EFFECT OF FINANCIAL LITERACY ON PERSONAL FINANCIAL MANAGEMENT ON KENYA REVENUE AUTHORITY EMPLOYEES IN NAIROBI

BY

BONFACE OLIMA

REG. NO. D61/P/9107/2001

A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT OF THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION (MBA) UNIVERSITY OF NAIROBI

October 2013

DECLARATION

This research project is my original work and has not been presented to any other University or college.

Name: **BONFACE OLIMA**

Sign…………………………………………

Date: ……………………………………….

Declaration by supervisor

This research project has been submitted with my approval as the student's Supervisor

Supervisor Name: **DR JOSIAH O. ADUDA**

Senior Lecturer and Chairman,

Department of Finance and Accounting,

University of Nairobi.

Signature…………………………………

Date: …………………………………….

ACKNOWLEDGEMENTS

My sincere thanks go to my parents, Andrew W. Ipaat and Prisca Ibere who brought me up and educated me under those difficult conditions, my brothers & sisters for their moral support. My wife Joanne, my daughter Ibere and my son Ipaat for their patience and continued love during the long hours of absence during the course.

I cannot forget to thank my employer Kenya Revenue Authority for sponsoring me for this course without which it would have been very difficult for me to raise the finances required.

I also wish to thank my classmates especially Ogare, Mutua, Auch, Waithera, Bitutu and Chege just to mention a few. Their sharing of knowledge and team work was very enlightening.

My appreciation also goes to my supervisor Dr. Josiah Aduda O for his guidance and constructive criticism, other University staff for their hard work and dedication and the University Of Nairobi management for providing a conducive environment for the course.

Finally thanks go to the almighty God for life, love and protection since the start of my life.

ABSTRACT

Current economic conditions in the world over have raised serious concerns about individuals' financial security. Financial literacy is the possession of knowledge and understanding of financial matters. The objectives of the study, was to establish the level of financial literacy of Kenya Revenue Authority employees and establish the effect of financial literacy on saving practices and social security planning of Kenya Revenue Authority employees. The study used primary data collected from semi-structured questionnaires. Quantitative data was analysed using descriptive statistics while qualitative data was analysed using content analysis. Statistical Packages for Social Scientists (SPSS Version 17.0) was used. The study also used multiple regression analysis to establish the relationship between financial literacy and personal financial management. The study findings indicated that financial literacy impacts to a great extent on the financial management because financial education programs guide program development and refinement. The programs to be developed will be aimed at increasing the level of financial literacy on the aspects considered in this study which included retirement planning, estate planning, management of credit and other liabilities, insurance and tax planning.

The study findings indicate that generally financial literacy to a great extent affects personal financial management among the respondents. However, most participants considered retirement planning less important, were less aware of the effects of estate planning, insurance planning and tax planning. The respondents also were less literate on the effects of good credit and other liabilities hence making poor financial decisions on this aspect of financial management.

The research findings imply that there is need to come up with elaborate and detailed education programs to address the aspects that the respondents were less aware of and less literate on that is; effects of estate planning, insurance planning tax planning and effects of good credit and other liabilities. There is also need to replicate the study among KRA employees across the country, other organisations and over time to make the findings more representative and objective.

TABLE OF CONTENT

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS

APR- Annual Percentage Rate

KRA-Kenya Revenue Authority

LCH-Life cycle hypothesis

MPT-Modern Portfolio Theory

NCEE- The National Council on Economic Education

OECD-Organisation for Economic Cooperation and Development

SPSS-Statistical Packages for Social Scientists

CHAPTER ONE

Introduction.

1.1 Background of the Study

Current economic conditions in the world over have raised serious concerns about individuals' financial security, especially for those who lack the skills and resources to withstand financial market downswings and take advantage of upswings. Individuals are taking responsibility for a growing number of financial decisions. Among the most important arguably being the purchase and financing of a home and preparing for retirement (Anthes, 2004). Conceptually, poor financial decision making is surprisingly a widespread phenomenon in many Nations. This problems are always unnoticed for a long time before a crisis is reached hence the systemic effects and the costs of preserving stability may be sizable, as demonstrated by the ensuing financial market turmoil and subsequent interventions after the financial crises that included bailing out of private companies by the various governments in Europe and United States of America (Gerrit, 2008).

Households in general and especially workers and retirees have increasingly been asked to take on an unprecedented degree of responsibility for their retirement and other saving, as defined benefit pensions decline and government programs face insolvency in one country after another. As a result, consumers are now faced with the need to make several financial decisions in regard to a wide range of financial products ranging from insurance pension plans like group and regular Individual Retirement Accounts, phased withdrawal plans to annuities, and many more. This process implies that it is becoming ever more important for households to acquire and manage economic know-how (Arkes, 1991).

1.1.1 Financial Literacy

Schreiner, (2007) terms financial literacy as the possession of knowledge and understanding of financial matters. Financial literacy is mainly used in connection with personal finance matters. Financial literacy often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving (especially for college), tax planning and retirement. It also involves intimate knowledge of financial concepts like compound interest, financial planning, the mechanics of a credit card, advantageous savings methods, consumer rights, time value of money (Mark, 2007).

1.1.2 Personal Financial Management

Finance may be defined as the art and science of managing money. The major areas of finance are: (1) financial services and (2) managerial finance/corporate finance/financial management. While financial services is concerned with the design and delivery of advice and financial products to individuals, businesses and governments within the areas of banking and related institutions, personal financial planning, investments, real estate, insurance and so on, financial management is concerned with the duties of the financial managers in the business firm. Financial managers actively manage the financial affairs of any type of business, namely, financial and non-financial, private and public, large and small, profit-seeking and not-for-profit. They perform such varied tasks as budgeting, financial forecasting, cash management, credit administration, investment analysis, funds management and so on. In recent years, the changing regulatory and economic environments coupled with the globalisation of business activities have increased, the complexity as well as the importance of the financial managers' duties. *As* a result, the financial management function has become more demanding and complex (John ,2006).

Financial management on the other hand has been defined by Pandey (1999) as that managerial activity that is concerned with the planning and controlling of a firm’s financial resources. The resources under consideration include assets both tangible like machinery, inventory, cash debtors and intangible like patents and goodwill. It also includes managing the firm’s indebtedness in order to minimise the cost of doing business. This definition is applicable to households and individuals as well since there is need for planning and controlling households’ and individuals resources for wealth creation, financial stability and peaceful retirement.

As people become more literate they become increasingly more financially sophisticated and it is assumed that this may also mean that an individual may be more competent. Mandell (2007) on the other hand asserts that it is the ability to evaluate the new and complex financial instruments and make informed judgments in both choice of instruments and extent of use that would be in their own best long-run interests. The National Council on Economic Education (NCEE) (2005) on the other hand defines financial literacy as familiarity with basic economic principles, knowledge about the U.S. economy, and understanding of some key economic terms

1.1.3 Financial Literacy and Personal Financial Management

Managing personal finances is a crucial and often difficult issue. Personal debt continues to rise (Bennett, 2006), bankruptcy rates are uncertain due to recent changes in bankruptcy legislation, while the personal savings rate remains in the red at negative 1.5% in June 2006 in developing nations. In The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 requires consumers who file bankruptcy to complete a personal financial management class before the bankruptcy can be discharged, suggesting that more knowledge will help avoid future financial difficulties (White, 2005).

Educators believe that financial education leads to improved financial literacy and financial security for families (Garman, 1999). There has been an increase in interest in how financial education can equip individuals with the skills needed to avoid financial problems and recover from the consequences of extreme debt such as bankruptcy. Researching the effectiveness of financial education programs can guide program development and refinement (Hilgert, Hogarth, & Beverly, 2003) and help educators find a method for dealing with community needs related to family financial management.

Research on successful financial education methods is scarce (Financial Literacy and Education Commission, 2006), and even though some research suggests that use of sound financial practices can provide families with greater wealth accumulation (Beutler & Mason, 1987; Hira; 1987; Titus, Fanslow, & Hira, 1989), it is unclear whether there is a direct relationship between education and improved economic well-being (Braunstein & Welch, 2002). Financial literacy programs are designed with the goal of helping individuals adopt sound financial practices that promote economic health and improved quality of life. It is important to know if that goal is being met. The purpose of the study reported here was to explore one state's experience in helping adults improve their financial management practices through financial education programs.

1.1.4 Kenya Revenue Authority

Kenya Revenue Authority (KRA) is a state corporation established by an act of Parliament of July 1st, 1995 Cap 469 as a central body. The authority is charged with the responsibility of collecting revenue on behalf of the government of Kenya. The authority is under the general supervision of the Minister of Finance (Treasury). The Authority's mandate and core business is to assess, account and administrate and enforce all the laws relating to revenue. KRA's role is assessment, collection, administration and enforcement of laws relating to revenue; restoring economic independence be it elimination of budget deficits and creating organisation structures that maximize revenue collection. Since KRA plays an important role in the economy i.e. contributing Kshs. 360 billion in financial year 2006/07 , and contributing Kshs. 274 billion in financial year 2007/08, which accounted for over 93% of total government revenue, with the rest coming from development partners (KRA's Third Corporate Plan 2009/10-2011/12). Consequently the funds collected being used to run the economy, providing the Kenyan public with goods and services throughout the country, which includes sustaining the Health sector, Education and Infrastructure among others. As society changes, the skills needed to deal with the complexities of life also change. The meaning of skills like financial literacy may change to reflect context, or current realities. Financial literacy, however**,** is about empowerment, the ability to access, manage, integrate, evaluate, and create information in order to function in a knowledge society (Ndemo, 2002).

The vision articulated by the KRA journal states, each employee in KRA need to learn financial literacy concepts, enabling them to succeed in a complex global environment. The essential concepts and skill sets for financial literacy address the requirements outlined in KRA statute. They also reflect broader, universal skills that cultivate critical thinking and responsible citizenship. They provide us the framework and knowledge to be proactive. When we accept responsibility for our actions because they have consequences for other people as well as for our personal success, we will also understand what it means to solve the problems and face the collective challenges of an increasingly diverse and interconnected world.

Employees of KRA become attractive for research in this area as they comprise of over 4000 employees with varied diversity. The diversity is in areas of age, education background, hierarchy in the organization and varied financial literacy levels. It is also attractive as KRA is not a financial or banking institution which makes it different from the organization covered by the study by Nyamute and Monyoncho (2008) in terms of expected attention to financial knowledge through every day work and training-

1.2 Statement of the Research Problem

Significant debate continues about the role of financial literacy, the extent of the problem it truly represents, and the best way to address it because: First, real knowledge gaps persist about fundamental relationships between literacy, education and behaviour, partly because researchers lack the appropriate data. Few studies have been able to construct sophisticated measures of financial literacy and definitively establish causal links between financial education, literacy and behaviour.

Financial literacy among KRA employees is closely connected to an individual's emotional, personal, social, economic, and employment success. An individual needs to understand the basics of money management, and use financial resources appropriately to function well in society at a personal, professional, business and community level. In a broader sense, KRA employees need to identify and discuss significant economic issues, important to society and to the world. They should practice examining the consequences of change in economic conditions and public policies (Century, 2003). The issues that would be expected to concern any person including the KRA employees include the best savings opportunities for future consumption and security, retirement planning, tax planning which include issues to do with tax returns and prudent cash management which includes proper management of personal credit facilities.

