

**DEMOGRAPHIC AND SOCIOECONOMIC FACTORS
INFLUENCING FINANCIAL LITERACY AMONG
EMPLOYEES OF DELOITTE KENYA**

BY

REGINA A. OOKO

UNITED STATES INTERNATIONAL UNIVERSITY

SUMMER 2017

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**A Research Project Report Submitted to the Chandaria School
of Business in Partial Fulfillment of the Requirement for the
Degree of Masters in Business Administration (MBA)**

UNITED STATES INTERNATIONAL UNIVERSITY

SUMMER 2017

STUDENT'S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed:

_____ **Date:** _____

Regina Ooko (ID 636730)

This project has been presented for examination with my approval as the appointed supervisor.

Signed:

_____ **Date:** _____

Dr. Timothy Okech

Signed:

_____ **Date:** _____

Dean, School of Business

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ABSTRACT

The purpose of this study was to analyse the impact of demographic and socio economic factors on financial literacy of employees of Deloitte Kenya. Three research questions were formulated to facilitate the realization of this. These were: (1) What is the level of financial literacy of the employees working in Deloitte Kenya? (2) What is the relationship between demographic factors and the level of financial literacy among employees working in Deloitte Kenya? (3) What is the relationship between socio-economic factors and the level of financial literacy among employees working in Deloitte Kenya? The demographic factors investigated in the study were gender, age and education level. The socio-economic variables considered included income level, employment status and sources of information at the workplace.

The study focused on a population of 337 employees working in Deloitte Kenya. The sampling frame used was the list of all employees working in the organization. The sampling technique employed in the study was the stratified random sampling where respondents were divided into five strata according to the five departments that is audit, tax, ERS, ICS and consulting. From this, a sample on 183 employees was obtained. Primary data was collected using a structured questionnaire that contained both open ended and close ended questions. The questions assessed the respondent's understanding of the basic financial concepts of interest rates, inflation and risk diversifications. The questionnaire also requested for demographic and socioeconomic data from the respondents. Data analysis carried out using SPSS to obtain both descriptive and inferential statistics. The results of the study were then presented using tables, charts and graphs.

The findings of the study revealed that the overall financial literacy level amongst the employees at Deloitte is high. Eight four percent of the respondents obtained the pass mark for the financial literacy test. From the research, it was also evident that financial literacy has a significant relationship with demographic factors.. The respondents who were male, have higher education levels and young in age were observed to have higher financial literacy levels. Socio-economic factors were also found to have an influence on financial literacy. Respondents who had lower income levels and relied on external formal sources of information were observed to be more financial literate. No significant relationship was observed between employment status and financial literacy.

To improve the research, the study recommends that further studies focus on the development of a uniform tool for measuring financial literacy. The use of a standardized tool will improve future researcher's ability to identify deficiency in financial literacy of the population being studied. While the research indicated a significant relationship between demographic factors and financial literacy, it did not identify the major cause of this gap. Further studies should investigate the factors contributing this gap as this will contribute towards improving the financial literacy of women and the less educated who make up the majority of the Kenyan population. Finally, the research did not take into consideration other socio-economic factors of the participants as it was only limited to the three mentioned earlier. More work should be carried out by other researchers to determine the impact of other socio-economic variables on financial literacy.

ACKNOWLEDGEMENT

I wish to thank the USIU teaching fraternity, specifically my supervisors Prof. Paul Wachana and Prof. Timothy Okech for the guidance offered in my academic journey. Many thanks goes to my family for the emotional and financial support.

DEDICATION

I dedicate this project to my family. You have continuously encouraged and believed in me.

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LIST OF ABBREVIATIONS

ANZ- Australia and New Zealand Banking Group

DFID-Department for International Development

ERS-Enterprise Risk Services

ICS-Internal Client Service

KSH-Kenya Shillings

OECD-Organization for Economic Cooperation and Development

UAE-United Arab Emirates

US- United States of America

UK-United Kingdom

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Financial literacy is defined as the possession of various skills and knowledge without which an individual is not able to make the right financial choices (Atkinson & Messy, 2012). It is also described as the ease with which an individual can use and apply information relating to basic financial matters in making sound financial decisions (Huston, 2010). ANZ (2011) expands the definition by Hung above to include the use of financial knowledge to make every day decisions such as budgeting, investing and saving. Financial literacy is the possession of the basic fundamentals and notion that is critical to an individual making wise decisions with regards to the proper use of money (Garman & Gappinger, 2008). It also includes an understanding of the adverse consequences that result from these basic concepts include inflation, risk diversification and interest rates (Lusardi, Mitchell & Curto, 2010).

Why is there so much emphasis on financial literacy today? Financial literacy is a global concern as it is an issue affecting both the developed and third world countries. Policymakers in both developed and developing countries are increasingly recognizing the importance of financial literacy (Lusardi & Mitchel, 2009). Due to increased competition in the financial market, many financial institutions had to relax their strict requirements in a bid had to make it easier for potential customers to gain easier access to the financial market. Therefore the number of participants in the financial markets has greatly grown in the last two decades (Abraham & Michael, 2012). In addition, consumers in today's financial market are offered a vast array of products to meet their financial needs.

Further, economic and technological developments have brought massive changes in the way financial transactions today are carried out. These products are of a more complex degree today than they were yesterday due to various technological and economic advances in the financial market (White House, 2012). Due to these changes, individuals are now faced with increasingly complex financial products and services, which are continuously being changed and updated and due to these changes, those without basic financial knowledge are finding it increasingly difficult to make financial decisions with minimal

adverse effects (Mitchel, 2011). This high degree of complexity of these products also requires that the consumers of financial products are better equipped with financial knowledge and skills to first understand their needs, critically evaluate the products offered, and identify those that meet their needs and select that which suits their needs and financial circumstances (Worthington, 2005).

Given the technological advances coupled with the complex financial products being offered, Hung, Parker & Yoong, (2009), avers that the process of making financial decisions has become more challenging. Financial illiteracy has been blamed for the global financial crisis between 2007 and 2009 which led to significant financial losses to many households, individuals and the economy as a whole (Bucher-Koenen & Ziegelmeier, 2013). Financial literacy is therefore a global concern.

Several studies have established a correlation between financial literacy and financial behavior. At the individual level, high financial literacy levels are associated with sound financial behavior such as stock market participation , increased wealth accumulation (Van Rooij , Lusardi & Alessie, 2011a), efficiently investing in a low fee investment portfolio (Hasting, 2012), increased savings and investment in retirement plans (Van Rooij , Lusardi & Alessie, 2012). At the household level, financially literate individual appreciate the importance of a budgeting which in turn lead to more efficient resource allocation on the household's needs and increased savings. Increased savings ensures that the quality of life for the family is not compromised even when faced with emergencies or unanticipated changes such as the loss of a job. (Choi, Laibson & Madrian, 2011). Financially literate individuals are also likely to plan for their investments, critically analyze the choices of financial products available in the market before picking their choice and also likely to exhibit a high risk appetite by investing in riskier investment to maximize their return on investment (Lusardi & Mitchell, 2007).

