EFFECT OF FINANCIAL LITERACY ON INVESTMENT DECISIONS AMONG SAVINGS AND CREDIT CO-OPERATIVE SOCIETIES MEMBERS IN NAIROBI

BY

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no materials written or published by other people except where due reference is made and author duly acknowledge.

Signature .... Reg. No. 12/01467

Date...

I do hereby confirm that I have examined the master's dissertation of

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And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

Signature: ....Date ....

Dr. Edward Owino

Dissertation Supervisor.

DEDICATION

This research study is dedicated to my entire family for their moral support throughout the entire MSC program especially during this research dissertation.

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LIST OF ABBREVIATIONS AND ACRONYMS

SACCO Savings and Credit Cooperative Society

SPSS Statistical Package for Social Scientists

OPERATIONAL DEFINITION OF TERMS

Financial Literacy: Hogarth (2002) defined financial literacy as the way people understand and use knowledge of basic financial concepts to plan and manage financial decision as in insuring, investing, saving and budgeting.

Financial Knowledge: Gina, Akoto and Despard (2012) define financial knowledge to mean the understanding of significant financial concepts such as inflations, interest rate computation and diversification of risk in portfolio.

Financial Behavior: Ability to prepare budget and acquisition of borrowing and saving knowledge (Amos, 2014).

Financial Awareness: Refers to the ability of an individual understanding of financial education and sources of financial education (OECD, 2006).

Financial Attitudes: This is the ability to choice and investment and the preference of some alternative over the over (Pankow, 2012).

Investment Decision: This is the awareness of alternative investment opportunities, investment securities and realization of the benefit that comes with investment **(**Musundi, 2014).

ABSTRACT

Many people join SACCOs with a goal of saving and benefiting from SACCOs products such as: easy access to credit, dividends that may be received in favorable circumstances, plan for retirement, ease arrangement for housing or land purchase among others However, this goal is often not met or is partially met due to lack of financial literacy. Therefore, current study sought to examine the effect of financial literacy on investment decision among SACCO members in Nairobi County. Specifically, the study sought to examine the effect of financial knowledge, financial behavior, financial attitude and financial awareness on investment decision amongst SACCO members drawn from five SACCOs selected purposively in Nairobi County. The study was guided by the dual process, theory of planned behavior, social learning theory and expected utility theory. Purposive sampling was used to select the five SACCOS in Nairobi from which 385 members were drawn through stratified random sampling. Primary data was collected through the use of questionnaires. Regression analysis was carried out to show the nature of the relationship between independent and dependent variables. Results of the study revealed that there was a positive and significant relationship between financial knowledge, financial attitude and investment decision while both financial behaviour and financial awareness had positive and non-significant relationship with investment behavior. SACCO should continuously sensitize members on how to improve their financial management skills and attitude as such to foster their investment decision. Although, financial behavior and awareness had positive and insignificant relationship there is need of sensitization sessions to improve financial behaviour and adopt customized financial awareness sessions.

Key words: Financial Literacy, Financial Knowledge, Financial behavior, Financial Awareness, Financial attitude and Investment decision.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In developing countries like Kenya, financial literacy is still a necessity. This was revealed by Department for International Development (DFID) in 2008 showing only 50 percent of the adult population had knowledge to use basic financial products and services and hence 50% being financially illiterate.

Banks, microfinance and other financial institutions have played a great role in reducing the level of financial illiteracy. By offering advice to their clients it is now easier to manage finances and making wise financial decisions. System of education has also changed especially in Kenya to accommodate the financial education which is now offered from high school, though not in details, but it is a step forward in achieving a financially literate society. Financial groups and cooperative societies like SACCOs are also not left behind in trying to improve the life of their members. Through seminars and open forum, group members are able to receive financial education and apply it in their different lives and this has encouraged the investment decisions among small and established members.

1.1.1 Financial Literacy

Amisi (2012) defines financial literacy as the understanding of money and financial products which can help one make informed decisions on finances. This definition is too shallow as it ignores the management element of the money and other financial products, however, it brings out clearly that finance do not only mean money but also other products related to finances. This is why Hogarth (2002) defined financial literacy as the way people understand and use knowledge of basic financial concepts to plan and manage financial decision as in insuring, investing, saving and budgeting. This definition emphasis on the specific area where money is used other than for transaction motives. Financial literacy therefore should be all round, from the process of earning or acquiring that money and full utilization of the money.

Organisation for Economic and Cooperative Development in forum of International Network on Financial Education (OECD INFE) defines financial literacy as the "combination of awareness, knowledge, skills, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD INFE, 2011:p3). This definition is exhaustive in that all elements of the financial literacy are combined and for the purpose of this study this definition is adopted. A financially literate individual therefore ought to understand financial products and be able to confidently appreciate financial risks and opportunities so as to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being (Miller *et al*., 2009).

As seen, different researches define the term financial literacy in the form of levels (like level attained) and dimensions (like computation, financial). For instance, ANZ survey (2008) of financial literacy among the adults had four main sections of financial literacy, namely "numerical literacy, and standard literacy, financial understanding, financial competency, financial responsibility." These sections have been regrouped further in two broad categories of "basic requirement" and "advanced competency" by Rooij *et al.* (2007). The basic requirement of financial literacy measures responses in regard to the inflation and interest rate while advanced competency measures understanding of financial market products. All in all, individuals must be able to make well-versed judgements and take effective decisions in usage and management of money which is a scarce resource.

It is beneficial to focus on financial literacy to the society and nations. As observed from developed countries with low financial illiteracy level, financial literacy facilitates the decision making processes like timely bill payment, proper management of debt, which improve the credit score of potential borrowers to support livelihoods, enhancing economic growth, good and sound financial systems, and poverty eradication. It also provides greater control of one's financial future, more effective use of financial products and services, and reduced vulnerability to overzealous retailers or fraudulent schemes (Wachira & Kihiu, 2012).

As markets continue to place more and more financial products, individuals will, therefore, have to decide on the many choices that comes as a result of continued innovation and make the right choices. As human beings do not remain productive in their entire life, since when individuals grow old, they tend to become less productive thus depending on what was once invested. When an individual is forward looking investment should not be an option but a necessity due to the anticipated drop in income after retirement (Lusardi, 2008). Since financial literacy involves different understanding, it is wise to have: widespread financial knowledge; good financial behavior; the right finances attitude; and specific financial awareness. This understanding combined defines the financial literacy of an individual.

1.1.2 Financial Knowledge

Gina, Akoto and Despard (2012) defines financial knowledge to mean the understanding of significant financial concepts such as inflations, interest rate computation and diversification of risk in portfolio. For one to invest wisely there is a need to be knowledgeable in financial matters. Understanding of financial knowledge is fundamental in deciding of whether to save or not. It has been observed that a household that lacks basic financial knowledge, savings behavior, investment decisions are done based on the basic rule of thumb (Musundi, 2014).

Knowledge is power and when it comes to finance it enables one to be able to negotiate for better returns at a manageable and tolerable risk. Banks, *et al*. (2010) in their study indicated that the increase in numeracy and the broad cognitive ability tells the level of financial knowledge which helps predict the financial literacy of an individual. Key areas that an individual need financial knowledge is on various concepts like credit risk and return, diversification in the portfolio and how various computations are carried out. Kefala (2010) observed that financial knowledge has a strong relationship with self-beneficial financial behavior

1.1.3 Financial Behavior

Another understanding of financial literacy that goes hand in hand with financial awareness which has been observed to influence financial literacy positively. One's behavior in finance tend to be assessed on how well the characteristics of an investor systematically influence individual investment decisions as well as market outcomes (Mandell & Klein, 2009). Seeking financial education help one to become more aware of how to manage finances well and ends up with a happy future. Education helps to open up one's mind to think about possibility of a way out of any given situation (Amos, 2014). Getting information from an expert, experienced and professional adviser is recommended, especially to assist in well diversified portfolio management.

1.1.4 Financial Awareness

Being in a position to tell the best way to manage your resources and assets in any given investment require one to be well informed of the whole process. When choosing an investment, one is advised to be much aware of the risk and return relationship, so as to take a risk that one is able to tolerate. The assessment of different investment opportunity calls for financial education to understand the role of the parameter. The source of financial education is therefore essential. Financial awareness focuses on need of financial education and the source of financial education. Financial education is increasingly important for all individuals in fact, it is essential for every family trying to balance its budget, acquire a home, to fund the children's education and ensuring that there will be income when parents retire (OECD, 2006).

1.1.5 Financial Attitudes

Financial attitude involves the preference of one investment opportunity or project over the other. In particular, what is the perception an individual to choose an investment? Financial attitude refers to that state of mind or opinion and judgment about one's finances reflecting a position one has taken (Pankow, 2012). For example, one individual in the family may highly value children's education and hence have a very positive about educating them as opposed to any other investment.