Empirical studies have confirmed the positive association between financial knowledge and household financial decision making. For example Hilgerth, Hogarth, and Beverly (2003) document a positive link between financial knowledge and financial. Agarwal, Driscoll, Gabaix and Laibson (2007) show that financial mistakes are most prevalent among the young and elderly, who are also those displaying the lowest amount of financial knowledge and cognitive ability

Various local studies have been done on this line with various findings. Kempson et al. (2008) carried out a study on Measuring and improving financial capability to know more about current levels of financial capability in Kenya, to understand the potential approaches that could be taken to measure financial capability in a less developed nation where the vast majority of the population does not use formal banking services and to explore levels of financial inclusion in Kenya. It relied on the ways in which financial capability has been measured in various countries, and to review evidence from Kenya and elsewhere on the most appropriate objectives of financial education and consider how financial capability education could be prioritised in Kenya to ensure the largest gains. Research undertaken as part of the Financial Education for the Poor Project with partners in India, Morocco, South Africa, Kenya and Bolivia also found that poor people have a limited knowledge of financial planning for the future (Cohen, et al., 2006).

Nyamute and Monyoncho (2008) surveyed Employees of finance and banking institutions and concluded that the practices of those perceived to be financially literate seem to agree with the current literature. However, survey findings also showed that even those perceived not to be financially literate exhibit some strong characteristics of personal financial management implying that probably, formal college education and employment environment may not be the only source of financial education.

This study seeks to find out if there have been any changes on the financial literacy situation among Kenyan households since the year 2008 when earlier studies were carried out. It also seeks to find out the level of financial literacy for employees of KRA which is an institution that is not a financial or banking institution and the effect on their financial management. Finally, this study shall fill in those gaps by trying to investigate to whether there is need for policy makers and organisations to formulate deliberate saving and retirement strategies, academicians to formulate relevant education curriculum for financial literacy in Kenya by establishing the gaps in knowledge as far as financial literacy is concerned. Therefore, this study seeks to answer the question; what are the Effects of Financial Literacy on Personal Financial Management on Kenya Revenue Authority Employees in Nairobi?

1.3 Research Objective

The objectives of the study were:-

i. To establish the level of financial literacy of Kenya Revenue Authority employees;
ii. To establish the effect of financial literacy on saving practices and social security planning of Kenya Revenue Authority employees.

1.4 Value of the Study

This study will be important to the following users

a) Policy makers

The Policy makers will benefit immensely due to the following reasons. To formulate programs to promoting saving and financial security including during retirement having in mind the findings from the researches shown below. Due to the research findings, policy makers will be able to use the gaps in the literacy of the respondents to formulate appropriate education syllabus in order to increase financial literacy leading to better financial management. This is important as shown by Bernheim and Garrett (2003) who argue that seminars are often remedial, that is offered in firms where workers do little or no saving.

b) Employees and employers

The study will be invaluable to the employees and employers**.** Strategies can be formulated to promote savings for wealth creation and retirement like to automatically enrol workers into employer-provided pension plans. This simple but ingenious method has been proven to be very effective in increasing pension participation. For example, according to Madrian and Shea (2001), after a company implemented a change in its pension plan and automatically enrolled its new hires in the plan, pension participation went from 37% to 86%.

By finding out the actual state of financial literacy individuals will be able to be challenged to seek for information to improve their knowledge for better savings for wealth creation and retirement planning.

c) Academicians

The findings will add to the wide academia knowledge in finance especially on financial literacy on personal financial management. The researchers and academicians will find this study useful for further discussion and research so that they can explore and further develop their studies on financial literacy on personal financial management.

d) Individuals and their households

The findings will be useful to individuals and their households in getting advising about the importance of deferent aspects of financial literacy on personal financial management to safeguard their future welfare. In addition, they will be in a better position to predict the deferent financial investment opportunities available.

e) Pension Schemes, mortgage companies

Pension Schemes and mortgage companies will deliver best information to borrowers who always display a weak understanding of mortgages and interest rates. The firms shall find useful information to conclude as to reasons why younger people, those in low social classes, and those with low incomes, are the least sophisticated financial consumers.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The purpose of this segment of the research is to determine how behaviour theory can be applied to provide insight regarding financial behaviour. In order to motivate financial behaviour change, better understanding is needed about how behaviours are formed and how to help consumers change undesirable financial behaviours and develop positive ones. This section also looks at the studies that have been carried out so far to address research gaps from the theories put forward so far and in the literature.

2.2 Review of Theories

The theoretical framework used to model consumption and saving decisions posits that rational and foresighted consumers derive utility from consumption over their lifetimes. In the simplest format, the consumer maximizes a lifetime expected utility subject to an inter-temporal budget constraint.

2.2.1 Modern Portfolio Theory

The choice between the wide varieties of investment alternatives to achieve optimal personal portfolios ushers in the role of modern portfolio theory (MPT). These three frameworks: lifecycle, MPT and sociological bases of wealth holding find wide application in this discourse. In contrast to the egalitarian concerns for wealth holding at the macro level, the focus of studies at the micro level is on the specifics of personal wealth portfolios. One such area of interest is the accumulation/deccumulation of personal wealth and its underlying determinants especially in the family lifecycle framework, and more recently sociology. This is usually tied to a second phenomenon where the academic curiosity is the form in which wealth is held by individuals and households and its adequacy to support similar standards of living after retirement. Pioneering micro-level studies of personal wealth portfolios were an offshoot from consumption theories that were put forward by welfare/financial economists as well as investment theories of scholars in finance. In this respect, the main consumption theories include the classical theory by Keynes (1936) with its promulgation that current consumption expenditure is a stable function of current income; the relative income hypothesis of Duesnberry (1949) which theorized that people are concerned with relative and not absolute consumption and the permanent income hypothesis of Friedman (1956) which postulated that permanent consumption by consumers is determined by their person's permanent income. On the other hand, studies that are cantered on the investment aspect of personal wealth tend to be dominated by modern portfolio theory as championed by Professor Harry Markowitz.

Informed by finance theory, the seminal paper on MPT by Markowitz (1952) provided researchers with a set of quantitative tools for prescribing how investors should combine their financial assets to maximize return for a given risk thus emphasizing on the nature and mix of wealth held. Research in this field received a significant boost in the 1990s following the compilation and availability of monthly and annual return data for typical assets such as shares in listed companies, bonds and housing as well as estimates of annual inflation rates. A central aspect of MPT, is that the enthusiasts proposed that every investor should hold an optimal portfolio that is fully diversified.

Almost working in parallel, the thrust of studies by economists in the latter half of the 20th Century was an attempt to gain insight into the life cycle of household economic behaviour, namely income, savings, consumption and wealth. These studies examined personal wealth accumulation and its determinants on the foundation of saving and consumption theory. In this line of inquiry, the life cycle hypothesis (LCH) of Modigliani and Blumberg (1954) appears to have gained wider acceptance in its proposition that age is the most important determinant of a person's wealth and that it (wealth) follows a hump-shape to a person's age; rising during the youthful age, peaking just before retirement and declining thereafter. Ando and Modigliani (1963) expands these works and develops the life cycle hypothesis of saving where they test empirical data to show that savings, a necessary precursor to wealth also follows a hump shape to age.

2.2.2 Learning Theory

Learning theory evolved most notably with the work of Skinner who determined that once the behaviour is associated with a consequence, whether a reinforce or punishment, the likelihood of the action continuing changes. Skinner argued that positive reinforcement and punishment are not equal; with the former providing longer lasting results and the latter having negative side effects (Skinner 1953).

Critics of learning theory question the greater scientific basis of behaviourism over psychosocial or psychoanalysis theory and the ability to explain complex human behaviours by only considering the observable and ignoring the important roles of cognitions and emotions (Breger and McGaugh 1965). Additionally, because behavioural experiments often take place in the laboratory, critics question learning theory's application to describing behaviour that occurs in a social reality (Bandura 1977).

Nevertheless, learning theory advanced investigations of human behaviour by focusing attention on the observable, thus emphasizing the importance of testing behaviour propositions. It acknowledges the power of prerequisite conditions and the anticipated consequences, whether positive or negative, in influencing people's actions. Thus, in contrast to theories that emphasized the power of early development, learning theory emphasizes the possibility of lifelong learning during which the stimulus for or the consequences of behaviours can be altered (Crain 1992; Goldhaber 2000).

2.2.3 Piaget's Cognitive Theory

Cognitive theory's interest is in the cognitive processes that lie between the observed cause and its effect on behaviour. From observing the thinking and actions of children, Jean Piaget argued that what actually elicits a response is both the sensitization to the stimulus and how people think (Byrnes 2008). Central to Piaget's theory is his view of how individuals gained knowledge, arguing that it occurred from interaction, first physically and then mentally, with objects. He was convinced that, 'in order to know objects, the subject must act upon them, and therefore transform them. He must displace, connect, combine, take apart, and reassemble them (Piaget, 1983)

Cognitive theory also hypothesized developmental stages of which there were four (Goldhaber 2000; Piaget 1983). Each stage is constructed by the individual and is achieved at his/her own pace. However, no stage can be skipped, resulting in some individuals never making it to the final cognitive development stage (Crain 1992; Goldhaber 2000; Piaget 1983). It is in the third stage of development that the capacities, such as use of logic and ability to follow rules, are formed. These capacities are essential to making financially sound decisions. However, it is only in the last stage, which may never be achieved, that the individual develops the ability to think abstractly and manage hypothetical situations (Crain 1992). With the ability to plan ahead and think through all possibilities, these individuals are at a greater advantage when it comes to financial decision making. Memory, or the retrieval to information, plays an important part (Bruner 1988).

No single theory provides a comprehensive view of how financial decisions are made. Each draws on observable variations in decision making to offer hypothesized reasons for differences in the use of information by individuals. To different degrees and with different emphases, the combination of theories confirms the emotional, cognitive, behavioural, physiological, and cultural forces that shape decisions. Although the most advantageous decision may be mechanistically evident, individuals bring values, misperceptions, fears, and community shared goals to their decisions.

2.3 Financial Literacy and Personal Financial Management

From a broader perspective, market operations and competitive forces are compromised when consumers do not have the skills to manage their finances effectively. Informed participants help create a more competitive, more efficient market. As knowledgeable consumers demand products that meet their short- and long-term financial needs, providers compete to create products having the characteristics that best respond to those demands. As concern about financial literacy has increased, so too have the number and variety of financial literacy training programs and program providers, some offering comprehensive information on savings, credit, and similar topics for a broad audience and others tailored to a specific group, such as youth or military personnel, or focused on a specific goal, such as home ownership or savings.

Financial literacy training has been mixed. Although some programs, particularly those having discrete objectives, have succeeded in improving certain aspects of consumers' personal financial management such as maintaining a mortgage, increasing savings, or participating in employer-sponsored benefit plans improved financial behaviour does not necessarily follow from increased financial information. The timing and format of training, as well as human traits such as aversion to change play a role in whether programs will effect positive change that contributes to households' long-term financial well-being. Accounting for all the variables associated with financial literacy training when, how, and where it is delivered, who is trained, and what information is presented poses a great challenge for program developers. Given the resources now devoted to financial literacy training, this is an opportune time to evaluate the research, identify best practices, and consider public policy options that would further the goal of creating more financially savvy consumers.