Individuals should therefore seek to increase their understanding of the different financial products and services being offered in the market through reading, research, seeking the services of professional advisors or enrolling for financial programs. With this knowledge, the investor is able to acquire the skills and confidence needed to become more aware of financial opportunities and risk as well as make informed financial decisions that will improve their wellbeing. (OECD, 2011). Behaviors attributed to financial literacy such as effective debt management and timely settlement of bills improve the credit worthiness of

an individual and one is able to gain relatively easier access to debt and thus able to invest more and lead to greater financial well-being (Lusardi & de Bassa Schezeresberg, 2013).

Low financial literacy on the other hand is associated with low levels of savings and poor portfolio selection (Lusadi & Tufano, 2009). Less financially literate individuals are likely to maintain high debt levels that are difficult to manage and therefore face challenges in servicing these loans. In addition to making bad choices for their investments, financially illiterate individuals are less likely to be able to cope with the consequences of these poor decisions (Kefela, 2010).

Research studies carried out across the world indicate that financial literacy levels are low in most groups of the population and that most individuals lack basic financial knowledge which is needed to make sound savings and investment decisions. Financial literacy surveys in developed countries such as the U.K. revealed that financial literacy levels were low especially among the younger members of the population, low income earners and the poorly educated (Atkinson, Stephen, Elaine & Sharon, 2006). The general understanding of simple basic financial concepts such as interest rates and mortgages was low in the UK (Miller, 2004). In Japan, majority of population does not have any knowledge on basic financial products (OECD, 2005). Lusardi and Mitchel (2006) and Lusardi and Mitchell (2011b) reported similar findings among the working adults and high school students in the US.

Financial literacy studies carried out in developing countries have also exhibited similar results. A large proportion of the population of Uganda was found to lack understanding on basic financial principles such as interest rates according to a survey by FinScope in 2013. Similar observations were made among final year diploma students in South Africa (Botha, (2013,) Louw, Fouche & Oberholzer (2013) and Shambare & Rugimbara (2012)). Financial literacy is low in Kenya (Wachira & Kihui, 2012). Only half of the adult Kenyan population knows how to use basic financial products (DFID, 2008).

It can be concluded from the above studies that financial literacy levels are low worldwide and this is a problem faced globally by both developed and developing nations. It can be concluded from the above that financial literacy levels are low globally and is a problem faced by both developed and developing countries.

1.2 Statement of the Problem

Various studies have linked adverse financial outcomes resulting from poor financial decision making to stress to an individual (Ali, Raheem, Nawaz & Imamuddin (2014). Stress suffered by employees has been linked to money problems resulting from poor financial behavior such as indebtedness, over spending, poor credit use which led to inability by the employee to make ends meet. This stress ends up being spilled at the work place (Brown 1993). When a worker fails to honor their financial responsibilities they face a lot of financial difficulties and end up being stressed both at home and the work place (Sporakowski, 1979). High stress levels lead to poor health which leads to poor job performance by troubled workers and ultimately affects the organizations productivity and profitability. (Kim & Garman, 2006). Therefore, financial illiteracy can also be a cost not just to the individual but also his employer. Poor basic financial knowledge contributes to a decline in an employee's productivity and therefore it is recommended that employers should engage in financial literacy programs for their employees to help improve productivity at the workplace (Garman, Kim, Kratzer & Brunson 1999).

Complex financial products coupled with low levels of financial literacy and the impact of the financial distress arising from poor decision making emphasizes the need for more focus on financial literacy by individuals, policy makers and employers (OECD, 2008). The complex financial products, financial stress and the need to retain a stress free workforce has necessitated the need of workplace financial education which many employers are yet to adequately respond to since they are not aware of the adverse costs associated with employees who are faced with financial stress (Garman & Leech, 1997).

Currently little research evidence both globally and in Kenya exist that assesses financial literacy among employees in general and in particular the service industry. Further, when examining existing research, on financial literacy, a lot of this work has been undertaken in the developed countries and have focused on pensioners and pension schemes, high school and university students and households (Lusardi and Mitchel, 2007, Van Rooij *et al.*, 2011, Lanerretche & Martinez, 2013 and Gaudecker, 2015) and not the third world countries especially those in Africa (Murendo & Mutsonziwa, 2016). There is a knowledge gap on financial literacy in developing countries despite its importance to their economic growth (Xu & Zia, 2012). Furthermore, much of this research work has paid less attention has been paid to employees (Mbarire & Ali, 2014).

From the above analysis, it is clear that there is still inadequate data on financial literacy of employees which is a matter of great concern due to the company's performance and on the economy as a whole. It is with these considerations in mind that the study was undertaken. This study sought to address this knowledge gap by determining the financial literacy levels amongst employees working in Deloitte Kenya, determine the influence of demographic and socio economic factors on the level of financial literacy levels among these employees.

1.3 Purpose of the Study

The purpose of this study was to determine the effect of demographic and socioeconomic factors on the financial literacy levels of employees working in Deloitte Kenya.

1.4 Research Questions

This study was guided by the following research questions:

- 1.4.1 What is the level of financial literacy of the employees working in Deloitte Kenya?
- 1.4.2 What is the relationship between demographic factors and the level of financial literacy among employees of Deloitte Kenya?
- 1.4.3 What is the relationship between socio-economic factors and the level of financial literacy among employees of Deloitte Kenya?

1.5 Significance of the study

This study will provide significant insight to the following:

1.5.1 Government

The findings from this research will be valuable to the government and other policy makers who will use information resulting from this research to form a basis for formation of government policies governing financial literacy among individuals.

1.5.2 Employers

The findings from this research will be valuable to employers as the findings will emphasize the need for financial literacy programs in the workplace and the need to devise

appropriate strategies that will increase the level of financial literacy among their employees and in turn improve the firm's profitability. Findings from this research have important implication with respect to the need for workplace financial education.

1.5.3 Learning Institutions

In a bid to grow the countries awareness on financial matters, basic financial concepts will be introduced in the learning institutions curriculum. This will ensure that the knowledge is cultivated among all learners from an early age as they pursue their education and as a result improve financial literacy levels in the long run.

1.5.4 Researchers

This study shall contribute to the existing body of work on financial literacy and knowledge and offer a uniquely Kenyan perspective in this area. Moreover, it is anticipated that this study will spur further interest in the research of financial literacy levels and the determinants of financial literacy among employees within the Kenyan context. The research information will also provide vital data to assist and benefit researchers carrying out research in this field.

1.6 Scope of the Study

The study examines the impact of demographic and socioeconomic factors on the level of financial literacy among employees working in Deloitte. The research participants will be limited to those working in Deloitte Kenya.

1.7 Definition of terms

1.7.1 Financial Literacy

For the purposes of this paper, financial literacy is defined as a combination of financial awareness, knowledge, skills, attitude and behavior necessary to make sound financial decisions and eventually achieve financial well-being (OECD, 2008).

1.7.2 Investment

Investment is the decision by an individual to purchase a financial asset with a certain level of risk such as property, stocks and shares, bonds and financial derivatives in order to generate profitable returns over a period of time (Beal & Delpachitra 2003).

1.7.3 Demographic factors

A populations demographic factors is expressed in terms of gender, age, education (Bowen & Ostroff, 2004).

