RELATIONSHIP OF FINANCIAL LITERACY ON INDIVIDUAL SAVINGS OF
EMPLOYEES OF POSTAL CORPORATION OF KENYA BASED IN NAIROBI

BY

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D61/79123/2012

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTERS OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS
UNIVERSITY OF NAIROBI

OCTOBER 2014
DECLARATION

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

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This research project has been submitted for examination with my approval as the University Supervisor.

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ACKNOWLEDGEMENT

To Almighty God for His guidance and providence which enabled me to undertake this project.

I would also like to express sincere thanks to my supervisor Mr. Mirie Mwangi for his guidance in supervision of this research paper, without which the research would not have been a reality.

Finally, I owe my gratitude to a number of people who contributed in one way or the other towards completion of this project especially my fellow colleagues at work, students, friends and entire Postal Corporation of Kenya family.
DEDICATION

To my loving family, my wife and children for their moral support, understanding and perseverance during my study period. They have been of constant encouragement during the entire period.
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LIST OF ABBREVIATIONS

IDA - Individual Development Accounts
JDAE - Journal of Development and Agricultural Economic
KIPPRA - Kenya Institute for Public Policy Research and Analysis
LCH - Life Cycle Hypothesis
MBA - Masters of Business Administration
MFI - Micro Finance Institution
OECD - Organization for Economic Co-operation and Development
PCK - Postal Corporation of Kenya
PIH - Permanent Income Hypothesis
SACCO - Savings and Credit Co-operative
SMEs - Small Medium Enterprises
SSPS - Statistical Packages for Social Scientists
USA - United State of America
ABSTRACT

With the current evolutions in financial markets, it has now become ever more necessary for consumers to be more knowledgeable and proficient in managing their finances. This can be realized through addressing their financial literacy levels. The objectives of the study, was to examine the relationship between financial literacy and individual savings of Postal Corporation of Kenya employees. The study used primary data collected from semi-structured questionnaires. Quantitative data was analyzed using descriptive statistics while qualitative data was analyzed 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 individual savings. The study findings concluded that financial literacy impacts to a great extent on individual savings. Other factors in the study that were found to contribute significantly to individual savings were education, income, risk tolerance and saving regularity. Gender and age were found to have insignificant effect on individual savings. From the research findings, the study has determined that financial literacy to be a very key variable in increasing the individual savings. It is recommended that the government should devise policies that address financial literacy training programs on individual savings for employees. The study recommends having the number and variety of financial literacy training programs and program providers appointed who will offer comprehensive training on individual savings such as Sacco and bank savings, insurance plans, pension plan and general personal finance. The study further recommends that employers should ensure that their employees are exposed to financial literacy training as per government set policies and that they should come up with strategies that ensure proper imparting of financial education and adherence of employees to savings regularity which has been found to have a positive relationship with individual savings. It is recommended that a study be carried out on other factors that affect individual savings, specifically, a study on relationship between behavioral factors and individual savings from across the country should be carried out in order to pick out other variables not covered in this study. The research should also be done in other organizations and the results compared so as to ascertain whether there is consistency on effect of financial literacy on individual savings among respondents in the various organizations. Since this study concentrated on employed people, further study should be done on self employed population, in order to find out whether the same result can be replicated with self employed population.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

With the current evolutions in financial markets, it has now become ever more necessary for consumers to be more knowledgeable and proficient in managing their finances. Financial markets terrain has changed so much resulting in the availability of a wider choice of financial products and services, thus making financial decisions difficult and more complicated. Easily available innovative loans and credit products, restructuring of financial market and technological advancements in the way financial services are offered and distributed have indisputably left many people with a confusing assortment of savings opportunities and decisions that need to be made (Mahdzan and Tabiani, 2013).

Studies suggest that consumers with limited financial knowledge rarely plan for their retirement, receive lower asset levels and usually borrow at unsuitable interest rates. These results have persuaded policy makers in both, developing and developed countries to boost efforts in advancing financial education, to enable increase of household saving and participation in financial markets, to improve their well-being and reduce poverty ultimately. Increasing financial literacy and capability promotes better financial decision-making, thus, enabling better planning and management of life events such as education, illness, housing purchase, or retirement (Lusardi and Mitchell, 2007).
Saving is known to have positive impact on the economy as a whole because funds that are placed in financial assets are then moved through financial intermediaries to fund investments by individuals and firms. These investments will finally benefit the nation through higher productivity and economic growth. One way of boosting national saving is by encouraging people to increase their personal saving. Implementing financial educational programmes can enhance individuals’ financial literacy, this can increase their understanding of financial circumstances, facilitate making of future financial plans, and choosing the most suitable financial instrument that will assist them address, achieve and attain their financial goals. Higher levels of financial literacy have a positive impact on saving on individuals, because increased literacy means that individuals with better understanding of their financial circumstances would be able to plan their future finances better, thus make better and informed financial decisions.

1.1.1 Financial Literacy

Schagen and Lines (1996) defined financial literacy as “the ability to make informed judgments and to take effective decisions regarding the use and management of money”, while Roy Morgan Research (2003) defined the terms as “being knowledgeable and assured in the areas of saving and spending, budgeting and the measures of financial literacy should show the individual circumstances. Financial literacy can be defined as the ways how people manage their money in terms of insuring, investing, saving and budgeting (Hogarth, 2002). Financial capability, or literacy, is determined by experience, expertise and person’s needs, and can have a positive impact on consumers’ personal involvement in financial markets and services.
Researchers show that financially literate people administer their money well, understand how financial institutions work, and possess a range of analytical skills. Furthermore, they would know how they should handle their financial affairs and how to be responsible financially. In some studies, financial literacy has been described as the understanding and knowledge of basic financial concepts, and the ability to use them to plan and manage their financial decisions (Hogarth, 2002). Various types of surveys have been conducted to measure the degree and spread of financial literacy. Lusardi and Mitchell (2007) concluded that people with a low level of education demonstrate low levels of financial literacy, which finally affect their financial decision-making.

Large segments of the African population including Kenya face low financial literacy levels despite the benefits associated with financial literacy. According to Messy and Monticone (2012) such benefits include, First, improved financial literacy can increase awareness about products and services, as well as confidence and ability in using them. In turn, this can help to promote the demand for formal financial products and services. Second, it can empower consumers to better manage their personal and household resources, both in short term and over a long-term horizon. Third, financial literacy can empower vulnerable individuals to successfully manage and develop small-scale or micro-enterprises, improving their management skills and the appropriate use of financial products for their businesses. Furthermore, improved financial literacy can potentially strengthen the efficiency of financial markets. Consumers who are better informed about financial risks and opportunities, and who are more aware of their own rights and responsibilities in relation to financial institutions can contribute to developing better functioning financial markets.
1.1.2 Individual Savings

Saving is defined as what is left out of personal disposable income. Saving may also be seen as the difference between income and consumption. This implies that savings automatically decline as consumption increases (Lusardi, 2003). An individual can decide on whether to save or hold his savings in a term deposit, Sacco deposit, Treasury bill or bonds, unit trust, pension plan, or even an insurance plan.

Savings benefit not only households but also the entire nation as it provides the base for long-term investments and infrastructure development for every country, this obviously contribute towards economic growth. Saving also acts as a hedge for nations against economic downturns and financial crisis. Tang and Chuna (2009) assert that high levels of saving indicate an economy that is in good condition. They argue that policies which support saving should be performed because saving is a source of economic development through its effect on capital structure. In the life-cycle saving theory, Modigliani and Brumberg (1954) posits that individuals will follow a hump-shaped saving pattern over their lifetime. During high earning periods of employment, individuals will save increasing amounts and smooth out expenditure. During low income levels (for instance, prior to employment earning periods, and later, during retirement), people will use up their savings to fund their lifetime spending needs.
1.1.3 Financial Literacy and Individual Savings

The conventional economic approach to saving and consumption decisions posits that a fully rational and well-informed individual will consume less than his income in times of high earnings, and he will save to support consumption when income falls (e.g. after retirement). Lusardi and Mitchell (2007) examined how financial literacy impacts people’s preparedness for their retirement and established that financial literacy increases the likelihood of planning for retirement and that people who plan for retirement have higher levels of wealth compared to people who do not plan. They show that financial literacy, by its significant effect on planning, indirectly impacts household saving behavior. Research has shown that people with higher knowledge of finance are more capable of preparing themselves for retirement through better saving and insurance plans.

