

**EFFECTS OF FINANCIAL LITERACY ON RETIREMENT
SAVING AMONG PENSIONERS IN NYAHURURU TOWN-
LAIKIPIA COUNTY, KENYA**

BY

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D61/71431/2014

**A RESEARCH PROJECT PRESENTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
OF THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF
NAIROBI**

NOVEMBER 2017

DECLARATION

I declare that this research project is my original work and has not been presented to any other University for academic award to any examination body.

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ACKNOWLEDGEMENT

Special thanks to Almighty God for pulling me through the entire thick and thin of another stage of education in my life. I would like to profoundly thank my supervisor Dr. Mirie Mwangi for his steadfast guidance and keen interest in my work. He guided me and sacrificed his crucial time towards my achievement. I remain indebted for his valuable contribution, encouragements and devotion during this research. I owe a lot to my classmates, they deserve special recognition from whose encouragement, stimulating ideas and discussions, when we were at the University of Nairobi doing course work.

DEDICATION

To my loving family, my Mother, Christina Kiptanui and My father, Moses Kiptanui, My husband, Daniel Rono and My son Myles Toroitich for their moral support, understanding and perseverance during my study period. They have been of constant encouragement during the entire period.

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LIST OF ABBREVIATIONS

ALP	American Life Panel
ARBS	Association of Retirement Benefits Schemes
AVC	Additional Voluntary Contribution
CSPS	Civil Servants Pension Scheme
DFID	Department for International Development
FinEd	Financial Education
FSD	Financial Sector Deepening
GDP	Gross Domestic Product
HRS	Health and Retirement Study
IPP	Individual Pension Plan
IRA	Individual Retirement Arrangement
IRS	Individual Retirement Schemes
KNBS	Kenya National Bureau of Statistics
KNUT	Kenya National Union of Teachers
NSSF	National Social Security Fund
OECD	Organization for Economic Cooperation and Development
SPSS	Statistical packages for Social Sciences

ABSTRACT

Financial literacy is the capability to make cognizant decisions and to consider effective choices concerning the usage and management of cash. Financial literacy is important for retirement saving. The retirees are faced with optimization problem in the current economic conditions and inadequate information. Pensioners in nyahururu are classified into three classes, upper class, middle class and lower class. Access to financial management skills and general education programs is part of many challenges encountered by individuals in their quest to improve their level of knowledge on saving for retirement lifestyle. The study main objective of the study was to determine effect of financial literacy on retirement saving among pensioners in Nyahururu town. The theories and concepts guiding this study include the lifecycle hypothesis and permanent income hypothesis. The study adopted descriptive research designs. The target population included 700 pensioners residing in Nyahururu town. Cluster sampling was applied in this study to obtain a sample size of 255. Primary data was gathered using a simple structured questionnaire. Data collected was analysed quantitatively. The study established that financial literacy, age, education and income level positively affect retirement saving while gender negatively affects retirement savings among pensioners in Nyahururu town. The study concludes that pension finance literacy amongst pensioners in Nyahururu town stood at almost half of the population. The study recommends that organizations in both private and public sectors should ensure financial literacy programs are put into practice so that workers are provided with information about the difficulties that would befall them during their retirements and also how to cope with the challenges as well as how to effectively utilize their time while in retirement. In particular, financial literacy programs should focus on younger workers who constitute the bulk of employees so that they can be able to make informed decision while they are still very productive. In addition, new employees should be acquainted to the arrangements of pension by their employers to motivate them into making retirement savings.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial literacy is the capability to make cognizant decisions and to consider effective choices concerning the usage and management of cash (Worthington, 2005).

A money-wise knowledgeable population is able to make informed choices and take suitable actions on matters affecting their monetary wealth and wellbeing (OECD, 2008). According to Magera (1999), retirement saving is a methodical way of putting aside funds, commercial ventures and time for the purpose of providing revenue in retirement. Kezi (2006) argued that the objective of social security is not just existence, but social attachment and protection of human self-worth.

Pensioners in nyahururu are classified into three classes, upper class, middle class and lower class. Members of this class command a varied degree of wealth, prestige and level of education (Cheboror, 2014). The upper class members are made of corporate owners, persons holding honorific positions in the society, studied in elite schools and their children hold college and postgraduate education levels (Cheboror, 2014). The middle class is composed of professionals, managers and entrepreneurs who have college and graduate training and their children attain both college and graduate levels in education. The lower class on the other hand, comprises of the unskilled and semi-skilled workforces who have basic education and their children have high school education level, drop outs or little interest in education.

Theoretically, The lifecycle hypothesis by Ando and Modigliani (1963) expanded on economic choices on retirement saving in specific the justification of a persons spay in order to make best use of its usefulness over his life . It stated that households

accumulate savings during their working careers up to their retirement, and deaccumulate wealth thereafter. Friedman (1957) examined pre and post-retirement living standards in “straightening out the consumption stream”. He assumed that persons base their consumption on a longterm view of revenue measure, perhaps a belief of generational wealth or an idea of affluence over a practically extensive horizon. Lastly consumption of households not only depends on the current disposable income but also depends on the past levels from the current income level and also in relation to the income of supplementary households as asserted in the relative income hypothesis of (Duesenberry, 1949). According to the model, at any point in time the propensity to save by an individual can be considered to be an increasing function of his percentile position in the income distribution.

1.1.1 Financial Literacy

Financial literacy is the capability to make cognizant decisions and to consider effective choices concerning the usage and management of cash (Worthington, 2005). A money-wise knowledgeable population is able to make informed choices and take suitable actions on matters affecting their monetary wealth and wellbeing (OECD, 2008). Knowledge on financial management is concerned with the amount of knowledge possessed by a population on financial products and services in relation to how individuals manage and grow their wealth (Lusardi & Mitchell, 2013). This knowledge influences their capacity to take cognizant decisions in understanding of the risks and opportunities in order to know where they can seek help and better their financial wellbeing. However, the level of financial literacy among a population differs with variables like an individual’s income levels, age, access to financial services and highest level of education attained. Better level of financial knowledge

gives individuals confidence to set aside adequate financial resources to secure the desired lifestyle in their retirement (Agnew, Szykman, Utkus & Young, 2007).

Arnone (2004) stated that of aged people are probably more well-informed on social security finance issues since retirement preparation packages are inadequate to those who are set to retire and the aim of pre-retirement planning program it to assist people make informed decisions about retirement and plan accordingly. Moreover, retirement savings increases with oldness, which produces awareness amongst the people as they get older telling that they will pursue more of retirement income information. People with advanced schooling have additional information on monetary and retirement pension issues (Hastings et al, 2011). This can be credited to the non-existence of basic concepts grasp.

1.1.2 Retirement Saving

Retirement saving is means of putting separately funds, trade ventures and time so that one can draw proceeds from the savings after retirement. Keizi (2006) argued that the aim of social fortification is not mere existence, but societal addition and protection of human pride. Annuity monies are the main sources of retirement revenue for lots of individuals in the world (Gichuki, 2008). Retirement saving is measured by assessing the amount of contribution made by an individual to the pension scheme. Lack of well-kept records from pension schemes poses a great challenge in measuring the level of retirement saving (Keizi, 2006).

Financial literacy is important for retirement saving. The retirees are faced with optimization problem in the current economic conditions and inadequate information. In case there is change of information, the retirement goals anchored on previous optimization will shift. Information comes in different dimensions and there are

various ways in which it enters the optimization problem for retirees. Additional information can affect the retirement choices by changing various parameters in the optimization function. New information can make a retiree to change his strategies for investment which means that return on savings must be updated. The individuals impatient rate can be altered with change in information. Savings increase with a high effective interest rate in the short run as opposed to later periods in the retirees life.

Demographic features comprising age, sex, marital status, and children are vital in retirement saving decision. Occupation, education and years of service forms the human capital variables. Financial resources is measured by household income, whether the individual is the only one working and whether retirement plans is a distinct advantage. In order to mitigate the differences in retirees knowledge of finance issues, a parameter is introduced to ascertain whether they consulted a financial advisor. Lastly in order to control the disparity in the knowledge of finance, the respondents will be asked whether they sought the services of a financial expert.

1.1.3 Financial Literacy and Retirement Saving

Lack of financial education can hinder the ability of individuals to make informed financial choices. As a result according to Hilgert et al. (2003), positive interactions exist between financial behavior and financial education. It is imperative therefore to indicate that a positive relationship exists between financial behaviour and financial knowledge. Individuals with increased level of financial education increasingly involve themselves in financial services and products, savings, investments and liquidity management. Financial education predicts savings and investments at personal level as well as on macroeconomic level. Jappelli and Padula (2011) carried out a study on 39 countries and found out that financial education is a variable that

affects the level of cross-country savings. Assessing individuals financial behavior in developed countries indicates that financial education impacts critically on retirement and savings plans.

Individuals in developed countries who lack financial literacy are highly likely not to make retirement and savings plans. Lusardi and Mitchell (2009) observed that persons who are financial stable are more likely to save huge sums and therefore end up enjoying a higher income in retirement. Klapper and Panos (2011) carried out a study in developed countries seeking to establish the effects of financial education and retirement savings using a case study of Russia. Their findings indicated that the more an individual is financially literate, the more he or she is likely to make retirement plans. Several other studies however make contradictory findings to the effect that financial literacy is related to lack of financial plans among retirees (Alessie et al. (2008) ; Lusardi and Mitchell (2009). It was also concluded that there is a strong relationship between financial literacy and low cost fund. Individuals with high financial education consider the cost of funds and expenses and hence tend to settle on low cost funds in making their financial choices.