1.7.4 Socioeconomic factors

A populations demographic factors is expressed in terms of wealth, income, status and occupation (Morales, 2002).

1.8 Chapter Summary

This chapter provided the introduction in terms of the topic of study. It also gave a background on the issue of financial literacy, statement of the problem purpose of the study and the research questions. Other subsections also include the significance of the study, scope of study and definition of terms.

Chapter two will provide literature on the basis of the research questions, followed by research design and methodology in chapter three, results and findings in chapter four and finally the summary of findings, discussions, conclusions and recommendations are provided in chapter five.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents literature based on the research questions on the topic of financial literacy. The first subsection provides literature on the financial literacy of employees, followed by an analysis of literature on the relationship between demographic factors and financial literacy on subsection two. Finally, subsection three provides literature on the influence of socio-economic factors on financial literacy.

2.2 Level of Financial Literacy of Employees

This subsection presents literature based on the definition of financial literacy, the relationship between financial literacy and financial behaviour and finally how to determine financial literacy levels.

2.2.1 Defining Financial Literacy

There is no single and universally accepted definition of financial literacy. There are many definitions of financial literacy used by different researchers in their studies (Hung, 2010). It was proposed by other researchers that there should be two dimensions to financial literacy that is the possession of financial knowledge and the ability to apply this knowledge in making sound long term and short term financial decisions (Remund, 2010) Financial literacy refers to the awareness of information, attributes, aspects, ideas, notions and technological solutions fundamental to the efficient use of money (Garman & Forgue, 2012). This definition has been expounded to include the ability of a person to use this knowledge in making financial plans as well as managing their finances (Mahdzan & Tabian, 2013). Financial literacy also refers to people's ability to make informed decisions on effective debt management, income and annuities based on their knowledge of economic matters (Lusardi & Mitchell, 2014).

Six key competencies have been identified that should be possessed by a financially literate individual (Huston (2010). The first competency was the money basics competency, which basically takes the form of money management skills such as calculating interest due and understanding inflation. These skills play a big role in enabling an individual efficiently

budget and save. The second competency is that of budgeting, which is an outcome of the money management skills. A budget is a plan that keeps track of one's income and expenditure and is designed to ensure that the expenditure does not exceed the earnings (Mathew, 2010). Budgeting prevents unnecessary expenditure and encourages savings (Kempson, 2009). The third competency is savings which is a direct result of budgeting. Financial literacy promotes wealth accumulation through savings (Van Rooij *et al.*, 2011a). Financially literate individuals understand the need and importance of saving for a rainy day. The fourth competency relates to borrowing and debt literacy. This simply is the ability of an individual to understand debt, determine whether it is really necessary, what levels of debt are necessary and manageable when compared to one's income. Financial literacy levels are higher in individuals that chose mortgages with lower fees as opposed to those who chose expensive debt (Choi *et al.*, 2011). The understanding of financial products is the fifth competency. This basically requires the understanding of the relationship between risk and return associated with a particular financial product, knowledge on one's financial health and an understanding of financial statements and financial ratios. Financially literate people understand the concept of risk and return better and are able to invest in a diverse portfolio that maximizes their returns and at the same time minimizes risk (Graham, Campbell & Hai, 2009). The final competency is recourse and self-help which basically is the ability to identify fraudulent schemes and interpret both financial and legal language (Huston, 2010).

Although an individual possesses the above competencies, one still requires skills and confidence in order to be able to apply this knowledge. This ability forms part of the definitions of financial literacy (Huston, 2010). Financial literacy should also include knowledge on the basic concepts of finance and the ability to utilize this knowledge to make short term and long term financial decisions (Remund, 2010).

The above definitions formed the basis of assessing financial literacy in this study as the respondents were assessed on the basis of their knowledge of the basic and advanced principles of finance and their ability to apply this knowledge.

2.2.2 Financial Literacy and Financial Behaviour

Several studies that have examined the link between financial literacy and the financial behaviors of individuals. The results of these studies indicate that financial literacy is

correlated with investment behavior in one way or another (Hilgert, Hogarth and Beverly, 2003). Money and financial management skills are influenced by financial knowledge and have a direct impact on how an individual makes decisions around budgeting, saving and spending (Pellinen, Tormakangas, Uusitalo, & Raijas, 2011). In comparison to the average population, stock market participants generally have a higher level of financial literacy and therefore there is a positive link between being financially literate and investing in the stock markets products. Investors who are more financially literate understand and appreciate the opportunities offered by the stock market and take up these opportunities in order to maximize their returns (Van Rooij., Lusardi & Alessie, 2011a). Financial literacy is also linked to portfolio diversification. Financially literate investors seek information on the financial products they intend to invest and use this knowledge in building efficient portfolios with a wide range of products with different returns and risk level. As a result such investors are able to take advantage of opportunities presented in the financial markets by investing in these portfolios and reaping great rewards (Abreu and Mendes, 2010). Because being financially illiterate hampers the ability of individuals to make well-informed financial decisions, people who exhibit problems with financial decision making will most likely seek financial advice from financial experts to mitigate against the risks associated with low levels of financial literacy (Muller & Weber, 2010).

Academic literature also shows that there is a positive relationship between financial literacy and planning and saving for retirement. Financial literacy is linked to low propensity to save. Individuals who were less financially literate are less likely to save for the future. (Van Rooij *et al.*, 2011a). Recent research also suggests that financial literacy encourages good debt management skills and reduces the probability of delays in mortgage payments. Financially literate individuals will avoid high unmanageable levels of debt as this will lead to high interest charges and increase the probability of incurring difficulties in meeting the debt obligations and eventually defaulting on payments. Therefore financially literate individuals are less likely to have high debt levels and default on their loan or mortgage payments which earns them better credit rating scores when seeking out for loans (Fornero & Trucchi, 2011). Robb and Sharpe (2009) noted a significant relationship between credit card balance behaviour and financial literacy. This finding was made in their study where it was observed that college students who exhibited higher scores for financial literacy presented more efficient credit spending and payment behaviours.

Low financial literacy can lead to adverse outcomes for households. This is because they do not effectively plan for their retirement (Bucher-Koenen & Lusardi, 2011), make little or no savings (Beckmann, 2013), incur high interest rates for huge borrowings which they end up defaulting on (Brown & Graf, 2012) and do not invest in an optimal portfolio that will minimise risk but guarantee them a better return (Guiso & Jappelli, 2008).

From the studies above, it is clear that higher levels of financial literacy are associated with good investment behavior and vice versa. Financial literacy empowers individuals. It improves their ability to handle day-to-day financial matters, helps them avoid the consequences of poor financial decisions that could take years to overcome, and helps them make informed and confident personal money decisions (Garman & Fogue, 2012). It is critical that all individuals possess some basic financial knowledge as this will enable them to make well thought decisions both in the long term and short run (Fernandes, Lynch, and Netemeyer, 2014).

