the opinion that the maintaining adequate life insurance coverage is important. The fourth statement centered on the need for maintaining adequate non-life insurance. The response rate indicate that workers are not sure whether non-life insurance is important, as 38.6% view it as unimportant while 37.5% see it as important. The mean response of 3.02 supports the observation made previously that workers are not sure about the importance of non-life insurance.

The last statement of this section sook the opinion of workers about planning and implementing a regular investment programme. Majority of respondents (53.8%) gave a positive feedback, 15.5% of respondent were not sure and 30.7% of respondents gave a negative response. The overall opinion index of 3.45 indicates that on the average workers marginally view the five practices as important.

4.4 PERSONAL RETIREMENT MANAGEMENT PRACTICES

The second set of questions in section six of the questionnaire were six statements about the personal retirement management practices of workers. For the first statement, 31.4% of workers have never kept other retirement accounts besides their SSNIT accounts. Out of the remaining workers, 26.1% rarely keep multiple retirement accounts, 14.5% often keep multiple retirement accounts, and 10.6% very often keep multiple retirement accounts. A total of 17.3% of respondents always keep multiple retirement accounts. The mean response was 2.56, which means that on the average workers often keep multiple retirement accounts. Out of the 283 respondents 20.1%, 28.6%, 18%, 15.5% and 17.7% indicated that they never, rarely, often, very often and always set aside money for their retirement.

Table 4.9: Retirement Management Practices

STATEMENTS	1	2	3	4	5	Mean
Having multiple retirement accounts	31.4	26.1	14.5	10.6	17.3	2.56
Set aside money monthly for retirement	20.1	28.6	18	15.5	17.7	2.82
Set aside money for future needs/wants	2.5	14.1	23.7	36.4	23.3	3.64
Compare interest rate before investing for						

retirement	13.1	31.1	23.3	16.6	15.9	2.91
Use spending plan/budget monthly	13.8	29.3	20.5	19.4	17	2.96
Keep track of monthly expenditures and income	12.7	25.8	27.9	18.4	15.2	2.98
Planning Index= 2.98						

Source: Field Survey, 2016

The third statement bothered on whether workers set aside money for future needs or wants. For the third statement, 2.5% responded never, 14.1% responded rarely, 23.7% responded often, 36.4% responded very often and 23.3 responded always. The mean response was 3.64 (approximately 4), which signifies that workers on the average very often set aside money for their future needs or wants. As high as 31.1% of respondents rarely compare interest rate before investing for retirement whereas 13.1% have never compared interest prior to investment for retirement. Out of the remaining respondents, 23.3% often make a comparison, 16.6% very often make a comparison and 15.9% always make a comparison of interest rates. This result show that workers are not mostly concerned about comparing interest rates before investing their money.

With regards to whether workers use a spending plan or budget, 13.8% responded never, 29.3% responded rarely, 20.5% responded often, 19.4% responded very often and 17%reponded always. The mean response of 2.95 confirms that workers rarely have a spending plan or budget. The final statement was about whether workers keep track of their expenditures and income of which 12.7% never do, 25.8% rarely do, 27.9% often do, 18.4% very often do and 2.98 always do. The mean response obtained for this statement suggest that workers often keep track of the expenditures and income. The

overall practice index was 2.98, which indicated that respondents often practice personal retirement management.

4.4.1 Impact of Financial Literacy on Retirement Planning Practices

The results reported in the previous section about personal retirement management practices indicate that overall, workers often practice good retirement management, however the significant difference between groups was not shown. This section provide the significant difference that exist between workers with more financial knowledge and those with less financial knowledge. Cross tabulation of financial literacy and retirement management practices were used to arrive at the results.

A comparison of financial literacy with the responses provided by respondents for the first retirement management practice shows that 41% of workers with more financial knowledge often, very often and always keep multiple retirement accounts. The results from Table 4.10 shows that 43.1% of less financially knowledgeable workers often, very often and always keep multiple retirement accounts. Therefore less financially knowledgeable workers are more likely to have multiple retirement account as compared to workers with more financial knowledge. By way of negative responses (bad retirement practices), 58.3% of workers with more financial knowledge never or rarely keep multiple retirement accounts whereas 56.9% of workers with less financial knowledge rarely or never have multiple retirement accounts. The results form Table
4.10 were significant at a 0.05. The results imply that financial literacy has little bearing on the probability of a worker having multiple retirement accounts.

Table 4.10: Having multiple retirement accounts. (Frequency and %)

	1	2	3	4	5	Total
Workers with more financial knowledge	62	47	23	20	35	187
	33.2%	25.1%	12.3%	10.7%	18.7%	100%
Workers with less financial knowledge	27	27	18	10	14	96
	28.1%	28.1%	18.1%	10.4%	14.6%	100%

Chi-square= 3.180, P<0.05

Source: Field Survey, 2016

The second results for the second personal retirement management practice and financial literacy groups is presented in table 4.11. The result indicate that 91 (48.6%) of workers with more financial knowledge often or very often or always set aside money for retirement on a monthly basis while 29.4% indicated they rarely do and 21.9% never practice it. On the other hand, 54 (56.2%) of workers often or very often or always set aside money for their retirement monthly while 43.8% rarely or never practice it.

Table 4.11: Set aside money monthly for retirement. (Frequency and %)

	1	2	3	4	5	Total
Workers with more financial knowledge	41	55	31	30	30	187
	21.9%	29.4%	16.6%	16%	16%	100%
Workers with less financial knowledge	16	26	20	14	20	96
	16.7	27.7%	20.8%	14.6%	20.8%	100%

Chi-Square = 2.539, P<0.05

Source: Field Survey, 2016

Again workers who failed the financial literacy test indicated they have the tendency to set aside money for their retirement on a monthly basis than those that are more financially literate. At a statistically significant level of 0.05 the conclusion can be drawn that workers that are financially illiterate set aside money for retirement monthly. Though this

is not the expected result, the implication is that financial literacy has very lower influence on workers decision to set aside money for their retirement on a monthly basis.