Ando and Modigliani (1963) focused on retiremet savings subject to economic decisions. They dealt with how individuals can rationalize their income for utility maximization over retirees lifetime. They stated that individuals as well as households accrue savings during their productive life until their retirement and start deaccumulating their wealth after quitting their careers. This kind of financial behavior provides households with an opportunity to increase their consumption marginal utility over their lifetime. Therefore,older individuals are more knowledgeable in pension finance matters and thus save more than younger individual (Arnone, 2004).

The reason being retirement plans are only meant for those who are set to retire in the near future. According to Bernheim (1998), financially literate consumer will be able to access financial services. While accessing the financial services from banks, insurance or Sacco's he or she gets a lot of training in relations to financial matters and therefore get to discover the need to invest for retirement and thus joining pension schemes.

Non-existence of financial education may make individuals to delay their saving until too late to be able to achieve their retirement objectives. This implies they will not be able to strike a balance between future consumption after retirement and current consumption as they pursue their careers. Similarly scanty information on financial choices may lead to bad investments which may bring about misallocation of resources.

1.1.4 Pensioners in Nyahururu Town-Laikipia County, Kenya

There are 700 pensioners in Nyahururu town (KNBS, 2014). Pensioners in Nyahururu are classified into three classes, upper class, middle class and the lower class. Members of these classes command a varied degree of wealth, prestige, lifestyle and level of education (Cheboror, 2014). The upper class members are made up of corporate owners, persons holding honorific positions in the society, studied in elite schools and their children hold college and postgraduate education levels. The middle class is composed of professionals, managers, entrepreneurs who have college and graduate training and their children attain both college and graduate levels in education. The lower class on the other hand, comprises of unskilled and semi-skilled workforces who have basic education and their children have high school education levels, drop out or little interest in education (Cheboror, 2014).

According to Cheboror (2014), pensioners in Nyahururu town largely comprises of men. Men have been found to have an upper hand in financial literacy knowledge in comparison the female members of the society. The survey findings indicated that that women desire better life in retirement and so they set aside more funds to finance their lifestyles in retirement. Also 50% of pensioners are between 60-69 years, 30% between 70-79 years and 20% are 80 years and above.

In Nyahururu, 30 percent of all household have members owning savings account. Those who live in the rural parts of Nyahururu have the highest number of individuals who do not have saving accounts (78%) as compared to those in town (61%). Among vicinities, farmers have the highest of 85% without savings accounts, with teachers and civil servants having 75% and 73%, respectively. Hence very low number of pensioners in Nyahururu town due to less access to financial services (Cheboror,2014).

1.2 Research Problem

The role of financial literacy with regard to investment is a question that many people grapple with. Many people often try to find out whether there is a linkage between the investment decision made by pensioners and financial literacy. For most people, personal financial adoptions are not guided by any financial literacy. Financial literacy facilitates the decision making process and facilitates an informed choice about ones financial future, more knowledgeable use of financial services and reduces chances of being exploited by unscrupulous pension schemes (Cheboror, 2014).

Access to financial management skills and general education programs is part of many challenges encountered by individuals in their quest to improve their level of knowledge on saving for retirement lifestyle (Zick, Smith & Mayer, 2016). The amount of Knowledge held by individuals on financial dynamics helps them

accumulate financial skills over time to enable them make prudent financial choices on how to secure the desired lifestyle in retirement (Mwangi & Kihuu, 2012). In Nyahururu, the number of pensioners is very low (Cheboror, 2014). Lack of access to financial services cited as a major contributor as to why persons do not make retirement savings. This individuals are not included in the formal financial segment comprising of microfinance institutions, Saccos, insurance, banking, capital market and pension funds.

There exists a relationship between pension saving and financial literacy. For instance, Ade (2013) reviewed the effects of knowledge owned by employees on management of finances influences individual employees preparedness for retirement lifestyle among members of the informal sector in Kenya. The study focused on the effect of awareness and participation among unemployed members engaged in small and medium enterprise businesses. The finding indicate that members of the informal sector had a low level of financial literacy and the study sought to find out if a correlation exists between financial education and retirement savings among people who work in the informal sector. In another study, Zick *et al.* (2016) sought to establish whether individuals were saving for their retirement lifestyle or were living a day at a time through the family history of Alzheimer's disease (AD). The findings indicated that Adults with parent having AD who comprised 86% were more likely to have seen a professional financial advisor.

Review of literature on studies indicates that this state of affairs could be explained by the personal choices of the investor as well non-personal factors that are external to the investor. Financial literacy stands out as a major influencer of retirement saving among pensioners in Kenya. In Nyahururu, pension schemes continue to report low

fund values because of low contribution levels. Lack of sufficient motivation offered by employers to enable their employees join pension schemes and contribute additional voluntary contributions (AVCs) has also hampered growth of the pensioners in Nyahururu town as compared to the rest part of the country. It is yet to be established whether this is due to unwillingness on the part of the employer or the employees themselves not being financially literate. In light of this, this study therefore sought to examine the effect of financial literacy on retirement savings among pensioners in Nyahururu town.

1.3 Research Objectives

The study sought to determine effect of financial literacy on retirement saving among pensioners in Nyahururu town.

1.4 Value of the Study

To the government and policy makers, the study will give insight in the government and its policy role especially in the Ministry of Finance on the impact of financial literacy on long-term financial planning and the Retirement benefits Authority by helping them identify training needs of Kenyans. The Ministry of Education will also gain insight on the need for including financial literacy in the curriculum of schools. The result of the study will inform the ongoing financial sector reforms in the country.

To employers, the study will enable them see the need to introduce workplace financial education to enhance financial literacy which will in effect enhance worker efforts to plan and save for retirement. Financial illiteracy is known to result in poor management of finances and in many cases low employee work production. To individuals, the study is expected to give insight in to the value of financial education

in regard with retirement saving including budgeting, financial management skills, asset accumulation and credit management.

The academicians and scholars will benefit as the study will build on the existing body of knowledge on financial literacy in Nyahururu town. It will also prompt other interested researchers to carry out a similar study in other sectors of the economy and regions as the study will recommend areas of further study that is beyond the scope of this study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical review, the determinants of retirement savings among pensioners, the empirical studies and finally the summary of literature review

2.2 Theoretical Review

Here the research focuses on theories, concepts and studies that this research is based on. The theories and concepts guiding this study include the lifecycle hypothesis and permanent income hypothesis

2.2.1 The Lifecycle Hypothesis

The lifecycle hypothesis was proposed by (Ando & Modigliani, 1963). The lifecycle analysis deals with financial choices on leaving employment. It involves investments specifically the justification of a person's salary in order to get the most out of its utility over his lifetime. The hypothesis states that homes accrue investments throughout their employed occupations up to giving up work, and dissipate affluence afterwards. This kind of investment behavior allows families to save their marginal utility of consumption over the lifecycle. As a consequence, depletion of savings is comparative to life-time assets or average income over the life span.

The consumption proportion and its income in the long-run is entirely consistent with the cross-sectional facts for the reason that as we move upward the income distribution, a higher ratio and people increase (Modigliani & Brumberg, 1954). The theorem explains why the income of farmers and small business owners amongst various households tend to be relatively unpredictable as their saving rates tend to increase with their income levels.

It further argues that the income and consumption needs of individuals tend to vary at various stages in their lifecycle for instance people who are young are inclined too have a consumption level that surpasses their earnings level. This is due to the reason that majority of their income attend to needs such as education and housing hence making them to have a minimal savings. While in the middle age the income achieved is generally used to select debts accrued from their early stages and also enabling ones savings to be accumulated. Lastly, when one retires the accumulated savings is consumed due to the decline in income.

2.2.2 Permanent Income Hypothesis

The pre and post retirement standards of living in adjusting the consumption stream was analysed in the permanent income hypothesis by (Friedman, 1957). The theorem argued that individuals tend to base their consumption level on the income measure that in the long term it will increase which tends to be a perception of wealth or lifetime over a long horizon. Individuals have a propensity to consume a more fraction of the permanent income at each period in comparison to its average as reviewed from facts hence their marginal propensity to consume would be equivalent to their consumption.

Scott (2005) stated in his nine-point formula for all personal finance decision that individuals and households would manage their resources best if they adopted the following criteria which include them having a pay off on their credit cards, having a life time insurance cover for their families, funding their IRA, saving to the maximum for their retirement, having a will for their lifetime, enduring a six month expense in their money market account, purchasing a house that they afford and would want to live in, then whatever is left 30% of it to be saved in a bod fund through a discount

broker and withdraw from touching it then the remainder of 70% to be invested in a stock index fund. An individual should have the assistance of a financial planner who does not charge a percentage according to your portfolio when this design confuses you due to exceptional needs like having tax issues, having a college plan and retirement this was according to (Scott, 2005).

The theory is relevant to this study because it considers a person's income as a determinant for their retirement planning. From this model the current real disposable income is not the key determinant of his consumption but instead it's the individual real wealth.

2.2.3 The Relative Income Hypothesis

The consumption of households not only depends on the current disposable income but also depends on the past levels from the current income level and also in relation to the income of supplementary households as asserted in the relative income hypothesis of (Duesenberry, 1949). According to the model, at any point in time the propensity to save by an individual can be considered to be an increasing function of his percentile position in the income distribution. A fraction of individual's income devoted to consumption depends on the level of his or her income relative to the income of neighbours. Again the aggregate saving ratio is independent of absolute level of income over time though it may depend on income distribution. Therefore the division of income between consumption and savings depend on the individual relative rather than absolute income.