2.2.3 Determining Financial Literacy Levels

One problem identified by researchers in the analysis of financial literacy is the lack of a uniform tool for measuring financial knowledge (Hung, Parker, and Yoong, 2009). Different researchers have applied the use of different types of tools to collect and analyse data on financial literacy. In their study, Zhan, Anderson, and Scott (2006) prepared a questionnaire based on forty eight true false questions covering credit card use, interest rates, banking and lending practices. The participants were assessed on how many correct answers they obtained. In their study, Allgood & Walstad, (2013) analysed financial literacy based on five questions that covered various topics in the finance field such as interest rates, inflation, stock diversification, bond prices and mortgages. The same methodology was applied in the study by Bumcrot, Lin, and Lusardi (2013) to determine the participant's financial literacy levels. Lusardi *et al.*, (2012) designed a questionnaire with three simple multiple choice questions to test the respondent's basic knowledge on financial concepts. The first question measured one's understanding of interest rates, the second inflation and the third the knowledge of risk diversification (Lusardi & Mitchell, 2011b). These three questions formed the basis of assessing the basic level of financial literacy in many studies.

In their study of Dutch households, van Rooij *et al.* (2009) classified financial literacy into basic and advanced levels. Similar to Lusardi and Mitchell (2010), they assessed basic

financial literacy based on one's understanding of the working of interest rates and inflation. Advanced financial literacy was determined based on one's understanding of the different financial market instruments such as bond, mortgages, stocks and shares. This was similar to the approach adopted in the survey of Adult Financial Literacy in Australia (ANZ, 2008). Financial literacy was classified into two broad levels, basic requirement and advanced competency. The advanced competency was determined by how well the respondents understood the stock market and its products. Splitting the assessment of financial literacy into basic and advanced was found to be a more objective way of analyzing financial literacy according to (OECD, 2008).

Other researchers incorporated the use of the self-assessment approach in determining the financial literacy levels of the population they were carrying out their research studies on in addition to the tests on their actual knowledge. This is where an individual is asked to rate themselves according to the way they perceive their level of understanding of financial matters (Lusardi & Mitchell, 2009). With this approach, it was observed that there was often a mismatch between people's self-assessed knowledge versus their actual knowledge. People tend to rate their perceived knowledge to be higher than what is reflected by the measurements on the actual knowledge. While the results of actual knowledge are low; respondents are generally rather confident of their perceived level of financial and tend to rate themselves highly. This was reported in the 2009 U.S. Financial Capability Study where 70 % of respondents gave themselves a score of 4 or higher out of 7, but only 30% answered the questions correctly (Lusardi 2011a). Similar findings were reported in studies carried out in the Netherlands (Bucher-Koenen & Michael, 2011) where it was observed that most people who rated themselves highly tended to perform poorly in the financial literacy test. Most people tend to overestimate rather than underestimate themselves when it came to self-rating. It was therefore likely that how people perceived their financial literacy levels could be a valid indicator of their financial behaviour.

2.3. Demographic Factors and Financial Literacy

Various studies have shown a significant relationship between demographic variables and financial literacy. The main factors considered include gender, age and education.

2.3.1 Gender

Financial literacy may be shaped by the different roles that men and women play in the society which are determined by their gender (Coltrane, 2000). While women traditionally did the housework, took care of the home and the children, men were the providers and not only took care of themselves but also their families. This autonomous nature of men automatically predisposes them towards being more financially literate in order to be able to be financially dependent and in a position to meet their families' basic needs (Thompson & Walker's, 1989). Therefore since traditionally men have been responsible for the financial support of their families, women were exempted from this role and become dependent on their husbands to meet the financial needs of the home. These traditional values therefore placed the financial obligation on the male as the head of the family (Steil, 1997).

Women's role traditionally has been put at that of taking care of the home, ensuring the home affairs are running well and that it is well maintained. In some homes, women are in charge of budgeting for the home and determining what is needed for the effective running of the house and that house bills are paid on time (Chen & Volpe, 2002). As women attach sentiments to many aspects in their live, this is likely to extend to the running of the home. The need to provide and save for the children overrides the need to save for their personal needs. Therefore women are more likely to spend on their children that save money for future use when they retire (Frankel, 2008). Traditionally, the role of handling finances is left to men and most women will not pursue education on financial matters unless circumstances such as divorce or the death of their spouse force them to be in charge of financial matters in the family (Bach, 2002). Many are happy to co-sign any financial documents presented to them by their husbands without reviewing or querying the same on the basis that he has already analysed it These are depressing statistics given that research indicates that majority of women support themselves financially strained at one point of their lives and once they retire they end up suffering more than men who have saved and invested wisely in preparation for retirement ((Knight & Knight, 2000).

Several studies have been carried out to determine the impact of gender on financial literacy. It was observed that there were large differences between the genders with most studies showing that males display higher levels of basic financial knowledge as compared to females (Lusardi *et al.*, 2010). Chen & Volpe (2002) were some of the first researchers

to note a difference between the levels of financial literacy between males and females in their study of college students. The findings of the study revealed that women generally have less enthusiasm for financial matters. This could explain their poor performance when it came to the tests on financial knowledge. The research carried out by Crossan, Field, Gallacher and Merrill (2003) in New Zealand indicated that females exhibited lower financial literacy scores than their male counterparts. These results are consistent with the findings of Lusardi and Mitchell (2011). Gender differences spotted in financial literacy levels are explained by the different roles taken by the wife and husband when it comes to decision making. While the woman focuses on the household decisions the man is left to decide on the crucial financial matters which in most cases will require some form of financial knowledge which he will seek to build on to enable him make better and informed decisions (Hsu, 2011).

Gender differences become even clearer when one considers the advanced levels of financial literacy. Females continue to display poor results as compared to their male counterparts (Gallagher *et al.*, 2011). In their survey of college students, Zissimopoulos, Karney & Rauer (2008) observed that more than 80% percent of the female respondents did not correctly answer the question on compounding interest as compared to 65% of the male respondents. This observations were consistent even in studies conducted on a population of highly educated young adults. The females did not perform as well as their male colleagues had lower scores (Mahdavi & Horton, 2012, Balloch, Nicolae & Philip, 2015).

In contrast, Klapper & Panos (2011) and Beckman (2013) in their researches had different findings. According to these studies there were no significant differences in the financial literacy scores noted between the different genders.

From the above analysis of the various literatures, it is clear that in most of the studies, gender was found to be a key determinant of financial literacy with males exhibiting higher levels of basic and advanced knowledge as compared to their female counterparts. However, some researchers were of a different view arguing that one's gender does not determine their financial literacy. This study sought to verify the earlier findings presented by other researchers.

2.3.2 Age

Age has been determined to have an impact on financial literacy. The life cycle hypothesis model of consumption and savings as developed by Modigliani and Brumberg (1954) implied that an individual's consumption and savings behaviour is planned over their life cycle. In their study they noted that one's consumption needs and income levels are often different at the different stages in the life cycle. It was specifically observed that at a younger age, an individual is likely to have less income than their needs. These needs include the need for basic needs such as food, shelter, clothing education and medical care. An individual at this stage of the life cycle will have very little savings as they are likely to take up debt in order to be able to meet these needs. Earlier in the working life of the individual which is likely to occur at the middle age, their income begins rising and as they pay off the debts incurred earlier in life they remain with surplus amounts which they start accumulating as savings. Once they reach the retirement age, income levels start decreasing and the individual now depends on the accumulated savings to meet their basic needs. The level of savings at this stage of the life cycle also decreases (Lusardi *et al.*, 2012; Lusardi and Mitchell, 2014).