The habit of setting aside money for future needs and wants is important in retirement planning. Out of the 187 worker that pass the financial literacy test, 158 (84.5%) often or always set aside money for their future needs and wants whereas 15.5% rarely or do not. In the case of workers with lower financial literacy, 81.3% of respondents often, or very often or rarely set aside money for their future needs while 18.7% rarely or never do. At a statistical significance level of 0.05, the result implies that financial knowledge has a positive influence on workers decision to set aside money for future needs and wants. Also this result confirms the finds of Mireku (2015) who found that students that have more financial knowledge are more likely to set aside money for future needs or wants at a significance level of 0.01.

Table 4.12: Set Aside Money For Future Needs/Wants. (Frequency and %)

	1	2	3	4	5	Total
Workers with more financial knowledge	4	25	44	69	45	187
	2.1%	13.4%	23.5%	36.9%	24.1%	100%
Workers with less financial knowledge	3	15	23	34	21	96
	3.1%	15.6%	24%	35.4%	21.9%	100%

Chi-Square = .651, P<0.05

Source: Field Survey, 2016

Table 4.12 reports the results obtained for the retirement management practice of comparing interest rate before investing. Effective retirement planning requires that funds are invested in the best possible way in order to cushion retirees during their retirement. Comparatively, 36.4% of workers with more financial knowledge very often or always consider interest rates before investing. Only 25% of workers with less financial

knowledge consider interest rates before investing their very often or always while 42.7% rarely or never do. For workers that have lower financial knowledge their unwillingness to compare interest rates can be attributed to their shallow understanding in savings and borrowing as was seen in the early section of our analysis. The result show that there is significant difference in the willingness for workers with varying financial knowledge to compare interest rates before investing their funds at a P-values of 0.035 (P<0.05).

Table 4.13: Compare Interest Rate before Investing For Retirement (Frequency and %)

	1	2	3	4	5	Total
Workers with more financial knowledge	25	59	35	31	37	187
	13.4%	31.6%	18.7%	16.6%	19.8%	100%
Workers with less financial knowledge	12	29	31	16	8	96
	12.5%	30.2%	32.3%	16.7%	8.3%	100%

Chi-Square = 10.319, P<0.05

Source: Field Survey, 2016

In the financial literacy test respondents were asked question about the need for a spending budget or a plan. Generally the overall score of respondents in savings and borrowings was below expectation and the pass mark specified by Chen and Volpe

(1998). However a comparison of the usage of spending plan or budget monthly between workers that passed and failed the financial literacy test revealed that 53.4% of financially literate workers use budget often, very often or always at the end of the month. Compared to this number, 63.5% of less financially literate workers use budget often, very often or always at the end of the month. The difference between these groups is however statistically insignificant (χ^2 = 5.535, P= 0.237) and shows that financial knowledge does not have an influence on respondents practices of using spending plan or budget monthly.

Table 4.14: Use Spending Plan/Budget Monthly. (Frequency and %)

	1	2	3	4	5	Total
Workers with more financial knowledge	31	56	33	35	32	187
	16.6%	29.9%	17.6%	18.7%	17.1%	100%
Workers with less financial knowledge	8	27	25	20	16	96
	8.3%	28.1%	26%	20.8%	16.7%	100%

Chi-Square = 5.535, P<0.05

Source: Field Survey, 2016

In the previous section, workers were asked to rate the level of importance of keeping financial records. In a follow up investigation, workers were asked to rate the frequency with which they track their expenditures and income. The purpose of this enquiry is to establish a link between the financial literacy and workers willingness to keep track (records) of their monthly expenditures and income. The overall results reveal that 64.1% of workers with more financial knowledge more than often keep track of monthly expenditures and incomes whereas 35.9% rarely or never do. A Comparatively, a lower percentage of workers with less financial knowledge (56.3%) more than often undertake this retirement planning decision. The difference in means between the two groups is not statistically significant ($\chi^2 = 4.503$, $P = 0.399$).

Table 4.15: Keep Track of Monthly Expenditures and Income. (Frequency and %)

	1	2	3	4	5	Total
Workers with more financial knowledge	19	48	53	38	29	187
	10.2%	25.7%	28.3%	20.3%	15.5%	100%
Workers with less financial knowledge	17	25	26	14	14	96
	17.7%	26%	27.1%	14.6%	14.6%	100%

Chi-Square = 4.053, P>0.05

Source: Field Survey, 2016

A summary of the results in this section provides evidence that financial literacy influences the retirement planning practice of keeping multiple retirement accounts, setting aside money for retirement on a monthly basis, using a spending plan on a monthly basis, and keeping track of my expenditure and income. However the practice of comparing interest rate offers before investing for my retirement is not influenced by the difference in financial literacy among workers.

4.5 FINANCIAL LITERACY AND TYPES OF ACCOUNTS OF RESPONDENTS.

Few financial literacy studies consider the financial inclusion and specifically the type of accounts respondents have. In this study, workers were asked to provide information about the types of accounts they have. They were asked to indicate whether they have a savings account, current account, fixed deposit account, mutual fund account, stocks, bonds or none. The accounts were grouped into investment accounts and liquid accounts. The importance of investment and asset building accounts was stressed in the findings of Clancy et al. (2001). Based on the performance of respondents in the financial literacy test, respondents were assigned one of two financial literacy status (literate or illiterate). The financial literacy statuses were then cross-tabulated against the type of account respondents have and the result presented in Table 4.16.

The findings from this exercise reveal that financial literacy has an effect on the type of account workers keep. Out of the total sample of 283 workers included in this study, 2(0.7%) from the financially literate group indicated that they have no account. The distribution of respondents with personal accounts is skewed towards the financially literate group. Out of the total number of respondents 185(67.5%) respondents have

savings account out of which 118(43.1% of sample) all in the financially literate group and 67(24.5% of sample) fall in the financially illiterate group. In the past research findings have shown that financial literacy has an influence on workers preference of savings accounts, such that more workers with higher financial knowledge have savings account than workers with lesser financial knowledge (Lusardi and Mitchell 2014; Fornero and Monticone 2013; Clancy et al. 2001). This study confirms the aforementioned statement.

The results in table show that 60.2% of respondents have current accounts with a majority of 39.1% falling in the literate group whereas 24.4% fall in financial illiterate group. Having liquid assets such as a bank account an borrowing against liquid or retirement accounts have been documented in past research as the product of financial knowledge and practices (Lusardi and Mitchell 2014). Though the effect of having a current account has been attributed to other economic variables such the density of financial institution and the level of financial inclusion, the marginal effect of financial knowledge is sizable.