Clark and Madeleine (2008) showed that financial knowledge and saving programs can be very effective in overcoming the decrease in saving. Although the connection between financial illiteracy and financial mistakes may appear to be obvious, it is worth highlighting some of the abundant evidence relating the two. Studies employing differing measures and definitions of financial literacy have found that households or individuals who are less financially literate are also less likely to have a bank account, maintain an emergency fund, have a retirement plan, or hold stocks (Hilgert, Hogarth and Beverly, 2003). Such individuals are more likely to take payday loans, take on high-cost mortgages, have higher debt levels, and fail to service their debts (Stango and Zinman, 2006). Low levels of financial literacy account for a big share of individuals who make
major financial mistakes such as under participating in financial markets and even inadequately diversifying their portfolios.

Financial literacy affects not only individual welfare and saving behavior, but also the nature of products offered in financial markets. For example, less financially literate households may effectively subsidize financial products for more sophisticated investors. Woodward (2003) shows that college educated borrowers (who are more likely to be financially literate) pay an average of $1,500 less in broker fees at mortgage origination than borrowers with only a high school education. Nyamute and Maina (2008) concluded that financial literacy influences personal financial management practices. Mwangi and Kihiu (2012) found that the probability of a financially illiterate person remaining financially excluded is significantly high and concluded that increased investment in financial literacy programs could reverse the trend.

1.1.4 Postal Corporation of Kenya

Postal Corporation of Kenya (PCK) is a progressive and commercial Government business enterprise established by an Act of parliament on 1st July 1999. PCK is a self-funding business that uses its assets and resources to earn profits, which can be reinvested in the business or returned as dividends to its sole shareholder, the Government of Kenya. The products and services that constitute the business of the corporation are: Letter post; Parcels and post cargo; Courier services; Philatelic materials; Postal financial and agency services. PCK is steered by a Board of Directors appointed by the Government. Under the leadership of a Chairman, the board is charged with the responsibility of strategically
guiding the entity. The Directors are entrusted by the shareholders with governance, leadership and management.

The corporation has a total staff complement of 3,643, 1,060 of whom are stationed in Nairobi. They are of varied diversity in terms of age, gender, education background, hierarchy in the organization and financial literacy levels. PCK operates an in house defined contribution pension scheme where staffs are expected to contribute 7.5% of the basic pay. The employer contributes additional 12.5 % making a total of 20% of the employees’ basic pay. The uptake of voluntary pension products is still very low with only 0.5 % of staff contributing towards additional voluntary pension contribution despite its tax benefits. To ensure that its employees are not left behind in financial literacy and that they are properly empowered in the intricate financial terrain, PCK has held seminars in collaboration with financial institutions and schools such as Kenya Commercial Bank, Equity bank, Barclays Bank of Kenya, Kenya School of Monetary Studies among others that are directed at sharpening its staff’s financial concepts and essential skills.

1.2 Research Problem

Today, Kenyans are faced with complex financial products that call for time consuming decisions which are difficult and complicated to make, such products have also come with many rewarding savings opportunities that can be easily understood by people who are financial literate. Increased saving has a positive impact on the economy as a whole because funds that are placed in financial assets are then channeled through financial intermediaries to fund investments by firms. These investments finally benefit the nation through higher productivity and economic growth. People with higher savings in
these areas are financially stable; they are also able to manage their life events such as education, illnesses and retirement.

Financial literacy affects not only individual welfare and saving behavior, but also the nature of products offered in financial markets. Clark and Madeleine (2008) observed that financial knowledge and saving programs can be very effective in overcoming the decrease in saving. Various types of surveys have been conducted to measure the degree and spread of financial literacy. Lusardi and Mitchell (2007) showed that people with a low level of education demonstrate low levels of financial literacy, which subsequently affect financial decision-making.

In the global scene, various studies have connected financial literacy with increased savings. Muller (2003) established that retirement education increases the probability of a 40 year old to save a lump sum. Clancy, Weiss and Schreiner (2001) on the impact of financial education on the use of Individual Development Accounts (IDAs) established that financial education led to an increase in monthly deposits. Lusardi (2003) investigated the effect of retirement seminars on savings and wealth and found a positive link between education level and savings. Retirement education was found to increase liquid wealth (savings) by approximately 18 percent overall. Lusardi and Mitchell (2007) observed that households with low levels of financial literacy tend not to plan for retirement, acquire fewer assets and borrow at higher interest rates. Stango and Zinman (2006), and participate less in the formal financial system relative to their more financially literate counterparts (Hogarth and O’Donnell, 1999).
Locally, studies have also found a connection between financial literacy and personal financial management practices. Mwangi and Kihiu (2012), Nyamute and Maina (2008), established that there is a positive relationship between financial literacy and personal financial management practices. Olima (2013) examined the levels financial literacy and its effect on saving practices the findings indicated that financial literacy impacts to a great extent on the financial management. Amisi (2012) assessed the financial literacy of the pension fund managers the relationship between financial literacy and the influence of the factors that affect the investment decision. The results indicated that financial literacy has a significant effect on investment decision making by fund managers.

Nyamute and Maina (2008) examined the personal financial management practices that encompass savings practices on Employees of finance and banking institutions. Mwangi and Kihiu (2012) examined a study on the impact of financial literacy on access to financial services in Kenya. Olima (2013) examined the levels of financial literacy and its effect on saving practices and social security. A number of studies have concentrated on area of financial literacy but few have narrowed down to its effects on individual savings thereby creating a gap that need to be addressed. This study will seek to find out the financial literacy level on Kenyans and its effect on their savings levels. The investigation will center on varied and different variables, including measuring the level of their financial literacy, risk tolerance and demographic variables among others and how they relate to individual savings an area that has not received sufficient study in the past. Therefore, this study will seek to answer the question, is there a relationship between financial literacy and individual savings?
1.3 Research Objective

To examine the relationship between financial literacy and individual savings of Postal Corporation of Kenya employees

1.4 Value of the Study

The study will be significant to the Policy makers who will be able to devise programs that promote and entrench savings including retirement. Due to the research findings, policy makers will be able to use the gaps in the literacy of the respondents to formulate appropriate training needs that address financial literacy which can lead to better financial management.

Employers will find this study useful especially in formulation of strategies that address individual savings including retirement’s savings such as encouraging staff to enroll in savings scheme like Savings and additional pension contribution. To Employees, by finding out the actual state of their financial literacy they will be challenged to seek for information to improve their knowledge for better savings, wealth creation and retirement planning.

The findings will contribute to academia knowledge in finance especially on impact of financial literacy on individual savings. 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 and individual savings.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This section reviews theoretical and empirical literature on key study variables with the aim of identifying research gaps. It examines literature on the concept of financial literacy and individual savings. The specific areas covered here are theoretical review, the determinants of savings, empirical review and conclusion.

2.2 Review of Theories
These are theories that illustrate what and why individuals make savings decisions. The most common ones are institutional theory, neoclassical Economic Theory, psychological and sociological theory and behavioral economic theory.

2.2.1 Institutional Theory
The theory posits that individuals and households are faced with institutional-level factors that make it impossible or difficult to save. It is based on works of Sherraden, (1991); Beverly and Sherraden, (1999). The main hypothesis of institutional theory assumes that low-income individuals and families are unable to save and accumulate assets primarily because they do not have the same institutional opportunities that higher-income individuals and households receive (Beverly & Sherraden, 1999). Otherwise, given access to the same institutional support for saving and asset building that their wealthier counterparts use, low-income families can be in a position to save and
accumulate assets. Institutional theory hypothesizes that institutions affect worldviews, which in turn, affect financial behaviors and decisions (Beverly & Sherraden, 1999).

2.2.2 Neoclassical Economic Theory

Neoclassical economic theory assumes that individuals are rational beings who respond in predictable ways to changes in incentives. Many economic models also assume that individuals have perfect knowledge and access to perfect markets. Individual utility (i.e., happiness or satisfaction) is usually assumed to be a function of consumption, and economic models often treat savings as a residual, those resources that remain after consumption decisions are made.