The hypothesis also assumes that an individual consumption behavior will be influenced by his or her habitual consumption. If an individual has already attained a certain standard of living and his or her real disposable income falls below his or her

previous peak income, he or she will not cut the current consumption but rather will spend more from the disposable income to the extent of de-saving, in an attempt to regain his previous consumption level. On the other hand, if his or her income raised is higher than his or her peak income, the hypothesis assumes that he or she will not aspire for her higher standard of living than the one already attained thereby raising the saving ration. Hence, savings is a function of various factors such as income distribution, age, gender and access to financial services.

The relative income hypothesis has great significance to economic implication. According to Duesenberry (1949) the most common implication is that consumption creates unconstructive externalities in the society which affect the savings of individuals due to their decisions because they are not keen in accounting for them.

2.3 Determinants of Retirement Saving Among Pensioners

The various sorts of information needed to process the pension finance varies in the universal population hence diverse variables which include the age, level of education, the income level and gender affects one according to their knowledge on personal finance matters (Arnone, 2004).

2.3.1 Age

The age of an individual employee determined their desires in life and their ability to save towards retirement. At young ages, employees view retirement to be a far fetched idea whose time has not come. Whereas slightly older employees have come into reality with the fact that they are nearing retirement ages and need to do something to secure their life in retirement (Lusardi, 2011).

Individuals who are older are more likely to be more informed on matters pertaining pension finance since programmes concerning retirement are restricted only to those

who are almost retiring where the objective of this planning programme is to assist them in initiating for retirement and also assist them identifying the essential retirement decisions (Arnone, 2004). Moreover, according to Bell et al, (2005) he highlights that the awareness among the population for a retirement savings plan goes with the increase in age hence this will make them acquire more knowledge on pension finance.

2.3.2 Education Level

Hastings et al, (2011) asserts that persons with an advanced education are more informative towards pension and financial matters, however there is still insufficient understanding on fundamental concepts. Additionally according to research made by Bell et al, (2005) he asserts that when young people acquire financial knowledge it forms a foundation for their middle age hence this advanced level of education makes them have a possibility to participate in plans on the pension funds because education and financial literacy are extensively interrelated.

From studies of Parrish, (2004) he agrees that even after considering a diverse of control variables, the savings ability increases with ones education. It is seen that even though the age, income of the family and their size were restricted more educated persons tend to have a high saving-income ratio. The retirement wealth, savings rate and household wealth were related with once education Bernheim and Garrett (1996). It was additional found that the wealth of the households increased with ones education towards the male and female and their marital satus (Haurin, Hendershott, &Wachter, 1996). The ownership towards ones home ownership, investment and retirement savings is linked towards ones education (Parrish, 2004).

The gaps concerning matters in pension has increased between the most and least educated people in the current years due to the manipulation of education and income levels hence playing a role in determination of pension investments when it comes to the marital status and children (Gyourko & Linneman, 1997). Additionally, it highlighted that there are stronger effect on pensioners who have college education (Masnick & Zhu, 2001). However, other research have analysed the effects of education on various attributive factors that brings an outcome to increased savings. From the studies of Solomon, (1975) he asserted that the individuals who are less educated are probable to have more emergencies in the implementation of their primary goals unlike the educated ones who have the aspirations to provide their children with education with the assistance of households hence the variance for savings motives.

Due to the long duration of time horizons which the educated persons have, it is seen that education defers from different individuals (Solomon, 1975). Other research also indicate the affirmative connection between the financial knowledge and education of an individual. For instance the statistics of household in 1993 asserts that population amongst education is optimistic towards ones financial literacy (Bernheim,1998). The income and education status are interrelated to a positive budget activities in the individuals with low income levels (Shelton and Hill's,1995).

2.3.3 Gender

From various research made, it it clearly observed that women and men differ extensively in their financial conduct and economic well being where by majority of women have a lower level of wealth and earnings in comparison to men. In addition, women spent more years in retirement as a result of having longer life expectancies (Gottschalck, 2008). Savings for

retirement has been found to vary across gender. According to Andrade, Bazalais and Das (2014) different genders plan differently for their retirement. Men have been found to have an upper hand in financial management skills compared to their female counterparts.

Becker (1975) asserted in the human capital theory that women logically prefer to invest less comparable to men in areas such as education, job training skills, human capital, their employment opportunity, incomes and their ability to save and gather more wealth for retirement. Mainly, women acquire more primary responsibility in comparison to men because of their superior responsibility in the family and gender division.

2.3.4 Income Level

The diverse partly contrasting effects in the aggregate macroeconomic level tends to be offsetting each other hence the arguementation in the interrelation among the individual distribution of income becoming uncertain (Carroll,1998). The propensity to save for an individual declines with the decline in income. This therefore suggests that communal propensity for a community in general may depend in their income distribution (Keynes, 1939). Carroll (1998) explains that the possible explanations for disproportionally higher saving rates by the rich households and their wealth and inheritance as a laious good in the utility function. The poor ought to save lowly due to the asset-based means testing for purposes of security (Dynan et al., 2004) and a continual consumption level lying past the means of several households as from the studies of (Smith, 2001).

According to Cheborbor (2014) when looking at growth rates, persistence of habits implies that low levels of savings at which the real income is growing is slower. This is true especially when individuals living standards have been improving over time. In addition, a reduction in the level of saving can also be attributed to increased levels of

inequality which means that household income is very low to support subsistence consumption provided that they are continuing to save nonetheless. The effect of this would be pronounced especially if the level of subsistence is not the minimum that is biologically instigated as postulated by Musgrove (1980). The opposite would mean that the consumption standard is socially acceptable which is huge enough to affect a considerable number of households in well developed economies.

It can therefore be concluded that a reduction in the aggregate rate of saving means the rate of saving by middle and low income earners reduce significantly such that the upward trend in the level of saving by as a result of a shift income towards individuals with an increased level of saving is compensated to a large extent (Bofinger, 2012). Hence the volume of savings by low income earners need to significantly huge from the onset.

2.4 Empirical Studies

Several studies have been conducted on knowledge on financial management and how individuals plan for their desired lifestyle in retirement. Agnew, Bateman and Thorp (2013) studied how knowledge on financial management and skills influence individuals' retirement saving in Australia. The study adopted primary data which was collected using a questionnaire and interview guide. From the findings, it was clear that low knowledge on financial management and skills negatively influenced savings for retirement lifestyle. Further findings show that employees ability to compute future values of their contributions to a given pension scheme influenced their savings ability towards the same. Knowledge on financial management and skills promotes employees ability to compute the returns from different investment opportunities.

In another study, Lusardi and Mitchell (2011) sought to establish how knowledge on financial management and skills influence saving plans for individuals towards retirement in the United States. The study conducted interviews through telephone over 1,200 respondents. The study sought to establish how individuals went about formulating their financial decisions and how these financial decisions affected their wealth growth. The study looked at how individuals spend their money on a day to day basis and how this expenditure influenced their savings ability for the future in retirement considering the fact that savings is the difference between disposable income and consumption. The findings show that low levels of knowledge on financial management and skills influence led to low savings for retirement among the employees.

Hilgert, Hogarth, and Beverly (2003) confirmed that in America, financial illiteracy is widespread. The study was drawn from a consumer survey that was carried out from the University of Michigan in 2001 focusing on respondents aged between 18 and 98 years. The number of respondents in the survey were 1000 and the research instrument had 28 questions which were dichotomous (Yes/No). The financial literacy questions covered credit knowledge (debt payments, APR and credit statements), knowledge on savings (insurance, interest rate and mutual funds), mortgages (collateral requirements, fluctuations of interest rates) and overall financial management skills such as bank obligations, emergency funds and employers role in retirement plans. The findings concluded that only two thirds of the questions were answered correctly by the respondents.

According to DFID (2008), 50% of adult population do not know how to use financial products and services in Africa. The findings indicated that 71% of the adults did not

have a bank account while half of the population did not use any financial product at all including informal financial services. FSD (2009) indicated that only 40.5% of the population in Kenya used formal financial products while the remainder was excluded. The exclusion was majorly attributed to low level of education as the study indicated that exclusion reduces with an increase in the education levels.

Rooij *et al.* (2011) sought to establish the effects of knowledge on financial management and skills and planning for retirement among households. The study used a questionnaire on 1091 households. On financial literacy, the survey asked the respondents how well they understood the computation of compound interest, the level of interpretation of general changes in the prices in an economy, and over time. The findings show that knowledge on financial management and skills promote the individuals chances of setting aside some finances towards their retirement.

Gitau and Otsola (2011) carried out a survey on predictors of pension financial literacy. They surveyed members of occupational pension schemes in Kenya. The focus of the study was on the levels of financial literacy and its antecedents. The findings of the study indicated that the difference in literacy levels is affected by level of education, age, work experience, gender, level of management, income, participation in financial education programs, design of the pension plan, specialization and being a member of a board of a pension plan. Marital status of an individual was found not to bring about any difference.

Cheboror (2015) revealed that a majority of individuals contributed between 1 and 10% of their income towards pension. This percentage contribution was replicated in the gender category, where 60.7% and 76% of males and females respondents respectively contributed 1-10%. Respondents aged between 45 and 55 years though

contributed between 10-20% while those aged between 25 and 35 years contributing below 1%. A group of employees nearing retirement was convinced that pension saving was an important habit and that they saved so that they could not depend on their children. However, 23.1% believed that they rather not save in pension because they needed the money now.

Githui and Ngare (2014) examined knowledge on financial management and skills and the evaluation of their behavior towards the different components of personal financial planning (budgeting and tax planning, credit and cash management, purchasing decisions, risk management and insurance, investment management, and retirement and estate planning). The study findings established that employees of commercial banks in Nyahururu have a high level of financial literacy and a good evaluation of personal retirement saving. The study further established that the fact that employees of commercial banks are highly financially literate does not have a significant impact on their personal retirement saving.