Table 4.16: Cross tabulation of financial literacy and types of accounts of respondents

Financial Literacy Status		**None**	**Savings**	**Current**	**Fixed Deposit**	**Mutual Fund**	**Stock**	**Total**
Illiterate	Count	0	67	58	9	0	0	91
	% of Total	.0%	24.5%	21.2%	3.3%	.0%	.0%	33.2%
Literate	Count	2	118	107	20	5	1	183
	% of Total	.7%	43.1%	39.1%	7.3%	1.8%	.4%	66.8%
Total	Count	2	185	165	29	5	1	274
	% of Total	.7%	67.5%	60.2%	10.6%	1.8%	.4%	100.0%

Source: Field Survey, 2016

4.5.1 Investment Account

The importance of investing in short term and long term instruments are crucial in the retirement planning of workers. An investigation into the type of investment account that workers have revealed that generally workers do not deposit of invest money in both long-term and short-term securities. From Table 4.16, none of the workers interviewed was a bondholder. This result is so due to the almost nonexistence of a bond market in Ghana. An improvement was seen in the number of respondents that have stocks and mutual fund accounts. In the case of stocks, one respondents from the financial literate group had invested in stocks and this amounted to 0.4% of the total sample. For mutual funds, 5 (1.8%) had invested in mutual funds and again the respondents are from the financially knowledgeable group. In Table 4.16, 20 respondents in the literate group indicated they have fixed deposit accounts whereas 9 respondents from the illiterate group also have fixed deposit accounts.

This result shows a worker‟s level of financial knowledge affects his or her tendency to invest in the investment market to support his or her retirement. Generally, government workers prefer personal accounts to investment accounts. This finding supports that of Utkus and Young (2011) who found that both young and old workers do not borrow against their pension account and invest their funds in long-term securities but rather prefer short-term securities. Further evidence to this tune is given by Lusardi and Mitchell (2014) who point out that financially knowledgeable workers better understand pension rules and are more likely to invest in high interest yielding securities than short-term securities.

4.6 ROLE OF EMPLOYERS AND EMPLOYEES IN FINANCIAL EDUCATION

Government workers were asked to rate the performance of their employer with respect to the provision of financial education training to meet their financial literacy needs. First, workers were asked to rate the frequency with which their employer organizes financial education training for them with four point Likert Scale. The scale had 1=Never, 2= Rarely, 3= Often, 4= Very often and 5= Always as the options from which employers could choose from. The results are displayed in table 4.17.

Table 4.17: Organization of Financial Education Courses or Seminars for Employees

	Frequency	Percent
Never	123	43.5
Rarely	101	35.7
Often	35	12.4
Very often	15	5.3
Always	9	3.2
Total	283	100.0

Source: Field Survey, 2016

Overall responses gathered for this section indicate that employers hardly organize financial literacy education for their employees. A large percentage of respondents (43.5%) indicated that their employer has never organized financial literacy education courses or training for them. This was followed by 35.7% of respondents whose responses indicate that their employers rarely organized financial training for them. On the other hand, 12.4% of respondents indicated that their employers often organizes financial training for them. In addition, 5.3% percent of respondents pointed out that their employer organizes financial training for them very often. The lowest responses was recorded by

respondents who indicated that their employers always organize financial literacy training for them with just 3.2% of responses in that direction.

The findings in this section by far conforms with the findings of the ANZ Bank Survey (2003) which led he Australian government to establish the Financial Literacy Foundation (FLF) to train teachers and workers in matters of financial education. Financial literacy has also shown a dependence on on-the-job training of workers as a means of improving the financial knowledge of workers (Clark, Matsukura, and Ogawa 2013; Lusardi, Schneider, and Tufano 2011). Based on this premise it quite clear that the financial literacy needs of employers are not being met by the government (employer).

A follow up question to this sought the level of satisfaction of employers with the level of involvement of their employer in their financial education. Using a five point Likertscale, ranging from not satisfied at all to very satisfied as the yardstick for rating employee‟s level of satisfaction. Given the lower involvement of the employers in the training of employees, the level of satisfaction of employees were also skewed towards the lower levels of the Likert-scale. At the upper level of the scale, 36.7% of respondents indicated that they are either satisfied or very satisfied in the role their employer plays in their financial education. A sizeable percentage of respondents

(19.4%) indicated their uncertainty about their opinion about their employer‟s role in their financial education. At the lower end of the scale, 43.8% of respondents indicated their dissatisfaction with the role their employers play in their financial education.

Table 4.18: Level of Satisfaction of Employees with Employers role in Financial Education

	Frequency	Percent
Very satisfied	29	10.2
Satisfied	75	26.5
Uncertain	55	19.4
Not satisfied	79	27.9
Not satisfied at all	45	15.9
Total	283	100.0

Source: Field Survey, 2016

The results from Table 4.17 and Table 4.18 show that the government does not play a major role in the financial education of its employees. Evidence from literature shows that employer retirement seminars have a positive effect on the participation and contributions of employees in personal savings plan (Bayer, Berheim, and Scholze 1996). Lusardi and Mitchell (2007) found retirement seminars had a positive wealth effect; however, this effect was found mainly for those with less wealth or education.

This shows how vulnerable employees are in terms of financial education.

4.7 WAYS TO IMPROVE FINANCIAL KNOWLEDGE

An investigation was conducted about the personal efforts made by employees towards their improving their financial education. Prior to this thesis, renowned researcher have established the effect of personal financial lessons on the financial literacy and decisions. In this vein, a list of avenues from which workers can improve their financial knowledge was presented to them and their choices recorded. Workers were given the option to choose all that apply and provide platforms which were not available in the list provided. Workers did not add additional avenues. The result are displayed in Table

4.19.