The starting points for much neoclassical economic research on saving and asset accumulation have been the life cycle hypothesis (LCH) by Ando and Modigliani (1957); Modigliani and Brumberg (1963) and the Permanent income hypothesis (PIH) by Friedman (1957). Both of these theories assume that individuals and households are concerned about long-term consumption opportunities and therefore explain saving and consumption in terms of expected future income. These models assume that saving is a way to “smooth” consumption in the face of income fluctuations. Since consumption is determined by anticipated lifetime resources (rather than only current resources), saving over short periods of time (e.g., a year) is expected to reflect departures of current income from average lifetime resources. According to these theories, when current income falls below average expected lifetime income, individuals and households may borrow to finance consumption. When current income exceeds average expected lifetime resources, individuals and households save (or repay debt)
The life cycle hypothesis posits that consumption and saving reflect an individual’s stage in the life cycle, which is generally represented by age. Since retirement, for most people, is the most substantial and enduring “income fluctuation,” this model emphasizes saving for retirement as a primary motivation for deferred consumption. Young households are expected to have negative saving since they typically have relatively low earnings and incur debt for education, home purchase, and other expenses. In the middle period of the life cycle, saving is expected to be positive because individuals pay their debts and begin to save for retirement. Upon retirement, households are expected to dissave (i.e., spend money previously saved). Thus, differences in consumption and saving among households are believed to be partly the product of age differences, and the pattern of saving and dissaving creates an inverted U-shaped pattern across age categories and/or over time (Modigliani and Ando, 1957).

Though neoclassical economic models are clear and tested rigorously, they tend to make unrealistic assumptions, such as, that individuals have perfect knowledge and are rational. In reality, the decisions required to optimize consumption over the life course are extraordinarily difficult (Bernheim and Scholz, 1993).

2.2.3 Psychological and Sociological Theory

Psychological and sociological theories of saving have been the subject of investigations by early economic thinkers such as Jevons (1965); Marshall (1961), and Fisher (1961) they consider additional determinants of saving and asset growth, including personality characteristics, motives, aspirations, expectations, and peer and family influences. Some of the propositions emphasize the effects of relatively stable personality characteristics on
asset building. Other psychological and sociological propositions assume that saving-related preferences and aspirations are not fixed and in fact seek to explain how motives, aspirations, and expectations are shaped. Psychologists have examined the effects of thrift, conscientiousness, emotional stability, autonomy, sociability, agreeableness, inflexibility, and tough-mindedness on saving (Nyhus and Webley, 2001). The propositions that seek to explain how motives, aspirations, expectations, and even preferences are shaped come from both sociology and psychology.

Chiteji and Stafford (1999) suggests that social network members can strongly influence an individual’s consumption patterns, saving-related beliefs, and aspirations and expectations for saving. Individuals may strive to maintain past consumption levels even when income and past savings experiences (good and bad) shape individuals’ beliefs about their abilities to save in the future. Psychological propositions that emphasize personality characteristics also seem to blame individuals and have little to offer in the way of policy implications. Some of the propositions offered by psychologists and sociologists attend to the origins of preferences and aspirations and so are less likely to imply that individuals are solely responsible for limited asset accumulation.

### 2.2.4 Behavioral Economic Theory

The emerging behavioral theory of saving attempts to explain how people actually behave with regard to financial matters it has been fuelled to a large extent by the research paradigm advanced by psychologists Kahneman and Tversky (2000); and Thaler (2000). Unlike neoclassical economic theory, these models do not assume that people are rational and all-knowing. Thaler (2000) suggests, behavioral theory attempts
to explain (and make assumptions that are consistent with) the behavior of Human beings.

Behavioral theorists have identified a number of common human characteristics that shape financial behavior, including lack of self-control (people tend to place too much weight on current consumption relative to future consumption); limited cognitive abilities (people do not always learn from their mistakes, and people tend to become overwhelmed by too many choices); inertia (people tend to continue doing what they are currently doing); the tendency to interpret default options as advice; and the tendency to use mental accounting techniques. Often, according to behavioral theory, these tendencies lead individuals to behave in ways that are inconsistent with their own priorities or inconsistent with maximizing long-term consumption. For example, the lack of self-control often causes people to over-spend and under-save, even when they are saving for a specific, much-desired goal.

If people are aware of these tendencies, they may try to compensate for them. For example, they may attempt to control their spending by imposing “pre-commitment constraints”, such as arranging for direct deposit to saving and investment vehicles. Behavioral theory is an important advance. This theory is rooted in neoclassical economic theory and tends to have the theoretical rigor of neoclassical models, but it makes more realistic assumptions about individuals. These assumptions might be thought of as psychological variables. Thus, behavioral theory complements and advances psychological as well as economic theories of saving (Altman, 2006).
2.3 Determinants of Individual Savings

The saving rate in Africa is noted to be the lowest compared to other regions. Africa faces serious credit constraints; and this, together with low income could greatly reduce any little incentive to save (Ndung’u and Ngugi, 2000). According to Shem (2002) determinants of savings include; individual’s age, gender, individual level of education, and individual income. Financial literacy, Savings pattern and risk tolerance are also closely related to savings behavior.

2.3.1 Financial Literacy

Financial literacy has a significant impact on individual saving, as more knowledge on financial matters enable individuals to make more substantive financial plans and more informed decisions regarding allocations of their money and saving. Hence, it is predicted that the relationship between financial literacy and individual saving is positive. Mwangi and Kihiu (2012) established that the probability of a financially illiterate person remaining financial excluded is significantly high. Financial literacy impacts to a great extent on the financial management (Olima 2013)

2.3.2 Gender

Studies show that men generally save more than women. Lusardi and Mitchell (2007) showed that women are usually less financially informed than men, and financial literacy was found to influence the level of saving. Some studies have shown that women are less likely to have a defined retirement saving plan, although others have shown contradictory results. Yang (2012) in his study to test the effect of sex ratio imbalance
on household savings showed that the imbalanced sex ratio significantly increases household savings.

2.3.3 Age

As age increases, people save more money, because elderly people are more likely to be concerned about their retirement period. Furthermore, elderly people have lower life-cycle expenses such as education, wedding and house expenses. It is posited that age is positively related to individual saving. Dynan and Edelberg (2006) suggests that population ageing has had a material effect on the pattern of the household aggregate saving rate over time. Kibet and Ouma (2009) has found that age is negatively correlated with saving, such that, older people save less and the younger save more.

2.3.4 Education

Education level is expected to have a positive impact on individual saving. Higher education levels should mean that people have a better understanding of their personal financial matters in order make financial decisions and be able to plan for their future. Hogarth (2002) found that more educated people can manage their money in terms of insuring, investing, saving and budgeting. His assessment on the relationship between education and savings concluded that countries that have higher financial literacy also have higher savings rates indicating a strong link between education and wealth accumulation.
2.3.5 Income

Income is interconnected to individual saving, because people should have more money that is enough to spend and save. In a study by Meyers and Lee (2003), savings amounts are found to be positively associated with household earnings where income generation alone is challenging for heads of households participating in low-wage employment markets. When combined with circumstances typically associated with unstable markets such as, fewer benefits and limited chances for job promotions, saving is even more difficult for low-income families.

2.3.6 Savings Pattern

People who save more regularly, as opposed to those who do not, will be more likely to have positive individual saving behavior. Saving regularity would likely lead to higher probability of having positive saving shows that saving regularity is significantly related to the probability of having positive saving. Regularly setting aside part of income as saving would likely lead to higher probability of having positive saving. (Mahdzan and Tabiani, 2013).

2.3.7 Risk Tolerance

Studies have shown that people who are willing to take more risks, are less likely to save for emergency purposes and that risk tolerance will have a negative influence on individual saving. In other words, the more risk-tolerant people are, the less likely they will save and the reverse is true. Risk-taking behavior of individuals can affect financial decision making and of course their saving level (Zhong and Xiao, 1995).
2.4 Empirical Review

Schmidt and Sevak, (2006) argued that women generally have lower earnings; they tend to have a lower level of saving and wealth, as opposed to men. He further found that there are large gender gaps in current and planned retirement income and that saving behavior has a significant gender gap. The study showed that there is a significant difference in risk-taking between men and women, such that women are more risk-averse compared to men. The authors showed that, in general, males are more risk-taking when they want to attract their future partner, and females are more risk-averse in their child-bearing periods.