1.1.6 Investment Decisions

Pandey (2004) defines an investment as an activity that is engaged by people who have savings by commits their funds in capital assets/ goods and services, with an expectation of some positive rate of return. An essential element of investment is the anticipated return therefore management of the asset invested must be done to ensure that at least assets appreciate in value. Investment decision is the determination made by the investors, in case of an individual investment or management where a corporation is involved, as to how, when, where, and how much capital will be spent on investment opportunities (Bhalla, 1982). These decisions are usually supported by decision tools, literacy being one of the necessity, that would help achieve a satisfactory return after performing an investment analysis using the fundamental and technical analysis. The decision to invest is usually followed by research to determine the costs and returns for various options available.

Investment planning being an integral part of retirement and positive inducement in planning for protection has two main reasons why people have to engage in it according to Musundi (2014), who gives the first reason to be the need to accumulate assets and the second one to derive income from it. Individuals must be able to make personal decision on investment which involves trying to allocate the limited resources to various competing financial products available and being careful to consider the risks and returns thereof. Investment decision, therefore calls for thorough estimation of the opportunity or project(s) available which relies on the size, time and being in a position to predict expected cash flows for assessment (Hodge, 2000).

Investment decisions are vital among the many decisions that one has to make in life for the future. It is then paramount that individuals learn about money and the way it work. How to be flexible in managing financial matters due to the many financial products available for investment. National governments have also realized the importance of making a contribution to saving and investment that is why so many pension funds receive mandatory contribution and offer the contributor the option of investing with them later in their life when they will be less productive.

1.1.7 Savings and Credit Cooperative in Kenya

Savings and Credit Co-operative Societies (SACCOS) are voluntary associations that mobilize savings from its members and give credit or loans to be used for different purposes after pooling savings as referred by (Bwana & Mwakujonga, 2013). These SACCOs serve as micro-financing institutions that pool resources and channel them to various development programs, mostly for its members who may be willing and able to borrowers. Therefore, they are now predominantly used as intermediaries between the able savers and the willing and capable borrower mostly, from Small and Medium-sized Enterprises (SMEs) in developing nations.

The idea of SACCOS in Kenya dates back to 1908 when the first cooperative was established, followed by a series of others then (Republic of Kenya, 2014). In 1946, the colonial government acknowledged the need to involve Africans in the economic growth which saw an enactment of new Co-operative Societies' Ordinance. By 1969 there were 1894 societies registered after gaining independence. After realization of the importance and sophistication of SACCOs there was a need to enact prudential standards which led to SACCO Societies' Act in 2008 that charged SACCO Society Regulatory Authority (SASRA) to licence and regulates the deposit taking SACCOs.

With the aim of improving the living standard of its members, SACCOs idea grew popular and the idea has now been replicated all over Kenya. Several achievements have been recorded for Kenyan SACCOs. To begin with, these SACCOs have been recognized as the fastest growing subsectors in the world by the World Council of Credit Union (WOCCU, 2013). In Africa, it is ranked 1st and 7th in the world in terms of saving. As of December 2012, amount Ksh. 380 million had been mobilized with an asset base of Ksh. 493 billion. This saving has been since then growing with an average rate of 30% per year. Some of the SACCOs have thrived to giant power houses out performing even better than some financial institutions, for example, Co-operative Bank of Kenya and Co-operative Insurance Company of Kenya (CIC) (Republic of Kenya, 2014). Up to December 2013, there were over 6000 registered non deposit taking SACCOs and 215 deposit taking serving a population of more than 6 million persons (http://www.industrialization.go.ke).

Currently SACCOs are organized based on workplace or the cash crop produced that is where people have common bond so as to lend as a group once you build up sufficient deposits. SACCOs can be broadly be classified into three categories: community-based, employee- based and agricultural-based. With the rapid growth of Kenyan SACCOs, it has enabled the saving and credit society to lend too many individuals where financial institutions like bank cannot lend due to stricter rules. This growth has seen some of the SACCOs like Harambee, Mwalimu, and Posta outgrow others (Bwana & Mwakujonga, 2013).

1.2. Problem Statement

Many people join SACCOs with a goal of saving and benefiting from SACCOs products such as: easy access to credit, dividends that may be received in favorable circumstances, plan for retirement, ease arrangement for housing or land purchase among others (Wameyo, 2015). However, this goal is often not met or is partially met due to lack of financial literacy.

A study in India by Bhushan (2014) on the relationship between investment behavior and financial literacy has found that with the new age, financial products, awareness and investment preference largely depends on the financial literacy of the individuals. That is, the higher the level understanding of financial matters, the higher the chance of making informed decisions about the investment. In another study in Saudi Arabia by Mian (2014) on level of financial literacy and its impact on investment and other financial decisions, it was revealed that there is negative relationship between financial literacy and the need for financial decisions. In this study the financial literacy was indicated by a retirement plan and stock market participation. Mian (2014) choice of these indicators was not justifiable, since the study disregarded the fact that financial literacy is a rounded combination of behavior, attitude, skills, knowledge and awareness of an individual. Tabiani and Mahdzan (2012) explored the impact of financial literacy on saving in Klang Valley, Malaysia which showed a significant positive relationship between financial literacy and saving decision. Elsewhere in Ghana, Atakora (2013) found that there was no relationship between the financial literacy and investment decisions and concluded that the decision to invest depends on one's experience, age and exposure. This finding however, calls for a need for further study to substantiate whether there exist a relationship.

Most of these studies come from the developed nations where education infrastructure are continuously evolving unlike developing countries which still depend on other countries for their education systems hence one cannot use these studies' findings to generalize due to the many differences. Again, there is also inconsistency and inconclusiveness in the results of relationship between the financial literacy and investment decisions, some of these studies have found a negative (Mian, 2014), others positive (Mahfund, 2012; Tabiani & Mahdzan, 2012) and also no correlation (Atakora, 2013). This calls for further investigation to proof the nature of the relationship. Further, the scope of these studies has been majorly in the pension fund (Amisi, 2012), NSE investors (Mahfudh, 2014) and real estate developers (Musundi, 2014) leaving out the study of the small upcoming and growing spirit of SACCO members. In addition, today's world has changed to a rather sophisticated financial products calling for a certain level of financial literacy for better investment since losing direction can only be helped by possessing prerequisite knowledge. In the view of the issues raised above, the study therefore, sought to examine the effect of financial literacy on investment decisions among SACCO members in Nairobi County.

1.3 Objectives of the Study

The main objective of the study was to examine the effect of financial literacy on investment decisions among SACCO members in Nairobi County.

1.3.1 Specific Objectives of the Study

The study was guided by the following objectives:

1. To examine the effect of financial knowledge on investment decisions among SACCO members in Nairobi County.
2. To establish the effect of financial behavior on investment decisions among SACCO members in Nairobi County.
3. To find out the effect of financial awareness on investment decisions among SACCO members in Nairobi County.
4. To establish the effect of financial attitude on investment decisions among SACCO members in Nairobi County.

1.4 Research Questions

The study sought to answer the following research questions:

1. Does financial knowledge affect investment decision among SACCO members in Nairobi County?
2. What is the effect of financial behavior on investment decision among SACCO members in Nairobi County?
3. How does financial awareness affect investment decision among SACCO members in Nairobi County?
4. What is the effect of financial attitude on investment decision among SACCO members in Nairobi County?

1.5 Significance of the Study

This study is of great importance to the savers and borrowers in the SACCOs since they learn from know the extent into which financial knowledge, attitude, awareness and behavior will impact on the investment decision made that is it sharpen their knowledge on the wise and more rewarding ways on investment decision made then, now and in the future.

The study is also be important to manager of financial institutions and advisors since they are able to discover areas to put more emphasis when giving their quality advice. This study too gives insight to government and policy makers in their role in ministry of finance, industrialization and cooperatives and the central bank of Kenya on the need for financial education in all the school based program to enable drive economy of this nation far. Scholars and academicians stands to benefit from added knowledge in finance and finance management and also be able to identify other research gaps for future studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction of Literature Review

In this chapter the researcher reviews theories of planned behavior and dual process theory. Empirical literature showing the relationship between variables has also been reviewed. Thirdly, the researcher showed the conceptual framework, followed by operationalization of the variables and hypothesis of the study.

2.2 Theoretical Review

The current study was based on both dual process theory and theory of planned behavior.

2.2.1 Dual Process Theory

This theory argues that decision making process is influenced by both intuitive and cognitive process. The information processing mechanisms can be categorized into system 1 and system 2. The first system is fast and aligned to institution while the second is slow and conscious. The second system is analytical and rational and consequently important for rational decision making.