Basic literacy to be negatively skewed with regards to age. The score was higher for the middle aged respondents (between 40 and 60 years old) and declined slightly for the respondents above 61 years. Advanced financial literacy on the other hand was found to be low among those below 40 years, highest among those between 40 and 60 years and declining slightly above 60 (Van Rooij *et al.*, (2009). These findings were consistent with the results of the ANZ (2008) survey where financial literacy was found to be low among those between the ages of 18 and 24, highest among those above 24 years. However, those above 70 years displayed the lowest financial literacy scores. Lusardi *et al.* (2010) investigated financial literacy among the young in the US. The results of this study were consistent with the above result and it was concluded that financial literacy levels were higher among the young. Lusardi & Mitchell (2013) in their study affirmed the findings of previous literature that financial literacy increases with age, but decline at old age.

The above differences in the financial literacy scores in terms of age may be explained by one's stage in the life cycle (Ameriks, Caplin & Leah, 2002). As the young are still investing in their education, have little or no income and are therefore making fewer savings

and investments. However at the middle age, the pressure to invest is high and an individual requires financial knowledge in order to make optimal financial decisions for their investments. This could explain the higher levels of financial literacy witnessed amongst middle aged adults in many studies.

The differences in financial literacy scores may also be explained from a biological concept. The ability to make sound decisions declines with an increase in age. Thus the risk of making wrong investment decisions is higher among individuals in the older age bracket due to their relatively lower levels of financial literacy (Fink, Schwab & Papousek, 2011). The study by explained the lower levels of financial literacy seen among the older population as caused by the decline in cognitive ability which naturally occurs among the senior citizens. Cognitive ability is the mental skills that one needs in order to think and reason (Malmendier & Nagel ,2011) Therefore the lower financial scores among the older aged members of the population can be explained by decline in their cognitive abilities.

In contrast, Gallery *et al.*, (2011) had findings which contradicted the conclusions of other researchers. In their study, they found that there was a positive association between age and financial literacy. This means that the older generation displayed the highest levels of financial literacy as compared to the middle aged and younger generations. Worthington (2006) in his study of Australian adults also arrived at the same finding where it was concluded that financial literacy was highest among individuals between 50 and 60 years of age. This finding was further supported by Bushan and Medury (2013) whose study revealed that financial literacy was highest among respondents above 61 years, followed by those between 50 and 60 years and lowest amongst respondents between 20 and 30 years of age.

It is clear that age also plays a big role in determining financial literacy and the aim of this study was to reaffirm the arguments that have been put forward by other researchers who have carried out research in this area.

2.3.3 Education

Education is an important determinant of financial literacy (Murphy, 2013). The level of education has been found to have a positive relationship with both basic and advanced financial literacy (Mwangi & Kiniu (2012), Van Rooij *et al.*, 2009, ANZ Survey 2008 and Gallery *et al.*, 2011). Those completed their university or college education were found to

have a higher score for the financial literacy test as compared to those whose highest level of education was at the high school level (Balloch *et al.*, 2015). With higher education, people are expected to have a higher understanding of financial matters and are likely to make better investment choice. Educated people are able to better manage their money better in terms of budgeting, savings and in terms of selecting investments with higher returns (Hogarth, 2002).

Some studies even go further and link the level of financial literacy to one's study major at the college or university level. People who have studied economics and business related courses are likely to exhibit higher levels of financial literacy (Almenberg and Säv-Söderbergh, 2011). Similar observations were made by Chatterjee and Herbert (2010) in their research carried out among students from the faculties of business, education and arts. The business students exhibited the highest levels of financial literacy and the education students had the weakest. In another study, Volpe, Chen and Pavlicko (1996) examined financial literacy across 924 students at 14 colleges and related these scores to a set of demographic and socioeconomic characteristics. They concluded those with low levels of financial literacy were likely to be young females studying non-business majors with little work experience. In addition, it was observed that found that finance business majors outperformed nonfinancial business majors.

It has been determined that their financial knowledge is influenced one's parent education level. People whose parents had completed their college or university education were more likely to be financially knowledgeable than those with lower levels of education (Lusardi *et al.*, 2009). Further, parent's specialization in college or university also had an impact on one's financial literacy (Jappelli, 2010). Individuals whose parents studied business, economics or mathematics were likely to be financially literate as compared to others (by Mandell, 2008).

Contrary to the above findings, Fazli *et al.*, (2010) in their study of college students in Malaysia concluded that there no evidence that financial literacy was determined by the education levels of ones parents.

2.4. Socio-economic Factors and Financial Literacy

Various studies have identified a number of socio-economic variables that influence financial literacy. In this study, the focus is on wealth, employment status and sources of information.

2.4.1 Income

Financial literacy levels in many research studies have been associated with income and wealth levels. Many studies have associated high levels of financial literacy with wealth. According to the reason that wealth has a positive impact on financial literacy is because the desire for wealth accumulation motivates one desire to increase their financial knowledge (Delavande, Susann & Robert, 2008).

Gallery *et al.*, (2011) described the wealthy as those who own a home and have a higher level of income. Their survey was carried out among members of super annuation funds in Australia and sought to determine the factors influencing financial literacy among these members. Higher levels of financial literacy were found among members who had invested in stocks outside the super annuation fund and this formed the basis of their conclusion that as individuals increase their investments, the need to increase their financial literacy also increases. This is because with more knowledge on financial matters, the better they understand the investments that they hold and the more they reaped from this investments (Banks & Oldfield, 2007). These findings were also consistent with the results of the study by Delavande *et al.*, (2008) which analysed the relationship between financial literacy and wealth accumulation. It was concluded that wealth accumulation in the form of investments held increased the need for financial literacy as individual were motivated by the fact that they needed to efficiently manage and increase their wealth. The ANZ (2008) survey carried out among households in Australia found that high financial literacy scores were presented in households with higher income levels as compared to the households with lower income levels which exhibited lower financial scores. The results of this study were also consistent with the above findings.

A positive relationship has also been established between the wealth of a college students parents and the financial literacy scores for the student. This implies that students whose parents were not wealthy reported poor scores. This can be attributed to the fact that wealthy parents who are financial literate take time in ensuring that the knowledge is passed on to

their offspring. Further, they invest in good financial education for their children for purposes of preserving and growing the family wealth (Lusardi & Mitchel, 2006).

2.4.2 Employment Status

There is evidence to suggest that one's occupational status may be differentially related to financial literacy. Higher financial literacy scores have been reported among those who are in professional occupations and also among those that hold managerial positions. The survey by Al-Tamimi and Bin Kalli (2009) carried out in the UAE among investors reported that investors whose area of specialization career wise was in finance, banking and investments reported the highest levels of financial literacy as compared to those investors whose did not specialize in the professional field of finance.

Executives, business and farm owners are likely to display high levels of financial literacy as compared to those that are unemployed .Financial literacy was higher among the professional employees. (Worthington, 2005).In a survey on financial literacy and retirement planning among adults in Sweden, Almenberg and Säve-Söderbergh (2011) observed that the lowest levels the unemployed displayed the lowest levels of financial literacy. The low financial literacy results reported among the unemployed can be attributed to the fact that the unemployed were not exposed to financial transactions and financial education programs related to the workplace (Worthington, 2005).