Onduko, Gweyi and Nyawira (2015) sought to find out key determinants of retirement saving behaviour among Kenyans using a case of pension schemes in the capital city of Kenya, Nairobi. The study collected primary data which was analyzed using various analytical models including T-test, and analysis of variance (ANOVA). The findings indicated that the level of employees' savings for pension among commercial banks in Kenya improved with their income. As their incomes increased, their savings also increased meaning that there was a linear relationship between income and the amount set aside towards retirement.

2.5 Conceptual Framework

The conceptual framework involves the relationship between financial literacy on one hand and the level of saving for pension on the other hand. In this context, the level of the inputs influences the financial literacy process that eventually determines the level of retirement saving among pensioner as illustrated diagrammatically as shown in figure 2.1.

Independent Variable

Dependent Variable

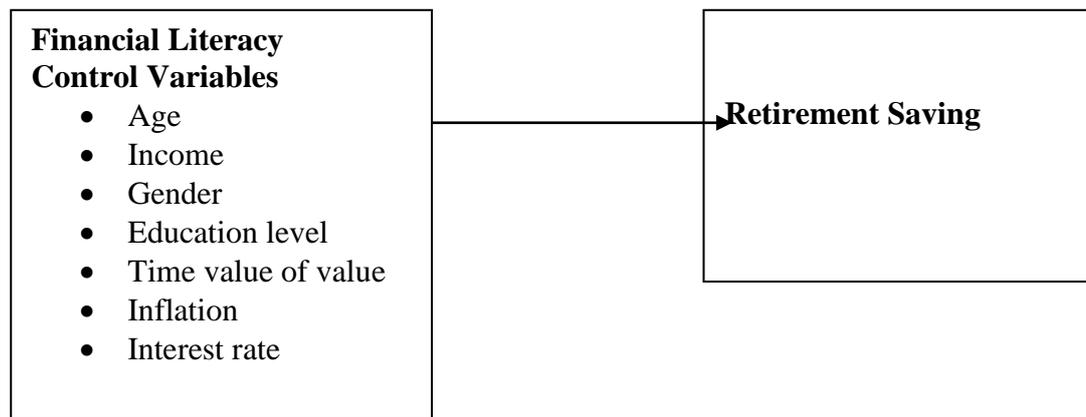


Figure 2.1: Conceptual framework

2.6 Summary of Literature Review

It is therefore evident from the above studies that extensive studies have been done mostly in Europe and America linking financial literacy and retirement saving. Although, literature and data on Kenya's long-term financial saving and financial literacy programs is scanty, little empirical evidence exists on studies seeking to find out the effects of financial literacy on retirement savings.

There is a knowledge gap on the role of financial literacy and other demographic factors (age, income, education level, gender and access to financial services) in retirement saving and it is this gap the study seeks to fill. This study aims to

determine whether the level of retirement saving tends to vary according to financial literacy, more specifically among the pensioners in Nyahururu town.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology that was followed in conducting this study. The chapter explains the research design used in the study, population of the study, sampling design, methods of data collection, validity and reliability of data analysis plan and ethical considerations.

3.2 Research Design

According to Beri (2008), research design is an exhaustive strategy of a study stipulating the approaches and processes for gathering and examining information on a given topic and presenting the findings (Beri, 2008). This study adopted a descriptive research design to achieve its objectives. A descriptive design is aimed at describing systematically the relationship between financial literacy and retirement saving factually and accurately. According to Singh (2006), a descriptive research is concerned with determining the position of the phenomenon under study. A descriptive study helps in describing the effects of financial literacy and its demographic component on retirement saving.

3.3 Population

According to Burns and Burns (2008), a population of a research refers to the complete group of all observations of concern to a researcher. Population may include people, objects or events. In this study, the target population included 700 pensioners residing in Nyahururu town Laikipia County.

3.4 Sample Design

Scholars have classified sampling techniques into two categories, probability sampling and non-probability sampling techniques. Babbie (2010) defined non-probability sampling as any technique in which samples are selected in a manner which does not depend on the rationale of probability theory, thus does not involve random selection. The techniques include purposive, snowball and quota sampling. According to Connaway and Powell (2010), probability sampling includes simple sampling, stratified sampling, cluster sampling and systematic sampling. Gravettar and Forzanno (2011) stated that a cluster sample takes advantage of an homogenous group of individuals to select samples from the target population. The pre-existing groups, called, clusters could be schools, villages and such like (Gravettar & Forzano, 2011). Cluster sampling was applied in this study. This research determined an appropriate and accurate sample size using the sampling formula $n=N/1+Ne^2$ developed by slovin (1960). Whereby,

n represents the sample size

N represents the entire population

e is the margin error 0.05

n is given by $700/1+700(0.05)^2 = 255$

3.5 Data Collection Procedures

Data is categorised into primary and secondary data which wereboth used in this study. Primary data was gathered using a simple structured questionnaire. The purpose of this study wast to determine the association between financial literacy and retirement savings. The key questions are those related to retirement saving and financial literacy. There was three question on retirement saving and fifteen questions

related to financial literacy where respondents were required to indicate the most appropriate answers based on five point Likert scale ranging.

3.6 Data Validity and Reliability

Validity denotes the accurateness or honesty of measurement. There are three issues to address when evaluating the validity of a study. These include content validity, face validity and construct validity. To counter face validity, a pre-test of the survey was carried out. Content validity refers to whether a research instrument provides adequate coverage of a topic.

Reliability is tantamount with stability, where a measurement that produce steady outcomes over time is said to be reliable. According to Cooper and Schindler (2003), reliability is the extent which a research instrument is free from errors thus produces similar outcomes. One way to address the issue of reliability is to use the split half method where results are number as they are being administered and then grouped into two. One group has odd numbers while the other one has even numbers. The internal consistency of the results of the two groups were then evaluated.

3.7 Data Analysis Plan

Data collected was analysed quantitatively. Descriptive statistics identified the data patterns as well as consistency of the responses in each of the results from the survey. Inferential statistics was used to test the hypotheses where the dependencies among the components were analyzed using regression analysis. The relationship between financial literacy and retirement savings was measured by the following multivariate regression analysis.

The regression equation used in this study was as follows

$$Y = \alpha + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \beta_4(X_4) + \beta_5(X_5) + \epsilon \text{ where;}$$

α = Constant

β_1 - β_5 = Regression coefficient

Y = Dependent variable indicating retirement saving. Measured by amount of pension contributed

X₁= Financial Literacy

X₂= Age. Number of years.

X₃= Education level. Primary, secondary, college or university.

X₄= Gender. Male or female.

X₅= Income level. Income categories.

ϵ = The error term

The F – test was used at 95% confidence level to establish the statistical significance of the whole model and the independent variables respectively. In addition, the coefficient of determination was used to establish the reliability of the regression model.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The chapter presents data analysis, results and discussions from research findings. The research was undertaken to study the effects of financial literacy on retirement saving among pensioners in Nyahururu town-Laikipia County, Kenya. The research data was collected as per the research methodology where a questionnaire was sent to the respondents to fill in and return to the researcher.

4.2 Questionnaire Response Rate

The research targeted 255 pensioners in Nyahururu town, out of which 182 responded thus making a response rate of 71.37 percent. This rate was representative and it aligns to Mugenda and Mugenda (2003), where a response rate of 50 percent was considered representative for analysis and in this case 71.37 percent is regarded as excellent in terms of response rate. Table 4.1 shows the response rate.

Table 4.1: Response rate

Pensioners	Questionnaires administered	Questionnaires returned	Response rate (%)
Ages 60 to 70	127	101	79.53
Ages 71 to 80	77	54	70.13
Ages 80+	51	27	52.94
Total	255	182	71.37

Source: Researcher (2017)

4.3 Data Validity

Data validation was conducted to provide guarantees for fitness, accuracy, and consistency. Before processing the responses, the completed questionnaires were cleaned for accuracy, completeness and consistency across respondents. Content

analysis was used to analyze the open ended questions. This involved evaluating the consistency in response to the open-ended questions and attempting to deduce tangible conclusion

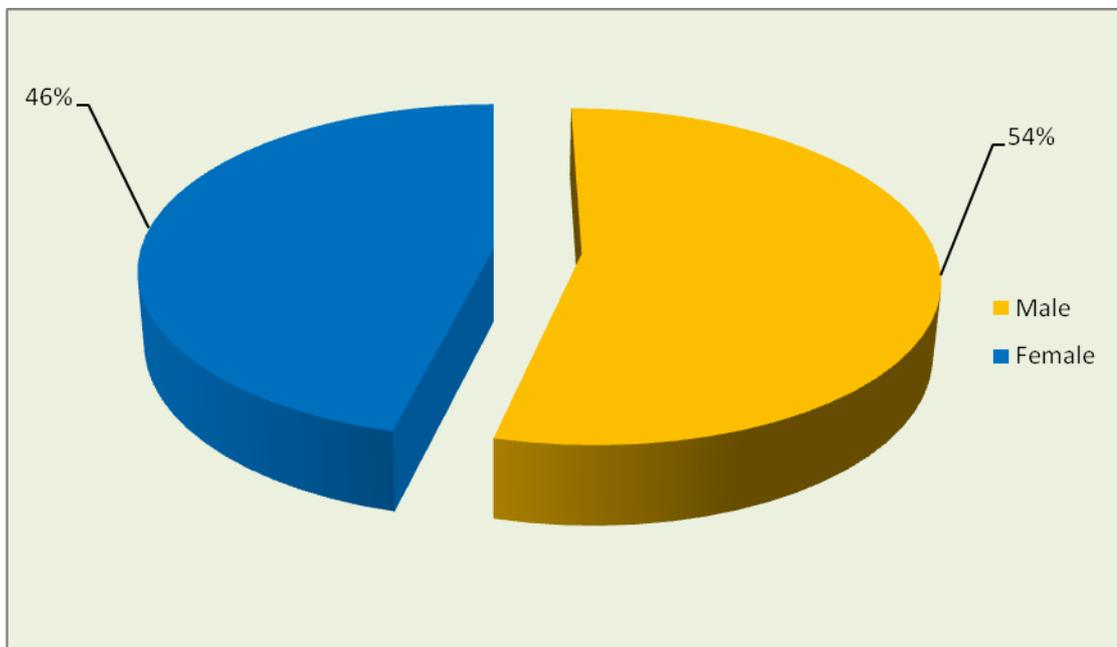
4.4 Descriptive Statistics

The descriptive statistics include: gender, age, education, monthly income during retirement saving period, financial literacy and retirement savings.