The theory has been prominent in different fields such as in behavioral finance to show that biases, framing and heuristic factors are influenced by system 1 (Alós-Ferrer and Hügelschäfer 2012). Past studies have shown that the second system is appropriate for the improvement and intervention in decision making (Reyna, 2004). Crusius, van Horen, and Mussweiler (2012) argues that there is need for applying focused approach when evaluating and analysing economic or financial aspect. Although, the theory is appropriate for finance studies it's hardly applied. One exception is Godek and Murray (2008) who analyzed the role of rational and experiential processing modes on the willingness to pay for advice.

Dual-process theories may be useful in explaining whether investment decisions are based on intuitive thinking, use of both analytical and rational thinking. Financial knowledge skills which include the ability to compute interest rates incorporate inflation in decision making, portfolio selection criteria. Through this theory SACCO members in Nairobi criteria financial knowledge will be examined to see whether it influences investment decision making.

2.2.2 Theory of Planned Behavior

The main proponent for the theory of planned behavior (TPB) is Ajzen (1988) who proposed it mainly to individual behaviors can be changed. Since behavior can either be predictive or deliberate, TPB theory predicts the later. TPB argues that human behavior can be categorized into; behavioral beliefs, normative beliefs and control beliefs. The behavioral beliefs are concerned with the likely consequences of individual behavior; normative beliefs are concerned with other people's expectations upon our behavior and a control belief stipulates that they are impediments to behavioral performance. Always SACCO members are ready to undertake an action which may be triggered by their attitudes, behavior and awareness. Although, the theory is more skewed towards management it's appropriate for the current study since the study seeks to examine the influence of financial behavior, financial awareness and financial attitudes towards investment decisions among SACCO members in Nairobi County.

2.2.3 Social Learning Theory

This theory can be traced to Bandura (1960) who argued that learning process can only take place through observation or direct instructions. The theory was developed to enhance stimulus response theories which explained how and why human beings responded to certain attributes. Bandura argued that there was weakness attributed to learning process models which depicted that social learning variables were excluded in regard to certain responses found on certain human aspects. More so the Rotter's theory stipulated that behavioural changes were associated with subjective expectation and reinforced to be acquired.

The theory is appropriate for the study since most of the investment decision can be attributed to learning process which can be formal or informal. SACCOs can use advertising platform to create financial awareness which will ultimately influence investment decision amongst its members.

2.3.4 Expected Utility Theory

This theory can be traced back to discovery by Neumann and Morgenstern (1944) on the theory of games and economic behaviour. An individual's preference of one investment over the other basically due the expected utility being higher than the alternative investment such an individual is expected utility maximize. According to Davis, Hands, London and Elgar (1997) the Expected Utility Theory (EUT) can be explained in situation when a decision maker chooses between risky prospects by comparing the expected utility value to be realized. After evaluating the utility values of expected outcome multiplied by respective probabilities and the summing up, decision maker is now able to make conclusion out of it. This theory operates on the assumption that decision maker is certain of the probability of each outcome. For example if an insurer want to insure again a certain loss then there is need to be sure of probable loss or accident. However, in reality this simple and seemingly commonsensical decision rule raises most important questions in contemporary decision theory. Critics of EUT fail to understand what actually does the utility number mean and whether it represent the same value scale to all the decision makers. Another critique of this theory is whether an individual always relies on probabilities values or there are again alternative constructions calling for theoretical comparison.

Neumann and Morgenstern (1944) points out that the greatest normative problems of rationality are what choices and desires people should have. Even though what is prescribed in the rational choice theory provides the most effective ways to achieve a targeted desire (Sugden, 1991) there is need for consistency for the application of this theory. Expected Utility Theory as defined by Bentham, Mill and Sidwick (1950) puts the way forward to treat rationality by following certain substantive rules. The theory is relevant in the study since the researcher sought to examine the influence of human financial behaviour on investment decision.

2.3 Empirical Review

Literature on financial literacy is vast. This section presents a review of studies on the effect of financial knowledge management, financial behavior, financial awareness and financial attitude on investment decisions.

2.3.1 Financial Knowledge Management and Investment Decision

Greenspan (2002) concluded that when the financial knowledge is applied as appropriately individuals are able acquire maximum utility from the wise planning and utilization of resources thereby being in position to meet their financial obligations. Greenspan argues that this made possible by the fact that when one in financial knowledgeable, there are increased chances of being able to create budgets, saves for future and more importantly to make key investments decisions.

Using Internet based survey, Robb and Sharpe (2009) sampled a large group of undergraduate and graduate students electronically on financial knowledge in the student's credit card behavior. The results of the study indicated that financial knowledge was major factor determining how the credit card decisions are made though not wholly as per the expected directions. It was also found that there was insignificant difference between the level of financial knowledge and student having a credit card balance. On the contrary to the expectations, student with high level of financial knowledge were found to have higher credit balance lying idle instead of investing. These underscore the plight and complexity of the link between individual's financial knowledge and investments decision.

Rooij, Lusardi and Alessie (2007) sought to know whether individuals with financial knowledge are likely to invest more in stock markets in Dutch household survey. Financial knowledge was viewed in two dimension numeracy and basic knowledge like compounding effect of inflation, discounting, real versus nominal values, and interest rate calculation, and advance financial knowledge related to differentiation of financial instruments (stocks and bonds), portfolio risk diversification and link between stock prices and interest rates. Questions were designed in such a way that they measured the cognitive ability by trying to unravel the influence of knowledge and skills. Finding of the study reveals that basic knowledge is far away from being perfect even though it out performs advance understanding. Rooij *et al*. concludes that there is need to increase ones financial knowledge so as to make wise financing decision especially when deciding what to save and what to investments.

Lusardi (2008) investigated whether financial literacy is an important instrument for informed consumer residing in U.S. Financial literacy was broadly grouped into two: basic literacy (comprising knowledge working of interest rates, impact of inflation, and risk diversification) and advance literacy (made up of knowledge in asset pricing, risk return and how various financial instruments works). Lusardi argues that it necessary one need financial knowledge over and above the elementary financial concepts to make "competent and decision on saving and investment."

2.3.2 Financial Behavior and Investment Decision

Tyrimai (2013) in conjunction with Bank of Lithuania reviewed the financial behavior of Lithuania households as defined by the borrowing and saving habits of individuals in the households and reasons for doing the same. A total of 1011 households were surveyed. It was found that saving and borrowing financial behavior had significant influence on the stability of the financial systems of Lithuania. Majority of the households engaged in saving due to the fear of unforeseen factors like to protect them against reduced income or emergency expense as evidence by the choice of non-risky saving and investment instrument. Financial behavior as demonstrated by households sampled explain need to address issue of financial literacy since majority of the respondent depended on past personal experience or experience from friends.

Also, Brown and Graf (2012) examined whether there is link to financial behavior and household investment in Switzerland. Financial behavior was measured by the borrowings made by individuals, retirement planning and mortgage. Empirical results of 1,500 households showed a strong correlation between the financial literacy level, as indicated by financial behavior, and the participation in the financial markets, retirement saving and mortgage borrowing. Similarly, these results in Switzerland supported Butcher and Lusardi (2011) in Germany and Alessie, Rooi and Lusardi (2011).

Mahdzan and Tabiani (2012) in a Malaysia study of the effects of financial literacy on individual saving argues that individuals with proper financial behavior of saving regularly and are risk takers do not hesitate to take up investment opportunities arising. Uma, Odionye, Aniagolu and Obiora (2014) in examination of Nigeria economy as impacted by savings behavior and investment made, adds that with an increase to saving culture subsequently results to more investment which further translate to reduced level of borrowing behavior for a country.

Uma *et al*. conclude that aggregate saving behavior is a prerequisite for making investment decisions.

2.3.3 Financial Awareness and Investment Decision

Bhushan (2014) examined the connection between financial literacy and investment behavior of the individuals who receive monthly pay from both the government and non-government job in Himachal Pradesh, India. By use of five hundred and sixteen questionnaires, data were collected using a combination of multi-stage and purposive techniques sampling as the target population was wide. Financial literacy was assessed in three dimensions of financial attitude, behavior, knowledge and awareness where 5-likert scale was applied. Bhushan concluded that high levels of financial literacy created more financial awareness of the financial products hence were found to be likely to make wiser investment decisions as compared to their counterpart with low financial literacy. Those with low financial literacy are usually constrained in terms of the choice of where to invest and therefore opt to invest in limited traditional products. Though traditional products are considered safer and to yield more return, they carry more risky. Bhushan argues that it is must to have at least a certain level of financial literacy to understand risk and return concepts as well as choice financial products correctly.

Duflo and Saez (2003, 2004) and Madrian and Shea (2001), among others, find little or no effects of financial education programs on savings. The mixed evidence on the effectiveness of financial education programs has led some to question whether it is worth trying to improve financial literacy. In fact, it is not clear there is even a choice.