Lusardi, Mitchell (2007) examined how financial literacy impacts people’s preparedness for their retirement. Using data of elderly individuals from the Health and Retirement Survey in the US, the authors investigated whether financially literate people are more likely to plan for retirement, and whether planning has an impact on retirement wealth. Results of the study found that financial literacy increases the likelihood of planning for retirement and that people who plan for retirement have higher levels of wealth compared to people who do not plan. They showed that financial literacy, by its significant effect on planning, indirectly impacts household saving behavior.

Müller and Weber (2010) indicate that financial literacy is positively related to investments in low-cost funds. Even finance professors with presumably high financial literacy do not implement their knowledge when building their own portfolio. They found that the professors’ perception regarding market efficiency and the consequential optimal investment strategy are unrelated to their actual, realized behavior. The authors
argue that the professors’ investment decisions are, despite their high financial literacy, driven by behavioral factors comparable to amateur investors. They also noted that a significant number of finance professors do not participate in the stock market at all.

Noor, Nurfadhilah, Ramesh and Mior (2012) in their study to examine the financial literacy among university students, the study sample consisted of 384 students and the target population of the study was from Universities of Malaysia. Convenience sampling method was used in collecting the data and the results compiled by using SPSS software system. The results revealed that the spending habit and year of study have a significant positive relationship with the financial literacy, whereby the age and gender are negatively associated with the financial literacy.

Beckman (2013) in the study on financial literacy and household savings in Romania found that individual who are financially literate, especially with regard to inflation are more likely to invest in pension funds and save using more than one interest-bearing saving instrument. The study concluded that financial literacy has a positive impact on saving behavior in Romania.

Locally, OECD (2011) (Organization for Economic Cooperation and Development) in their study dubbed Faulu Kenya Masomo 2B on financial education conducted by training both Faulu clients and the general public. The evaluation was aimed at gauging the effect of the programme in terms of knowledge, skills, attitude and behavior regarding saving, investment, budgeting and debt management. Comparing self-reported behavior indicators for the ‘treated’ and ‘control’ groups before the training and one year
afterwards, it appeared that the training had a positive impact on households’ propensity to use a budget plan, a savings plan, and a loan management plan, in all cases the improvement was larger among the treated than among the control group.

Nyamute and Maina (2011) examined the effect of financial literacy on personal financial management practices. The survey data was obtained from 192 employees using a structured questionnaire. This study focused on the effect of financial education on personal financial management practices. The results showed that those who are financially educated do practice to an extent the standard financial behaviors. It further observed that one can still practice financial management behaviors whether or not they are financially literate. This is as a result of other available avenues of acquiring financial knowledge. This is as a result of other available avenues of acquiring financial knowledge. The financially literate had a better appreciation and application of the financial management practices. It concluded that financial literacy influences personal financial management practices.

Mwangi and Kihiu (2012) in their study to establish the impact of financial literacy on access to financial services in Kenya using the 2009 National Financial Access survey data. Using a multinomial logit approach to explain access the four major financial service access strands, the study found that financial literacy remains low in Kenya and besides, regression results indicated that households’ access to financial services was not based on levels of financial literacy but rather on factors such as income levels, distance from banks, age, marital status, gender, household size and level of education. However, the study established that the probability of a financially illiterate person remaining
financial excluded is significantly high calling for increased investment in financial literacy programs to reverse the trend.

A study on Kenya Revenue Authority employees to establish the effect of financial literacy on saving practices and social security planning, Olima (2012) used primary data collected from semi-structured questionnaires. Quantitative data was analyzed using descriptive statistics while qualitative data was analyzed using content analysis, SPSS 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, estate planning, management of credit and other liabilities, insurance and tax planning.

Njoroge (2013) in the study to find out whether there is a relationship between entrepreneurial success and SMEs success, interviewed a sample of seventy nine entrepreneurs who are registered and operates in Nairobi County. The data collected was then analyzed to establish relationship between financial literacy and SMEs success. The study concluded that there is a positive relationship between financial literacy and entrepreneurial success in Nairobi County.

Kahangi and Muturi (2013) conducted a study on determinants of low income household savings in Kenya among the poor in the slums of Mathare, in Nairobi, Kenya to determine the effect of age, education, income and household size on savings. The
study employed survey design and SPSS for analysis of data. It assessed five factors which are associated with savings among the poor in the slum. Age, income and gender were found to have a great influence on the savings of the section of the society assessed. Though education level and household size were observed to contribute to varied level of savings, their influence on the amount of individual’s savings was determined to be insignificant.

2.5 Summary of Literature Review

The research has clearly shown that financial literacy is closely related to savings but with some exception. Institutional theory assumes that low-income individuals and families are unable to save and accumulate assets primarily because they do not have the same institutional opportunities that higher-income individuals and households receive, increasing the financial literacy among such people may address challenges that are related to low savings. Mahdzan and Tabiani (2013) noted that the level of financial literacy had a significant, positive impact on individual saving, the same was confirmed when Beckman (2013) concluded that financial literacy has a positive impact on saving behavior. Nyamute and Maina (2011) also found that financially educated do practice to an extent the standard financial behaviors. It further observed that one can still practice financial management behaviors whether or not they are financially literate. In addition, saving regularity, risk tolerance, gender, income and educational level influences the probability of saving positively. The review has shown variety of evidence that links savings financial literacy to savings behavior.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines how the proposed study was carried out. It covers the methods used to do the research in terms of research procedures, the target population and sample size, the data collection methods applied and how data was analyzed.

3.2 Research Design

Descriptive research design was used as it seeks to determine the level of financial literacy among PCK staff and how it influences their individual savings. Descriptive research design determines and reports the way things are, this type of design attempts to describe such things as possible behavior, attitudes, values and characteristics (Mugenda, 1999).

3.3 Population

The population of the study was the employees of PCK based in Nairobi. According to PCK human resource department, the parastatal had 3643 employees as at June 2014 with 1060 of them based in Nairobi.

3.4 Sampling Technique

Stratified random sampling was used in the study; this technique ensured that all levels of employees were represented. According to Mugenda and Mugenda (1999), a sample
of 10% of the accessible population is quite representative. The study adopted stratified random technique, where subjects were selected in such a way that the existing subgroups in the population were more or less reproduced in the sample. The aim of stratified random sampling was to achieve the desired representation from various subgroups in the population. This sampling technique allowed the use of different sampling techniques for different subpopulations, thereby improving the accuracy of presentation. A sample size of 110 employees was selected from the stratified population.

3.5 Data Collection

The study used primary data collected from semi structured questionnaires. The questionnaire had both open and closed ended questions. The structured questions facilitated easier analysis as they were in immediate usable form and easily analyzed using quantitative measures; the unstructured questions were used to encourage the respondent to furnish an in-depth and felt response without feeling held back in disclosing information thereby providing data that was qualitative in nature. Questionnaires were adopted by the study as they were useful in obtaining objective data since the respondents are not manipulated in any way by the researcher. The questionnaires was administered on a ‘drop and pick later’ technique.

3.5.1 Data Validity and Reliability

Validity is the accuracy and meaningfulness of inferences based on research results. It is the ability of the instrument to measure what it purports to measure (Mugenda and Mugenda 1999). The research instrument was pre-tested on employees who formed a
sample outside the target respondents to establish its validity and reliability. This was to ensure that the research instrument was revised and adjusted to enhance its validity and reliability. To ascertain the validity of the research instrument the researcher sought the opinions of experts in the field of study.

3.6 Data Analysis
Data collected with use of questionnaires was edited for completeness and consistency. Quantitative data was analyzed using descriptive statistics while qualitative data was analyzed using content analysis. Quantitative data was coded and entered into Statistical Packages for Social Scientists (SPSS). Analysis was 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).

3.6.1 Model Specification
This model helped to establish the relationship between the independent variables and the dependent variable. The Co-efficient of determination, R² was used to estimate how well the independent variables explain the dependent variable in the model. Multiple regression analysis was used to establish the relationship between independent variables and the dependent variable. Lusardi and Mitchell (2006) used the model to study the effects of financial literacy on individual savings. The model specification was as follows:
Y = α + β1X1 + β2X2 + β3X3 + β4X4 + β5X5 + β6X6 + β7X7 + ε

Where

α:  is a constant term,

βn:  coefficients to be determined

ε:  the error term.