Table 4.19: Channels to Improve Financial Knowledge

Avenue	Frequency	Percent	Rank
Parents	6	1.2%	8th
Friends	67	13.1%	5th
School	64	12.5%	6th
Books	73	14.2%	4th
Media	75	14.6%	3rd
Job	96	18.7%	1st
life Experience	42	8.2%	7th
Financial Institutions	90	17.5%	2nd
Total	513	100.0%	

Source: Field Survey, 2016

Based on the responses given, 18.7% of respondents indicated that they would like to increase their financial knowledge through their job. This avenue ranked first among the various avenues. The second avenue per the ranking was through financial institutions with 17.5% of respondents choosing this platform. The 3rd and 4th ranked avenues were through media (14.6%) and books (14.2%). The 5th, 6th, 7th and 8th ranked avenues were friends (13.1%), school (12.5%), Life experience (8.2%) and parents (1.2%) respectively. This results deviate from the findings of Mireku (2015) who found that students prefer to increase their financial knowledge through school. This may be due to the fact that most workers may not further their education in the near future so they would like to increase their knowledge through avenues which are more accessible to them now.

Based on the results presented in Table 4.19 workers opt to increase their financial knowledge through their jobs and this can be attributed to the fact that they spend a lot of time at their work and they also believe that their employer has the resources to support their financial education. In addition to this, workers expect their financial institutions such as banks and insurance companies to provide them financial education.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECONMENDATIONS

5.0 INTRODUCTION

This chapter presents the summary of findings for the results which were discussed in the previous chapter. Conclusions and recommendations are drawn from the results and the discussions from the previous chapter in this chapter as well. In addition, recommendation for future research are made in the final section of this chapter.

5.1 SUMMARY OF FINDINGS

The unfamiliarity of workers, who form part of financial illiterate group, to economic and financial instruments and concepts can account for their low preparedness towards retirement. The low preparedness of workers towards retirement can lead to an increase in the dependency ratio in the economy as people in retirement would have little wealth to rely on. This study investigates financial literacy and retirement planning among government workers. This study is the first attempt made in Ghana to investigate financial literacy among workers. Past studies in Ghana focus on financial literacy among university students across the country. This study quizzed government workers in Tarkwa Nsuaem Municipal Assembly in their knowledge in general personal finance, savings and borrowing, investment and insurance. Further investigations was conducted into the retirement practices of the workers.

The first part of this study analyzes the financial literacy of government workers by grading their performance in a financial literacy test with KNUST grading system.

Results from the first section of the test suggest that government workers have a higher understanding of general financial issues such as the need for a personal budget, personal financial planning and the effect of inflation on interest earned on savings. However workers understanding of net asset value and asset liquidity were below the pass mark of 40%. Comparatively we find a slight drop in government workers understanding of savings and borrowing. This is owing to the fact that government workers had higher mean correct score in question about borrowing except that of overdraft. Their understanding of overdraft and compound interest were very low as compared to other scores in the savings and borrowing section. This result is quiet surprising given the fact that 60.7% and 66.3% of respondents have current and savings accounts.

In this study, we find that workers have a lower understanding of investment and insurance. The mean correct scores for workers knowledge in insurance (44.8%) was however higher than that of investment (41.8%). The overall financial literacy of government workers is low given that the fact that the average correct scores obtained for the four sections of the test is 46.01%. In all, 39.2% of workers sampled failed the financial literacy test while 60.8% passed the test. Going according to the grading system specified by the study, 33.9% of respondents had grade F, 21.2% had grade D, 7.8% had grade C, 10.6% had grade B and 26.5% had grade A. This implies that on the average respondents were not able to answer more than half of the questions in the financial literacy test. A comparison of this result with the result obtained by (Lusardi and Mitchell 2005) shows how workers in different spheres of the world possesses similar levels of financial literacy.

In order to present a comparison between the various groups and subgroups which were carved out of the sample, a one way Analysis of Variances (ANOVA) test was used to determine whether there is any significant difference in the mean scores of respondents according to their demographic characteristics. In terms of overall mean scores, workers from the Ghana revenue authority had the highest significant score (65.3%), followed by workers the State Insurance Company (64.5%), then workers at the municipal assembly workers (47.2%), then administrative staff (44.8%), teachers (44.7%) and nurses (43%). Nurses had the lowest overall means score in the financial literacy test with a mean difference of 22.3 percentage point between GRA and them.

In terms of gender, The study revealed that the average overall literacy score for male workers (49.1%) is higher than female workers (43.7%) at a significance level of 0.001. The financial literacy gap between respondents is similar to the findings of several research works in the area of financial literacy (Fornero and Monticone 2013; Clark et al. 2003; Lusardi and Mitchell 2007; Hung et al. 2009; Beckmann 2013; Rooij et al. 2009; Lusardi et al. 2010; Lusardi and Mitchell 2014). Invariably the gender difference can be attributed to the relegation of women to the background during financial issues both at home and at work. This can be seen in several cultures among the various tribes in Ghana.

Also, The study revealed that financial literacy among various age groups varies as age increases such that workers within the age range of 35-39 years had the highest score (49.8%), followed by workers with age 50 and above. Younger workers within the age range of 25 to 29 years had a lower mean score than workers older than them. This show that workers accumulate financial knowledge as they age and that only at a more advance age is this offset by a decline in cognitive abilities (Rooij et al. 2009). This is finding is

in line with the pattern of correct answers and working experience. The overall total financial literacy scores reveal that workers with less than two years working experience have lowest financial knowledge and as work experience increases so does financial knowledge.

By way of academic discipline in SHS, this study reveal that workers who undertook business courses in the SHS had the highest mean correct response followed by workers who read science and those that read visual arts. The fourth highest correct mean response was recorded by workers that read general arts without economics and those that read general arts with economics. Workers who read home economics and agriculture failed the test with mean correct response of 38.3% and 33.3% respectively. Chen and Volpe (1998) and Lusardi and Mitchell (2007), who found students with business and economics major more financially knowledgeable than students with other majors. The findings are not consistent with the findings of Mireku (2015) and

Oppong-Boakye and Kansaba (2013).

The second section of the study focused on retirement planning and financial literacy. I sook government worker‟s opinions on five financial issues on a scale of 1 (very unimportant) to 5(very important). The overall opinion index of 3.45 was obtained, indicating that on the average workers marginally view the five practices as important. In the same vein, government workers were to indicate the frequency with which they undertake six retirement planning practices with a scale ranging from 1(never) to 5(Always). The study produced an overall practice index of 2.98, which indicate that respondents often practice personal retirement management.