2.4 Empirical Review

The empirical results indicate that wealth has a positive effect on households' degree of financial knowledge, even after controlling for socio demographics and removing wealth endogeneity. In recent years, financial literacy has gained the attention of a wide range of major banking companies, government agencies, grass-roots consumer and community interest groups, and other organizations. Interested groups, including policymakers, are concerned that consumers lack a working knowledge of financial concepts and do not have the tools they need to make decisions most advantageous to their economic well-being. Such financial literacy deficiencies can affect an individual's or family's day-to-day money management and ability to save for long-term goals such as buying a home, seeking higher education, or financing retirement. Ineffective money management can also result in behaviours that make consumers vulnerable to severe financial crises (Crain, 1992).

Earlier studies indicated that workers were woefully uninformed about their pensions and the characteristics of their pension plans (Mitchell, 1988). Given that most pensions in the past were defined benefit pensions and workers had to make few or no decisions about their pension contributions, lack of knowledge is perhaps not surprising.

Gustman and Steinmeier (2004) compared the types of pensions that workers report they have whether defined benefit, defined contribution, or a combination of both with the reports of employers. He found out that only half of older workers are able to correctly identify the plan they have. Because errors can abound not only from the reports of workers but also from the reports of firms. Gustman, Steinmeier and Tabatabai (2007) use different sources of data, including data from Watson Wyatt, where it is possible to correctly identify the pension type from firms' data. They show that it is workers who are most often erroneous and confused about the type of pensions they have.

A study sponsored by the State of Washington sponsored that surveyed smaller and more limited samples to assess financial literacy among its residents (Moore, 2003) concluded that people know the least about financial instruments. Specifically, most respondents did not know the inverse relationship between bonds prices and interest rates. They were also uninformed about mutual funds, as many did not know what a no-load mutual fund was, or that mutual funds do not pay a guaranteed rate of return. More than one-third did not know that stocks had returned more than bonds over the last forty years, and many did not know about risk diversification. Finally, a large fraction of these respondents did not understand interest rates, which was especially troublesome since a subset of the respondents had applied for loans.

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

In Europe, Miles (2004) showed that UK borrowers display a weak understanding of mortgages and interest rates. The UK Financial Services Authority also concluded that younger people, those in low social classes, and those with low incomes, were the least sophisticated financial consumers. Christelis, Jappelli, and Padula (2005) documented that respondents in several European nations scored low on financial numeracy and literacy scales.

A Japanese consumer finance survey showed that 71% of adult respondents knew little about equity and bond investments, and more than 50% lacked any knowledge of financial products (OECD 2005). A Korean youth survey in 2000 conducted by the Jump$tart coalition showed that young Koreans fared no better than their American counterparts when tested on economics and finance knowledge, with most receiving a failing grade. Again, a positive correlation was detected between family income and education, and the students' performance on the financial literacy test (OECD, 2005).

While financial knowledge is weak, it is also the case that people tend to be more confident in their abilities than should be warranted. For instance, a German survey conducted by Commerzbank AG in 2003 found that 80% of respondents were confident in their understanding of financial issues, but only 42% could answer half of the survey questions correctly (OECD, 2005). Similar patterns obtain in the United States, the United Kingdom, and Australia. Indeed, consumer overconfidence regarding their financial knowledge may be a deterrent to seeking out professional advice, thus widening the 'knowledge gap'. While the low levels of financial literacy are troubling in and of themselves, policymakers are most concerned because of the potential implications of financial illiteracy for economic behaviour. One example is offered by Hogarth, Anguelov, and Lee (2005), who demonstrate that low educated consumers are disproportionately represented amongst the "unbanked," those lacking any kind of transaction account.

Other authors have also confirmed the positive association between knowledge and financial behaviour. For example Calvert, Campbell, and Sodini (2005) find that more financially sophisticated households are more likely to buy risky assets and invest more efficiently.

Hilgerth, Hogarth, and Beverly (2003) also document a positive link between financial knowledge and financial behaviour.

Lusardi and Mitchell (2006) devised a special module on financial literacy for the 2004 HRS. Adding these types of questions to a large U.S. survey is important not only because it allows researchers to evaluate levels of financial knowledge but also and, most importantly, because it makes it possible to link financial literacy to a very rich set of information about household saving behaviour. The module measures basic financial knowledge related to the workings of interest rates, the effects of inflation, and the concept of risk diversification. Findings from this module reveal an alarmingly low level of financial literacy among older individuals in the United States (50 and older). Only 50% of respondents in the sample were able to correctly answer two simple questions about interest rates and inflation, and only one-third of respondents were able to answer correctly these two questions and a question about risk diversification. Financial illiteracy is particularly acute among the elderly, African-American and Hispanics, women, and those with low education, a common finding in the surveys of financial literacy.

Other studies have confirmed the positive association between financial knowledge and household financial decision making. Hilgerth, Hogarth, and Beverly (2003) document a positive link between financial knowledge and financial behaviour. Stango and Zinman (2007) show that those who are not able to correctly calculate interest rates out of a stream of payments end up borrowing more and accumulating lower amounts of wealth

Campbell (2006) has highlighted how household mortgage decisions, particularly the refinancing of fixed-rate mortgages, should be understood in the larger context of investment mistakes and their relation to consumers' financial knowledge. His findings are confirmed by Bucks and Pence (2008), who examine whether homeowners know the value of their home equity and the terms of their home mortgages. They show that many borrowers underestimate the amount by which their interest rates can change and that low-income, low-educated households are least knowledgeable about the details of their mortgages especially those with adjustable rate mortgages. Further evidence of biases is provided by Stango and Zinman (2006) who well document the systematic tendency of people to underestimate the interest rate associated with a stream of loan payments. The consequences of this bias are important: those who underestimate the annual percentage rate (APR) on a loan are more likely to borrow and less likely to save.

Little is still known about the effects of financial advice and whether it can improve financial decision-making, but there is some evidence that financial counseling can be effective in reducing debt levels and delinquency rates (Hirad and Zorn, 2001; Elliehausen, Londquist and Staten, 2007). Mottola and Utkus (2007) also provide evidence in favour of relying on professionals to manage financial investments. They compare the portfolios of individuals before and after shifting to a professionally managed account. Those who shifted are not a randomly chosen group of the population but, nevertheless, the effects are remarkable. Those who shifted to manage accounts changed their asset allocation dramatically. Most importantly, their new portfolios did not suffer from several of the mistakes identified in the finance literature, such as investing too little or too much in the stock market and holding poorly diversified portfolios (Campbell, 2006).

Garman, Leech and Grable (1996), Joo and Grable (2000) find that in addition to adversely affecting individuals, poor financial decisions negatively influence productivity in the workplace. Volpe et al. (2006) surveyed corporate benefit administrators and identified basic personal finance as a critical area in which employee knowledge is deficient. They recommend that educational programs should focus on improving knowledge of basic personal finance.

Locally, studies done by Nyamute and Monyoncho (2008) surveyed Employees of finance and banking institutions and concluded that the practices of those perceived to be financially literate seem to agree with the current literature. However survey findings also showed that even those perceived not to be financially literate exhibit some strong characteristics of personal financial management implying that probably, formal college education and employment environment may not be the only source of financial education.

2.5 Chapter Summary

Financial literacy surveys in many developed nations show that consumers are poorly informed about financial products and practices. This is troubling, in that financial illiteracy may stunt peoples' ability to save and invest for retirement, undermining their well-being in old age. It is also concerning that these deficiencies are concentrated among particular population subgroups - those with low income and low education, minorities, and women - where being financially illiterate may render them most vulnerable to economic hardship in retirement.

Given the increased complexity of financial instruments, the evidence of illiteracy raises the question of whether consumers will appreciate and take advantage of the opportunities offered by financial markets or more easily fall prey to scams or unscrupulous brokers. No studies definitively provides an evaluation of the costs of financial education programs and, without that information, it is not possible to estimate a return on financial education programs. Moreover, as previous studies show, few employees ever attend education programs and of those who attend, many do not modify behaviour, at least in the short run. While these are drawbacks, financial education programs cannot be dismissed.

Information and financial knowledge can affect many financial decisions, not simply saving for retirement. Moreover, that knowledge may be put to use over long periods of time and should be evaluated in the long run rather than just in the few months or years after a program is offered. For example, according to Bernheim, Garrett and Maki (2001), those who were exposed to financial education programs while in high school were more likely to save later in life.

Another finding that emerges from both the literature on saving and studies on financial literacy is that there are specific segments of the population, those with low education and low income that save in very different ways than other, more educated and affluent households. It may be important to target these groups and devise programs that are better tailored to their needs and barriers to saving. There is evidence that existing targeted programs have had some success in increasing saving among the poor (Schreiner and Sherraden, 2007). Recognizing that individuals possess limited literacy and do not plan for retirement brings us inevitably to the issue of mistakes. One such program could be to require people to acquire some basic financial knowledge (Alesina and Lusardi, 2006).

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents a blueprint that was used in carrying out the research. It includes the research design, target population, sampling method was used, data collection instrument and procedure and analysis, interpretation and presentation.

3.2 Research Design

Descriptive research design was adopted as it seeks to determine the level of financial literacy among KRA staff and how it influences their personal financial management. Descriptive research design utilizes elements of both quantitative and qualitative research approaches to establish the what, where and how of a phenomenon (Mugenda, 2008). Descriptive approach was, thus, enable the study achieve its objectives.

3.3 Population

The population of the study was the employees of KRA based in Nairobi. According to KRA's Fifth Corporate Plan 2012/13 - 2014/15, the parastatal has 4571 employees with about 2000 of them in Nairobi.

3.4 Sampling Technique

To ensure that all levels of employees are represented, the study used stratified random sampling technique. According to Mugenda (2008), stratified sampling technique is advantageous since it enables variability within strata to be minimized in case of heterogonous population.

Thus, the goal of stratified random sampling is to achieve the desired representation from various sub-groups in the population. Stratified sampling technique has the advantage allowing the use of different sampling techniques for different subpopulations, hence, improves the accuracy of representation. The population was stratified into different job groups from which a sample size of 100 employees was selected.

Table 3. 1: Population and Sample Size

Sections	Population (Frequency)	Sample Ratio	Sample
Heads of Departments	13	0.39	5
Top level Managers	50	0.20	10
Middle level Managers	250	0.08	20
Supervisors	680	0.044	30
Low level Staff	1007	0.035	35
Total	2000	0.05	100

3.5 Data Collection Procedure

The study used primary data collected from semi-structured questionnaires. Questionnaires were adopted by the study as they are useful in obtaining objective data since the respondents are not manipulated in any way by the researcher. The questionnaire had both closed and open ended questions.

The closed (structured) questions sought to elicit data that could be analysed using quantitative measures while the open (unstructured) questions provided data that is qualitative in nature. The questionnaires was administered on a ‘drop and pick later’ technique. The researcher made frequent visits and phone calls where necessary to remind the respondents to fill-in the questionnaires.

3.5.1 Data Validity and Reliability

The research instrument was pre-tested on 10 employees of the treasury since they form a sample outside our target respondents to establish its validity and reliability. To establish the validity of the research instrument the research sought opinions of experts in the field of study. This facilitated the necessary revision and modification of the research instrument thereby enhancing validity. Cronbach Alpha used to test the reliability of the research instrument. The value gotten was compared with Alpha value of 0.7. After the pilot study the main survey followed. This pre testing was done immediately after the project approval.

3.6 Data Analysis

The completed questionnaires were edited for completeness and consistency. Qualitative data resulted from efforts to respondents' divergent views on personal financial management as they were not limited by choices. Quantitative data was analysed using descriptive statistics while qualitative data was analysed using content analysis. Quantitative data was coded and entered into Statistical Packages for Social Scientists (SPSS Version 17.0).