In United Arab Emirate, Al-Tamimi and Kalli (2009) set to investigate the link between the financial literacy and investment decisions by taking a convenient sample of two hundred and ninety investors. Financial literacy, as shown by the financial education, was found to be falling short of the expected level. Investors who had work experience in banking or had high educational degrees and especially those trained in finance matter were found to make most investment with ease.

2.3.4 Financial Attitude and Investment Decision

Ibrahim and Alqaydi (2013) investigated the assessed influence of financial attitude among individuals working in the service industry whose origin is United Arab Emirates. A convenient sample of four hundred and twelve participants was surveyed as the researcher lacked formal sampling frame. Responses from a five point liker scale of importance adopted from Chen and Volpe (1998) measured the personal financial attitude. The results of the study showed an improvement on the personal financial attitude had a tendency to reduce dependence on the use of credit cards. This study use of convenience sampling technique however, increased the chance of non-representation bias thus hindering the application of these results in general case. Together with this study was faced with several limitations for example the specification and forms of linear regression model used. With the usage of the dummy independent variable contravened the linearity assumption. According to Ghauri *et al* (1995) this could have been resolved by use of logistic regression model.

In Singapore, Money Sense Financial Education Steering Committee of 2005 conducted a first time survey on financial literacy to find out whether Singapore population had information on common financial products and services and how effective they are in managing finances for investment. There result of the study showed Singaporeans have healthy financial attitude, as measure of financial literacy, toward money matters, financial planning and more importantly management in investment decisions. Moreover, this committee found that Singaporeans saved some of their earnings and monitored their spending

2.4 Knowledge Gap

The measures of financial literacy as seen in the past studies are usually unpolished. For instance, Lusardi and Mitchell (2006, 2007a) depends on only 3 questions to measure financial literacy, and Stango and Zinman (2007) sought only one question to test financial literacy. To add on that, the five research that providing more extensive information about financial literacy often have used little or no data on savings, borrowing, investment preferences and other key important economic outcomes. This paper, aims to overcome these shortcoming by investigating comprehensively financial literacy as well as providing analysis of the quality of the financial literacy data

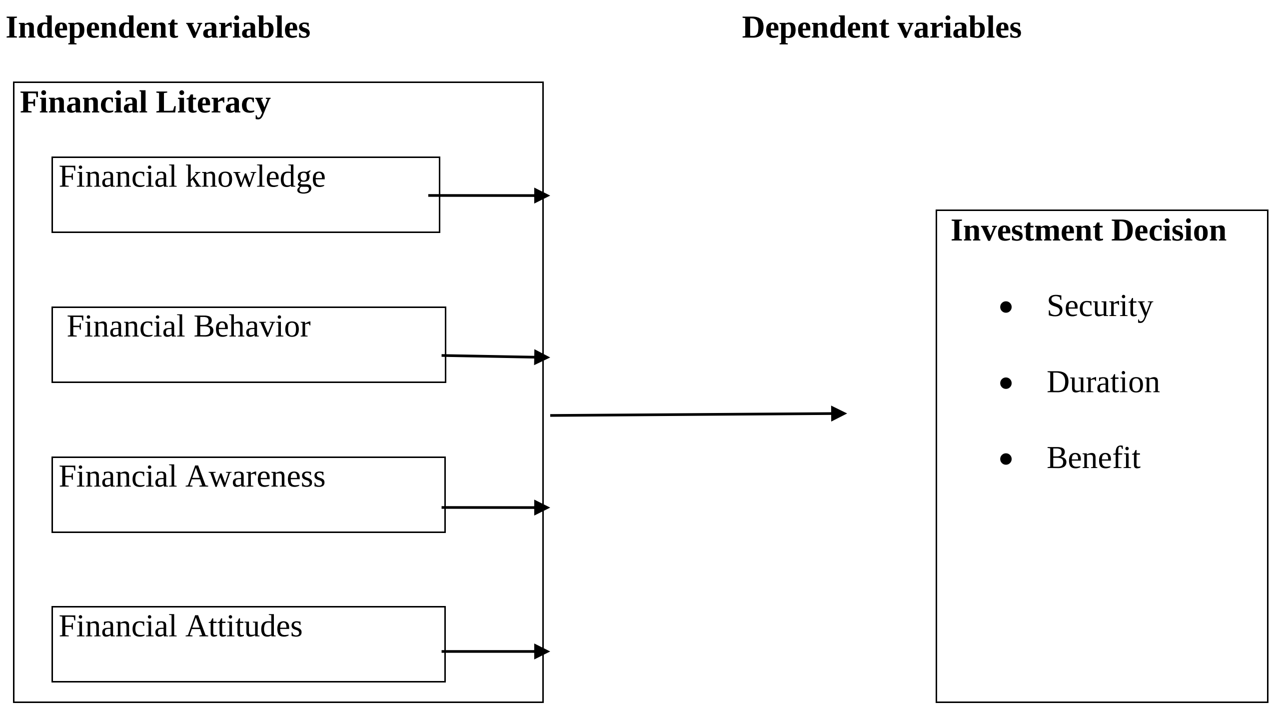
With rapid development of SACCO there has been an increased demand of external financial resources to funding various investment opportunities (Bwana & Mwakujonga, 2013). Even so, there have been little research on this line. SACCOS are faced constraints including: lack of well-trained financial experts for advice and members also come from poor financial background with little or no knowledge on the various types of financial products as well as the financial concepts businesses. Despites these constraints that depict a certain degree of literacy, there has been little attention on this area and especially how they affect investment decisions. Besides, Kenya studies on impact of financial literacy on investment decisions have mainly focused on institutional investors like fund managers (Amisi, 2012), real estate developer (Musundi, 2014) leaving out the impact of financial literacy of an individual investors on the choice of investment. Notably, a critical look on the studies conducted in Kenya so far, one quickly notes that financial literacy issue is addressed from only one perspective; demographic variables only. As Lusardi (2008); Lusardi and Mitchell (2006, 2007) posits financial literacy to be grouped into three categories: financial behavior, knowledge and attitude, however no known prior studies assessed their impact on investments decisions. This study, as the first one of its kind proposes to fill this knowledge gap.

2.5 Conceptual Framework

A diagrammatic representation of the both independent and dependent variables is known as conceptual framework. In the current study financial literacy is operationalized as financial knowledge, financial behavior, financial awareness and financial attitudes and the dependent variable is investment decision operationalized as security, opinion, duration and benefit of an investment. It is summarized as shown in Figure 2.1.

FIGURE 1

Conceptual Framework



Source: Author, (2016)

2.6 Research Hypotheses

According to literature reviewed above the following hypotheses were formulated and were tested:

H_{01}: Financial knowledge has no significant influence on investment decisions.

H_{02}: Financial behavior has no significant influence on investment decisions.

H_{03}: Financial awareness has no significant influence on investment decisions.

H_{04}: Financial attitude has no significant influence on investment decisions.

H_{05}: Financial literacy has no significant influence on investment decisions.

2.7 Operationalization of Variables

TABLE 1

Operationalization of the Variables under Investigation

Variable	Measures	Attributes	Scale
Y	Investment Decisions	- Being aware of the various investment opportunity -Investment in Securities - Realization of the benefit that comes with investment	Interval
X_1	Financial Knowledge	-Ability to deals with numbers -knowledge of interest and compound effects -Knowledge of inflation and risk diversification	Interval
X_2	Financial Behavior	-Ability and knowledge of preparing budget -Knowledge of borrowing and saving	Interval
X_3	Financial Awareness	-Financial education status -The sources of financial education	Interval
X_4	Financial Attitude	-Ability to choice an investment -preference of some alternative over the other	Interval

Source: Author, (2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction of the Methodology

This chapter presents the methodology that was used to carry out the study. This includes the study design, target population, data collection tools that was used, data collection technique, data analysis method and presentation.

3.2 Research Design

A step by step procedure indicating how the study objective was achieved is known as research design (Orodho, 2009). Kerlinger and Lee (2000) viewed the research design as a strategic plan which aims at answering the research questions with minimal deviations. In the current study descriptive research design was used. According to Orodho (2005) descriptive research aims at giving solutions to research problems and this study aims at getting solution from the research problem. Descriptive research allows for quantitative analysis hence a preferred design. Mugenda and Mugenda (2009) defined descriptive design as a design which primarily sought to describe respondent's characteristics and hence appropriate for the current study since it sought to examine the effect of financial literacy on investment decision among SACCO members in Nairobi County.

3.3 Target Population

A complete enumeration of all the elements under consideration is known as the target population. In the current study the target population was all members of SACCOs in Nairobi County which include Airports Sacco, Nation Sacco, Mhasibu Sacco, Jamii Sacco and Hazina Sacco where the members were drawn from both the public and private sector. The total population will be 50,350 members.