4.4.1 Gender

In terms of gender, majority (54%) of the respondents were male while only 46% were female. It was therefore observed that there were more males than females which is a characteristics of many work places in both public and private sector. The difference was small and therefore the findings of the study represented a balanced view of pensioners of both genders. Figure 4.1 shows the findings of the study.

Figure 4.1: Gender



Source: Researcher (2017)

4.4.2 Age

The study also sought to find the age of the respondents where it was established that 101 (55.5%) were in the age bracket of 61 to 69 years followed by 54 (29.7%) who were between 70 to 79 years old. It was also established that 27 (14.8%) were 80 and above years old. The findings implies that majority of the respondents retired not more than 10 years ago. The findings of the study are summarized in table 4.2.

Table 4.2: Age

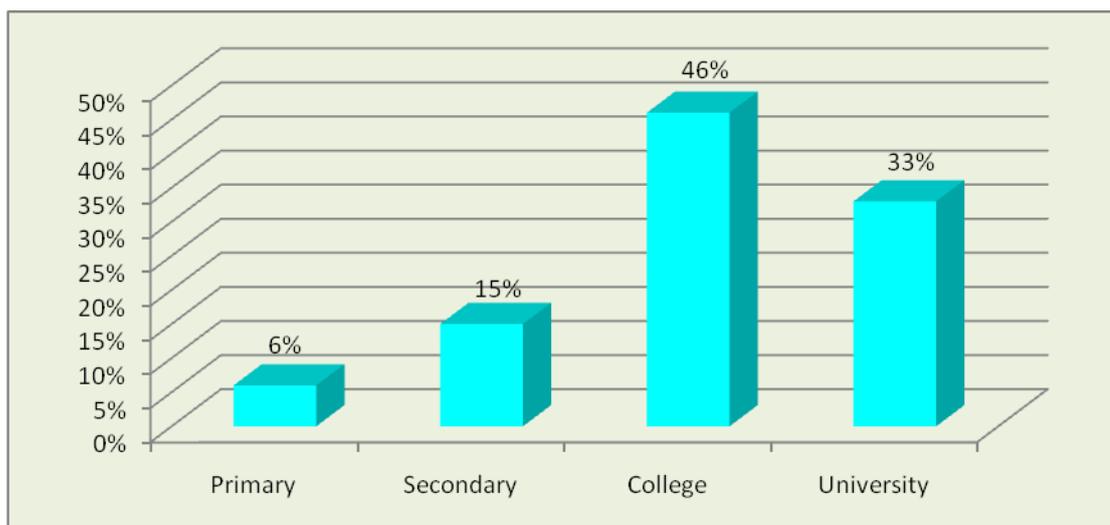
Age	Frequency	Percent	Cumulative percent
61 – 69Years	101	55.5	55.5
70 –79 years	54	29.7	85.2
80 and above	27	14.8	100
Total	182	100	

Source: Researcher (2017)

4.4.3 Education

The findings shown in figure 4.2 shows that majority (46%) of the respondents had college education while 33% had attained university education. Further findings indicated that 15% of the respondents had attained secondary education while 6% had not gone past primary school. The findings is a pointer that the respondents were literate and hence they could provide valuable feedback to the questions sought by the researcher.

Figure 4.2: Education



Source: Researcher (2017)

4.4.4 Monthly Income During Retirement Saving Period

The fourth demographic information that the study sought from the respondents was their monthly income during retirement saving period. The findings shown in table 4.3 shows that 33 (18%) earned less than Ksh 20,000 while 58 (32%) earned between Ksh 20,001 and 40,000. It was also established that 47 (26%) earned between Ksh 40,001 and 60,000 and 20 (11%) earned between Ksh 60,001 and 80,000. Slightly close to a quarter (24%) of the respondents earned over 80,000.

Table 4.3: Monthly Income During Retirement Saving Period

Monthly Income	Frequency	Percent	Cumulative percent
≤ Kshs. 20,000	33	18	18
20,001 – 40,000	58	32	50
40,001 – 60,000	47	26	76
60,001 – 80,000	20	11	87
80,001 – 100,000	9	5	92
>100,000	15	8	100
Total	182	100	

Source: Researcher (2017)

4.4.5 Financial Literacy

The study sought to find out the financial literacy of the pensioners in Nyahururu town. The respondents were therefore presented with statements to using a scale of 0-4 whereby, not at all [0]; to a less extent [1]; to a moderate extent [2]; to a large extent [3]; to a very large extent [4]. The respondents indicated that their retirement savings are moderate as shown by a mean of 1.71 and a standard deviation of 1.054. The respondents also agreed to a moderate extent that: they make their expenditures according to the budget (M=1.42, SD=0.898); make a record of all their incomes (M=1.52, SD=0.954) and settle my bills on time (M=1.49, SD=0.741). The respondents also agreed to large extent that they have a clue on their total monthly expenses as shown by a mean of 2.79 and a standard deviation.

Majority of respondents also indicated that that they had not insured their properties as shown by a low mean of 0.72 and a standard deviation of 0.793. The respondents also indicated to a moderate extent that they had a life assurance cover for their families (M=1.00, SD=0.871). Other statements that were presented included: saving more than 30% of their income (M=1.84, SD=0.868), having sufficient money to sustain purchases till the next income (M=1.80, SD=0.849), borrowing money frequently to pay bills (M=1.50, SD=0.712) and checking credit report annually (M=1.42, SD=1.003). Most of the responses were either to a moderate extent or to a large extent meaning that the respondents were financially literate. Table 4.4 shows the findings of the study.

Table 4.4: Financial Literacy

Statements	Mean	Standard Deviation
I have enough savings for my retirement	1.71	1.054
I make my expenditures according to the budget	1.42	0.898
I make a record of all my incomes	1.52	0.954
I settle my bills on time	1.49	0.741
I have a clue on my total monthly expenses	2.79	0.990
I have insured my properties	0.72	0.793
I have a life assurance cover for my family	1.00	0.871
I saved more than 30% of my income	1.84	0.868
I find myself not having sufficient money to sustain me till the next income	1.80	0.849
I borrow money frequently to pay my bills	1.50	0.712
I have been checking my credit report annually	1.42	1.003

Source: Researcher (2017)

The respondents were presented with a question on how to calculate the interest if they saved Ksh. 10,000 money in a bank with an interest rate of 10% per year for a period of five years. The answer to this question was exactly 16,105 which was answered correctly by 54% of the respondents while the rest got it wrong. Majority of the respondents indicated that they did not know the exact amount they would buy after one year if the interest rate was 10% per year while inflation was 10% per year.

4.4.6 Retirement Savings

In terms of retirement savings, 83 (46%) of the respondents had saved over 400,000 while 44 (24%) of the respondents had savings of between Ksh 300,001 and 400,000. It was also established that 35 (19%) of the respondents had savings ranging from Ksh 200, 001 and 300,000 while only 20 (11%) had saved between Ksh 100,001 and 200,000 as shown in table 4.5.

Table 4.5: Amount saved for retirement

How much have you saved for retirement?	Frequency	Percent	Cumulative percent
≤ Kshs. 100,000	0	0	0
100,001 – 200,000	20	11	11
200,001 – 300,000	35	19	30
300,001 – 400,000	44	24	54
>400,000	83	46	100
Total	182	100	

Source: Researcher (2017)

In terms of different forms of retirement savings, 131 (72%) of the respondents indicated that they had only one form of retirement saving while 51 (28%) had retirement savings in different pension schemes. The results revealed that the most form of retirement saving was the National Social Security Fund (NSSF).

Table 4.6: Forms of retirement savings

How many forms of retirement savings do you have?	Frequency	Percent	Cumulative percent
One	131	72	72
Several	51	28	100
Total	182	100	

Source: Researcher (2017)

The respondents were further asked to indicate the age at which they started saving for retirement. It was observed that more than half (53%) of the respondents started saving when they were between 31 and 40 years old. It was also established that 41% of the respondents had started saving for retirement when they were between 20 and 30 years old. Only 12% of the respondents had started saving when they were over 40 years old. It can therefore be deduced that many of the respondents had started making savings when they were above 30 years of age which is usually the average

age when youths get employment from which they can get income for making retirement savings.