Analysis was, then, be based on descriptive statistics. Descriptive statistics involves the use of absolute and relative (percentages) frequencies, measures of central tendency and dispersion (mean and standard deviation respectively). The study also used multiple regression analysis to establish the relationship between financial literacy and personal financial management using the variables highlighted in the background of this study in chapter one.

The regression analysis was done using the multiple linear regression model. This model was used following Markowitz (1952) usage to determine the Capital Market Line (CML) which represents the risk-return trade off in the capital market during portfolio analysis. Lusardi and Mitchell (2006) also used the model to study the effects of financial literacy on the consumption or saving decisions of households.

The model's significance was tested using analysis of variance (ANOVA) test conducted at 95% confidence level ($\alpha \leq 0.05$). T-test significance was further, test the significance of the variables included in the model. Since we are dealing with samples we cannot say we are 100% certain that the difference between the sample and the population is significant.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby: β_0 is regression constant; ε is error term from regression model significance; β_1 to β_4 are regression coefficient;

Y is the financial management score calculated as the index of items in financial management practice scale and was the average of the individual scores of the 100 employees sampled.

X_1 is the investment/savings literacy index calculated from its scale;

X_2 is the retirement literacy index calculated from retirement/pensions scale;

X_3 is Tax return/insurance literacy index calculated from its scale; and,

X_4 is credit and other liabilities literacy index calculated from its scale.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

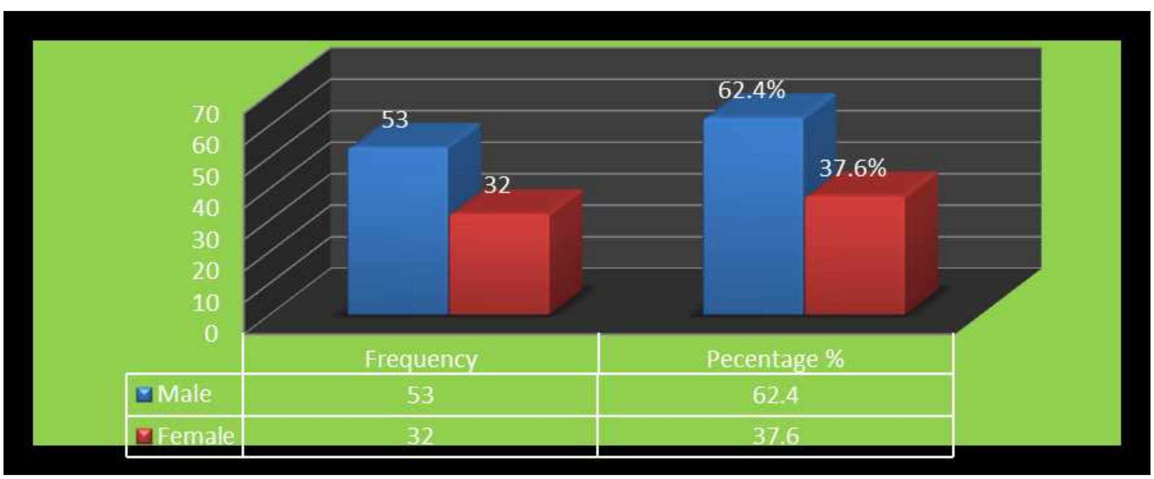
4.1 Introduction

This chapter covers the data presentation and analysis. The main objective of the study was to investigate effect of financial literacy on personal financial management on Kenya revenue authority employees in Nairobi. The reliability of the data collected for the study was determined through ascertaining the reliability of the questionnaires used in data collection. The target population was 2000. Sample size was 100 respondents from the Kenya revenue Authority. Out of 100 questionnaires issued, 85 were filled and returned making a response rate of 85%. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent, so from Mugenda (1999), the response was excellent.

4.2: Data presentation

4.2.1 Demographic Information-Gender

Figure 4. 1: gender

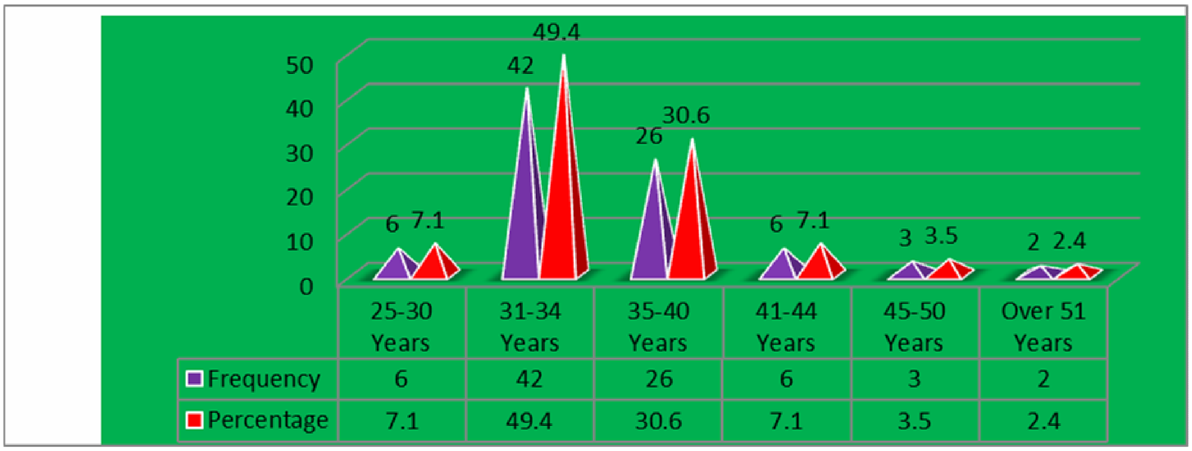


Source: Author, 2013

The researcher determined gender of the respondents. The findings of the study indicated that the dominant group are the male who accounted for 62.4% and their female counterparts accounted for 37.6%. On gender, the findings of the study showed that there are gender disparities.

4.2.2 Demographic Information-Age bracket of the respondents

Figure 4. 2: Age



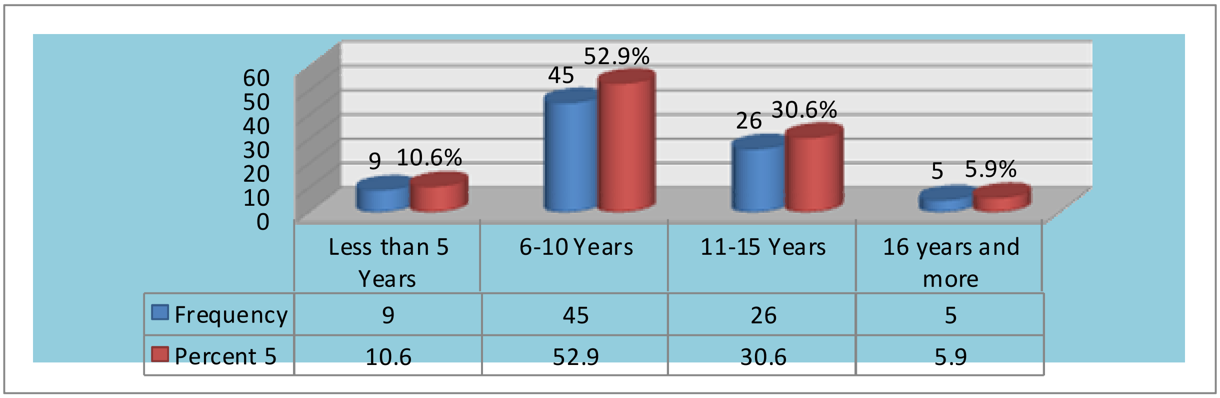
Source: Author, 2013

Figures above are from the study findings of the researcher on the age bracket of the respondents. It can be revealed that most participants are aged between 31-34 representing 49.4 % followed by 30.6% who were aged between 35-40 years. The study further reveals that 7.1% of the respondents were between age brackets of 41-44, 7.12% were aged between 25-30, 3.5% between 45-50 years and 2.4% of the participants were aged 51 and over. It can therefore be observed from the findings of the study that most of respondents were aged between 31-34 years.

The research findings show that most respondents were aged between 31-34 years hence less worried about retirement as they are still far away from the statutory retirement age of 60 years

4.2.3 Demographic Information-Duration of Employment.

Figure 4.3: Duration of Employment at KRA

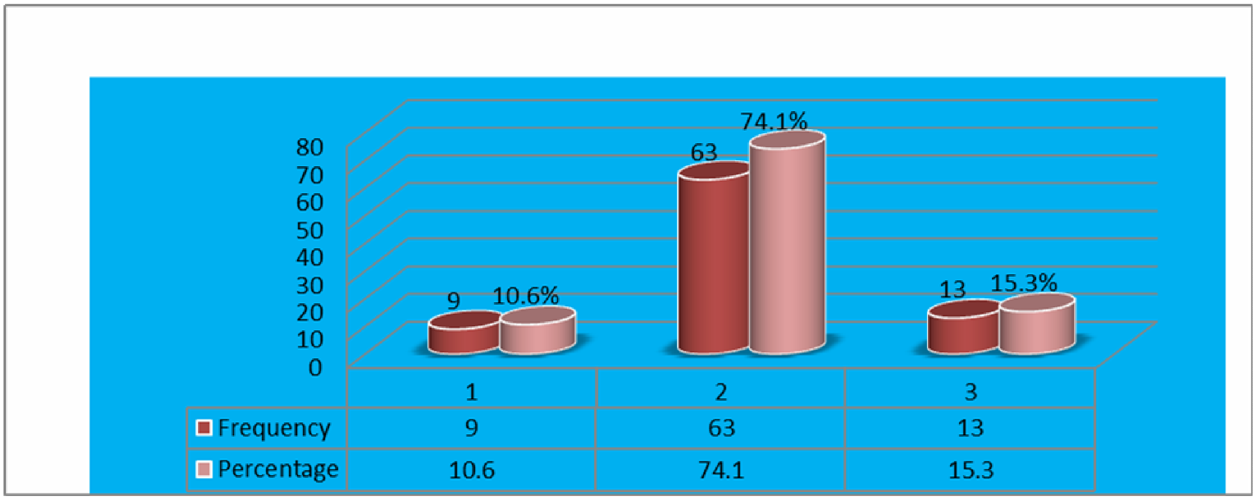


Source: Author, 2013

Figure 4.3 presents duration worked at the Kenya Revenue Authority. According to the study findings most respondents indicated that they have worked in KRA for between 6-10 years and accounted for 52.9% followed by 30.6% who have worked for between 11-15 years while 5.9% have worked in Kenya Revenue Authority for more than 16 years. The study further reveals that some participants have worked for less than 5 years and accounted for 10.6%. The findings of the study therefore showed that majority of respondents worked in KRA between 6-10 years.