3.4 Sampling Technique and Sample Size

A subset of the total population which can act as true representative is known as sample (Oso and Onen, 2009). This study adopted stratified random sampling approach. The basis of stratification was the Sacco and from each Sacco simple random sampling was applied to select 385 SACCO members in Nairobi County. The necessary sample size was derived from the formulae presented by (Kothari, 2007):

$$n = \frac{Z^2 . \sigma \, (1-\sigma)}{e^2}$$

$$384.16 = \frac{1.96^2 * 0.5 \, (1-0.5)}{0.05^2}$$

Where:

n is the sample size

Z is the Z-score and for the purpose of this study was 1.96 in order to have a 95% confidence level.

σ is the Standard of Deviation and to be safe the decision is to use 0.5 as this ensures that the sample is large enough.

e is the margin of error and for the purpose of this study one construed to give a confidence interval of +/- 5%.

Mathematically from the above formulae the study envisaged that a sample size of 385 respondents is needed to be representative of the population. Moreover, random sampling technique was used to draw respondents from five different SACCOs which were to be selected randomly in Nairobi.

TABLE 2

Sample Size

SACCO	Target population	Sample	Proportion in the total population
AIRPORTS SACCO	2000	15	4.0%
NATION SACCO	3500	27	7.0%
MHASIBU SACCO	15000	115	29.8%
JAMII SACCO	15375	118	30.5%
HAZINA SACCO	14475	111	28.7%
Total	**50350**	**385**	**100%**

Target population Source: *http://www.sasra.go.ke/*

3.5 Data Collection Method

Data collection method is the approach used to capture data in relation to the study according to (Kumar, 2009). The study used primary data collection method which was collected using questionnaire. The questionnaire was administered among SACCO employees who in turn administer to members as they visit their SACCOs. The method has a bias of not breaching confidentiality and won the confidence from respondents.

3.6 Data Collection Instruments

Data was primarily collected through the use of closed ended questionnaires. This helped to limit the number of responses and also allow respondent to give their opinions respectively. Mugenda & Mugenda (2009) argued that a research instrument is a data collection tool meant to measure, quantify or observe the data of interest. The questionnaire had six sections; back ground information, financial behavior, financial awareness, financial attitudes, financial knowledge and investment decision.

3.6.1 Validity and Reliability of Research Instrument

A research instrument is said to be valid if it can consistently yield similar results when administered to different groups of people (Kothari, 2011). Prior to the actual data collection the research instruments was pretested among five members of Airbus SACCO who will be drawn from Nairobi. Advice and critique from the pool of experts will be used to improve the research instrument.

Reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials (Oso & Onen, 2009). In order to test the reliability of the instrument to be used in the study, a pilot study was carried out among members of Airports SACCO who were avoided during the actual study. Internal consistency was checked through the use Cronbach's Alpha and showed reliability of 0.822 which is above 0.7 cut off.

TABLE 3

Validity and Reliability

Cronbach's Alpha	N of Items
.822	43

Source: Author (2016)

3.7 Data Analysis

Upon successful data collection the questionnaire was coded, entered and analyzed using Statistical Packages for Social Scientists (SPSS). Descriptive statistics summarized the back ground information of the respondents. Oso & Onen (2009) purported that descriptive statistics are statistical tools, used to summarize large volumes of data with very few figures. In order to answer the research questions both descriptive and inferential statistics were carried. Correlation and regression analysis were the main inferential statistics used to test the study hypothesis. Correlation analysis showed the strength of the relationship between dependent and independent variables while regression analysis showed the nature of this relationship (Kothari, 2011). The level of significance was tested at 5% whereby if the p-value was less than 0.05 then there was enough evidence to reject the null hypothesis and accept the alternative hypothesis (Kothari, 2011). Binary logistic regression model was used to show how dependent and independent variables relate as follows;

Logit p =In (p/1-p)= $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$

P= Probability of effect of financial literacy on investment décision

Odds=p/1-p= probability of effect of financial literacy on Investment décision/ probability of no effect of financial literacy on Investment décision

Where;

Logit p= Investment decision

X_1 = Financial Knowledge

X_2 = Financial behavior

X_3 = Financial awareness

X_4 = Financial attitudes

μ= Error term

In the model, β_0 = the constant term while the coefficient β_i = 1…4 will be used to measure the ratio of change in the dependent variable per unit change in the independent variable and μ is the error term will account for other factors influencing investment behavior excluded in the model.

The data was checked before analysis for validity by ensuring the dependent variable is measured on ordinal level, independent variables are continuous, ordinal or categorical, there is no multicollinearity and that each independent variable has an identical effect at each cumulative splits of the ordinal dependent variable.

3.8 Ethical Considerations

The researcher considered some elements that were not to undermine the reliability and credibility of the study which are ethically considered. The researcher used the APA referencing system throughout the study and also did citation for findings from other authors considered in the study to avoid plagiarism.

During data collection the researcher considered confidentiality of the respondent and independence in administering the questionnaire. Before data collection the authority of all parties involved were requested.

CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction of Analysis and Findings

The current chapter presents the results of primary data collected through the use of questionnaires among SACCO members. Data analysis was carried out according to the study objectives from which patters were examined, interpretations done and conclusions were drawn. The main objective of the study sought to examine the effect of financial literacy on investment decision among SACCO members in Kenya. The study hypothesized that financial knowledge, financial behaviour, financial awareness and financial attitude had no significant influence on investment decision among SACCO members. The chapter is organized as follows: response rate, reliability and validity analysis, back ground information, descriptive analysis, hypothesis testing and discussion of the study findings.

Data was screened to examine missing values, outliers and data entry errors. An initial examination indicated that two questionnaires had only back ground information filled and they were found unsuitable for further analysis due to highest percentage of missing values. For questionnaires with some items missing the median of nearby variables was used to fill such variables.

4.2 Response Rate

In a sample taken of 385 respondents, 288 questionnaires were returned correctly filled representing a response rate 74.8% as shown in Table 4. According to Mugenda and Mugenda (2003) a 50% response rate is adequate, 60% good and above 70% rated very good. This response rate was attributed to self-administration of questionnaires with the assistant of research assistant who availed themselves on all times as requested by the specific SACCO.

TABLE 4

Response Rate

Questionnaires	Frequency	Percentage
Returned	288	74.8
Non returned	97	25.2
Total	**385**	**100**

Source: Author (2016)

4.2 Financial Knowledge and Investment Decision

The first objective of the study sought to assess the effect of financial knowledge on investment decision among SACCO members in Nairobi County. To achieve this, the respondents were requested to show the level of agreement on a five point Likert scale. Results of the study were described using descriptive statistics as tabulated in Table 5.

Most of the SACCO members (68.4%) agreed that buying a company stock usually provides a safer return as compared to mutual fund stock. This means that if they were investing in either of the two stocks they would invest in company stocks to avoid higher risks. About 55.2% agreed that there is an inverse relationship between bond prices and prevailing interest rate. Another 54.8% agreed that it safer to invest in government as compared to company stocks since the later is less risky as compared to the former. a percentage of 64.6% agreed that when an investor is investing for longterm purposes it is appropriate to invest in bonds as compared to savings accounts since the longer the investment period the higher the bond return. Three quarters of the members (75.4%) agreed that the level of risk minimizes as the number of investment opportunities increases among investors due to diversification of investments. 66.6% agreed that if the saving rate is less than inflation rate then the purchasing power of money erodes and the basket of goods to be purchased by a certain amount of money minimizes thus members using numeric literacy to make informed decisions. More than half (57.3%) of respondents agreed that they were assured of a good return if they invested on a single security as compared to mutual fund investment strategies hence avoid the cost of mutual fund investment.

TABLE 5

Financing Knowledge and Investment Decision

	n=288				
	Disagree fully	**Disagree partially**	**Do not know**	**Agree partially**	**Agree Fully**
Buying a company stock usually provides a safer return than stock mutual fund.	5.9	8	17.7	50	18.4
When interest rate rises the bond price falls	11.1	8.7	25	39.9	15.3
Company stocks are riskier than bonds	7.3	11.8	26	34	20.8
Bonds compared to savings accounts and stocks considering a long investment period give highest interest return.	3.8	10.4	21.2	41.7	22.9
When investors spread their money among different assets the risk of losing money decreases.	3.8	9	11.8	38.9	36.5
Imagine that the interest rate on your Sacco investment account was 1% p.a and inflation was 2% p. To what extent do you agree that the goods and services that you would be able to buy with the money in this account after one year would be less than today	8.3	7.6	17.4	37.8	28.8
To what extent do you agree that buying single company stock usually provides a safer return than a stock mutual fund.	8.7	12.5	21.5	42.4	14.9

Source: Author (2016)

4.2.1 Financial Behaviour and Investment Decision

The second objective of the study sought to establish the effect of financial behaviour on investment decision. This was achieved by requesting the respondent to state their level of agreement on how they perceived the effect of certain financial behavioural traits in regard to investment decision. Frequency and percentages were used to summarize the data as tabulated in Table 6.