Table 4.7: Starting age of saving for retirement

At what age did you start saving for retirement?	Frequency	Percent	Cumulative percent
20-30 Years	74	41	41
31-40 Years	96	53	94
41-50 Years	9	5	99
51-60 Years	3	1	100
Total	182	100	

Source: Researcher (2017)

4.5 Correlation Analysis

Table 4.8 presents the correlation test results which indicate that financial literacy had a strong correlation of (.899) and was statistically significant to explain retirement savings as $p = .000 < .05$. Age had a positive correlation of (.354) and $p = .000 < .05$. Income level had a strong correlation of (.848) and $P = .000 < .05$. It was also established that education had a strong correlation with retirement savings (.734) and $p = .004 < .05$. Further findings indicated that gender had a negative correlation of (-.403) and $p = .000 < .05$.

Table 4.8: Correlations

		Financial literacy level	Age	Education	Gender	Income level	Retirement savings
Financial literacy level	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	182					
Age	Pearson Correlation	.895**	1				
	Sig. (2-tailed)	.000					
	N	182	182				
Education level	Pearson Correlation	.845**	.624*	1			
	Sig. (2-tailed)	.000	.000				
	N	182	182	182			
Gender	Pearson Correlation	.901**	.959*	.716**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	182	182	182	182		
Income level	Pearson Correlation	.719**	.852**	.733**	.940**	1	
	Sig. (2-tailed)	.000	.000	.004	.000		
	N	182	182	182	182	182	
Retirement savings	Pearson Correlation	.899**	.354**	.734**	-.403**	.848**	1
	Sig. (2-tailed)	.000	.000	.004	.000	.000	
	N	182	182	182	182	182	182
, **. Correlation is significant at the 0.01 level (2-tailed).							

Source: Researcher (2017)

4.6 Regression Analysis

A multiple regression equation was generated from the SPSS after coding of the data of financial literacy factors as the independent variables and the amount of retirement saving as the dependant variable. The study used statistical package for social sciences (SPSS Version 22) to perform multiple regressions analysis. From table 4.9, it can be revealed that the five independent variables, that is: financial literacy level, age, education, gender and income level explain 79.0% of the variability of retirement savings at 95 percent confidence interval. This is a very good model according to the rule of thumb used by practitioners basing on the threshold for a good fit.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889 ^a	.790	.757	.22658

a. Predictors: (Constant), financial literacy level, age, education, gender and income level

The significance level as shown in table 4.10 was 0.0% indicating that the data was good in reaching a conclusion on the parameters of population since the p-value was less than 0.05%. In comparing the critical value (19.30) and the F value (23.546), it was concluded that the F value was greater hence an indication that financial literacy significantly influence retirement savings.

Table 4.10: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.835	5	1.209	23.546	.000 ^b
	Residual	1.283	176	.051		
	Total	6.119	181			

a. Dependent Variable: Retirement savings

b. Predictors: (Constant), financial literacy level, age, education, gender and income level

Table 4.11: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.576	.367		4.292	.000
Financial literacy	.096	.220	.052	.162	.023
Age	.092	.395	.090	.232	.018
Education	.032	.213	.285	1.467	.045
Gender	-.036	.405	.933	2.560	.017
Income level	.854	.493	.071	.483	.031

a. Dependent Variable: Financial literacy

Multiple regression analysis was conducted as to determine the relationship between financial literacy and the five independent variables. As per the SPSS generated table below, the equation: $Y = \alpha + \beta_1(X_1) + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$: becomes

$$Y = 1.576 + 0.096X_1 + 0.092X_2 + 0.032X_3 - 0.036X_4 + 0.084X_5$$

Y = Retirement saving

X₁ = Financial Literacy

X₂ = Age

X₃ = Education level

X₄ = Gender

X₅ = Income level

ε = The error term

According to the findings, taking all factors constant at zero, the retirement savings will be 1.576. The findings analyzed also shows that taking all other independent variables at zero; a unit change in financial literacy will change retirement savings by a factor (0.096). A unit increase in age will increase retirement savings by 0.92 units and a unit increase in education will increase retirement savings by 0.032 units. A unit increase in gender will decrease retirement savings by 0.036 while a unit increase in income levels will increase retirement savings by 0.84. Hence financial literacy, education, age and income levels have a positive relationship with retirement savings while gender was found to have a negative relationship with retirement savings.

4.7 Discussion of Findings

The study established that majority (54%) of the respondents were male while only 46% were female. It was therefore observed that there were more males than females which is a characteristics of many work places in both public and private sector. The difference was small and therefore the findings of the study represented a balanced view of pensioners of both genders. The findings concur with Bazelais and Das (2014) who found out that savings for retirement vary across gender. Different genders plan differently for their retirement. Men have been found to have an upper hand in financial management skills compared to their female counterparts.

The study also sought to find the age of the respondents where it was established that 101 (55.5%) were in the age baracket of 61 to 69 years followed by 54 (29.7%) who were between 70 to 79 years old. It was also established that 27 (14.8%) were 80 and above years old. The findings implies that majority of the respondents retired not more than 10 years ago. According to Arnone (2004), individuals who are older are more likely to be more informed on matters pertaining pension finance since

programmes concerning retirement are restricted only to those who are almost retiring where the objective of this planning programme is to assist them in initiating for retirement and also assist them identifying the essential retirement decisions.

In terms of education, the findings shows that majority 46% of the respondents had college education while 33% had attained university education. Further findings indicated that 15% of the respondents had attained secondary education while 6% had not gone past primary school. The findings is a pointer that the respondents were literate and hence they could provide valuable feedback to the questions sought by the researcher. The findings corroborates Hastings *et al*, (2011) who asserts that persons with an advanced education are more informative towards pension and financial matters. Arguing in the same line, Bell *et al*, (2005) asserts that when young people acquire financial knowledge it forms a foundation for their middle age hence this advanced level of education makes them have a possibility to participate in plans on the pension funds because education and financial literacy are extensively interrelated.

The fourth demographic information that the study sought from the respondents was their monthly income during retirement saving period. The findings shows that 33 (18%) earned less than Ksh 20,000 while 58 (32%) earned between Ksh 20,001 and 40,000. It was also established that 47 (26%) earned between Ksh 40,001 and 60,000 and 20 (11%) earned between Ksh 60,001 and 80,000. Slightly close to a quarter (24%) of the respondents earned over 80,000. According to Keynes (1939), the propensity to save for an individual declines with the decline in income. This therefore suggests that communal propensity for a community in general may depend in their income distribution.

The study calculated Pearson correlation coefficient and the results indicated that financial literacy had a strong correlation of (.899) and was statistically significant to explain retirement savings as $p = .000 < .05$. Four variables: financial literacy, age, income level and education had a positive correlation with retirement savings while gender had a negative correlation. A multivariate linear regression equation was fitted to the data with the identified financial literacy factors as the independent variables and the amount of retirement saving as the dependant variable. The study used statistical package for social sciences (SPSS Version 22) to code, enter and carry out multiple regressions analysis.

The results revealed that the five independent variables, that is: financial literacy level, age, education, gender and income level explain 79.0% of the variability of retirement savings at 95 percent confidence interval. This is a very good model according to the rule of thumb used by practitioners basing on the threshold for a good fit. The significance level as shown in table 4.10 was 0.0% indicating that the data was good in reaching a conclusion on the parameters of population since the p-value was less than 0.05%. In comparing the critical value and the F value, it was concluded that the F value was greater hence an indication that financial literacy significantly influence retirement savings.

Multiple regression analysis was conducted as to determine the relationship between financial literacy and the five independent variables. As per the SPSS generated table below, the equation: $Y = \alpha + \beta_1(X_1) + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$: becomes

$$Y = 1.576 + 0.096X_1 + 0.092X_2 + 0.032X_3 - 0.036X_4 + 0.084X_5$$

According to the findings, taking all factors constant at zero, the retirement savings will be 1.576. The findings analyzed also shows that taking all other independent

variables at zero; a unit change in financial literacy will change retirement savings by a factor (0.096). A unit increase in age will increase retirement savings by 0.92 units and a unit increase in education will increase retirement savings by 0.032 units. A unit increase in gender will decrease retirement savings by 0.036 while a unit increase in income levels will increase retirement savings by 0.84. Financial literacy, age, education, and income levels have a positive relationship with retirement savings where financial literacy contributes more to retirement savings by 0.96. Gender was found to have a negative relationship with retirement savings.

Most of the findings of this inferential statistics correspond with the existing research literature. For instance, Agnew, Bateman and Thorp (2013) clearly indicated that low knowledge on financial management and skills negatively influenced savings for retirement lifestyle. Further findings show that employees ability to compute future values of their contributions to a given pension scheme influenced their savings ability towards the same.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study and makes conclusion based on the findings. The recommendations of the study and areas for further research are also presented.

5.2 Summary of Findings

In terms of gender, slightly more than half of the respondents were male while the rest were female. The difference was small and therefore the findings of the study represented a balanced view of pensioners of both genders. It was also established that more than 50% of the respondents were in the age bracket of 61 to 69 years followed by those who were between 70 to 79 years old. The findings implies that majority of the respondents retired not more than 10 years ago. The findings also showed that majority of the respondents had college education a pointer that the respondents were literate and hence they could provide valuable feedback to the questions sought by the researcher. In terms of monthly income, 18% earned less than Ksh 20,000 while 32% earned between Ksh 20,001 and 40,000. Slightly close to a quarter of the respondents earned over 80,000.

The respondents further indicated that their retirement savings are moderate. They also agreed to a moderate extent that: they make their expenditures according to the budget; make a record of all their incomes and settle my bills on time. The respondents also agreed to large extent that they have a clue on their total monthly expenses. Majority of respondents also indicated that that they had not insured their properties. The respondents also indicated to a moderate extent that they had a life assurance cover for their families. Other statements that were presented included:

saving more than 30% of their income, having sufficient money to sustain purchases till the next income, borrowing money frequently to pay bills and checking credit report annually. Most of the responses were either to a moderate extent or to a large extent meaning that the respondents were financially literate.