Financial literacy was cross-tabulated with retirement practices and tested using a Chisquare test. A summary of the results in from this exercise reveal that financial literacy influences the retirement planning practice of keeping multiple retirement accounts, setting aside money for retirement on a monthly basis, using a spending plan on a monthly basis, and keeping track of my expenditure and income. However the practice of comparing interest rate offers before investing for my retirement is not influenced by the difference in financial literacy among workers.

Also The study revealed that financial literacy has an effect on the type of account that respondent have through a corss-tabulation and Chi-square test. Financially literate groups prefer personal accounts such as savings and current accounts than less literate groups. Similarly more financial literate groups have investment accounts than less financial literate groups. In the past, research findings have shown that financial literacy has an influence on workers preference of savings accounts, such that more workers with higher financial knowledge have savings account than workers with lesser financial knowledge (Lusardi and Mitchell 2014; Fornero and Monticone 2013; Clancy et al. 2001). This study confirms the aforementioned statement.

Lastly, the result of this study further reveal that the government does not organize financial education seminars for their employees. Furthermore government workers indicated their dissatisfaction with the role government plays in their financial education. In addition to this this study reveal that government workers opt to increase their financial knowledge through their jobs and this can be attributed to the fact that they spend a lot of time at their work and they also believe that their employer has the resources to support

their financial education. In addition to this, workers expect their financial institutions such as banks and insurance companies to provide them financial education.

5.2 CONCLUSION

A number of conclusions can be drawn from the findings of this study. Based on the findings of this study, I can conclude that the financial knowledge of government workers in the study area is low. Government workers have higher knowledge in personal finance and savings and borrowing than investment and insurance. Demographic characteristics such as age, gender, work experience, educational background and occupation affect the financial literacy of government workers. Also I documented that the average government worker sees issues regarding health financial practices as important. With that said, government workers were expected to engage in retirement practices frequently but I found that respondents often practice personal retirement management.

Also I document that, that financial literacy influences the retirement planning practice of keeping multiple retirement accounts, setting aside money for retirement on a monthly basis, using a spending plan on a monthly basis, and keeping track of my expenditure and income. However the practice of comparing interest rate offers before investing for my retirement is not influenced by the difference in financial literacy among workers. I conclude that financially literate groups prefer personal accounts such as savings and current accounts than less literate groups. Similarly more financial literate groups have investment accounts than less financial literate groups.

The findings of this study further reveal that the government does not organize financial education seminars for their employees. This accounts for their low level of financial literacy and retirement planning and also their dissatisfaction with the role that government plays in their financial education. Aside this, this study reveal that government workers prefer to increase their financial knowledge through their jobs and this can be attributed to the fact that they spend a lot of time at their work and they also believe that their employer has the resources to support their financial education. This implies that government agencies should make it their priority to budget for financial literacy seminars for their workers on an annual basis. In addition to this, workers expect their financial institutions such as banks and insurance companies to provide them financial education.

5.3 RECOMMENDATIONS

This study set a context and rationale for research into financial literacy and retirement planning among government workers. The findings of this study has shown that the financial knowledge of government workers is low and this effects their retirement planning as well. Based on these findings the following I offer the following recommendations to employers, policymakers, and employees.

5.3.1 Employers

Though the government has made amendments to section three of the National Pensions Act, 2008(Act 766) to ensure that employers contribute 13% in addition to the employee‟s contribution of 5.5% to add up to 18.5% of the monthly wage of the employee to their social security, there is the need for the government to ensure that workers understand what their contributions are worth. In this vein, I recommend that government should

provide funds for SSNIT to undertake a national wide retirement planning programme for government workers. In addition to this there should be an in measures in place to ensure that financial literacy training are well incorporated in our educational system from the basic level to the tertiary level regardless of the programmes or subject areas of study. This is will ensure that workers can plan their retirement without relying solely on their monthly pension benefits from SSNIT. Notwithstanding the fact that this study is limited to government workers, private firms should also look at the prospects of improving the financial literacy of their employees through on-the-job training or seminars to ensure that their employees are well equipped for the future. Typically most employer-based seminars are beyond the control of employees and this accounts for their low participation. I therefore advise that employers should not restrict financial literacy seminars to numeracy contents but rather involve the key employees in the planning of financial literacy seminars.

5.3.2 Employees

In the case of employees, I advise that they partake in financial literacy seminars organized by their employers as evidence has been provided to the effect that seminars are an effective type of communication for workers (Clark et al. 2003). Evidence for this study and other renowned researchers in the field have shown that employees that take personal financial lessons plan their retirement better than those that do not. This brings to light the need for employees to invest in training programmes and courses to improve their financial knowledge. Though employees expect their employers to educate them in financial matters, it is important for self-organized pension schemes to bring onboard experts to explain retirement schemes and investment to contributors.

This will close the illiteracy gap in employees‟ knowledge in investment and insurance.

5.3.3 Stakeholders

For public policymakers, there is the need to strengthen the bases and coverage of the National financial Literacy week which was established in 2008 by the Ministry of Finance and Economic Planning. A revision of the content of financial training for provided by the National Financial Literacy week planners should be tailor-made to close the financial literacy gap. Based on the findings of this study, it is imperative that financial institutions educate their clients on mortgages, interest compounding and the need for life and non-life insurance. Also, the gender gap between workers in terms of financial literacy calls for women movement and societies to incorporate financial literacy in their training and outreach programmes.

5.4 RECOMMENDATIONS FOR FUTURE STUDIES

This study recommends the following for future empirical studies:

1. Based on the findings of this study, it is recommended that future studies should examine the effect that demographic factors such as the number of dependents, and marital status.

2. The influx of technology and social media in Ghana and the world requires further studies to consider if there is either a linkage between financial literacy and workers understanding of financial literacy.

3. Further studies should probe beyond retirement management practices to measure the actual assets and structures that employees have put in place to secure a good retirement.

REFERENCES

Adams, G.A. et al., (2011). Putting Off Tomorrow to Do What You Want Today : Planning for Retirement. *American Psychologist*.

Adams, G., Prescher, J., Beehr, T., & Lepisto, L. (2002). Applying work-role attachment theory to retirement decision-making. International Journal of Aging & Human Development, 54, 125–137.