Majority of the SACCO members (83%) agreed that they had personal budget and only 6.3% who had no personal budget. Hence it can be implied SACCO members had prudent financial personal financial management attribute. About 74.6% of the Sacco members agreed that they had reliable and regular financial income per month in their household, thus these households can be perceived to have secured financial sources. Almost 50% of the SACCO members had loan from family members or friends, this implies these members had financial needs which exceeded their sources of income and consequently they ought to match their expenditure with level of income. Most of the members were not borrowing using credit cards since 66.6% disagreed on having accessed loan through use of credit cards. This implies that SACCO members evaluated the cost of money prior to borrowing and borrowed from friends and family members which can be perceived as a cheap source of finance.

TABLE 6

Financial Behaviour and Investment Decision

			n=288		
	Disagree fully	**Disagree partially**	**Do not know**	**Agree partially**	**Agree Fully**
I have a personal budget.	6.3	9	1.7	27.1	55.9
My household income each month is regular and reliable.	7.6	13.2	4.5	46.5	28.1
I currently owe money to a friend or a family member as a loan.	24.3	21.2	4.9	25	24.7
I currently owe money on my credit card.	39.2	27.4	4.5	15.6	13.2

Source: Author (2016)

Further the study sought to examine how the respondents perceived some financial behaviour attributes. SACCO members were requested to rank the responses on how they found certain attributes important prior to making investment decision. Both frequencies and percentages were used to summarize the data as tabulated in Table 7.

It was important among SACCO members to maintain adequate financial records as indicated by 88.2% who found it important meaning the Sacco members are able to make sound financial decisions. Most of the of respondents (77.1%) reported that it is important to spend less than the income they earn regularly while 71.9% found it important to avoid borrowing so as to finance their financial benefits meaning that SACCO members are sensitized on the need to manage their expenses as compared to their regular income. A percentage 74.3% of the SACCO members found it important to strive to save even in extreme financial circumstances. About 82.9% argued that it was important to have confidence while making their financial decision to ensure they avoid risk during investment.

TABLE 7

Ranking of Financial Behaviour on Investment Decision

			n=288		
	Not Important At All	**Somewhat Important**	**Neutral**	**Very Important**	**Extremely Important**
Maintaining adequate financial records	1.7	4.9	5.2	33	55.2
Spending less than income regularly	3.8	5.9	13.2	40.6	36.5
Avoid borrowing to balance personal budget	3.5	12.5	12.2	39.6	32.3
Striving to save even in difficult circumstances	3.8	9.4	12.5	38.9	35.4
Confidence in financial decision making	1.4	6.3	9.4	37.8	45.1

Source: Author (2016)

4.2.2 Financial Awareness and Investment Decision

The third objective of the study sought to find out the effect financial awareness on investment decision among SACCO members in Nairobi County. Descriptive analysis was used to analyse the ranking of how important SACCO members perceived financial awareness attribute as tabulated in Table 8.

Most of the students (52.8%) argued that the need for financial education was extremely important followed by 37.2% who perceived it to be very important. It is paramount for SACCOs to continuously carry out financial seminars and workshops which are geared towards attaining financial security among SACCO members. Secondly, 79.5% reported that it was important for financial education curriculum to be introduced in the normal formal education in Kenya. If prudent financial management culture is created amongst youngster in early stages of formal education then there are high chances of employing prudent financial management strategies.

TABLE 8

Importance of Financial Awareness on Investment Decision

	n=288				
	Not Important At All	**Somewhat Important**	**Neut ral**	**Very Important**	**Extremely Important**
The need for financial education	2.1	2.1	5.9	37.2	52.8
Financial Education introduce in school curriculum	2.8	7.3	10.4	42	37.5

Source: Author (2016)

In addition, the study sought to examine the usefulness of financial information which was acquired from alternative financial experts who included accountants, financial planners among others as tabulated in Table 9.

Sacco members of about 42.4% reported that accountant provided them with very useful financial awareness information. Both financial consultants and financial planners were perceived to have very useful investment information as accounted for by 47.2% and 46.2% respectively. A bout 41% reported that family members or relatives had fairly useful investment information while 35.8% perceived friends or colleagues to have fairly useful information while 33.7% perceived their information not to be very useful. 39.6% perceived lecturers/teachers/instructors/mentors to have fairly useful investment information.

TABLE 9

Source of Finance Information for Decision Making

	Not Useful	**Not Useful at all**	**n=288 Not very Useful**	**Fairly useful**	**Very useful**
Accountant	4.9	5.2	11.8	35.8	42.4
Financial planner	2.4	2.8	15.3	33.3	46.2
Family members or relatives	7.3	10.8	28.8	41	12.2
Colleagues or friends	8.7	7.6	33.7	35.8	14.2
Finance consultants or experts	3.5	6.9	10.8	31.6	47.2
Teachers/ lecturer/instructor/mentor	6.6	7.6	27.8	39.6	18.4

Source: Author (2016)

4.2.3 Financial Attitude and Investment Decision

The fourth objective of the study sought to establish the effect of financial attitude on investment decision among SACCO members in Nairobi County. Descriptive analysis was used to analyse the responses as tabulated in Table 10.

Most respondents (39.6%) reported that it was fairly true that they were in control of their financial situation while 31.6% felt that they were truly in control of their financial situation. About 41.3% of the respondents felt that it was fairly that they will have capability of using future income to attain financial goal and 31.3% reported that it was fairly true of how they spent their money. Another 30.6% of the respondents reported that it was fairly true that they purchased the items they needed while 27.6% argued that it was fairly true that the cost of credit card was fairly too expensive. Respondents of about 36.8% felt that it was fairly true that keeping some money each month was very important and 46.4% found it fairly very important to understand loan agreements and leases prior to signing them.

TABLE 10

Rating of Financial Attitude on Investment Decision

	n=288				
	Not at all true of me	**Not very true of me**	**Somewhat true of me**	**Fairly true of me**	**Very true of me**
I feel in control of my financial situation	4.9	5.6	18.4	39.6	31.6
I feel capable of using my future income to achieve my financial goals	4.9	9.7	16.3	41.3	27.8
I am uncertain about where my money is spent	13.5	13.9	25	31.3	16.3
Purchasing thin s is very important to my happiness	19.8	19.4	21.2	30.6	9
I am afraid of credit and credit cards	19.4	21.5	17.7	22.6	18.8
I feel the cost of using a credit card is too high	13.2	21.5	14.2	27.4	23.6
I feel putting away money each month for savings or investments is important	2.4	5.9	12.2	36.8	42.7
I feel it is important to understand apartment leases and loan agreements before I sign	1.7	6.3	15.3	29.9	46.9

Source: Author (2016)

Further the study sought to find out the level of agreement on various attributes in regard to financial attitudes and how they influence investment decision. Descriptive analysis was used to analyse the data as tabulated in Table 11.

About 53.8% of the respondent reported that their mental ability on independence had a lot of influence, 51.7% perceived convenience to have similar influence. Thirdly, 39.9% reported that reputation had a lot of influence as compared to 42.4% who attributed similar influence to expertise and 31.6% argued that recommendations of family and friends to have some influence.

TABLE 11

Influence of Financial Attitude on Investment Decision

	n=288				
	No influence	**Little influence**	**Some influence**	**A lot of influence**	**The only influence**
Mental ability on independence	5.2	7.3	19.1	53.8	14.6
Convenience	5.9	8.3	26.7	51.7	7.3
Reputation	7.6	11.8	32.6	39.9	8
Expertise	6.3	8	25.3	42.4	18.1
Recommendation of friends or family	12.2	21.2	31.6	28.1	6.9

Source: Author (2016)

4.3 Binary Logistic Regression Analysis

In order to fit the data into the conceptualized model in the conceptual framework, binary logistic regression model was chosen since the dependent variable, investment decision was dichotomous in nature where the respondent was either influenced positively or negatively. There are different scales of measurements which are nominal, ordinal, interval or ratio and each has different method of its analysis (Kothari, 2004). In the nominal level of measurement the data can be either categorical or dichotomous. Binary logistic regression analysis was the most appropriate method to analyse the data since the dependent investment decision was dichotomous in nature (Gujrati, 2004). Investment decision was computed using SPSS compute command and an overall average index was computed among the six attributes of investment decision. Since the attributes were measured on a five point likert scale. An overall average was calculated and all respondents with a score less than average were considered to have been impacted negative and positively otherwise. The model uses odds ratio being the probability of an event occurring in relation to not occurring. In this current study the aim was to investigate the odds of a SACCO member being influenced positively by financial literacy. Throughout the analysis, the change in the odds is measured by the value of expected (Exp) B.