The respondents were presented with a question on how to calculate the interest if they saved Ksh. 10,000 money in a bank with an interest rate of 10% per year for a period of five years. The answer to this question was exactly 16,105 which was answered correctly by 54% of the respondents while the rest got it wrong. Majority of the respondents indicated that they did not know the exact amount they would buy after one year if the interest rate was 10% per year while inflation was 10% per year. For retirement savings majority of the respondents had saved over 400,000.

In terms of different forms of retirement savings the respondents indicated that they had only one form of retirement saving with exception of a few who had retirement savings in different pension schemes. The results revealed that the most form of retirement saving was the National Social Security Fund (NSSF). The respondents were further asked to indicate the age at which they started saving for retirement. It was observed that more than half of the respondents started saving when they were between 31 and 40 years old. It can therefore be deduced that many of the respondents had started making savings when they were above 30 years of age which is usually the average age when youths get employment from which they sufficient income for making retirement savings.

5.3 Conclusions

The study concludes that that many pensioners have not acquainted to the most fundamental concepts of finance and economics that would help them in making

decisions regarding investments and savings. It was observed that financial illiteracy is a serious issue affecting many people of Nyahururu town and the older ones were found to be the most affected. The implication is that they are therefore incapable of making sound judgement pertaining retirement planning, savings, mortgages and other investment savings.

Such financial illiteracy is widespread and older people in Nyahururu town appear woefully under-informed about basic financial concepts, with serious implications for saving, retirement planning, mortgages, and other decisions. In response, governments and several nonprofit organizations have undertaken initiatives to enhance financial literacy which jeopardize their happiness after retirement. Another important concern is that the lack of adequate knowledge is more pronounced in a specific part of the population especially the low income earners and people with low levels of education. It was also observed that where women were found to have low levels of education, they were found to suffer serious economic hurdles because of their vulnerability.

The study takes extreme caution in concluding on the effects of financial education on retirement savings despite interrogating the consequences and causes of financial illiteracy. This is because a small portion of employees in an organization take part in retirement seminars therefore many are disenfranchised in this case. Additionally, the financial illiteracy levels that is so widespread cannot be eliminated entirely by a one off training on financial economics or seminars on financial literacy. This does not mean that the effectiveness of financial education is questionable but rather because it is not the only panacea for the problem. In training, it is imperative to consider changing the behavior of the consumers and not only offering financial education.

Based on the findings, the study reached the conclusion that many people in Nyahururu town had not made sufficient savings. It is important to note that in a household, accumulation of wealth is sufficient when the consumption changes over the life cycle. Making deductions from above, it holds that financial literacy would increase individual retirement savings.

Kenya as a nation is still developing but the population growth is increasing tremendously. It is therefore characterized by low literacy levels and low percapita income and Nyahururu town is no exception. The results provide a worrying situation in Nyahururu town in terms of financial knowledge as many respondents failed in the computation question that they were provided for in the research instrument. The findings of the study agrees with studies carried out in other parts of the world, regulators and policy makers should agitate for increased expenditure on financial education programs and retirement savings. Understanding of concepts related to finance and economics is important in enabling individuals to deliberately make sound retirement plans to safe guard their wellbeing after retirement.

The study concludes that pension finance literacy amongst Pensioners in Nyahururu town stood at almost half of the population. These literacy levels are low given that the respondents were mostly drawn from the formal sector. The financial literacy levels differ significantly onthe basis of age, education level, gender and income level which were the factors considered by this study.

Based on the findings the study concludes that knowledge on retirement savings reduces the cost of gathering and processing information and lowers retirement planning expenses hence assist the implementation of decisions related to their

finances and lower down financial and psychological entry to retirement savings computations and the ensuing retirement plans.

5.4 Recommendations of the study

The study recommends that organizations in both private and public sectors should ensure financial literacy programs are put into practice so that workers are provided with information about the difficulties that would befall them during their retirements and also how to cope with the challenges as well as how to effectively utilize their time while in retirement. The relevant government agencies should formulate policies and develop programs on education and training on financial literacy so that the gap that exists in the market in terms of information asymmetry can be narrowed in order to foster financial preparedness for retirement.

The findings of the study can help the policy makers in the implementation which will create understanding and promote the development of the innovative pensioners plan and individual retirement plans such as the recently Mbao Pension Plan that is still receiving members though in a slow pace. The study also recommends that a curriculum be developed on pension and financial education in universities as well as colleges in addition to creating awareness about pension plans at the community level involving advertisements and road shows.

The results of the study encourage regulators and policy makers to come up with programs supporting financial literacy programs that takes care of the particular needs of the discrete group that the study identified. Retirement literacy programs should be tailored for distinct groups based on age, area of specialization, education, work experience, pension plans, trustees, gender, level of management and the number of pension plans that a retiree has.

In particular, financial literacy programs should focus on younger workers who constitute the bulk of employees so that they can be able to make informed decisions while they are still very productive. In addition, new employees should be acquainted to the arrangements of pension by their employers to motivate them into making retirement savings. Moreover, greater energy should be channeled in training and the topic should revolve around pension investments and operations as reduced literacy rates are documented in while tackling such topics.

The study also recommends proper coordination in organizations establish quality training programs where by the employees are trained on the importance of savings not only with the employer based pension schemes which has a defined contribution percentage plan but also saving more like in a percentage which is half their age per month and doing the same in their worklife thus emphasizing the importance of financial preparedness for retirement during employment.

Further, financial preparedness for retirement needs to be improved through proper documentation of information on retirement planning, pension schemes, savings strategies and to make such information available to employees during their worklife to assist them in financial preparedness for retirement. To make it possible to make arrangements about their retirement savings, employees should be motivated to join saving schemes such as SACCOs corporate shares and government bonds. Additional incomes from such kind of activities supplements their pension and boost their financial status while retired.

5.5 Limitations of the Study

The researcher experienced a number of limitations while carrying out the research. The research findings are applicable to the pensioners in Nyahururu town within the

period of study. The study has not established whether the results would be similar in other parts of the country hence generalization should be done with extreme caution. Further, since finance is in part a behavioural issue, the study has only given findings applicable within the context of the available data which was difficult to access. The study has not expressly investigated whether the findings are applicable after the study conclusion.

The response was based on self reported data comprising the perceptions of the respondent, as opposed to absolute values. In addition, although the choices of each question adopted were from previous studies, all possible alternatives might not have been considered. The findings of a survey based on other sources of information and the use of absolute data could provide additional insights. Lastly, descriptive research design was used implying that the findings only reflect things as they were at the time of the study but do not capture the trend over time.

The other limitation was unavailability of data as well as accessing the respondents. Some of the respondents were also not willing to participate in the study. This delayed collection of questionnaires from respondents which took one month instead of the planned duration of two weeks. There was also limited literature available on similar work in Kenya with most of the literature references were from the developed countries.

5.6 Suggestion for Further Research

A replication of the study should be conducted in other parts of the country so as to make comparisons with the current study since the study did not established whether the results would be similar in other parts of the country. The respondents should also

be drawn from the informal sector so as to ascertain whether the level of financial literacy differ between formal and informal sector.

This study established that 79.0% of the variation is explained by both financial literacy and financial preparedness for retirement and therefore 21.0% variation should be due to other factors not within the context of the study. It is therefore very important to explain the remaining variance and studies that can explain these other determinants for instance what accounts for variations in retirement savings among households can further be investigated.

Given that retirement savings is affected by the level of income and the people who earn considerably lower income are of the view that their income is not sufficient for saving, it would be of interest to scholars to conduct a study on why the Mbao Pension Plan which only requires minimum twenty shillings savings per day has not attracted as many individuals of those targeted mainly from the informal sector as was envisaged by the Government.

REFERENCES

- Agnew, J. R., Bateman, H., & Thorp, S. (2013). Financial literacy and retirement preparation in Austria. *Numeracy*, 6(Issue2).
- Agnew, J., Szykman, L., Utkus, P., & Young, J. (2007). *Literacy, trust and saving behavior*. Retrieved from <https://institutional.vanguard.com/iip/pdf.CCRSavingsBehaviour.pdf> and *Other Dementias*.
- Ando, A., & Modigliani F (1963). The life-cycle hypothesis of saving: Aggregate implications and tests. *American Economic Review*, 53(1), 55–84.
- Andrade, C., Bazelais, W., & Das, N. (2014). The effect of financial literacy on retirement planning.
- Arnone, W. (2004). *Educating pension plan participants*. Pension Research Council. University of Pennsylvania.
- Babbie, E. (2010). *The Practice of Social Research* Wadsworth Cengage Learning. *International Edition*.
- Bassett, W. F., & Rodrigues, M. J. (1998). How workers use retirement Plans: The participation, contribution and withdrawals. *National Tax Journal*, 51(2), 263-289.
- Becker, G. S. (1975). Front matter, human capital: a theoretical and empirical analysis, with special reference to education. In *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education, Second Edition* (pp. 22-0). NBER.
- Behrman, J., Olivia S. M., Cindy S., & David, B.(2010). *Financial literacy, schooling, and wealth accumulation*. New York: Guilford Press.
- Bell, E., & Lerman, R. I. (2005). *Can financial literacy enhance asset building?* (Vol. 6). Urban Institute, Labor and Social Policy Center.
- Bernheim, D. (1995). *Tax policy and economic growth*. New York: American Council for Capital Formation
- Bofinger, P. (2012, April). The Impact of Inequality on Macroeconomic Dynamics. In *Conference "Paradigm Lost", Institute for New Economic Thinking* (pp. 12-14).
- Bottazzi, R., Jappelli, T., & Padula, M. (2011). The portfolio effect of pension reforms: evidence from Italy. *Journal of Pension Economics & Finance*, 10(1), 75-97.
- Burns, R. P., & Burns, R. (2008). *Business research methods and statistics using SPSS*. Sage.