Agarwal, Sumit, John C. Driscoll, Xavier Gabaix, and David Laibson. (2009). "The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation." Brookings Papers on Economic Activity Fall: 51–101.

Ando, A., & Modigliani, F. (1963). The life-cycle hypothesis of savings: Aggregate implications and tests. American Economic Review, 53, 55–84.

Ansong, A., & Gyensare, M. A. (2012). Determinants of University Working-Students‟ Financial Literacy at the University of Cape Coast, Ghana. *International Journal of Business and Management*, *7*(9), p126.

ANZ. 2008. ANZ Survey of Adult Financial Literacy in Australia. http://www.anz.com/Documents/ AU/Aboutanz/AN 5654 Adult Fin Lit Report 08 Web Report full.pdf.

Beckmann, E., (2013). Financial Literacy and Household Savings in Romania. *Financial Literacy and Household Savings in Romania*, 6(2), p.Article 9.

Beckmann, E. (2013). "Financial Literacy and Household Savings in Romania." Numeracy 6 (2).

BFT Online, 2015. Gov‟t in GH¢1.3bn Pension Debt. Available Online: http://thebftonline.com/business/economy/14265/Gov%E2%80%99t-inGH%C2%A21-3bn-pension-debt.html Accessed Online [10/03/2017].

Bayer, P. J., Bernheim, B. D., & Scholz, J. K. (1996). The effects of financial education in the workplace: Evidence from a survey of employers. Working Paper Issue 5655, Cambridge, MA: NBER.

Bernheim, B.D., Garrett, D.M. and Maki, D.M., 2001. Education and saving:: The long-term effects of high school financial curriculum mandates. Journal of public Economics, 80(3), pp.435-465.

Bhattacherjee, A., (2012). *Social Science Research: Principles, Methods, and Practices* Second Edi., Texbooks Collection. Book 3.

Burtless, G. (2006). Social norms, rules of thumb, and retirement: Evidence for rationality in retirement planning. In K. W. Schaie & L. L. Carstensen (Eds.), Social structures, aging, and self-regulation in the elderly (pp. 123–188). New York, NY: Springer.

Carter, M., & Cook, K. (1995). Adaptation to retirement: Role changes and psychological resources. The Career Development Quarterly, 44, 67-82.

Chen, Haiyang, and Ronald P. Volpe. (2002). "Gender Differences in Personal Financial Literacy among College Students." Financial Services Review 11 (3): 289–307

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. Financial Services Review, 7, 107-128.

Clancy, M., Grinstein-Weiss, M. and Schreiner, M. (2001). Financial Education and Savings Outcomes in Individual Development Accounts. *St Louis MO Washington University in St Louis Center for Social Development*, (314), p.1–10.

Clark, R., D"Ambrosio, M., Sawant, K. and McDermed, A. A. (2003). *Financial Education and Retirement Savings. Sustainable Community Development:*

What Works, What Does't, and Why,. In: 87 (7), 2003, p.1487–1519.

Clark, Robert L., and Madeleine D"Ambrosio. (2008). "Adjusting Retirement Goals and Saving Behavior: The Role of Financial Education." In Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs, edited by Annamaria Lusardi, 237–56. Chicago and Lon- don: University of Chicago Press

Cole, S., Thomas, S., and Bilal Z., 2011. "Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets?" Journal of Finance 66 (6): 1933–

67.

Creswell, J.W. (2003). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (2nd Ed). California, Sage Publications

Fornero, E. & Monticone, C., (2013). Financial Literacy and Pension Plan Participation in Italy, Torino.

Fornero, E., and Chiara, M. (2011). "Financial Literacy and Pension Plan Participation in Italy." Journal of Pension Economics and Finance 10 (4): 547–64

Goda, G. S., Colleen, F. M., and Aaron, S., (2012). "What Will My Account Really Be Worth? An Experiment on Exponential Growth Bias and Retirement Saving." RAND Work- ing Paper WR-873-2.

Hastings, J.S. & Mitchell, O.S., (2011). *How Financial Literacy and Impatience Shape Retirement Wealth and Investment Behaviors*, Michigan.

Hershey, D. A., Henkens, K., & Van Dalen, H. P. (2007). Mapping the minds of retirement planners: A cross-cultural perspective. Journal of Cross-Cultural Psychology, 38, 361–382.

Hung, A A, Parker, A M. and Yoong, J. K. (2009b) 'Working Paper: Defining and Measuring Financial Literacy', RAND Labor and Population working paper series. 1/12/2009

Huston, S.J., 2010. Measuring Financial Literacy. *The Journal of Consumer Affairs*, 44(2), pp.296–316.

Joo, S. H., & Grable, J. E. (2001). Factors associated with seeking and using professional retirement-planning help. Family and Consumer Sciences Research Journal, 30(1), 37-63.

Kothari, C.R., (2004). *Research Methodology* S. Edition, ed., New Delhi: New Age International (P) LTD.

Lee, N., (2010). *Financial Literacy and Financial Literacy Education*. Institute of Education University of London.

Lusardi, A. & Tufano, P. (2008). Debt Literacy, Financial Experience, and Overindebtedness. mimeo, Harvard Business School

Lusardi, A. & Mitchell, O., (2005). Financial Literacy and Planinning: Implications for Retirement Wellbeing. *Michigan Retirement Research Center*, WP(2005-108).

Lusardi, A. & Mitchell, O.S., (2007). Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education Programs. *Business Economics*, 42(1), p.35.

Lusardi, A. & Mitchell, O.S., (2011). Financial Literacy Around the World: An Overview. *National Bureau of Economic Research*, (WP 17107), pp.1–17.

Lusardi, A. & Mitchell, O.S., (2014). of Financial Literacy : Theory and Evidence. *Journal of Economic Literature*, 52(1), pp.5–44.

Lusardi, A., Mitchell, O.S. & Curto, V., (2010). *Financial Literacy among the Young : Evidence and Implications for Consumer Policy Financial Literacy among the Young : Evidence and Implications for Consumer Policy*, Frankfurt.

Maham, W., 2016. Ponzi schemes and financial literacy in Ghana. Available Online: http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ponzi-schemesand-financial-literacy-in-Ghana-412808 . Accessed Online [10/03/2017].