4.2.4 Demographic Information-Level of Education.

Figure 4.4: Education Level



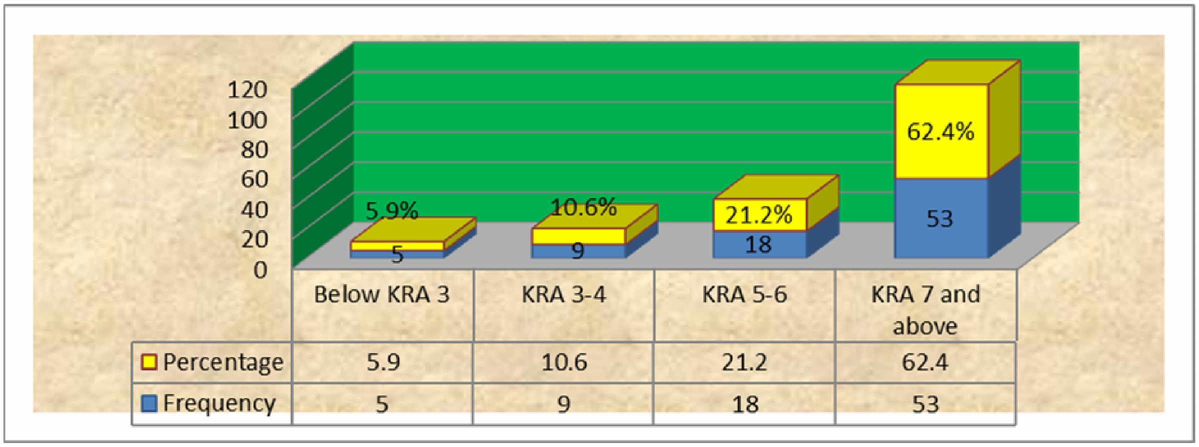
Source: Author, 2013

The study also found it of importance to determine the level of education of the participants. The results of the findings in figure 4.4 reveal that most respondents are university graduates accounting for 74.1% while 15.3% indicated that they had college diplomas or certificates and 10.6% of the respondents were post graduates.

The findings of the study show that the respondents had reasonable education to execute the roles assigned to them effectively and efficiently and make prudent financial decisions.

4.2.5 Demographic Information-The Current KRA Grade

Figure 4.5: The Current KRA Grade



Source: Author, 2013

The study further determined the current KRA grade of the respondents. Figure 4.5 shows the results of the findings. Most Participants were KRA 7 and above who accounted for 62.4% followed by 21.2% who were between KRA 5-6 while 10.4% and 5.9% were between KRA 3-4 and below 3 respectively. It can therefore be deduced that most respondents were of the grade KRA 7 and above.

From the sampling technique in chapter three, the population and sample size shows that KRA 7 and above represents the supervisors and low level staff, KRA 5-6 are the middle level management, KRA 3-4 are top level managers and below KRA 3 are heads of departments. Sampling across grades of employees was to achieve responses across the employees in terms of their seniority hence increase inclusiveness and increase objectivity of the research.

4.2.6 Extent of Respondent Knowledge on financial literacy.

The respondents were asked to indicate the extent of literacy in the following aspects of financial management in a five point Likert scale. The range was ‘very great extent’ (5), ‘not at all/applicable’ (1). The scores of ‘not at all’ and ‘to a less extent;’ have been taken to present a variable which had an impact to a small extent (S.E) (equivalent to mean score of 0 to 2.5 on the continuous Likert scale ;(0≤ S.E <2.4).

The scores of ‘to a moderate extent;’ have been taken to represent a variable that had an impact to a moderate extent (M.E.) (equivalent to a mean score of 2.5 to 3.4 on the continuous Likert scale: $2.5 \leq \text{M.E.} < 3.4$). The score of ‘great extent; and very great extent’ have been taken to represent a variable which had an impact to a large extent (L.E.) (equivalent to a mean score of 3.5 to 5.0 on a continuous Likert scale; $3.5 \leq \text{L.E.} < 5.0$). A standard deviation of >1.5 implies a significant difference on the impact of the variable among respondents.

4.2.7 Aspects of Financial Management

Table 4. 1: Financial Management

Descriptive Statistics

	N	Mean	Std. Deviation
I know what I want to accomplish, financially.	85	3.65	1.202
I have fully outlined my financial objectives on paper	85	3.71	.737
I maintain a current list of my assets and liabilities.	85	3.64	1.010
Holding a strong cash position is necessary for my financial pursuit	85	3.55	.681
I systematically save for life's eventualities in 10 years' time or more.	85	3.67	.697
I understand all the benefits that are available to me at KRA	85	3.55	.919
I am satisfied with my present rate of savings and investment accumulation.	85	3.87	.338
I feel that maximizing tax efficiency in my investment portfolio is essential.	85	3.67	.762
I am satisfied with the performance of my investments outside of my retirement saving plans	85	3.61	.832
A disciplined approach to re-balancing my investment is very important.	85	3.48	.995
I am a member of a KRA's pension plan that provides adequate pension upon retirement.	85	3.58	.931
I have determined how much income I can expect on retirement.	85	3.61	.818
I am fully aware of the impact of inflation on my future retirement income.	85	3.42	1.062
My current investment portfolio design employs modern portfolio theory.	85	3.94	.542

Source: Author, 2013

The researcher determined the aspects of financial literacy of the respondents. The respondents were requested to indicate their views on the financial literacy aspects indicated. Most of the respondents indicated that indeed to a great extent financial literacy affects financial management on the Kenya revenue authority as shown by means and standard deviations.

For example on the following aspects: My current investment portfolio design employs modern portfolio theory. (X=3.94, S.D=.542), i am satisfied with my present rate of savings and investment accumulation. (X=3.87, S.D=.338), know what to accomplish, financially (X=3.65, S.D=1.202), i have fully outlined my financial objectives on paper(X=3.71, S.D=.737), i systematically save for life's eventualities in 10 years' time or more. (X=3.67, S.D=.697), i feel that maximizing tax efficiency in my investment portfolio is essential. (X=3.67, S.D=.762), I know what I want to accomplish, financially (X=3.65, S.D=1.202), i have determined how much income i can expect on retirement. (X=3.61, S.D=.818), i am a member of a KRA's pension plan that provides adequate pension upon retirement. (X=3.58, S.D=.931). The study further revealed some of the respondents were to a moderate extent as it can be shown by mean= 3.42, and standard deviation=1.062.

It can therefore be concluded from the findings of the study that the respondents were 'to a great extent' on the aspect of financial literacy.

4.2.8 Retirement Plan

Table 4. 2: Retirement Plan

Descriptive Statistics

	N	Mean	Std. Deviation
I maximize my retirement/pension contributions each year.	85	1.93	.431
I want to help build a vision of my retirement lifestyle	85	1.84	.508
I know what income I would need if I were unable to work due to an accident or severe illness	85	1.91	.294
In the event of a prolonged disability, I know how long I could survive on my present savings.	85	1.95	.375
I have fully understood the government disability benefits' alternative source of income in the event of an extended disability.	85	2.00	.378
I have an alternative source of income in the event of an extended disability.	85	2.05	.554
I feel confident that the present health care system can support my needs in the event of a major illness	85	2.04	.566

Source: Author, 2013

Table 4.2 shows the study findings on retirement benefit plan. According to the results most respondents were 'to a less extent' on their retirement plan. For instance on X=2.04, S.D=.566, X=2.05, S.D=.554, X=2.00, S.D=.378. The study also revealed that some of the participants said not at all or don't apply retirement plan in that matter as shown by the means and standard deviations above.

For example; In the event of a prolonged disability, I know how long I could survive on my present savings. (X=1.95, S.D=.375), i maximize my retirement/pension contributions each year. (X=1.91, S.D=.294), i know what income i would need if i were unable to work due to an accident or severe illness (X=1.94, S.D=.397) and also on i want to help build a vision of my retirement lifestyle (X=1.84, S.D=.508).

The study findings indicate that most respondents indicated ‘not at all’ on their retirement plans.

4.2.9 Estate Planning

Table 4.3: Estate Planning

Descriptive Statistics

	N	Mean	Std. Deviation
I have a will	85	2.21	.725
I understand what a trust is	85	1.92	.277
Estate planning is important to me	85	2.15	.681
Having estate planning leave me peace of mind if I were to pass away	85	1.98	.672
I understand the available government death benefits	85	2.06	.542
All of my beneficiary/guardian designations are up to date	85	2.07	.552
I understand how taxes will be applied to my estate	85	2.06	.446
My executor is familiar with the location of my will and estate plan	85	2.04	.645

Source: Author, 2013

The study sought to establish on the estate planning from the respondents. The findings of the study were computed in a table to show the results. According to the findings most respondents were to a less extent on their respectful estate planning. Means and standard show this results as by:- i have a will (X=2.21, S.D=.725), estate planning is important to me (X=2.15, S.D=.681), all of my beneficiary/guardian designations are up to date (X=2.07, S.D=.552), i understand the available government death benefits(X=2.06, S.D=.542), i understand how taxes will be applied to my estate(X=2.06,S.D=.446), and on the executor being familiar with the location of my will and estate plan (X=2.04, S.D=.645)

On whether estate planning leaves me peace of mind if i were to pass away, (X=1.98, S.D=.672), i understand what a trust is (X=1.92, S.D=.277).

From the findings of the study it can be therefore depicted that most of the respondents were ‘to a small extent’ on the estate planning. This means that fewer respondents do practice these financial management aspects.

4.2.10 Credit and Other Liabilities

Table 4.4: Credit and Other Liabilities

Descriptive Statistics

	N	Mean	Std. Deviation
I pay off the full credit card outstanding amount every month	85	2.25	.554
I pay my mortgage and hire purchase installments on time every month	85	1.89	.409
Personal loans offer by financial institutions in the market is a convenient tool for me to use- I can borrow for any reason at any point of time	85	2.18	.862

Source: Author, 2013

The respondents were requested to indicate on credit and other liabilities if they effect on the financial literacy. The results of the findings are presented in table 4.4.

According to the findings, most participants were ‘to a less extent’ on financial management practices relating to liabilities and other credit facilities followed by those who were ‘not at all’ on Personal loans offer by financial institutions in the market is a convenient tool for borrowing for any reason at any point of time. This is as per the mean 2.18 and standard deviation of .862. It can be therefore concluded according to the findings of the study yes indeed most respondents are to a less extent literate on the credit and other liabilities aspects of financial management.

4.2.11 Insurance Cover

Table 4. 5: Insurance Cover

Descriptive Statistics

	N	Mean	Std. Deviation
I do not have any insurance	85	2.04	.586
I have enough insurance to ensure that if I were to pass away or become sick or be disabled, my family and I would not suffer financially or be financially disabled	85	2.12	.586
Currently I have life insurance but no other type of insurance i.e. health or critical illness, personal accident, or insurance on my properties such as car and house	85	2.09	.570
I can distinguish the different types of insurance policies offer in the market	85	1.89	.489

Source: Author, 2013

Table 4.5 shows the study findings of the study on the insurance cover. It can be observed that most participants were ‘to a less extent’ of the view that insurance literacy effects their financials as shown by means and standard deviation (X=2.04, S.D=.586) on not having any insurance cover, (X=2.12, S.D=.586) on having enough insurance to ensure that if i were to pass away or become sick or be disabled), the family not suffering financially or be financially disabled, (X=2.09, S.D=.570) on having life insurance but no other type of insurance and some participant were ‘to a moderate extent’ as shown by mean (X=1.89, S.D=.489) on distinguishing different types of insurance policies offer in the market. So it can be deduced that most respondents were ‘to a less extent’ on the aspect of insurance literacy.

4.2.12 Tax Return

Table 4.6: Tax Return

Descriptive Statistics

	N	Mean	Std. Deviation
I manage my own taxes	85	2.69	.655
I utilize the various tax relieves/rebate that I am entitled to when I am filing in my tax return	85	2.74	.639

Source: Author, 2013

The researcher further determined practices relating to tax planning by the respondents. The results were computed and tabulated in table 4.6. The findings of the study indicated that most respondents in the study were 'to a moderate extent' as it can be shown by means and standard deviations. For instance on utilizing the various tax relieves/rebate that i am entitled to when i am filing in my tax return (X=2.74, S.D=.639), mmanaging my own taxes (X=2.69, S.D=.655). On the tax return most respondents are 'to a moderate extent' as shown by the study findings.