Y:  the dependent variable (individual savings) measured by the rate of savings in relation to individual earnings

X1:  the gender index measured by the respondent’s classification as male or female

X2:  the age index measured in respondent’s age in years.

X3:  the education index measured by the respondent’s highest level of education.

X4:  the income index measured by the current earnings of the respondent.

X5:  the financial literacy index measured by financial management /business oriente

X6:  the savings pattern index measured by the rate of savings regularity.

X7:  the risk tolerance index measured by the rate of risk tolerance.

3.6.2 Statistical Tests of Significance

In testing the significance level, the statistical significance was considered significant if the P-value was less than or equal to 0.05. The study used ANOVA to establish the significance of the regression model from which f-significance value of p less than 0.05 was established. The model was found to be statistically significant in predicting individual savings.
CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter focuses on the data analysis, interpretation and presentation of the findings. The main purpose of the study was to examine the relationship between financial literacy and individual savings of Postal Corporation of Kenya employees who are based in Nairobi. Individual savings has been measured in the study using seven determinants of individual savings that include; individual’s gender, age, education level, income, financial literacy, savings pattern and risk tolerance. The data was gathered exclusively from the questionnaire as the research instrument. The researcher has made use of descriptive and correlation and regression analysis to present the results.

4.2 Response Rate

The study targeted 110 respondents from Postal Corporation of Kenya. From the study, 101 out of the 110 sample respondents filled-in and returned the questionnaires making a response rate of 91.8% as per Table 4.1 below.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
<td>101</td>
<td>91.8</td>
</tr>
<tr>
<td>Non-respondent</td>
<td>9</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>110</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Author (2014)
4.3 Data Validity

Data validation was conducted to provide guarantees for fitness, accuracy, and consistency. Before processing the responses, the completed questionnaires were cleaned for accuracy, completeness and consistency across respondents. Content analysis was used to analyze the open ended questions. This involved evaluating the consistency in response to the open-ended questions and attempting to deduce tangible conclusion.

4.4 Descriptive Statistics

4.4.1 Gender

The study sought to know the gender of the respondents. The results showed that majority of respondents were male which was represented by 64.4% of the total response rate while 35.6% of the respondents were female with a mean of 0.64 and a standard deviation of 0.481. This showed that more male than females participated in the study.

4.4.2 Age

The study sought to find out the ages of the respondents. The results showed that respondents below 30 years were 62.4%; between 31 and 40 were 22.8%; between 41 and 50 years were 6.9% and 51 years and above were 7.9% of the total respondents. A mean score of 1.60 with a standard deviation of 0.928 and a median of 1.00 were registered which showed that mean age was between 31-40 years. This showed that majority of respondents were 40 years and below.
4.4.3 Education Level

The study sought to establish the education levels of the respondents where those with high school education were 3%; certificate or diploma holders were 48.5%; degree holders were was 34.7% of the total response rate while only 13.9% were of post graduate level. A mean score of 2.59 with a standard deviation of 0.764 and a median of 2.00 were registered. This showed that majority of respondents were educated at certificate or diploma level and above.

4.4.4 Individual Income

The respondents were asked to give their monthly income and the responses showed that respondents who earn below Kshs. 30,000 were 15.8%; between 30,000 and 50,000 were 45.5%; between 50,001 and 100,000 were 30.7% while those earning over 100,000 of the total response rate were 7.9%. The result was represented by a mean score of 2.31 with a standard deviation of 0.834 and median of 2.00. This showed that majority of respondents earn 50,000 and below.

4.4.5 Financial Literacy

The respondents were asked to state whether they have undergone any financial literacy course. The findings showed that 58.4% of respondents had undergone financial related course while 41.6 % of the respondents had not attended a financial related course. This showed that majority of the respondents were trained on financial / business related areas.
The study also sought to establish the financial literacy rate through financial management practices of the respondents. According to the findings most respondents were to a great extent on their respectful financial management practices. Means and standard deviation represent this results with the lowest mean being 3.32 with a standard deviation of 0.916 while the highest mean being 4.26 with a standard deviation of 0.702. From the findings of the study it can therefore be concluded that most of the respondents were 'to a great extent' on the financial management practices. This means that most respondents are financial literate.

4.4.6 Savings Patterns
The researcher sought to determine the aspects of savings regularity of the respondents. The respondents were requested to indicate their regularity in savings. Their practice is depicted by mean score of 3.19, standard deviations of .949 and median of 3.0. From the findings it can be concluded that most respondents sometimes save regularly.

4.4.7 Risk Tolerance
The researcher further measured the risk tolerance of the respondents. The findings indicated that most respondents in the study prefer ‘a good return and reasonable safety. This is represented by a mean of 3.97 with a standard deviation of .768 against ‘a high return with a high risk of losing the capital which is represented by a mean of 2.26 with a standard deviation of 0.891. This means that most respondents are risk averse.
4.4.8 Individual Savings

The researcher sought to know reason why the respondents save. Major reasons why the respondent save include; those who save for emergencies had a mean score of 3.25 and a standard deviation of 0.865; those who save to meet future obligation had a mean of 4.42 with a standard deviation of 0.495; for other unmentioned reasons it was 3.74 with a standard deviation of 1.026. From the findings it can be concluded that most respondents do save for a specific reason. The research finding also showed that most respondent hold their saving in pension plan represented by a mean score of 4.56 with a standard deviation of 0.740 being the highest; Sacco contributions with a mean score of 3.77 and a standard deviation of 1.363; bank deposit with a mean score of 3.54 and a standard deviation of 1.044; others with a mean score of 3.09 and a standard deviation of 1.640; and insurance plan being the lowest with a mean score of 2.50 and standard deviation of 0.176.

The findings of the study on percentage of savings on income of the respondents showed that, 44.6% of the respondent save between 7.5% and 10%; 27.7% of the respondent save between 12.5% and 17.5%; 16.8% of the respondent save between 17.5% and 22.5%; 8.9% of the respondent save between 22.5% and 27.5%; while only 2% of the respondent save above 27.5% of their earnings. The findings of the study showed a mean score of 1.96 with a standard deviation of 1.076 and median of 2.0 which meant that most respondent are only able to save up to 17.5%.
4.5 Correlation Analysis

To establish the relationship between the independent variables and the dependent variable the study conducted correlation analysis which involved coefficient of correlation and coefficient of determination.

4.5.1 Coefficient of Correlation

In trying to show the relationship between the study variables and their findings, the study used the Karl Pearson’s coefficient of correlation (r). This is as depicted on Table 4.2 below. According to the findings, it was clear that there was a positive correlation between Age and individual savings shown by a correlation figure of 0.164; Education and individual savings shown by a correlation figure of 0.649; income and individual savings shown by a correlation figure of 0.660; financial literacy and individual savings; shown by a correlation figure of 0.550; there was also a positive correlation between savings pattern and individual savings with a correlation value of 0.468; negative correlation between gender and individual savings was noted with a correlation figure of -0.085; and a negative correlation between risk tolerance and individual savings with a correlation value of -0.604. This showed that there was a strong positive correlation highest being noted in financial literacy and lowest in age while gender and risk tolerance registered negative correlation.
Table 4.2 Correlation

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Individual savings</th>
<th>Gender</th>
<th>Age</th>
<th>Education</th>
<th>Monthly Earnings / Income</th>
<th>Financial Literacy level</th>
<th>Saving Pattern</th>
<th>Risk tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual savings</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.085</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.164</td>
<td>-.095</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.649</td>
<td>-.044</td>
<td>.265</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.660</td>
<td>-.049</td>
<td>.275</td>
<td>.716</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>.550</td>
<td>-.125</td>
<td>.073</td>
<td>.369</td>
<td>.361</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saving Pattern</td>
<td>.468</td>
<td>-.019</td>
<td>.056</td>
<td>.264</td>
<td>.226</td>
<td>.283</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Risk tolerance</td>
<td>-.604</td>
<td>.105</td>
<td>-.079</td>
<td>-.360</td>
<td>-.347</td>
<td>-.344</td>
<td>-.425</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Author (2014)

4.5.2 Coefficient of Determination (R2)

Table 4.3 showed that the coefficient of determination was 0.701. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Individual savings) that is explained by all independent variables. From the findings this meant that 70.1% of individual savings is attributed to combination of the seven independent factors investigated in this study.
Table 4.3 Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>F Change</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.837a</td>
<td>.701</td>
<td>.678</td>
<td>.61073</td>
<td>31.082</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Author (2014)

4.6 Regression Analysis and Hypothesis testing

4.6.1 ANOVA

The study used ANOVA to establish the significance of the regression model from which f-significance value of p less than 0.05 was established as shown in Table 4.4. The model was statistically significant in predicting individual saving that the regression model had a probability of less than 0.05 of giving a wrong prediction. This therefore means that the regression model had a confidence level of above 95% hence high reliability of the results obtained.