Mandell, L. & Klein, L.S., (2009). The Impact of Financial Literacy Education on Subsequent Financial Behavior. *Journal of Financial Counseling and Planning*, 20(206), pp.15–24.

Mendes, A.F.C., (2013). *Financial Literacy of College Students Dissertation of Master in Finance*. University of Porto.

Neuman, W. L. (2006). *Social Research Methods: Qualitative and Quantitative Approaches*, 6th edition. Pearson International, Boston.

Nussbaum, M.C., 2011. Creating capabilities. Harvard University Press.

Oppong-Boakye, P. K. and Kansanba, R. (2013). An Assessment of Financial Literacy Levels among Undergraduate Business Students in Ghana. Research Journal of Finance and Accounting 4 (8).

Petkoska, J. & Earl, J.K., (2009). Understanding the Influence of Demographic and Psychological Variables on Retirement Planning. *Psychology and Aging*, 24(1), pp.245–251.

President‟s Advisory Council on Financial Literacy (PACFL) (2008). 2008 Annual Report to the President.

Rooij, M. Van, Lusardi, A. & Alessie, R., (2009). Financial Literacy and Retirement Planning in the Netherlands, 231/2009 .Amsterdam.

Ross, D.G. and Wills, L. (2009). Measuring financial preparation for retirement: a new scale using Australian evidence. Financial Services Review 18 381-399.

Sen, A., (2005). Human Rights and Capabilities. *Journal of Human Development*, 6(2), pp.150–166.

Taylor, M.A. and Geldhauser, H.A., 2007. Low-income older workers. Aging and work in the 21st century, pp.25-50.

Topa, G. et al., (2009). Antecedents and consequences of retirement planning and decision-making : A meta-analysis and model. *Journal of Vocational Behavior*.

U.S. Financial Literacy and Education Commission. 2007. Taking Ownership of the Future: The National Strategy for Financial Literacy. http://www.mymoney.gov/pdfs/add07strategy.pdf.

APPENDIX 1- QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF GRADUATE STUDIES

QUESTIONNAIRE

TOPIC: FINANCIAL LITERACY AND RETIREMENT PLANNING AMONG SELECTED WORKERS: A CASE STUDY OF TARKWA NSUAEM MUNICIPAL ASSEMBLY

PREAMBLE

The main purpose of this study is to assess the financial literacy and retirement planning among selected workers in the Tarkwa Nsuaem Municipal Assembly. The study is mainly for academic purposes. Participants are assured of utmost **confidentiality** regarding information provided by them. This survey is intended to measure workers knowledge of personal finance. The results will be used to help workers improve their knowledge and key stakeholders improve their support for government workers towards retirement planning.

DIRECTIONS: Please indicate your response to each question by selecting the most appropriate answer for each question.

Section One: About Yourself

1. **Indicate the name of the institution you work for**
   .....
2. **What category does your institution fall?**
   Public Institution [ ] Private Institution [ ]
3. **What is your rank (Position in your organization)?**
   ……
4. **What is your age?**
   [ ] 25 to 29 [ ] 30-34 [ ] 35-39 [ ] 40-44 [ ]45- 49 [ ]Above 50
5. **What is your gender?**
   [ ] Male [ ] Female
6. **Which of the following best describes your personal income (monies that come into your hands for personal use) monthly? E.g. Salary, commission, monies from family etc.**
   [ ] Under GH¢1000 [ ] GH¢1000 - GH¢1,999 [ ] GH¢2,000- GH¢2,999
   [ ] GH¢3,000- GH¢3,999 [ ] GH¢4,000 to GH¢4,999 [ ] GH¢5000 and above
7. **How many years of working experience do you have? Include clinicals and internships?**
   [ ] Less than 2 years [ ] 2 to less than 5 years [ ] 5 to less than 10 years [ ] 10 to less than 15 years [ ] 15 years and above
8. **Do you own or drive a car?**
   [ ] Yes [ ] No
9. **Which department do you work for?**
   ……

10. What was your field of study at Senior High School or equivalent?

[ ] Business [ ] General arts with economics [ ] General arts without economics [ ] Sciences [ ] Visual Art [ ] Agriculture

Others, specify…….....……..

11. What kind of financial accounts do you have? (Check all that apply)

None [ ] savings [ ] current account [ ] fixed deposit [ ] mutual fund [ ] stock [ ] bond [ ] Other(s) (specify) :…….....

Section Two: General Personal Finance Knowledge

12. Personal finance literacy can help you A. avoid being victimized by financial scams.
B. learn the right approach to invest for your future needs and buy the right kind of insurance
C. lead a financially secure life through forming healthy spending habits.
D. do all of the above.
E. don't know

13. Personal financial planning involves
A. establishing an adequate financial record keeping system.
B. developing a sound yearly budget of expenses and income.
C. preparing plans for future financial needs and goals.
D. all of the above.
E. don't know.
F.

14. A personal budget will help you
A. allocate future personal income towards expenses
B. prioritise your spending
C. monitor the sources of your income
D. all of the above
E. don't know

Which of these can be turned into cash easily? A. money in a fixed deposit account.
B. money in a current account.
C. a car.
D. a computer.
E. don't know.

15. Your net value of your asset is
A. the difference between your expenditures and income.
B. the difference between your liabilities and assets.
C. the difference between your cash inflow and outflow.
D. the difference between your assets and expenditures.
E. don't know.

16. Imagine that the interest rate on your savings account was 10% per year and inflation was 11.5% per year. After a year you will be able to
A. buy more than today with the money in this account
B. the same as today with the money in this account
C. less than today with the money in this account
D. buy more of some goods and less of others
E. don't know

Section Three: Your Knowledge In Savings And Borrowing

17. Which account usually pays the MOST interest?

A. Fixed Deposit
B. Savings Account
C. Current Account
D. Don't Know

18. If you guarantee a loan for a friend, then

A. You become responsible for the loan payments if your friend defaults
B. It means that your friend cannot receive the loan by himself
C. You are entitled to receive part of the loan
D. You are in a better position to earn a personal loan
E. Don't Know

19. If you invest GH¢1,000 at 20% for a year, your balance in a year will be

A. Higher if the interest is compounded daily rather than monthly
B. Higher if the interest rate is compounded quarterly rather than weekly
C. Higher if the interest rate is compounded yearly rather than quarterly
D. GH¢1,200 no matter how the interest is computed
E. Don't Know

20. Suppose you had a GH¢100 in a savings account and the interest rate was 10 percent per year. After 1 year, how much do you think you would have in your account?