4.2.13 Personal Financial Management

The respondents were asked to indicate their personal financial Management practices in the following aspects of financial management in a six point Likert scale. The range was 'always (6)' not at all/applicable; '(1). The scores of 'not applicable 'and' never; ' have been taken to present a variable which had an impact to a small extent (S.E) (equivalent to mean score of 0 to 2.5 on the continuous Likert scale ;(0≤ S.E <2.4). The scores of 'rarely and sometimes;' have been taken to represent a variable that had an impact to a moderate extent (M.E.) (equivalent to a mean score of 2.5 to 3.4 and 3.5 to 4.4 on the continuous Likert scale: 2.5≤M.E. <4.4). The score of 'usually; and always' have been taken to represent a variable which had an impact to a large extent (L.E.) (equivalent to a mean score of 3.5 to 6.4 and on a continuous Likert scale; 3.5≤ L.E. <6.4). A standard deviation of >1.5 implies a significant difference on the impact of the variable among respondents.

4.2.14 Financial Management Practices

Table 4. 7: Financial Management Practices

Descriptive Statistics

	N	Mean	Std. Deviation
I pay my credit card bills in full each month	85	2.87	.338
I pay my rent/mortgage in full and on-time	85	3.53	1.007
I pay my utilities (water, electric) in full and on-time	85	3.71	.784
I max out or go over the limit on my credit card(s)	85	3.86	.467
I spend more in a month than I earn	85	3.56	.969
I use alternative sources of credit (e.g. shy-lock lender)	85	3.66	.867
My account has a positive balance at the end of the month	85	3.86	.515
I balance my credit/debit account each month	85	3.86	.580
I have checks returned because of insufficient funds (bounced checks)	85	3.32	1.217
I have taken overdrafts	85	3.72	.781
I have a daily, weekly or monthly budget that I follow	85	3.91	.426
I set aside some money each month for savings	85	3.81	.587
I am a respected member of a SACCO(s)	85	3.79	.674

Source: Author, 2013

The researcher also found it important to determine the financial management practices of the respondents. Most of the respondents indicated that they sometimes have prudent financial management practices as shown by the means and standard deviations in table 4.7. For example on paying rent/mortgage in full and on-time (X=3.53, S.D=1.007), having a daily, weekly or monthly budget that i follow (X=3.91, S.D=0.426), setting aside some money each month for savings (X=3.81, S.D=0.587), paying utilities (water, electric) in full and on-time (X=3.71, S.D=0..784), paying my credit card bills in full each month (X=2.87,S.D=0.338), using alternative sources of credit (e.g. shy-lock lender) (X=3.66,S.D=.867), spending more in a month than i earn (X=3.56,S.D=0.969) and those who were respected members of SACCO(s) (X=3.79,S.D=0.674). The results therefore conclude that most participants sometimes practiced prudent financial management.

4.2.15 Correlation analysis

Correlation analysis on the effect of investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy on the personal financial management

X_1 is the investment/savings literacy index calculated from its scale;

X_2 is the retirement literacy index calculated from retirement/pensions scale;

X_3 is Tax return/insurance literacy index calculated from its scale; and,

X_4 is credit and other liabilities literacy index calculated from its scale.

The correlation matrix in Table 4.8 indicates that investment/savings literacy is strongly and positively correlated with personal financial management as indicated by a correlation coefficient of 0.618.

Further the matrix also indicated that retirement literacy is also positively correlated with personal financial management as indicated by a coefficient of 0.764. The correlation matrix further indicates that Tax return/insurance literacy is also strongly and positively correlated with personal financial management as indicated by a coefficient of 0.784. Credit and other liabilities literacy showed the highest correlation with personal financial management as indicated by a strong correlation coefficient of 0.818.

Correlation Coefficients between investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy and personal financial management

Table 4.8: Correlation Coefficients

	investment/ savings literacy	retirement literacy	Tax return/insurance literacy	credit and other liabilities literacy	personal financial management
investment/savings literacy	1				
retirement literacy	0.902	1			
Tax return/insurance literacy	0.689	0.847	1		
credit and other liabilities literacy	0.847	0.684	0.739	1	
personal financial management	0.618	0.764	0.784	0.818	1

4.2.16 Regression Model Summary

Regression Model Summary of the Effect of investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy on the personal financial management.

From the results shown in table 4.10, the model shows a goodness of fit as indicated by the coefficient of determination (R^2) with a value of 0.94671. This implies that the independent variables investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy explain 94.67 percent of the variations of the personal financial management.

The study therefore identifies investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy as critical factors for personal financial management. It further reveals that the interactions of the four factors create an impetus for personal financial management success and KRA employees should therefore adopt strategies to enhance these four areas.

Table 4. 9: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	13.019	0.457		2.421	0.031
investment/savings literacy	0.034	0.057	0.006	0.034	0.098
retirement literacy	0.189	0.341	0.086	0.931	0.054
Tax return/insurance literacy	0.065	0.187	0.046	0.34	0.076
credit and other liabilities literacy	0.611	0.173	0.432	3.321	0.005

As per the R generated table above, the $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$ become:

$Y = 13.019 + 0.034 (X_1) + 0.189 (X_2) + 0.065 (X_3) + 0.611 (X_4) + \acute{\varepsilon}$

The βi's in the above equation represent the estimated parameters.

Where; Yi=Personal financial management

β = regression weight

έ = representing the error term

X_1 is the investment/savings literacy

X_2 is the retirement literacy

X_3 is Tax return/insurance literacy

X_4 is credit and other liabilities literacy

According to the regression equation established, taking all factors into account (investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy, personal financial management will be 13.019. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in the investment/savings literacy will lead to a 0.034 increase in personal financial management in KRA employees; a unit increase in retirement literacy will lead to a 0.189 increase in personal financial management; a unit increase in Tax return/insurance literacy will lead to a 0.065 increase in personal financial management; a unit increase in credit and other liabilities literacy will lead to a 0.611 increase in personal financial management in KRA employees.

The Standardized Beta Coefficients give a measure of the contribution of each variable to the model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. The t and Sig (p) values give a rough indication of the impact of each predictor variable – a big absolute t value and small p value suggests that a predictor variable is having a large impact on the criterion variable.

At 5% level of significance and 95% level of confidence, investment/savings literacy had a 0.034 level of significance, retirement literacy had a 0.189 level of significance, Tax return/insurance literacy had a 0.065 level of significance and credit and other liabilities literacy had a 0.611 level of significance.

Table 4.10: Regression Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.84987	0.94671	0.85471	0.7546

Predictors: (Constant), investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy

4.2.17 Chi-square test of the personal financial management

The study determined the significance difference between the observed and the expected aspects of personal financial management assuming equal variances.

Table 4. 11: personal financial management

	Value	df	Asymp. Sig (2-tailed)
Pearson Chi-square	8.564	14	.031
Likelihood Ratio	6.954	14	.031
Linear-by-linear Association	0.067	1	.761
No of valid cases	19		

The fact that the Pearson chi-square value under "Asymp. Sig" is 0.031 and less than .05 indicates that personal financial management of KRA employees during the period under study is dependent. In general this means that it is worthwhile to interpret the results in the table. In this particular case it means that personal financial management among employees is not distributed similarly across during the period under the study. In other words, employees that had good financial literacy recorded significant personal financial management as opposed to those that had no or little financial literacy.

4.3 Summary and interpretation of findings

On gender the findings of the study showed that there are gender disparities hence deducing that there may be need to address these disparities for different findings on the effect of financial literacy on personal financial management. This is important since the risk averseness of male respondents differs from that of their female counterparts.

Most respondents were aged between 31-34 years hence less worried about retirement as they are still far away from the statutory retirement age of 60 years. The impact of the age distribution of the respondent can be seen on the responses to certain aspects of financial aspects like the retirement planning which showed that the respondents were to 'a lesser extent' literate.

The findings of the study show that the respondents had reasonable education to execute the roles assigned to them effectively and efficiently and make prudent financial decisions. This is important for this study as the respondents' level of education eliminates the bias of uneducated respondents.

On the aspect of retirement planning, the study findings indicate that most respondents indicated 'not at all' on their retirement plans and depicted that most of the respondents were 'to a small extent' on the estate planning. The research findings also indicated that most participants were 'to a less extent' on financial management practices relating to liabilities and other credit facilities

On Financial Management Practices that included payment of rent/mortgage in full and on-time, having daily, weekly or monthly budget that is followed and saving some money at the end of the month, the results showed that most participants sometimes practiced prudent financial management.

The correlation matrix in indicates that investment/savings literacy is strongly and positively correlated with personal financial management, that retirement literacy is also positively correlated with personal financial management, that tax return/insurance literacy is also strongly and positively correlated with personal financial management and

Credit and other liabilities literacy showed the highest correlation with personal financial management.

The regression model summary shows a goodness of fit as indicated by the coefficient of determination (R^2) with a value of 0.94671. This implies that the independent variables investment/savings literacy, retirement literacy, Tax return/insurance literacy and credit and other liabilities literacy explain 94.67 percent of the variations of the personal financial management.

The study therefore identifies investment/savings literacy, retirement literacy, tax return/insurance literacy and credit and other liabilities literacy as critical factors for personal financial management. It further reveals that the interactions of the four factors create an impetus for personal financial management success and KRA employees should therefore adopt strategies to enhance these four areas.

According to the regression equation established, taking all factors into account (investment/savings literacy, retirement literacy, tax return/insurance literacy and credit and other liabilities literacy, personal financial management will be 13.019. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in the investment/savings literacy will lead to a 0.034 increase in personal financial management in KRA employees; a unit increase in retirement literacy will lead to a 0.189 increase in personal financial management; a unit increase in tax return/insurance literacy will lead to a 0.065 increase in personal financial management; a unit increase in credit and other liabilities literacy will lead to a 0.611 increase in personal financial management in KRA employees.

The Standardized Beta Coefficients gave a measure of the contribution of each variable to the model. A large value indicated that a unit change in this predictor variable has a large effect on the criterion variable. The t and Sig (p) values gave a rough indication of the impact of each predictor variable, a big absolute t value and small p value suggests that a predictor variable is having a large impact on the criterion variable.

At 5% level of significance and 95% level of confidence, investment/savings literacy had a 0.034 level of significance, retirement literacy had a 0.189 level of significance, Tax return/insurance literacy had a 0.065 level of significance and credit and other liabilities literacy had a 0.611level of significance.

The fact that the Pearson chi-square value under "Asymp. Sig" is 0.031 and less than .05 indicates that personal financial management of KRA employees during the period under study is dependent. In general this means that it is worthwhile to interpret the results in the table. In this particular case it means that personal financial management among employees is not distributed similarly across during the period under the study. In other words, employees that had good financial literacy recorded significant personal financial management as opposed to those that had no or little financial literacy.

It can be therefore concluded from the findings of the study that the respondents were ‘to a great extent’ on the aspect of financial literacy. The findings concur with Nyamute and Monyoncho (2008) who surveyed on Employees of finance and banking institutions and concluded that the practices of those perceived to be financially literate seem to agree with the current literature. However their survey findings also showed that even those perceived not to be financially literate exhibit some strong characteristics of personal financial management implying that probably, formal college education and employment environment may not be the only source of financial education.