Table 4.4 ANOVA

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>81.153</td>
<td>7</td>
<td>11.593</td>
<td>31.082</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>34.688</td>
<td>93</td>
<td>.373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>115.842</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Risk tolerance, Age, Gender, Financial Literacy, Saving Pattern, individual Income, Education
b. Dependent Variable: Individual savings
4.6.2 Multiple Regression

The researcher conducted a multiple regression analysis as shown in Table 4.5 so as to determine the relationship between individual savings and the seven variables investigated in this study. The regression equation was:

\[ Y = 0.235 - 0.008 X_1 - 0.026 X_2 + 0.306 X_3 + 0.384 X_4 + 0.483 X_5 + 0.186 X_6 - 0.235 X_7 \]

- **Y**: is the dependent variable (Individual savings)
- **X1**: is the gender
- **X2**: is the age
- **X3**: is the education
- **X4**: is the income
- **X5**: is the financial literacy
- **X6**: is the savings pattern
- **X7**: is the risk tolerance

According to the regression equation established shown in Table 4.5, taking all factors constant at zero, the individual savings will be 0.235. The data findings analyzed also shows that taking all other independent variables at zero; a unit increase in gender will lead to a 0.008 decrease in individual savings; A unit increase in age will lead to a 0.026 decrease in individual savings; a unit increase in education will lead to a 0.306 increase in individual savings; a unit increase in income will lead to a 0.384 increase in individual savings; a unit increase in financial literacy will lead to a 0.483 increase in individual savings; a unit increase in savings pattern will lead to a 0.186 increase in individual savings; while a unit increase in risk tolerance will lead to a 0.235 decrease in individual savings.
This therefore implies that four variables have a positive relationship with individual savings with financial literacy contributing most to the dependent variable, while three variables have a negative relationship with individual savings. However the p-values for gender and age are greater than the common alpha level of 0.05, which indicates that they are not statistically significant. From the table we can see that the predictor variables of education, monthly income, financial literacy, saving patterns and risk tolerance have got variables coefficients statistically significantly since their p-values are less than the common alpha level of 0.05.

**Table 4.5 Multiple Regression Analysis**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
<td>Sig.</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.235</td>
<td>.438</td>
<td>.536</td>
<td>.593</td>
<td>-.634</td>
</tr>
<tr>
<td>Gender</td>
<td>-.008</td>
<td>.129</td>
<td>-.004</td>
<td>.064</td>
<td>.949</td>
</tr>
<tr>
<td>Age</td>
<td>-.026</td>
<td>.069</td>
<td>-.023</td>
<td>.378</td>
<td>.706</td>
</tr>
<tr>
<td>Education</td>
<td>.306</td>
<td>.118</td>
<td>.217</td>
<td>2.583</td>
<td>.011</td>
</tr>
<tr>
<td>Income</td>
<td>.384</td>
<td>.108</td>
<td>.297</td>
<td>3.563</td>
<td>.001</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>.483</td>
<td>.140</td>
<td>.222</td>
<td>3.452</td>
<td>.001</td>
</tr>
<tr>
<td>Saving Pattern</td>
<td>.186</td>
<td>.072</td>
<td>.164</td>
<td>2.562</td>
<td>.012</td>
</tr>
<tr>
<td>Risk tolerance</td>
<td>-.235</td>
<td>.057</td>
<td>-.278</td>
<td>4.144</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Percentage of monthly income saved

Source: Author (2014).
4.7 Discussion of Research Findings

Research findings showed that male were 64.4% and female 35.6% of the total response rate, this indicated that majority of respondents were male in the study. On age, 62.4% of the total response rate were below 30 years and only 7.9% of the respondents were over 51 years and above, which can be interpreted to mean that majority of respondents were 40 years and below. The researcher sought to determine the education level of the respondents where the results showed that majority of respondents were diploma and certificate holders which was 48.5% of the total response rate; 13.9% of the respondents had post graduate qualifications, 34.7% were degree and only 3% were of high school level. This showed that majority of respondents were educated at certificate or diploma level and above.

Responses on monthly income showed that respondents who earn below 30,000 were 15.8%; between Kshs.30,000 and 50,000 were 45.5%; between 50,001 and 100,000 were 30.7% while those earning over 100,000 of the total response rate were only 7.9%. The result was represented by a mean score of 2.31 with a standard deviation of 0.834 and median of 2.00. This showed that majority of respondents earn 50,000 and below.

On financial literacy, 58.4% of the respondents were noted to have undergone financial/business course, while personal finance practices mean and standard deviation results showed the lowest mean of 3.32 with a standard deviation of 0.916 while the highest mean being 4.26 with a standard deviation of 0.702. This showed that most respondents indicated that to be ‘moderate extent’ to ‘great extent’. This meant that most respondents were financial literate.
The researcher determined the aspects of savings pattern of the respondents. The respondents were requested to indicate their regularity in savings. Their practice is depicted by mean score of 3.198, standard deviations of 0.949 and median of 3.0. From the findings it can be concluded that most respondents sometimes save regularly. The researcher further measured the risk tolerance of the respondents. The findings indicated that most respondents in the study prefer ‘a good return and reasonable safety. This is represented by a mean of 3.97 with a standard deviation of .768 against ‘a high return with a high risk of losing the capital which is represented by a mean of 2.26 with a standard deviation of 0.891. This meant that most respondents are risk averse.

The researcher sought to know reasons why the respondents save and where they hold their savings. The findings showed major reasons why the respondent save; those who save for emergencies had a mean score of 3.25 and a standard deviation of 0.865; those who save to meet future obligation had a mean of 4.42 with a standard deviation of 0.495; for other un mentioned reasons it was 3.74 with a standard deviation of 1.026. From the findings it can be concluded that most respondents do save for a specific reason. It also showed that most respondent hold their saving in pension plan represented by a mean score of 4.56 with a standard deviation of 0.740. On percentage of savings on income, the finding showed that most respondent are only able to save up to 17.5%.

To show the relationship between the study variables and their findings, the study used the Karl Pearson’s coefficient of correlation (r). According to the findings, it was clear that there was a positive correlation between age and individual savings shown by a correlation figure of 0.164; education and individual savings shown by
a correlation figure of 0.649; income and individual savings shown by a correlation figure of 0.660; financial literacy and individual savings; shown by a correlation figure of 0.550; there was also a positive correlation between savings pattern and individual savings with a correlation value of 0.468; negative correlation between gender and individual savings was noted with a correlation figure of -0.085; and a negative correlation between risk tolerance and individual savings with a correlation value of -0.604. This showed that there was a strong positive correlation highest being noted in financial literacy and lowest in age while gender and risk tolerance registered negative correlation.

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (individual savings) that is explained by all independent variables. In this study the coefficient of determination was 0.701 that meant that 70.1% of individual savings is attributed to combination of the seven independent factors investigated in this study. A further 29.9% of individual savings is attributed to other factors not investigated in this study.

Result of multiple regression analysis established, taking all factors constant at zero, the individual savings as a result of these independent factors will be 0.235. The data findings analyzed also shows that taking all other independent variables at zero; a unit increase in gender will lead to a 0.008 decrease in individual savings; A unit increase in age will lead to a 0.026 decrease in individual savings; a unit increase in education will lead to a 0.306 increase in individual savings; a unit increase in income will lead to a
0.384 increase in individual savings; a unit increase in financial literacy will lead to a 0.483 increase in individual savings; a unit increase in savings pattern will lead to a 0.186 increase in individual savings; while a unit increase in risk tolerance will lead to a 0.235 decrease in individual savings.