2.4.3 Sources of Information

Many studies link financial literacy to the sources of information for financial decision making. Investors rely on many sources information which they use in making different financial decisions. This includes financial statements, other financial publications, government publications, newspapers, magazines the internet, financial consultants, family, colleagues and friends (Gallery *et al.*, 2011), Family, peers, school, and the media have been identified as the primary sources of financial information (Parente, & Mansfield, 2005).

Individuals who base their financial decisions on the information obtained from the internal information sources such as internal publications produce high results for the basic financial literacy tests Gallery *et al.*, (2011), Those who did not rely on this sources reported the lowest levels of financial literacy (Van Rooij *et al.*, 2009).

Peer influence has also been described as a factor determining financial literacy. Duflo and Saez (2002) surveyed the financial literacy in the US of university librarians across different campuses who were members of a pension fund. The librarians were located in different buildings across the different campuses with some buildings housing much more librarians as compared to others. The study found that the scores of librarians depended on the number of respondents in each building. The building with the most respondents showed better scores as opposed to that with less respondents. The researchers suggested that the similar behaviors showed by participants in each building were attributable in part to the social norms that had been developed in each building over time. It was determined that many of the respondents relied on information provided by their peers in each of their buildings. The heavy reliance on the peers was because most of the respondents lacked the information needed in order to make sound pension investment decisions. Therefore they depended on the few knowledgeable peers to assist them with this information.

Financial literacy correlates with tool used to source for financial information. Individuals with low financial literacy tend to rely on informal tools such as; family, friends and peers for financial advice (Lusardi *et al.*, 2010). Individuals with low financial literacy tend to get advice from peers or family rather than formal sources. On the other hand, individuals who display high levels of financial literacy are more likely to rely on formal tools such as; newspapers, consult financial advisors, and seek information on the internet rather than informal ones (van Rooij *et al.*, 2009). They are likely to consult financial advisers less and rely more on peers and family for financial advice. The ANZ survey (2008) also reported similar findings. Respondents displaying the highest levels of financial literacy have been determined to have consulted with financial advisors before making investment decisions.

Looking at the above studies one can conclude the tools that consumers rely on for financial advice can have an influence on their financial literacy and the financial decisions they make. This has a significant impact on saving and investment decisions they make.

2.5. Chapter Summary

This chapter provided literature based on the research questions. The first subsection provided an analysis of financial literacy of employees, followed by a review of the relationship between demographic and socio-economic factors and financial literacy.

Chapter three will provide the research design and methodology that was employed in this study. The results and findings will be provided in chapter four. Finally, a summary of the findings, discussions, conclusions and recommendations will be provided in chapter five.

CHAPTER THREE

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter gives a description of the methods that were used in an attempt to answer the research questions of this study. It offers a detailed discussion of the research methodology, research design, population and sampling design employed in this study. An overview of the data collection, research procedure and data analysis is also presented in this chapter.

3.2 Research Design

Research design is defined as a detailed and structured plan describing how, when and where data will be collected and analysed and basically defines who the researcher will go about in answering the research questions (Saunders, Lewis & Thornhill, 2009). A descriptive study methodology will be employed in this study. Descriptive research is mainly used when gathering information about the present condition of the population or sample being studied for the purpose of description and interpretation. This type of research involves the analysis, interpretation, comparison, identification of trends and relationships (Aggarwal, 2008). It was preferred since the methods of data collection it utilizes of questionnaires was applicable to this study and it aided in collecting precise information.

This study sought to determine the influence of demographic and socioeconomic factors (the independent variables) on financial literacy (the dependent variables). The descriptive study approach was appropriate since the researcher defined the various characteristics of the population in terms of gender, age, education level, income, employment status and sources of information and described their impact on financial literacy.

3.3 Population and Sampling Design

3.3.1 Population

According to Saunders *et al.*, (2009), population is a group of individuals who share the similar characteristics. The target population of the study was all employees working in Deloitte Kenya. Deloitte and Touché is one of the biggest professional services firms in the in Kenya offering audit, tax, consulting and financial advisory services. Deloitte in Kenya has two offices in Mombasa and in Nairobi. The total number of employees across the firm

is 337 and are spread across five departments. These are Audit, Tax, ERS, Consulting and ICS. (Deloitte & Touché, 2015).

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

Sampling frame is defined as the list containing the elements of a population from which a sample will be drawn (Cooper & Schindler, 2006). In this study, the human resource department of Deloitte provided the sampling frame for the employees in Deloitte. From this list the sample of participants who participated in the study were selected.

3.3.2.2 Sampling Technique

The sampling technique employed in this study was stratified random sampling. Stratified random sampling technique was used since population to be studied was not homogeneous and dividing it into strata will lead to a representative sample (Kothari, 2006). The respondents were divided into five strata according to the departments that is, audit, tax, ERS, consulting and ICS. Simple random sampling was employed in picking out the sample from the different strata. According to Cooper and Schindler (2006), random probability sampling is whereby each unit in the population has an equal chance of being selected. This ensured that the demographic and socioeconomic considerations were represented in the population.

3.3.2.3 Sample Size

According to Israel (2009), a sample size is selected based on three fundamental criteria that is, level of precision, level of confidence and the degree of variability of measured attributes. For small finite populations, Yamane (1967) developed a simplified formula to aid in determining the sample size based on the desired level of confidence based on the level of precision and level of confidence.

Equation 3.1 : Yamane's Sample Size Equation

$$n = \frac{N}{1+N(\epsilon)^2}$$

Where:

n = sample size

N = population size

e = desired level of precision

Using the aforementioned sample size estimation equation and taking into account the following parameters, a population of 337 employees, a confidence level of 95 % and a level of precision of 5% a sample size of 183 participants was obtained for this study. This is as shown in Table 3.1.

Table 3.1: Population and Sample Size

Department	Population Size	Sample Size
Audit	155	84
Tax	38	21
Consulting	36	19
ERS	42	23
ICS	66	36
Total	337	183

3.4 Data Collection Methods

In the study, both primary and secondary data was collected. Primary data was collected using a structured questionnaire that contained both open ended and close ended questions.

The questionnaire in this study was divided into four sections consisting of questions on general information, financial literacy test, demographic factors and socioeconomic factors. The questions measuring financial literacy were designed to assess the respondent's understanding of interest rates, inflation and risk diversification, similar to the questions used in the financial literacy study by Lusardi & Mitchell (2011). Secondary data was collected through document analysis including strategic plans, human resource policy and other related journals.

3.5 Research Procedure

Prior to data collection, the researcher solicited for prospective research participants via email. Once a sizeable number of possible participants was achieved, the researcher the questionnaire with fourteen randomly selected participants. Any shortcomings identified in the pilot study were addressed at this following which data collection commenced.

The questionnaires were administered via email to the targeted respondents who had access the use computers and internet. The researcher involved one research assistant to help in distribution of the hard copy questionnaires to the targeted respondents who had no access to the electronic version. The questionnaires were administered through drop and pick later method.