- Calvert, L., John C., & Paolo, S. (2006). *Down or out: Assessing the welfare costs of household investment mistakes*. Boston: Harvard University Press
- Carroll, C. D. (1998). How important is precautionary saving?. *The Review of Economics and Statistics*, 80(3), 410-419.
- Cheboror, E. J. (2014). *An evaluation of factors influencing employees' investment choices: a case of Barclays bank of Kenya* (Unpublished master's project). Daystar University, Athi River.
- Connaway, L. S., & Powell, R. R. (2010). *Basic research methods for librarians*. ABC-CLIO.
- Cooper, D.R., & Schindler, P. S. (2003). *Business research methods*. New Delhi. McGraw-Hill.
- Duesenberry, J. S. (1949). Income, saving, and the theory of consumer behavior.
- Dynan, K. E., Skinner, J., & Zeldes, S. P. (2004). Do the rich save more?. *Journal of political economy*, 112(2), 397-444.
- Financial Sector Deepening (FSD). (2008a). *Financial education in Kenya: Scoping exercise reports*. Retrieved from <http://www.fsdkenya.org/publications>
- FinEd. (2011). *Improving financial literacy in developing countries*. Retrieved from <http://www.fepkenya.org/Resources/07-12-31/Fined/DFID/Scopingstudy.pdf>
- Friedman, M. (1957). *Theory of the consumption function*. Princeton: Princeton University Press.
- FSD. (2008b). *Financial exclusion in Kenya: An analysis of financial service use*. Retrieved from www.fsdkenya.org/publications
- FSD. (2009). *Financial access national survey 2009: Financial Capability in Kenya*. Retrieved from <http://www.fsdkenya.org/publications>
- Garman, E.T., Leech, I.E., & Grable, J.E. (1996). The negative impact of employees' poor personal financial behavior's on employers. *Financial Counseling and Planning*, 7, 157-168.
- Gataka, N. (2010). *The relationship between personal financial literacy and lending by commercial banks in Kenya* (Unpublished master's project). University of Nairobi, Nairobi.

- Gichuki, P. (2008). *Factors influencing pensions sector development in Kenya* (Unpublished master's project). University of Nairobi, Nairobi.
- Gitau, A., & Otsola, J. (2011). Predictors of pension financial literacy. *International Journal of Business and Management*, 30(1), 45-63.
- Githui, T., & Ngare, P. (2014). Financial Literacy and Retirement Planning in the Informal Sector in Kenya. *International Journal of Education and Research*, 2(1), 55-64.
- Gravetter, F. J., & Forzano, L. A. B. (2015). *Research methods for the behavioral sciences*. Nelson Education.
- Greenspan, A. (2001). *Financial education and literacy*. Chicago. University of Chicago.
- Greenspan, A. (2005). The importance of financial education today. *Social Education*, 69(2), 64-65.
- Gyourko, J., & Linneman, P. (1997). The changing influences of education, income, family structure, and race on homeownership by age over time. *Journal of Housing Research*, 1-25.
- Haurin, D. R., Hendershott, P. H., & Wachter, S. M. (1996). *Borrowing constraints and the tenure choice of young households* (No. w5630). National bureau of economic research.
- Hilgert, M., & Hogarth, J. (2002). Financial knowledge, experience and learning preferences: preliminary results from a new survey on financial literacy. *Consumer Interest Annual*, 48(2), 445-496.
- Hilgert, M., Hogarth, J., & Beverly, S. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 89(7), 309-322.
- Hubbard, G., Skinner, J., & Zees, S. (1995). Precautionary saving and social insurance. *Journal of Political Economy*, 10(3), 360-399.
- Kakwani, N., Sun, H., & Hinz, R. (2006). *Old-age poverty and social pensions in Kenya*. New York: World Bank.
- Kapoor, J., Dlabay, L., & Hughes, R. J. (1994). *Personal finance: Retirement planning*. Delhi: New Age International Publishers.

- Keizi L.K. (2006). Barriers of pension schemes: Participation by workers in the informal sector. Nairobi: Retirement Benefits Authority.
- Klapper, L., & Panos, G. A. (2011). Financial literacy and retirement planning: the Russian case. *Journal of Pension Economics & Finance*, 10(4), 599-618.
- Lusardi, A. (2003). *Planning and saving for retirement*. Hannover: Dartmouth College.
- Lusardi, A., & Mitchell, O. (2007a). Baby boomers retirement security: The role of planning, financial literacy and housing wealth. *Journal of Monetary Economics*, 54, 205-224.
- Lusardi, A., & Mitchell, O. (2007b). *Financial literacy and retirement planning*. Hanover: Dartmouth College.
- Lusardi, A., & Mitchell, O. (2006). *Financial literacy and planning: Implications for retirement wellbeing*. New York: Wharton School.
- Magera, S. (1999). Planning for retirement. *Unpublished mba project*. University of Nairobi.
- Masnack, G. S., & Zhui, D. X. (2001). Joint Center for Housing Studies Harvard University.
- Mugenda A. G., & Mugenda O. (2003). *Research methods: Quantitative and qualitative approaches*. Nairobi: Acts Press.
- Musgrove, P. (1980). Income distribution and the aggregate consumption function. *Journal of Political Economy*, 88(3), 504-525.
- Muske, P., & Winter, D. (2004). Personal financial management education: An alternative paradigm. *Journal of Financial Counseling and Planning*, 4(2), 79-88.
- Mwangi, W. I., & Kihui, E. N. (2012). Impact of financial literacy on access to financial services in Kenya. *International Journal of Business and Social Science*, 3(19).
- OECD (2008). *Recommendation on good practices for financial education relating to private pensions*. New York: OECD Press
- Onduko, E. M., Gweyi, M. O., & Nyawira, J. (2015). Analysis of the determinants on Retirement Planning in Kenya: A Survey of registered pension schemes in Nairobi. *Analysis*, 6(3).
- Parish, S. L. (2004). Economic implications of caregiving at midlife: Comparing parents with and without children who have developmental disabilities. *Mental retardation*, 42(6), 413-426.

- Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472.
- Scott, J. M. (2005). Barriers faced by SMEs in raising bank finance. *International journal of entrepreneurial behavior & research*, 16(3), 245-259.
- Shelton, G. G., & Hill, O. L. (1995). First-time homebuyers programs as an impetus for change in budget behavior. *Journal of Financial Counseling and Planning*, 6, 83.
- Singh, M. P. (2006). *Service-oriented computing: semantics, processes, agents*. John Wiley & Sons.
- Solomon, P.W. (1975). Differences in expected post-school investment as a determinant of market wage differentials. *International Economic Review*, 451-470.
- Zick, C. D., Smith, K. R., & Mayer, R. N. (2016). Planning Ahead or Living a Day at a Time?

APPENDICES

Appendix A: Questionnaire

This questionnaire seeks to collect data on the relationship between financial literacy and retirement savings. Kindly fill in the questionnaire. Any information availed will be treated with utmost confidentiality and shall be used for academic purposes only. Your identity shall not be revealed. Kindly complete all sections of the questionnaire.

PART A - GENERAL INFORMATION

1. What is your gender?	
Male []	Female []
2. What is your age bracket?	
61 – 69Years	[]
70 –79 years	[]
80 and above	[]
3. Highest Education attained	
Primary	[]
Secondary	[]
College/Technical School/Polytechnic	[]
University	[]
Other (Please Specify)	
4. What was your monthly income during retirement saving period?	
≤ Kshs. 20,000	[]
20,001 – 40,000	[]
40,001 – 60,000	[]
60,001 – 80,000	[]
80,001 – 100,000	[]
>100,000	[]

PART B: FINANCIAL LITERACY

These questions intend to measure personal financial literacy levels.

Kindly indicate the extent to which you agree with the following statements. Use a scale of 0-4 whereby, not at all [0]; to a less extent [1]; to a moderate extent [2]; to a large extent [3]; to a very large extent [4].

	0	1	2	3	4
I have enough savings for my retirement					
I make my expenditures according to the budget					
I make a record of all my incomes					
I budget for all my expenditure					
I settle my bills on time					
I have a clue on my total monthly expenses					
I have insured my properties					
I have a life assurance cover for my family					
I saved more than 30% of my income					
I find myself not having sufficient money to sustain me till the next income					
I borrow money frequently to pay my bills					
I have been checking my credit report annually					

5. Suppose you win a lottery of Ksh 20,000 today while your friend Daniel wins Ksh 20,000 a year after. Who is richer because of the betting?

You We are equally rich
 Daniel Do not know

6. Suppose you save Ksh. 10,000 money in a bank with an interest rate of 10% per year. How much will you have if you left the money for five years?

Less than 16,105 [] Exactly 16,105 []
More than 16,105 [] I do not know []

7. Now suppose in question 6 above, the interest rate was 10% per year while inflation was 10% per year. After 1 year, how much would you be able to buy with the money in this account?

More than today [] Exactly the same []
Less than today [] I do not know []

PART C: RETIREMENT SAVINGS

8. How much have you saved for retirement?

≤ Kshs. 100,000 []
100,001 – 200,000 []
200,001 – 300,000 []
300,001 – 400,000 []
>400,000 []

9. How many forms of retirement savings do you have?

One [] several []

10. At what age did you start saving for retirement?

20-30 Years [] 31-40 Years []
41-50 Years [] 51-60 Years []