It implies that four variables have a positive relationship with individual savings with financial literacy contributing more to the individual savings, while three variables have a negative relationship with individual savings. In conclusion, the multiple linear regression results show that there is significant impact on individual savings when the independent variables are regressed together.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings, conclusion and recommendations of the study based on the objectives of the study. The chapter finally presents the limitations of the study and suggestions for further studies and research.

5.2 Summary of Findings

The main objective of the study was to examine the relationship between financial literacy and individual savings of Postal Corporation of Kenya employees based in Nairobi. Descriptive research design was adopted for this study. The population of the study was the employees of PCK based in Nairobi which comprised 1060 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 analyzed using descriptive statistics while qualitative data was analyzed using content analysis. Quantitative data was coded and entered into Statistical Packages for Social Scientists (SPSS Version 17.0). Analysis was based on descriptive and inferential statistics to establish the relationship between financial literacy and individual savings.

From the study findings, on gender issues male respondents were the dominant group than their female counterparts and most of them were aged below 30 years. On the education, majority of respondents were certificate / diploma holders and above, while on income it was noted that most respondents earn Kshs.50,000 and below. The findings
showed that on the aspects of financial literacy, 67.3% of the respondents had undergone a financial / business course. It also showed that respondents were ‘to a great extent’ compliant to personal finance practices of inflation and return and savings practices. Mean and standard deviation represented this results with the lowest mean being 3.32 with a standard deviation of 0.916 while the highest mean being 4.26 with a standard deviation of 0.702. From the findings of the study it can therefore be showed that most of the respondents rated ‘great extent’ on the financial literacy concluding that most respondents were financial literate.

The researcher determined the aspects of savings pattern of the respondents. The respondents were requested to indicate their regularity in savings. Their practice is depicted by mean score of 3.198, standard deviations of 0.949 and median of 3.0. From the findings it can be concluded that most respondents sometimes save regularly. The researcher further measured the risk tolerance of the respondents. The findings indicated that most respondents in the study prefer ‘a good return and reasonable safety. This is represented by a mean of 3.97 with a standard deviation of 0.768 against ‘a high return with a high risk of losing the capital which is represented by a mean of 2.26 with a standard deviation of 0.891. This meant that most respondents are risk averse.

The researcher sought to know reasons why the respondents save and where they hold their savings. The findings showed major reasons why the respondent save; those who save for emergencies had a mean score of 3.25 and a standard deviation of 0.865; those who save to meet future obligation had a mean of 4.42 with a standard deviation of 0.495; for other un mentioned reasons it was 3.74 with a standard deviation of 1.026. From the
findings it can be concluded that most respondents do save for a specific reason. It also showed that most respondent hold their saving in pension plan represented by a mean score of 4.56 with a standard deviation of 0.740. On percentage of savings on income, the finding showed that most respondent are only able to save up to 17.5%.

To establish the relationship between the independent variables and the dependent variable the study conducted Karl Pearson’s coefficient of correlation (r) was used in trying to show the relationship between the study variables and their findings. According to the findings, it was clear that there was a positive correlation between age, education, income, financial literacy, savings pattern and individual savings shown by a correlation value of 0.164, 0.649, 0.660, 0.550 and 0.468 respectively. However, there was a negative correlation between gender, risk tolerance, and individual savings on the hand, other with a correlation value of -0.085 and -0.604 respectively. Positive correlation is interpreted to mean that independent variable and dependent variable move in the same direction, that is, as one increase the other one also increases. Negative correlation shows that as independent variable is decreasing, dependent variable is increasing.

From the finding $R^2$ has a value of 0.701 meaning that the 70.1% of the dependent variable can be explained or attributed to combination of the seven independent factors investigated in this study. A further 29.9% of individual savings is attributed to other factors not investigated here.

According to the regression equation established, taking all factors constant at zero, the individual savings as a result of these independent factors will be 0.235. The data
findings analyzed also showed that taking all other independent variables at zero, a unit increase in education, income, financial literacy and savings pattern will lead to a 0.306, 0.384, 0.483 and 0.186 respectively in increase in individual savings. A unit increase in gender will lead to a 0.008 decrease in individual savings a unit increase in risk tolerance will lead to a 0.235 decrease in individual savings, while a unit increase in age will lead to a 0.026 decrease in individual savings. This therefore implies that four variables have a positive relationship with individual savings with financial literacy contributing more to the individual savings, while three independent variables were having a negative relationship with individual savings. However since the p-values for gender and age are greater than the common alpha level of 0.05, they were statistically insignificant. In conclusion, the multiple linear regression results show that there is significant impact on individual savings when the independent variables are regressed together.

5.3 Conclusion

The main objective of the study was to determine the relationship between financial literacy and individual savings. From the study findings, financial literacy was found to have a significant and positive impact on individual saving, it would be safe to conclude that financial literacy and individual savings have a strong positive relationship.

Putting into perspective the influence of the gender on individual savings, the study established that gender has an insignificant relationship with individual savings. The study has also found out that age has no relationship with individual savings. The study
concluded that higher education leads to higher savings rates indicating a link between education and wealth accumulation. In regard to influence of income, the study established that income is positively related to individual savings that the more you earn the more likely that one will have increased savings.

Saving regularity was found to lead to higher probability of having positive saving this meant that people who save more regularly, as opposed to those who do not, will be more likely to have positive individual saving behavior. On the risk tolerance, it was found to have a negative influence on individual saving. This can be concluded to mean that people who are willing to take more risks, are less likely to save for emergency purposes and that the more risk-tolerant people are, the less likely they will save and the reverse is true.

**5.4 Recommendations**

From the research findings, the study has determined that financial literacy to be a very key variable in increasing the individual savings. Considering that the increased individual savings benefit not only the individual but also the economy as whole it is recommended that the government should devise policies that address financial literacy training programs on individual savings for employees. The study recommends having the number and variety of financial literacy training programs and program providers appointed who will offer comprehensive training on individual savings such as in Sacco and bank savings, insurance plans, pension plan and general personal finance, which is bound to create a positive savings culture.
The study further recommends that employers should ensure that their employees are exposed to financial literacy training as per government set policies. They should come up with strategies that ensure proper imparting of financial education and adherence of employees to savings regularity which has been found to have a positive relationship with individual earning.

5.5 Limitations of the Study

The research was met with various challenges that included respondents not being free to give personal information as they considered it of private nature. 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 too important to share in the questionnaires hence some respondents may have been biased or dishonest in their answers. The researcher handled the problem by presenting an introduction letter from the Nairobi University and assured them that the information they gave will be treated confidentially and will be used purely for academic purposes.

Since more respondents from across the country would have been essential to increase the representation of the PCK 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.
5.6 Suggestions for Further Studies

This study focused on the relationship between financial literacy and individual savings of Postal Corporation of Kenya employees. Since only 70.1% of results was explained by the independent variables in this study, it is recommended that a study be carried out on other factors that affect individual savings, specifically, a study on relationship between behavioral factors and individual savings from across the country should be carried out in order to pick out other variables not covered in this study.

The research should also be done in other organizations and the results compared so as to ascertain whether there is consistency on effect of financial literacy on individual savings among respondents in the various organizations. This study concentrated on employed people, further study should be done on self employed population, in order to find out whether the same result can be replicated with self employed population.
REFERENCES


Nyhus, E. K., & Webley, P. (2001). *The role of personality in household saving and borrowing behavior.* John Wiley & Sons, Ltd, New Jersey, USA


Appendix I: Questionnaire

Instructions

This questionnaire is designed to assist in collecting data to determine the relationship between financial literacy and individual savings.

(*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.

Please note that the findings of this research are solely meant for academic purposes and all the responses will be treated with utmost confidentiality.