Further, the study employed -2log Likelihood (- 2LL) as a measure of the goodness of the logistic models while both Cox & Snell R square and Nagelkerke R square show the model explanatory power (Cox & Snell, 1989; Nagelkerke 1991). To check whether the logistic estimates were significant from zero, the study used Wald statistic. Column B in the table 4.10 indicates the magnitude and direction of the given independent variable in relation to organizational commitment. The coefficient gives us the change in proportion of investment decision given a unit change in each attribute of financial literacy.

A test of the full model against the constant only model was statistically significant, indicating that financial literacy reliably differentiated between those with positive and negative investment decision (Chi square=38.584, p-value=0.000 with d.f= 4). Nagelkerke R squared of 0.167 indicated that the model provided a weak fit between financial literacy and investment decision but on overall prediction.

The first hypotheses of the study stated that financial knowledge had no significant influence on investment decision. Results of the study showed that there was a positive and significant relationship between financial management knowledge and investment decision (β= 0.784, Wald = 10.871 and p-value=0.001) thus the study rejected the null hypothesis. This implied that acquisition of financial knowledge increases the influence of investment decision by 0.784 units. Exp (B) value indicated that when financial management knowledge is increased by one unit, the odds ratio is 2.189 times as large and therefore those SACCO which are carrying out finance management knowledge literacy courses have 1.189 times of fostering positive investment decision among its members.

Most studies have supported the positive link between financial knowledge and household financial decision-making. Stango and Zinman (2007) show those individuals who are not able to correctly calculate interest rates out of a stream of payments have a tendency of borrowing more and accumulating lower amounts of wealth by investing very little. Agarwal *et al.*, (2007) show that financial mistakes are most prevalent among the young and the elderly demographic groups that display the lowest levels of financial knowledge and cognitive ability. Studies conducted Lusardi and Mitchell (2006) and Lusardi and Tufano (2008) revealed that individuals who severely take too lightly the power of interest compounding are more likely to experience difficulties in analyzing investment opportunities and repaying loan.

The second hypotheses of the study stated that financial behaviour had no significant influence on investment decision among SACCO members. Results of the study revealed that there was a positive and insignificant relationship between financial behaviour and investment decision among SACCO members ($\beta = 0.122$, Wald = 0.221 and p-value=0.638). The study therefore failed to reject the null hypothesis.

The third hypotheses stated that financial awareness had no significant influence on investment decision among SACCO members in Nairobi County. Results of the study revealed that there was a positive and insignificant relationship between financial awareness and investment decision ($\beta = 0.270$, Wald = 1.221 and p-value=0.269). The study therefore failed to reject the null hypothesis.

The fourth hypotheses of the study stated that financial attitude had no significant influence on investment decision. The study found a positive and significant relationship between financial attitude and investment decision ($\beta = 0.701$, Wald = 9.951 and p-value=0.002)) thus the study rejected the null hypothesis.. This implies that financial attitude increases the influence of investment decision by 0.701 units. Exp (B) value indicated that when financial attitude is increased by one unit, the odds ratio is 2.106 times as large and therefore those SACCO which are carrying out finance attitude literacy programs have 1.106 times of fostering positive investment decision among its members.

The results are inconsistent with Chowa, Despard and Akoto (2012) examined the financial attitudes and knowledge of Youth in Ghana aged 12 to 18 years. The study used both the quantitative and qualitative measure were used to assess individual beliefs, values and understanding of basic financial concepts and how they impact savings accounts and investment in assets. 3000 youths were surveyed. Chowa *et al.* found that about 55% youths had savings in the banks which they were planning to invest after finishing school. This could probably be explained by the fact that most youth in school the student agree that their teacher were offering knowledge on how and when to use money effectively and efficiently.

TABLE 12

Influence of Financial Literacy on Investment Decision

Variable	B	S.E.	Wald	Df	Sig.	Exp(B)
Constant	-6.950	1.303	28.468	1	0.000	0.001
Financial Knowledge	0.784	0.238	10.871	1	0.001	2.189
Financial Behaviour	0.122	0.260	0.221	1	0.638	1.130
Financial Awareness	0.270	0.244	1.221	1	0.269	1.310
Financial Attitude	0.701	0.222	9.951	1	0.002	2.016
-2 Log likelihood	359.779					
Cox & Snell R Square	0.125					
Nagelkerke R Square	0.167					
Chi square	38.584			4	0.000	

Source: Author (2016)

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter summarizes and presents the research findings, from the study. It has been organized to provide a concise summary of the study findings, conclusions, recommendations from the study and areas suggested for further research.

5.1 Summary

The main purpose of this study was to examine the effect of financial literacy on investment decision among SACCO members in Nairobi County. The study was hinged on four research questions which sought to examine the effect of financial management knowledge, financial behaviour, financial awareness and financial attitude on investment decision. The study was guided by the dual process theory and theory of reasoned behaviour. The study adopted descriptive research design. Both simple and random sampling techniques were used to select 385 respondents who were drawn from Airport SACCO, Nation SACCO, Mhasibu SACCO, Jamii SACCO and Hazina SACCO.

The study variables included financial knowledge, financial behaviour, financial awareness and financial attitude and most responses were on a five point Likert scale. Results of the pilot study revealed that the research instrument was reliable since all the variables had reliability coefficient greater than 0.7. The study adopted quantitative data was analyzed used frequency and percentages and the results were presented in form of graphs and tables. Moreover, binary logistic regression analysis was used to examine the nature of the relationship between financial literacy and investment decision.

5.1.1 Financial Knowledge and Investment Decision

The first objective of the study sought to assess the effect of financial knowledge and investment decision among SACCO members in Nairobi County. Descriptive analysis showed that most of the respondents were aware that bond investment had lower risk as compared to corporate stocks; the time horizon of an investment minimized the level of risk exposure though it increased the level of return and they agreed that portfolio investment minimized the level of risk exposure due to chances of risk return trade off. Regression analysis revealed that there was a positive and significant relationship between financial management knowledge and investment decision among SACCO members and the odds for positive investment decision increased as the level of financial knowledge management increased.

5.1.2 Financial Behaviour and Investment Decision

The second objective of the study sought to establish the effect of financial behaviour on investment decision among SACCO members in Nairobi County. Descriptive analysis revealed that most of the SACCO members have personal budgets, the sources of their income were regular and reliable, most preferred loans from friends and relatives and few had monthly financial expenditure which exceeded their incomes. Regression analysis revealed that financial behaviour had no significant influence on investment decision among SACCO members in Nairobi County.

5.1.3 Financial Awareness and Investment Decision

The third objective of the study sought to find out the effect financial awareness on investment decision among SACCO members in Nairobi County. Descriptive analysis showed that SACCO members are continuously in search of financial literacy; this can be attained through continuous seminars and works shops on financial matters. Thirdly there is need for incorporation of financial literacy sessions in the formal system of education and the finance management personnel should be continuously encouraged to employ prudent financial management skills in managing of SACCO financial activities. Regression analysis revealed that there was a positive and insignificant relationship between financial awareness and investment decision among SACCO members in Nairobi County.

5.1.4 Financial Attitude and Investment Decision

The fourth objective of the study sought to establish the effect of financial attitude on investment decision among SACCO members in Nairobi County. Descriptive analysis showed that most of the respondents were in control of their financial situation and they were capable of attaining their future financial goals. In addition, majority perceived credit cards to be expensive and consequently important for SACCO members to save some amount of money every month. Regression analysis revealed that there was a positive and significant relationship between financial attitude and investment decision among SACCO members, ($\beta = 0.701$, Wald = 9.951 and p-value=0.002). This implies that financial attitude increases the influence of investment decision by 0.701 units. Exp (B) value indicated that when financial attitude is increased by one unit, the odds ratio is 2.106 times as large and therefore those SACCO which are carrying out finance attitude literacy programs have 1.106 times of fostering positive investment decision among its members.

5.2 Conclusion

There is need to continuously improve financial knowledge of SACCO members either through adverts or marketing campaign. An engagement of SACCO members in these exercises will trigger positive investment culture and ultimately minimize the level of risk averseness and spread a culture of investment.

Financial attitude had a positive and significant relationship there is need for continued sensitization sessions aimed at creating positive attitude among SACCO members so as to increase the chances of investing in a particular security. These sessions should be geared towards fostering positive financial behaviour such as increased saving and operating within the income limits.

5.3 Recommendations

SACCO management should develop a curriculum aimed at improving the level of financial knowledge among SACCO members as such to enhance their investment decision making. The curriculum should be customized to meet unique needs of particular group of investors and thus increase the demand of SACCO products. Although, financial behaviour have no significant influence on investment decision. There is need for the SACCO members to employ financial behavior's which can trigger positive investment decision since as stipulated in the vicious cycle of poverty if there are low levels of savings then there are high chances of low investment which minimizes the possibility of capital accumulation.