3.6 Data Analysis Methods

At the end of the data collection process questionnaires were checked thoroughly for completeness. Only duly filled instruments by the respondents were used. Data was analysed to obtain both descriptive and inferential statistics. Whereas descriptive statistics included frequency tables, mean and standard deviation, inferential statistics included chi square and t-test.

3.7 Chapter Summary

This chapter has provided the research design, population and sampling design, data collection, research procedure and data analysis employed in this study. An overview of the research design was given, in addition to a concise description of the target population, research procedure and data analysis methods to be used. The next chapter presents the findings obtained in the course of the study, followed by the summary of the findings, discussion, conclusion and recommendations in chapter five.

CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the research findings based on the data collected and analyzed. This is line with the specific research questions that the study sought to provide answers to. The findings have been presented in the form charts, graphs and tables.

4.2 Response Rate and Background of the Respondent

In this sub section, section the response rate and background information about the respondents is provided.

4.2.1 Response Rate

A total of 183 questionnaires were given to employees across the five departments in Deloitte as specified in chapter four. One hundred and twenty three respondents provided their responses representing a response rate of 67%. An analysis of the respondents across the different departments is as shown in Table 4.1.

Table 4.1: Analysis of the Respondents

Department	Number	Percentage
Audit	40	32.5%
Tax	18	14.6%
Consulting	15	12.2%
ERS	16	13.1%
ICS	34	27.6%
Total	123	

4.2.2 Background of the respondents

The respondents' background is provided in the subsection starting with the gender, followed by age and level of education. Other information regarding the respondents' background include the level of income, employment status and sources of information.

4.2.2.1 Gender

Respondents were required to provide information on their gender. The results are presented in Figure 4.1. It was observed that majority of the respondents in the study were female. Out of the 123 respondents, 48.8% were male while 51.2% were female.



Figure 4.1: Gender Distribution of the Respondents

4.2.2.2 Age

Respondents were assessed on age and the findings presented in Figure 4.2. Age was categorized into four categories: less than 25 years, 25-29 years, 30-44 and 45-54 years old.

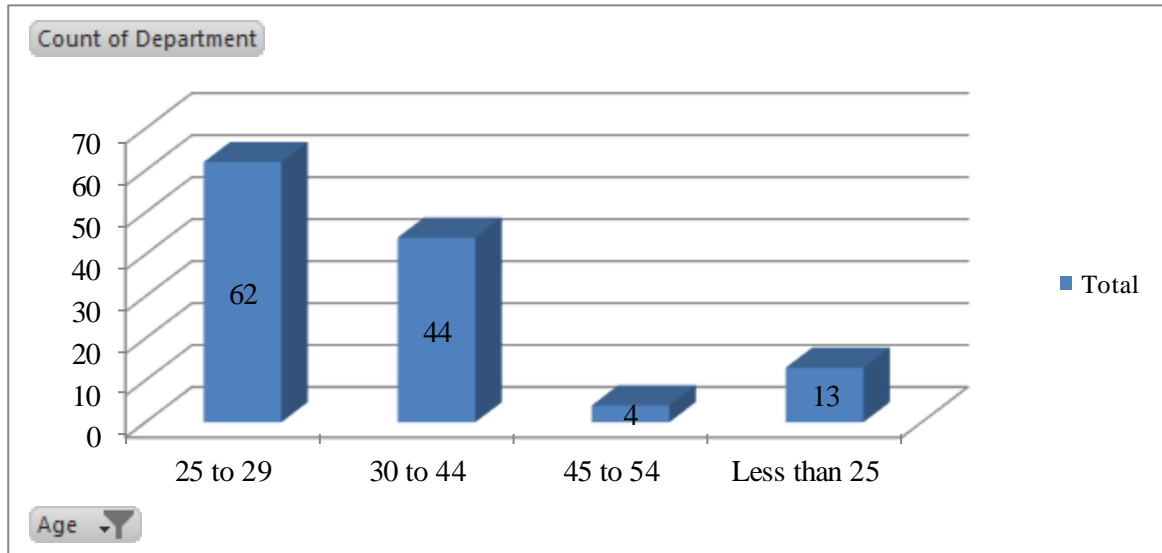


Figure 4.2: Age Distribution of the Respondents

It was observed that 13% of the respondents were below 25 years of age, 62 % between 25 and 29 years old, 44 % between 30 and 44 years and 4 % between 45 and 54 years old. This was expected since organization recruits graduates straight from the university on annual basis and normally they would fall below the age bracket of 25 years.

4.2.2.3 Education

Respondents were assessed on the highest education level attained and results highlighted in Figure 4.3. The highest level of education attained by 94.3 % of the respondents was university level. College and secondary school level were attained by 1.6% and 4.1% respectively of the respondents. None of the respondent's education level was below secondary school level. This was also expected given that the organization runs an annual graduate recruitment programme targeting recently graduated students.

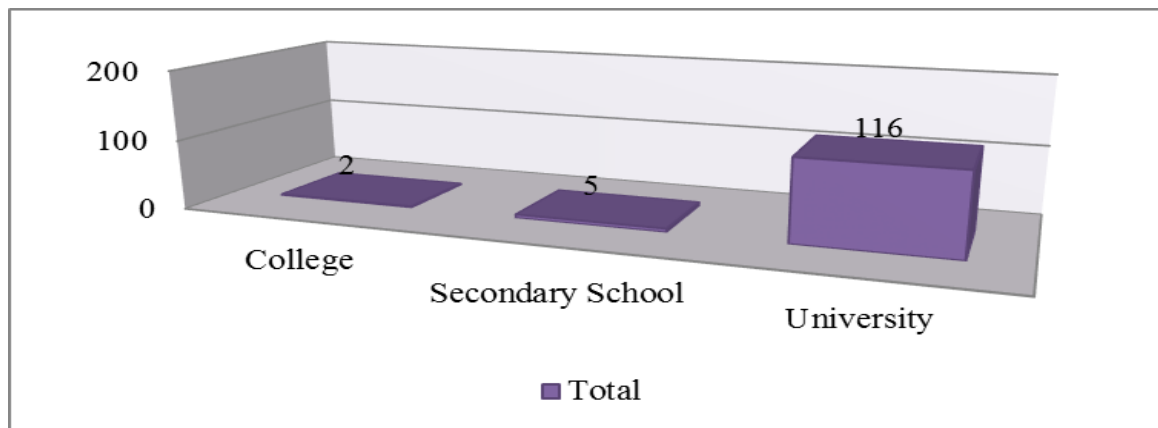


Figure 4.3: Education Distribution of the Respondents

4.2.2.4 Income

Respondent's income was measured based on the monthly salary received. The results were presented in Figure 4.4. Those earning more than KShs 120,000 made up 42 % of the respondents and represented the majority. Thirty percent of the respondents earned between KShs 61,000 and 90,000. Those whose range of income was between KShs 31,000 and 60,000 represented 14 % of the respondents while 12% of the respondents earned KShs 90,000 to 120,000. Only 2 % of the respondents earned less than KShs 30,000.