A. more than a GH¢110
B. exactly a GH¢110
C. less than a GH¢110
D. the same as your savings of GH¢100
E. don't know

21. You need to borrow some money. Which of these sources is likely to charge a higher interest on the loan

A. Borrowing from the SSNIT Student Loan Scheme.
B. Borrowing from the established Banks.
C. Borrowing from a private money lender
D. Borrowing from parents E. Don‟t know.

22. An overdraft

A. occurs when you write a GH¢1,000 cedi cheque when you have GH¢500 in your account.
B. is a stop-payment order written by the payee.
C. will result in fines.
D. all of the above.
E. don't know

23. The MOST important factor that a lender/bank uses when deciding whether to approve a loan

A. Marital Status
B. Education and Occupation
C. Bill-paying record and income
D. Age and gender
E. Don't Know

Section Four: Your Knowledge In Investments

24. In Ghana, listed/issued shares are traded on the

A. Bank of Ghana
B. Ghana stock exchange
C. Securities and exchange commission
D. Ghana investment Market
E. Don't Know

25. Which of these is a short-term investment?

A. Shares
B. Treasury Bills
C. Bonds
D. Mortgage
E. Don't Know

26. A type of professionally managed collective investment vehicle that pulls money from many investors to purchase securities is known as

A. Stock fund
B. Bond fund
C. Mutual fund
D. Mortgage fund
E. Don't know

27. It is less likely to lose all your money if you invest in a single stock (shares) compared to investing the money in a wide range of stocks (shares).

A. True
B. False
C. Don't Know

28. If an investment offers a very high return, it is likely to be of high risk.

A. True
B. False
C. Don't Know

Section Five: Your Knowledge In Insurance

29. Car insurance companies determine your insurance premium based on

A. age of the insured and driving record
B. record of accidents
C. type and age of vehicle
D. All of the above
E. don't know

30. The main reason to purchase insurance is to A. protect you from a loss recently incurred
B. provide you with excellent investment returns
C. protect you from sustaining a catastrophic loss
D. protect you from small incidental losses
E. don't know

32. **Choose the type of insurance coverage that covers the replacement of a stolen car**

A. liability
B. comprehensive
C. collision
D. third party
E. don't know

33. **Health insurance provides**

A. insurance against illness or bodily injury.
B. insurance coverage for medicine and visits to the doctor C. insurance for hospital stays and other medical expenses.
D. all of the above
E. don't know

34. **Life insurance products include the following EXCEPT**

A. Children welfare plan
B. Funeral plan
C. Retirement insurance plan
D. Theft insurance plan
E. Don't Know

35. **Third party insurance will**

A. cover your liability to others only.
B. cover for damage to yourself.
C. cover for damage to others and yourself
D. cover damage to your vehicle.
E. don't know

Section Six: Your Personal Finance Opinions, and Retirement Decisions and Practices

PERSONAL FINANCE OPINION - Tick as appropriate using ×
Using the scale **given below** please rank the importance of the items numbered from 38 to 42 to you.

A Very Unimportant B Unimportant C Not Sure D Important E Very Important

Opinion	**A**	**B**	**C**	**D**	**E**
. Maintaining adequate financial records					
. Spending less than your income					
. Maintaining adequate life insurance coverage					
. Maintaining adequate non-life insurance coverage					
. Planning and implementing a regular investment programme					

PERSONAL RETIREMENT MANAGEMENT PRACTICES - Tick as appropriate using ×

Practice	**Never**	**Rarely**	**Often**	**Very Often**	**Always**
I have other retirement accounts apart from SSNIT					
I regularly set aside money each month for savings towards retirement					
I set aside money for future needs/wants each month					
I compare interest rate offers before investing for my retirement					
I use a spending plan or budget every month					
I always keep track of my expenditure and income each month					

.

.

.

.

.

.

47. I have life insurance cover which is enough for my retirement?
    [ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree

48. Considering your current income and dependents, how would you classify your postretirement expenditure?
    [ ] Low
    [ ] High
    [ ] Uncertain

Section Seven: Challenges in Accessing Financial Knowledge

49. **Which of the ten regions of Ghana have you lived most of your life?**

……. ……

50. **Have you lived MOST of your life in the Capital Town of the region in Q46 above?**
Yes [ ] NO [ ]

51. **What is the highest level of schooling your father has completed?**
[ ] None/Junior Secondary School or Middle School
[ ] Senior High school or equivalent
[ ] Training college, Nursing training college, Polytechnic or equivalent degree [ ] Bachelor's degree
[ ] Masters, doctorate, or professional degree like medical doctor, veterinarian, or lawyer
[ ] Other (specify)……

52. **What is the highest level of schooling your mother has completed?**
[ ] None/Junior Secondary School/Middle School/below
[ ] Senior High school or equivalent
[ ] Training college, Nursing training college, Polytechnic or equivalent degree
[ ] Bachelor's degree
[ ] Masters, doctorate, or professional degree like medical doctor, veterinarian, or lawyer
[ ] Other (specify):……

53. **How often did your family (parents/guardian) discuss finances in the house?** Never [ ] Rarely [ ] Often [ ] Very Often [ ] Always [ ]

54. **How often does your employer organize financial education courses or seminars for you?**
Never [ ] Rarely [ ] Often [ ] Very Often [ ] Always [ ]

55. **What is your level of satisfaction with the role(s) being played by your employer?** Very satisfied [ ] Satisfied [ ] Uncertain [ ] Not satisfied [ ] Not satisfied at all [ ]

54. **How can your employers improve their roles in preparing you for retirement?**
……
……
……
……

55. **Do you take personal financial lessons?**
Never [ ] Rarely [ ] Often [ ] Very Often [ ] Always [ ]

56. **Where do you like to learn/increase your financial knowledge? (check all that apply)**
Parents [ ] Friends [ ] School [ ] Books [ ] Media [ ] Job [ ] Life experience [ ]
Financial institutions [ ] Other(s): ……

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS SURVEYS