SECTION A – Social Demographics

1. Gender  Male  [ ]  Female  [ ]

2. Please indicate your age bracket
   - Below 30 Years  [ ]
   - 31-40 Years  [ ]
   - 41-50 years  [ ]
   - 51 – 60 years  [ ]

3. What is your highest level of education?
   - High School  [ ]
   - Certificate/Diploma  [ ]
   - Degree  [ ]
   - Post Graduate  [ ]
   - Others  [ ] specify…………………………

4. What is your current monthly earnings in Kshs?
   - Below 30,000  [ ]
   - 30,001-50,000  [ ]
   - 50,001-100,000  [ ]
   - Over 100,000  [ ]

SECTION B: Financial literacy

5. Have you undergone any financial management or business oriented course?
   - Yes  [ ]
   - No  [ ]

If Yes, state the course………………………………………………………………………...
6. How would you rate yourself in the following financial management areas.
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

<table>
<thead>
<tr>
<th>Aspects of Financial Management</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Personal Finance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a plan of what I want to accomplish financially</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I maintain a current list of my assets and liabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holding a strong cash position is necessary for my financial endeavors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Return and Inflation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with present rate of return of my savings and investment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am fully aware of the impact of inflation on my savings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How do you rate yourself against the following financial aspects and need for financial education?

Key rate: 1 = Very low, 2= Low, 3= moderate, 4=high and 5 = Very high

<table>
<thead>
<tr>
<th>Financial Aspects</th>
<th>Very low</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have adequate knowledge to manage personal finance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you able to control your personal finances?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you confident in making appropriate savings decisions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel that you need further financial education?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION C: Risk Tolerance

8. How would you rate yourself against the following risk / return relationships in terms of preferences.

Key rate: 1 – Totally not preferable; 2 – slightly not preferable; 3 – Neutral; 4 – Slightly preferable; 5 – Perfectly preferable

<table>
<thead>
<tr>
<th>Relationship</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A high return, with a high risk of losing the capital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A good return and reasonable safety.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A moderate return, but at the same time a good degree of safety.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A low return, without any risk of losing the capital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION D: Saving Practices

9. How do you rate yourself against the following saving practices.

Key rate: 1 = not at all, 2= barely, 3= sometimes, 4=often and 5 = Very often

<table>
<thead>
<tr>
<th>Saving practices</th>
<th>Not at all</th>
<th>Barely</th>
<th>sometimes</th>
<th>often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you save money for emergencies?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you save money for your future obligations?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you save for any other reason not mentioned above e.g. purchase of assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Where do you hold your savings?

Bank deposit [ ] Sacco Contributions [ ]
Insurance plan [ ] Pension contributions [ ]
Others [ ] Specify………………………….
11. What percentage of your monthly earnings do you save?

Over 7.5%-12.5% [ ] Over 12.5-17.5% [ ] Over 17.5-22.5% [ ]
Over 22.5-27.5% [ ] Over 27.5% [ ]

12. Which statement better explains your savings regularity in the above?

Tick where appropriate

Never save [ ] Rarely saves [ ] Saves occasionally [ ]
Saves frequently [ ] Always save [ ]
Appendix II: Detailed Descriptive Statistics

<table>
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<tr>
<th>Statistics</th>
<th>Gender</th>
<th>Age</th>
<th>Education</th>
<th>Income</th>
<th>Financial Literacy</th>
<th>Saving Pattern</th>
<th>Risk tolerance</th>
<th>Individual savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>101</td>
<td>101</td>
<td>101</td>
<td>101</td>
<td>101</td>
<td>101</td>
<td>101</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>1.60</td>
<td>2.59</td>
<td>2.31</td>
<td>.584</td>
<td>3.19</td>
<td>3.97</td>
<td>1.96</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.00</td>
<td>2.00</td>
<td>2.00</td>
<td>1.00</td>
<td>3.00</td>
<td>3.00</td>
<td>2.00</td>
<td></td>
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<tr>
<td>Std. Deviation</td>
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<td>.764</td>
<td>.834</td>
<td>.495</td>
<td>.948</td>
<td>.768</td>
<td>1.076</td>
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<table>
<thead>
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<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>Gender</td>
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<td>1</td>
<td>.64</td>
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<tr>
<td>Age</td>
<td>101</td>
<td>1</td>
<td>4</td>
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<tr>
<td>Education</td>
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<td>1</td>
<td>4</td>
<td>2.59</td>
</tr>
<tr>
<td>Monthly Earnings/Income</td>
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<td>1</td>
<td>4</td>
<td>2.31</td>
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<tr>
<td>Financial Literacy level</td>
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<td>1.00</td>
<td>.584</td>
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<tr>
<td>Saving Pattern</td>
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<td>2.00</td>
<td>5.00</td>
<td>3.19</td>
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<tr>
<td>Risk tolerance</td>
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<td>1.00</td>
<td>5.00</td>
<td>3.97</td>
</tr>
<tr>
<td>Individual savings</td>
<td>101</td>
<td>1.00</td>
<td>5.00</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>----</td>
<td>------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>I have a plan of what I want to accomplish financially</td>
<td>101</td>
<td>4.26</td>
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<tr>
<td>I maintain a current list of my assets and liabilities</td>
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<td>3.96</td>
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<td>.095</td>
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<tr>
<td>Holding a strong cash position is necessary for my financial</td>
<td>101</td>
<td>3.64</td>
<td>1.293</td>
<td>.129</td>
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<tr>
<td>endeavors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with present rate of return of my savings and</td>
<td>101</td>
<td>3.44</td>
<td>1.187</td>
<td>.118</td>
</tr>
<tr>
<td>investment</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am fully aware of the impact of inflation on my savings</td>
<td>101</td>
<td>3.32</td>
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<td>.091</td>
</tr>
<tr>
<td>Do you have adequate knowledge to manage personal finance</td>
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<td>3.85</td>
<td>.357</td>
<td>.036</td>
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<tr>
<td>Are you able to control your personal finances</td>
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<td>.072</td>
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<td>Are you confident in making appropriate savings decisions</td>
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<td>3.45</td>
<td>.889</td>
<td>.088</td>
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<td>Do you feel that you need further financial education</td>
<td>101</td>
<td>4.11</td>
<td>1.029</td>
<td>.102</td>
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</table>
## Risk Tolerance

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>A high return, with a high risk of losing the capital.</td>
<td>101</td>
<td>2.26</td>
<td>.891</td>
<td>.089</td>
</tr>
<tr>
<td>A good return and reasonable safety</td>
<td>101</td>
<td>3.97</td>
<td>.768</td>
<td>.076</td>
</tr>
<tr>
<td>A moderate return, but at the same time a good degree of safety</td>
<td>101</td>
<td>3.71</td>
<td>1.143</td>
<td>.114</td>
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<tr>
<td>A low return, without any risk of losing the capital</td>
<td>101</td>
<td>3.17</td>
<td>1.732</td>
<td>.172</td>
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</tbody>
</table>

## Individual savings

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you save money for emergencies</td>
<td>101</td>
<td>3.25</td>
<td>.865</td>
<td>.086</td>
</tr>
<tr>
<td>Do you save money for your future obligations</td>
<td>101</td>
<td>4.42</td>
<td>.495</td>
<td>.049</td>
</tr>
<tr>
<td>Do you save for any other reason not mentioned above</td>
<td>101</td>
<td>3.74</td>
<td>1.026</td>
<td>.102</td>
</tr>
<tr>
<td>Bank deposit</td>
<td>101</td>
<td>3.54</td>
<td>1.044</td>
<td>.104</td>
</tr>
<tr>
<td>Insurance plan</td>
<td>101</td>
<td>2.50</td>
<td>1.718</td>
<td>.171</td>
</tr>
<tr>
<td>Sacco Contributions</td>
<td>101</td>
<td>3.77</td>
<td>1.363</td>
<td>.136</td>
</tr>
<tr>
<td>Pension Plan</td>
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<td>4.56</td>
<td>.740</td>
<td>.074</td>
</tr>
<tr>
<td>Others</td>
<td>87</td>
<td>3.09</td>
<td>1.640</td>
<td>.176</td>
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</table>

## ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>1 Regression</td>
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<td>11.593</td>
<td>31.082</td>
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<tr>
<td>Residual</td>
<td>34.688</td>
<td>93</td>
<td>.373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>115.842</td>
<td>100</td>
<td>--</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Risk tolerance, Age, Gender, Financial Literacy, Saving Pattern, Income and Education
b. Dependent Variable: Individual savings
### Coefficients

<table>
<thead>
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a. Dependent Variable: Individual savings

### Correlations

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