These results on retirement planning, estate planning and financial management practices may be as a result of failing to have financial education in high school as shown by Bernheim, Garrett and Maki (2001), who argue that those who were exposed to financial education programs while in high school were more likely to save later in life. They further argue that recognizing individuals who possess limited literacy do not plan for retirement which brings inevitably to the issue of mistakes. One such program could be to require people to acquire some basic financial knowledge (Alesina and Lusardi, 2006).

The research findings correlation matrix in indicating that investment/savings literacy is strongly and positively correlated with personal financial management, that retirement literacy is positively correlated with personal financial management, that tax return/insurance literacy is strongly and positively correlated with personal financial management and that credit and other liabilities literacy is positively correlated with personal financial management is in line with earlier study findings which confirmed the positive association between knowledge and financial behaviour. For example Calvert, Campbell, and Sodini (2005) find that more financially sophisticated households are more likely to buy risky assets and invest more efficiently. Hilgerth, Hogarth, and Beverly (2003) also document a positive link between financial knowledge and financial behaviour.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The objectives of the study were to establish the level of financial literacy and determine the effect of financial literacy on personal financial management on Kenya revenue authority employees in Nairobi.

Descriptive research design was adopted for this study. The population of the study was the employees of KRA based in Nairobi which comprised of 2000 employees. To ensure that all levels of employees are represented, the study used stratified random sampling technique. The study used primary data collected from semi-structured questionnaires. Quantitative data was analysed using descriptive statistics while qualitative data was analysed using content analysis. Quantitative data was coded and entered into Statistical Packages for Social Scientists (SPSS Version 17.0). Analysis was, then, based on descriptive statistics. Multiple regression analysis to establish the relationship between financial literacy and personal financial management using the variables

From the study findings, on gender issues male respondents are the dominant group than their female counterparts and many of them aged between 31-34 years. On the duration for employment, most respondents have worked between 6-10 years and many of the participants are university graduates. On the KRA grade, most respondents were in KRA grade 7 and above (supervisors and low level staff) according to the study findings.

The findings showed that on the aspects of financial literacy, the respondents were 'to a great extent' literate and aware that they affect personal financial management. On the level of literacy and the effects of retirement plans and the results of the findings revealed that most participants were 'to a less extent' literate and consider it less important. On the effects of estate planning, the respondents were 'to a less extent literate'. On aspects on credit and other liabilities where the respondents were 'to a less extent' literate and on the insurance cover, the findings revealed that participant were 'to a less extent' literate. On the tax return the respondents were ‘to a moderate’ extent literate and on the financial management practices, the respondents indicated they sometimes practice them.

5.2 Conclusions

One of the objectives of the study was to determine the financial literacy of the respondents. According to the findings of the study, it can be concluded that surely the participants were ‘to a great extent’ that financial literacy indeed affects personal financial management among the Kenya Revenue Authority employees.

The researcher also sought to establish effects of retirement plan on personal financial management. The results of the findings conclude that most participants consider it ‘to a less extent’ as important. This could be due to the age distribution of the respondents who were mostly aged between 31-34 years hence viewing retirement as far.

The study findings further sought to establish whether estate planning affects personal financial management. The results conclude that majority of the respondents were ‘to a less extent’ aware if this is so. This is because financial literacy deficiencies can affect an individual's day-to-day money management and ability to save for long-term goals.

From findings of the study on credit and other liabilities, the results also conclude that the respondents were ‘to a less extent’ literate due to poor financial decisions. This can affect savings and financial stability or independence.

The researcher sought to establish what the effects of insurance cover are on the respondents. The findings conclude that majority indicated that it affects ‘to a less extent’. This could be due to lack of specific education programs on this aspect of financial management.

The study also determined effects of tax planning on personal financial management. The results concluded that it moderately affected personal financial management while on the financial management practices; the respondents indicated that they sometimes apply them in their personal financial management.

5.3 Policy recommendations

From the research findings, it is recommended that financial literacy training programs and program providers should offer comprehensive information on savings and credit.

The study further recommends that borrowers should plan on their expenditure habits and meeting of obligations so as not be financially disabled by the magnitude of interest rates changes.

Due to the increase of financial literacy, the study recommends to have the number and variety of financial literacy training programs and program providers increased with some offering comprehensive information on savings, and credit.

On estate planning, it is recommended that the respondents should be trained on how they can run their day-to-day money management and ability to save for long term goals.

The study finally recommends that consumer's should be given skills to manage their personal finances effectively so that to create a more competitive and efficient consumption and savings market

The study found out that most respondents indicated 'not at all' on their retirement plans. These results may be as a result of failing to have financial education in high school as shown by Bernheim, Garrett and Maki (2001), who argue that those who were exposed to financial education programs while in high school were more likely to save later in life. It is therefore important to have deliberate financial education programs for retirement planning for all staff regardless of their ages and if possible from early ages in high school.

5.4 Limitations of the Study

The research was met with various challenges when conducting the research that included some of the respondents not free to give personal information as they considered it of private nature and sometimes of competitive importance. Naturally people feel that revealing information that shows inadequacies in their personal management aspect can be embarrassing especially where they are not assured of confidentiality. Some respondents may have felt that the information on how well they know certain aspects of financial management and exploit for financial gain was to important to share in the questionnaires hence some respondents may have been biased or dishonest in their answers.

The research having been limited to only employees of KRA in Nairobi had limitations in terms of the limited location of employees who may be more being in the city with its many financial challenges and the findings also may not be necessarily applicable to other organizations.

Since more respondents from across the country would have been essential to increase the representation of the KRA team in this study and to allow for better reliability and consistency of the information given, a lot of time and finances were needed to collect information from the respondents. Time and financial limitations made it impractical to include more respondents in the study.

The study also was carried out at a specific point in time which in mid May 2013. The limitation is that the study does not capture the financial literacy levels of the respondents and their financial management practices over a period of time. This is important since rational consumers have changing knowledge levels, preferences over a period of time.

5.5 Suggestions for further studies

This study focused on the effect of financial literacy on personal financial management on Kenya Revenue Authority employees. It is therefore recommended that similar researches should be replicated in other organizations and the results be compared so as to establish whether there is consistency on effect of financial literacy on personal financial management among respondents in the various organizations.

Many strategies on financial literacy aimed at influencing the effects of financial literacy on personal financial management do not realize expected results because of many reasons. It would be interesting to conduct studies exploring implementation of the strategies and to find out the impact of the various financial literacy programs in place in KRA and other organizations in the area of financial literacy and personal financial management.

It is also recommended that similar studies to this one on respondents be carried out over a period of time. This is important in order to capture their financial literacy levels and financial management practices over a period of time since rational consumers have changing knowledge levels, preferences over a period of time.

This study focused on the effect of financial literacy on personal financial management on Kenya Revenue Authority employees in Nairobi. It is therefore recommended that a study be carried among KRA employees from across the country in order to increase reliability and consistency of the findings

REFERENCES

Agarwal, S., J. Driscoll, X. Gabaix, and D. Laibson (2007). "The Age of Reason: Financial Decisions over the Lifecycle," mimeo, Harvard University.

Agnew, J.R. & Szykman, L.R. (2005). Asset allocation and information overload: The influence of information display, asset choice, and investor experience. Journal of Behavioral Finance, 6, 57-70.

Alesina, Alberto, and Annamaria Lusardi (2006). "Driving Your Financial Investment? Perhaps a License is Needed." Dartmouth College. Retrieved from http://www.dartmouth.edu/~vox/0607/0724/lusardi.html

Ando, A., and Modligliani, F.(1963). "The Life-Cycle Hypothesis of Saving: Aggregate Implications and Tests." American Economic Review 53 (1963): 55–84.

Anthes, W.L. (2004). Financial illiteracy in America: a perfect storm, a perfect opportunity. Journal of Financial Service Professionals, 58(6):49–56

Antonides, Gerrit (2008), 'Comparing Models of Consumer Behaviour,' in Alan Lewis (ed.), The Cambridge Handbook of Psychology and Economic Behaviour. Cambridge, UK: Cambridge University Press, pp. 227-252.

Arkes, Hal R. (1991). 'Costs and Benefits of Judgment Errors: Implications for Debiasing,' Psychological Bulletin, 110 (3), 486-498.

Bandura, Albert (1977). 'Self-Efficacy: Toward a Unifying Theory of Behavioral Change,' Psychological Review, 84 (2), 191-215.

Bennett, J. (2006). Spend cycle. Newsweek, August 8, 2006.

Bernheim, D. and Garrett, D. (2003). The effects of financial education in the workplace: evidence from a survey of households. Journal of Public Economics Vol. 87, 1487-1519.

Bernheim, D., Garrett, D. and Maki, D. (2001), "Education and Saving: The Long-term Effects of High School Financial Curriculum Mandates," Journal of Public Economics, 85, pp. 435-565.

Beutler, I. F., & Mason, J. W. (1987). Family cash flow budgeting. Home Economics Research Journal, 16, 3-12.

Braunstein, S., & Welch, C. (2002). Financial literacy: An overview of practice, research and policy. Federal Reserve Bulletin, 88, (11), 445-457.

Brian K. Bucks and Karen M. Pence. (2008). "Do Borrowers Know their Mortgage Terms?" Journal of Urban Economics,64(2):218-213

Breger, Louis and James L. McGaugh (1965). 'Critique and Reformulation of "Learning Theory" Approaches to Psychotherapy and Neurosis,' Psychological Bulletin, 63 (5), 338-358.

Bruner, Jerome S. (1988). 'The Course of Cognitive Growth,' in K. Richardson and S. Sheldon (eds.), Cognitive Development to Adolescence: A Reader. East Sussex, United Kingdom:Lawrence Erlbaum Associates Ltd., Publishers, pp. 33-60.

Byrnes, James P. (2008). Cognitive Development and Learning in Instructional Contexts, Third edn. Boston, MA: Pearson Education, Inc. Center for Financial Security WP 10-4 42

Calvert, Laurent, John Campbell and Paolo Sodini (2005). "Down or Out: Assessing the Welfare Costs of Household Investment Mistakes." Working Paper, Harvard University.

Campbell, John (2006), "Household Finance," Journal of Finance, 61, pp.1553-1604.

Century, (2008). The determinants of home ownership: an application of human capital investment theory. to the home owner shift decision. Honors projects. Paper 71. Illinois Westeyan University Economic Department.

Christelis, D., Jappelli J.and Padula M.(2005). "Health Risk, Financial Information and Social Interaction: The Portfolio choice of European Elderly Households". Working Paper. University of Salemo.

Cohen, M., McGuiness, E., Sebstad, J. and Stack, K. (2006). Market Research for Financial Education, Microfinance Opportunities

Crain, William C. (1992). Theories of Development: Concepts and Applications, 4th edn. Englewood Cliffs, NJ: Prentice Hall.

Duensberry, J.S.(1949). "Income-Consumption Relations and their Relations," in Lloyd Metzler et al., Income Savings and the Theory of Consumption Behaviour, Cambridge. Havard University Press.

Elliehausen, G., Lundquist, E. C., & Staten, M. E. (2003).The impact of credit counselling on subsequent borrower behaviour. The Journal of Consumer Affairs, 41(1), 1-28.

Financial Literacy and Education Commission (2006). Taking ownership of the future: The national strategy for financial literacy.

Friedman, M.(1956). A Theory of Consumption Function, Princeton: Princeton University Press.