Even though, financial awareness had a positive and insignificant influence on investment decision there is need for customized financial awareness sessions for specific group of SACCO members. This can be attained by understanding the demographics of specific group of respondents and this will ultimately improve the level of information prior to investment decision making.

SACCOs should continuously hold seminars and workshops which are geared towards improving the financial attitude of SACCO members through these workshops the culture of investment in both short term and long term will be triggered and ultimately yield positive economic development.

5.4 Suggestions for Further Studies

The current study examined the effect of financial literacy on investment decision among SACCO members in Nairobi County there is need for a similar study to be carried out among SACCO members in alternative counties. Since SACCO members are drawn from a particular group of respondents there is need for a customized study to be carried among different SACCOs. The current study adopted logistic regression analysis there is need for a study which will adopt structural equation modeling to examine the influence of financial literacy on investment decision among SACCO members. An alternative sampling technique such as snow ball can be adopted as such to draw respondents who have similar features and then examine the impact of financial literacy on investment decision.

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APPENDICIES

Appendix I Letter of Introduction

Elizabeth Mugo,

P.O. Box, 43

Thika.

Date

Name of Respondent-------------------------

Company Name and address-----------------

Dear Sir/ Madam,

RE; REQUEST FOR RESEARCH DATA

I am a master's of Science in Commerce Student at KCA University. You have been randomly selected for the study on "**Effects of Financial Literacy on Investment Decisions among Savings and Credit Co-operative Societies Members in Nairobi**". This questionnaire has five (5) sections. Kindly complete every part of the questionnaire. Please fill the questionnaire as honesty as possible since this information will not be used for any other purpose apart from academic research. The questionnaire is anonymous and no individual person will be identified or connected with a particular set of information or research findings. Your cooperation in completing this questionnaire is greatly appreciated.

Elizabeth Mugo   Dr. Edward Owino

Msc. Student

Appendix II Questionnaire

Dear Participant,

You have been randomly selected for the study on "**Effects of Financial Literacy on Investment Decisions among Savings and Credit Co-operative Societies Members in Nairobi**". This questionnaire has five (5) sections. Kindly complete every part of the questionnaire. Please fill the questionnaire as honesty as possible since this information will not be used for any other purpose apart from academic research. For purpose of confidentiality please do not indicate your name. The questionnaire is anonymous and no individual person will be identified or connected with a particular set of information or research findings. Your cooperation in completing this questionnaire is greatly appreciated.

Instructions: Indicate with a tick (√) or cross (X) in the space(s) provided.

Section I: General information

1. Name of your Saving and Credit Cooperative (SACCOs)………………………………………………………………………..
2. What is your age group?

   [ ] Below 30 [ ] 30- 40 [ ] 41-50

   [ ] 51-60 [ ] Above 60
3. Indicate your income per month

   [ ] Below 20,000. [ ] 20,001 to 50,000. [ ] 50,001 to70, 000.

   [ ] 70,001 to 90,000. [ ] 90,001 to 110,000. [ ] Above 110,000
4. Which of the following best describes your current work status?

   [ ] Working full-time. [ ] Working part-time. [ ] Working on a casual basis.

[ ] Temporarily not working.   [ ] Retired.   Other, please specify: -----------

Section 11: Assessing financial Knowledge

Please insert a check mark (√) in the appropriate column to indicate extent to which you agree or disagree of each of the following statements:

	Statement	Disagree fully	Disagree partially	Do not know	Agree partially	Agree Fully
4	Buying a company stock usually provides a safer return than stock mutual fund.					
5	When interest rate rises the bond price falls					
6	Company stocks are riskier than bonds					
7	Bonds compared to savings accounts and stocks considering a long investment period gives highest interest return.					
8	When investors spread their money among different assets the risk of losing money decreases.					
9	Imagine that the interest rate on your Sacco investment account was 1% p.a and inflation was 2% p. To what extent do you agree that the goods and services that you would be able to buy with the money in this account after one year would be less than today.					
10	To what extent do you agree that buying single company stock usually provides a safer return than a stock mutual fund.					

Section II1: Assessing Financial Behavior

Please insert a check mark (√) in the appropriate column to indicate the extent to which you agree or disagree of each of the following statements:

	Statement	Disagree fully	Disagree partially	Do not know	Agree partially	Agree Fully
11	I have a personal budget.					
12	My household income each month is regular and reliable.					
13	I currently owe money to a friend or a family member as a loan.					
14	I currently owe money on my credit card.					

Please insert a check mark (√) in the appropriate column to indicate your ranking of the importance of each of the following items using one the following five-point scale: 1=**Not Important At All; 2= Somewhat Important; 3=Neutral; 4=Very Important; 5= Extremely Important**

		1	**2**	**3**	**4**	**5**
15	Maintaining adequate financial records					
16	Spending less than income regularly					
17	Avoid borrowing to balance personal budget					
18	Striving to save even in difficult circumstances					
19	Confidence in financial decision making					

Section IV: Assessing Financial Awareness

Please insert a check mark (√) in the appropriate column to indicate your ranking of the importance of each of the following items using one the following five-point scale:

1= Not Important; 2= Partially not important; 3=Neutral; 4=Very Important;

5= Extremely Important

	Statement	1	2	3	4	5
20	The need for financial education					
21	Financial Education introduce in school curriculum					

Please indicate which of the following people you have consulted to assist with your financial decision-making, and rate the usefulness of the information / advice provided by each person

		Not Useful	**Not Useful at all**	**Not very Useful**	**Fairly useful**	**Very useful**
22	Accountant					
23	Financial planner					
24	Family members or relatives					
25	Colleagues or friends					
26	Finance consultants or experts					
27	Teachers/ lecturer/instructor/mentor					

Section V: Assessing Financial Attitude

Rate the following items on a scale of 1-5: **1 =Not at all true of me; 2= Not very true of me 3= Somewhat true of me; 4= Fairly true of me and 5 =Very true of me**

	Statement	**1**	**2**	**3**	**4**	**5**
29	I feel in control of my financial situation					
30	I feel capable of using my future income to achieve my financial goals					
31	I am uncertain about where my money is spent					
32	Purchasing thin s is very important to my happiness					
33	I am afraid of credit and credit cards					
34	I feel the cost of using a credit card is too high					
35	I feel putting away money each month for savings or investments is important					
36	I feel it is important to understand apartment leases and loan agreements before I sign					

Please rate the extent to which each of the following factors on attitude influences your decision on financial investment.

		No influence	**Little influence**	**Some influence**	**A lot of influence**	**The only influence**
37	Mental ability on independence					
38	Convenience					
39	Reputation					
40	Expertise					
41	Recommendation of friends or family					

Section VI: Assessing Investment Decisions

Please insert a check mark (√) in the appropriate column to indicate whether you agree or disagree of each of the following statements:

	Statement	Disagree fully	Disagree partially	Do not know	Agree partially	Disagree Fully
43	I have a plan to make an investment option switch in the next 12 months.					
44	A government saving bond tends to have the highest growth compared to stock.					
45	To earn the highest expected long term growth, a pension scheme should invest in Treasury bills					
46	A high-risk high return investment strategy is suitable for an elderly retired couple living on fixed income					
47	Your ownership in a mutual fund is proportionate to the number of shares you own in the fund					
48	It’s a good idea to buy less insurance for an old car than for a new car					

Appendix III List of Licensed SACCOs in Nairobi 2016

1. Afya Sacco Society Ltd
2. Ardhi Sacco Society Ltd
3. Asili Sacco Society Ltd
4. Chai Sacco Society Ltd
5. Chuna Sacco Society Ltd
6. Elimu Sacco Society Ltd
7. Fundilima Sacco Society Ltd
8. Harambee Sacco Society Ltd
9. Hazina Sacco Society Ltd
10. Jamii Sacco Society Ltd
11. Kenpipe Sacco Society Ltd
12. Kenversity Sacco Society Ltd
13. Kenya Bankers Sacco Society Ltd
14. Kenya Police Sacco Society Ltd
15. Kingdom Sacco Society Ltd
16. Magereza Sacco Society Ltd
17. Maisha Bora Sacco Society Ltd
18. Miliki Sacco Society Ltd
19. Mwito Sacco Society Ltd
20. Nacico Sacco Society Ltd
21. Nafaka Sacco Society Ltd
22. Nassefu Sacco Society Ltd
23. Nation Sacco Society Ltd
24. Nyati Sacco Society Ltd
25. Safaricom Sacco Society Ltd
26. Sheria Sacco Society Ltd
27. Shirika Sacco Society Ltd
28. Shoppers Sacco Society Ltd
29. Stima Sacco Society Ltd
30. Ufanisi Sacco Society Ltd
31. Uchongaji Sacco Society Ltd