Garman, E. T. (1999, Winter). Employer-sponsored education programs and incentives to improve employees' financial lifestyles. Employee Relations Today, 63-72.

Garman, E. T., Leech, I. E., & Grable, J. E. (1996). The negative impact of employee poor personal financial behaviors on employers. Financial Counseling and Planning, 7, 157–168.

Goldhaber, Dale E. (2000). Theories of Human Development: Integrative Perspectives. Mountain View, CA: Mayfield Publishing Company.

Gustman, Alan, and Thomas Steinmeier (2004). "What People Don't Know about their Pensions and Social Security," in William Gale, John Shoven and Mark Warshawsky (eds.),Private Pensions and Public Policies, Washington, DC: Brookings Institution, pp.57-125.

Gustman, Alan, Thomas Steinmeier, and Nahid Tabatabai (2007). "Do Workers Know about Their Pensions? Comparing Workers' and Employers' Pension Information," written for the book edited by Annamaria Lusardi, Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs.

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003, July). Household financial management: The connection between knowledge and behavior. Federal Reserve Bulletin, (89), 309-322.

Hilgert, Marianne, Jeanne Hogarth and Sondra Beverly (2003). Household Financial Management: The Connection between Knowledge and Behaviour," Federal Reserve Bulletin, pp. 309-322.

Hira, T. K. (1987). Money management practices influencing household asset ownership. Journal of Home Economics, 79 (2): 19-22.

Hirad, A., & Zorn, P. M. (2001). A little knowledge is a good thing: Empirical evidence of the effectiveness of pre-purchase homeownership counselling.

Hogarth, Jeanne, Christoslav E. Anguelov, and Jinhook Lee (2005). “Who Has a Bank Account? Exploring Changes Over Time, 1989-2001,” Journal of Family and Economic Issues, Vol. 26, Number 1, March 2005.

Joo, S., & Grable, J. E. (2000). Improving employee productivity: the role of financial counseling and education. Journal of Employment Counseling, 37, 2–15.

John, A. (2006). First Data Plots Personal Financial Management Service. American Banker, 177(104), 34-7.

Kempson, E., Anderloni, L., Bayot, B. and Iwanicz-Drozdowska, M. (2008). Financial services provision and prevention of financial exclusion, European Commission.

Kempson, H., Atkinson, A. and Pilley, O. (2004). Policy level response to financial exclusion in developed economies: lessons for developing countries. Ministry of Economic Development (2006). ANZ-Retirement Commission Financial Knowledge Survey.

Keynes, J.M.(1936). The General Theory of Employment, Interest and Money, London: Macmillan.

Lusardi A. & Oliver, M., (2006). Financial Literacy and Planning; Implications for retirement wellbeing, Pension Research Council Working Paper 1, The Wharton School.

Lusardi, A., & Mitchell, O. S. (2007). Baby boomer retirement security: The role of planning, financial literacy, and housing wealth. Journal of Monetary Economics, 54(1), 205–224.

Madrian, Brigitte and Dennis Shea (2001). “Preaching to the Converted and Converting Those Taught: Financial Education in the Workplace,” University of Chicago Working Paper.

Mandell, L. (2007). Financial literacy of high school students. In J.J. Xiao (Ed.), Handbook of Consumer Finance Research (pp. 163-183). New York, NY: Springer. Washington, D.C.: Jumpstart Coalition.

Markowitz, H.M. (April 1952)."The Utility of Wealth". The Journal of Political Economy (Cowles Foundation Paper 57) LX (2): 151–158

Miles, David (2004). “The UK Mortgage Market: Taking a Longer-Term View”. Working Paper, UK Treasury.

Mitchell, Olivia. (1988). “Worker Knowledge of Pensions Provisions”. Journal of Labor Economics, 6, pp. 21-39.

Modigliani, F., and Brumberg, R. (1954)."Utility Analysis and the Consumption Function." In Post-Keynesian Economics. Edited by K. Kurihara. New Brunswick, N.J.: Rutgers University Press, 1954. Pages 338–436.

Mottola, Gary, and Stephen Ukus (2007), "Red, Yellow, and Green: Measuring the Quality of 401(k) Portfolio Choices". Pension Research Council Working Paper 2007-14. Philadelphia,P.A: Wharton School.

Moore, Danna (2003). "Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes and Experiences," Technical report 03-39, Social and Economic Sciences Research Center, Washington State University.

Mugenda, A. G. (2008). Social Sciences Research Theory & Principles. Kijabe: Kijabe Printing Press

National Council on Economic Education (NCEE), (2005). Survey of the States: Economic and Personal Finance Education in our National Schools in 2004. New York: NCEE.

Ndemo P. (2002). Understanding Housing finance meeting needs and making choices. First edition. Unpublished Thesis: University of Nairobi.

Nyamute W.and Monyoncho M.J.K (2008). Effect of Financial Literacy on Personal Financial Management Practices: A case Study of Employees of Finance and Banking Institutions. Paper presented at African International Business and Management (AIBUMA) conference, Nairobi.

Organisation for Economic Co-operation and Development. (2005). Improving Financial Literacy: Analysis of issues and Policies. Paris, France: Organisation for Economic Co-operation and Development.

Pandey I.M (1999). Financial Management. New Dheli. Vikas Publishing House PVT Ltd.

Piaget, Jean (1983). 'Piaget's Theory,' in William Kessen (ed.), History, Theory, and Methods, 4 edn., Handbook of Child Psychology, I. New York, NY: John Wiley & Sons, pp. 703- 732.

Schreiner, Mark, and Michael Sherraden (2007). "Can the Poor Save? Saving and Asset Building in Individual Development Accounts," New Brunswick, NJ: Transaction Publishers.

Skinner, Burrhus F. (1953). Science and Human Behavior. New York, NY: The MacMillan Company.

Stango, Victor and Jonathan Zinman (2006). “Fuzzy Math and Red Ink: Payment/Interest Bias, Intertemporal Choice and Wealth Accumulation.” Working Paper, Dartmouth College.

Stango, Victor, and Jonathan Zinman (2007). “Fuzzy Math and Red Ink: When the Opportunity Cost of Consumption is Not What It Seems,” Working Paper, Dartmouth College.

Stewart, R. (2005). Income and spending decline in January, Personal Income Estimates. Bureau of Economic Analysis, U.S. Department of Commerce.

Titus, P. M., Fanslow, A. M., & Hira, T. K. (1989). Effect of financial management knowledge of household money managers on behaviours and outputs. Journal of Vocational Home Economics Education, 7 (1): 58-70.

Volpe, R. P., Chen, H., & Liu, S. (2006). An analysis of the importance of personal finance topics and the level of knowledge possessed by working adults. Financial Services Review, 15, 81–99.

Webster, Richard (1995). Why Freud Was Wrong: Sin, Science, and Psychoanalysis. New York, NY: Basic Books.

White, C. (2005). Statement of Clifford J. White III, Acting Director Executive Office for United States trustees. United States Department of Justice. Retrieved from: http://www.abiworld.org/pdfs/s256/White.pdf

APPENDIX II: RESEARCH QUESTIONNAIRE

Instructions: (*Please read the instructions given and answer the questions as appropriately as possible*). It is advisable you answer or fill in each section as provided. Make an attempt to answer every question fully and correctly.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender : Male [ ] Female [ ]

2. Please indicate your age bracket:

   Below 24 Years [ ] 25 - 30 Years [ ] 31 - 34 years [ ] 35 – 40 years [ ]

   41 – 44 years [ ] 45 – 50 years [ ] Over 51 years [ ]

3. For how long have you served in employment?

   Less than 5 years [ ] 6 – 10 years [ ]

   11 – 15 years [ ] 16 years and more [ ]

4. What is your highest level of education?

   Certificate/ Diploma [ ] Graduate [ ]

   Post-Graduate [ ]

5. What is your current KRA grade?

   Below KRA 3 [ ] KRA 3 – 4 [ ]

   KRA 5 – 6 [ ] KRA 7 and above [ ]

SECTION B: FINANCIAL LITERACY

6. Kindly indicate the extent of literacy of the following aspects of financial management in your life. Use a scale of 1 to 5 where: 1 = not at all/applicable; 2 = less extent; 3 = moderate extent; 4 = great extent; 5 = very great extent.

Aspects of Financial Management	**1**	**2**	**3**	**4**	**5**
I know what I want to accomplish, financially.					
I have fully outlined my financial objectives on paper.					
I maintain a current list of my assets and liabilities.					
Holding a strong cash position is necessary for my financial pursuit					
I systematically save for life's eventualities in 10 years' time or more.					
I understand all the benefits that are available to me at KRA					
I am satisfied with my present rate of savings and investment accumulation.					
I feel that maximizing tax efficiency in my investment portfolio is essential.					
I am satisfied with the performance of my investments outside of my retirement saving plans					
A disciplined approach to re-balancing my investment is very important.					
I am a member of a KRA's pension plan that provides adequate pension upon retirement.					
I have determined how much income I can expect on retirement.					
I am fully aware of the impact of inflation on my future retirement income.					
My current investment portfolio design employs modern portfolio theory.					
Retirement Plan					
I maximize my retirement/pension contributions each year.					
I want to help build a vision of my retirement lifestyle					
I know what income I would need if I were unable to work due to an accident or severe illness					
In the event of a prolonged disability, I know how long I could survive on my present savings.					
I fully understand the government disability benefits.					
I have an alternative source of income in the event of an extended disability.					

I feel confident that the present health care system can support my needs in the event of a major illness					
Estate Planning					
I have a will					
I understand what a trust is					
Estate planning is important to me					
Having estate planning leave me peace of mind if I were to pass away					
I understand the available government death benefits					
All of my beneficiary/guardian designations are up to date					
I understand how taxes will be applied to my estate					
My executor is familiar with the location of my will and estate plan					
Credit and Other Liabilities					
I pay off the full credit card outstanding amount every month					
I pay my mortgage and hire purchase installments on time every month					
Personal loans offer by financial institutions in the market is a convenient tool for me to use- I can borrow for any reason at any point of time					
Insurance Cover					
I do not have any insurance					
I have enough insurance to ensure that if I were to pass away or become sick or be disabled, my family and I would not suffer financially or be financially disabled					
Currently I have life insurance but no other type of insurance i.e. health or critical illness, personal accident, or insurance on my properties such as car and house					
I can distinguish the different types of insurance policies offer in the market					
Tax Return					
I manage my own taxes					
I utilize the various tax relieves/rebate that I am entitled to when I am filing in my tax return					

SECTION C: PERSONAL FINANCIAL MANAGEMENT

7. The following are statements regarding an individual financial management practices. Please select the most appropriate answer to each of the following questions: Use a scale of 1 to 6 where: 1 = not applicable; 2 = Never; 3 = Rarely; 4=Sometimes; 5 = Usually; 6 = Always.

Financial Management Practices	**Not Applicable**	**Never**	**Rarely**	**Sometimes**	**Usually**	**Always**
I pay my credit card bills in full each month						
I pay my rent/mortgage in full and on-time						
I pay my utilities (water, electric) in full and on-time						
I max out or go over the limit on my credit card(s)						
I spend more in a month than I earn						
I use alternative sources of credit (e.g. shy-lock lender)						
My account has a positive balance at the end of the month						
I balance my credit/debit account each month						
I have checks returned because of insufficient funds (bounced checks)						
I have taken overdrafts						
I have a daily, weekly or monthly budget that I follow						
I set aside some money each month for savings						
I am a respected member of a SACCO(s)						

THANK YOU FOR YOUR TIME