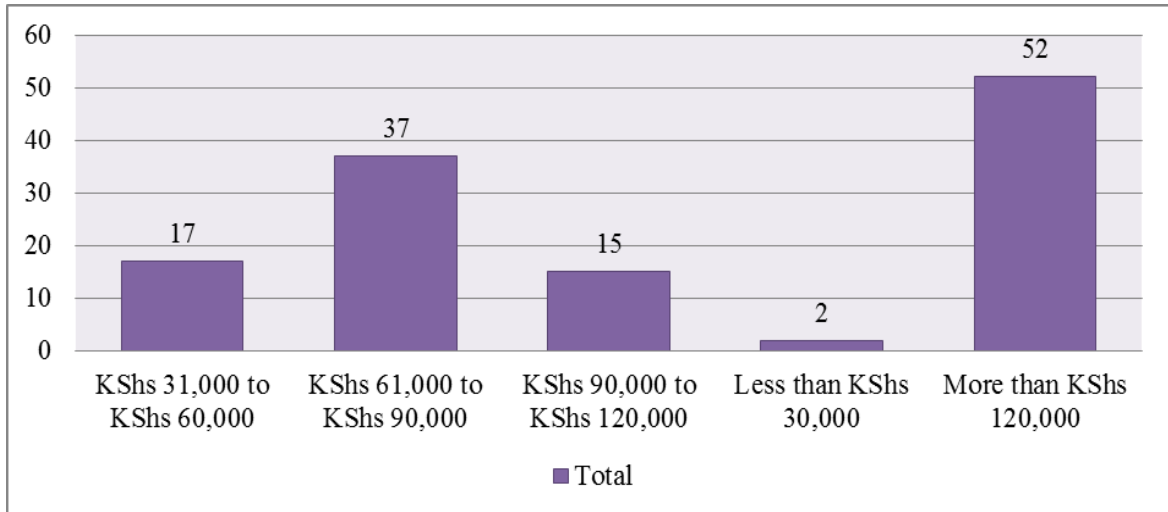


Figure 4.4: Income Level of the Respondents

4.2.2.5 Employment Status

The respondents were classified into two groups, manager and non-manager. The observations made were presented in Figure 4.5. Of the 123 respondents, 79.7% were below the manager grade while only 25% were of the manager



Figure 4.5: Employment Status of the Respondents

4.2.2.6 Sources of information

Respondents were also required to provide information regarding the sources of information at the work place. Under this section, the respondents were allowed to select all options that applied. The options for the sources of financial information were of a wide variety and the results have been presented in Table 4.2. It was observed that the most common source of information selected by 67.5% of the respondents was financial publications, magazines and internet sources. Nine percent of the respondents indicated that the work place did not offer them any information regarding financial literacy.

Table 4.2: Sources of Information

Source	Number	Percentage
Financial publications, magazines and internet sources	83	67.5%
Subscriptions to professional bodies	67	54.5%
Facilitator led internal training	50	40.7%
Sponsorship to external training	28	22.8%
Employer paid/discounted financial consultancy services	27	22.0%
None	9	7.3%
Others	1	8.0%

4.3 Financial Literacy Analysis

The respondents were presented with a three question financial literacy quiz. The questions tested their knowledge on interest rates, inflation and diversification. The percentage of correct scores of the respondents was categorized into four groups: no question answered correct were awarded a (0%), one question answered correct (30%), two questions answered correct (67%) and while those who obtained all answers correct (100%). The pass mark for the test was 67%.

4.3.1 Overall Financial Literacy Assessment

The overall measure of financial literacy of the respondents was assessed based on their performance on the three questions. Table 4.3 shows that majority of the respondents 49 % obtained a score of 67% while 34% obtained a perfect score of 100%. Only 17% scored 30% in the assessment. The pass mark of 67% was therefore attained by 84% of the respondents.

A further analysis was undertaken to obtain the performance of the respondents across the different departments. The results are reported on Table 4.3.

Table 4.3: Financial Literacy Assessment

Score	Audit	Consulting	ERS	ICS	Tax	Total
100.0%	16%	5%	2%	7%	5%	34%
67.0%	13%	6%	9%	12%	9%	49%
<33%	4%	2%	2%	8%	1%	17%

Further analysis was done on the strength of the relationship between the department of the respondents and their financial literacy. As observed in Table 4.4, there is a significant relationship between the department and the financial literacy score of the respondent's .It

was observed that a bigger proportion of respondents from the audit department attained a mean score of 67% percent.

Table 4.4: Mean Score Analysis

Mean	75%
Standard Deviation	17.69

From the findings, it can be said that the level of financial literacy among employees in Deloitte Kenya is generally high and there is a significant different across the departments.

4.3.2 Financial Literacy Assessment per Question

The respondents were further assessed on the performance on each of the three questions. Further, an analysis was carried out on the performance across the different departments and the results summarized.

4.3.2.1 Interest Rate

An analysis was undertaken on the respondents understanding of the simple interest rates. These results were presented in Table 4.5. It can be observed that 95.9% percent of the respondents got the question correct while only the other 4.1 % chose the incorrect answer. This was the best performed question and implies that majority of the respondents understood the concept of simple interest rate calculation.

Table 4.5: Interest Rate Analysis

Score	Number	Percentage
Correct	118	95.9%
Incorrect	5	4.1%

Further analysis was undertaken to examine the respondent's performance on this question per department. The results reported on Table 4.6 indicate the ERS and ICS departments presented the best performance with 99% of the respondents answering the question right, followed closely by audit department with 95% of the respondents answering the question correctly. In third place was the tax department with 94% of the answers correct and finally consulting with 93%. Overall, all departments performed well on this question.

Table 4.6: Interest Rate Analysis per Department

		Department					Total
		Tax	Consulting	Audit	ICS	ERS	
Suppose that you had KShs 1,000 in a savings account for five years and the interest rate is 2% per year. After five years, how much money will you have in the account?	More than KShs 1,020	17 _a	14 _a	38 _a	34 _a	15 _a	118
	Exactly KShs 1,020	1 _a	1 _a	0 _a	0 _a	0 _a	2
	Less than KShs 1,020	0 _a	0 _a	2 _a	0 _a	1 _a	3
Total		18	15	40	34	16	123

Chi –square analysis was undertaken to examine the interest rate analysis and the results reported in Table 4.7. The chi square test indicated that there is no strong association between the respondents who obtained the correct answer and the departments they belonged to, $\chi^2 (8) = 5.508$, $p = .702$. Since the p-value of 7 percent is less than the level of significance (8), it can be concluded there is no significant difference in the level of financial literacy between the departments.

Table 4.7: T-Test Result for Interest Rate

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.		
					Sig.	99% Confidence Interval	
						Lower	Upper
Pearson's R	.000	.088	.005	.996 ^c	1.000 ^d	1.000	1.000
Spearman Correlation	-.059	.095	-.650	.517 ^c	.537 ^d	.524	.550
N of Valid Cases	123						

4.3.2.2 Inflation

Respondents were also tested on their understanding of inflation. The overall performance on this question was also good with 80.5% of the respondent's obtaining the correct answer .Only 19.5% responded wrongly as reported in Table 4.8.

Table 4.8: Inflation Analysis

Score	Number	Percentage
Correct	99	80.5%
Incorrect	24	19.5%

The study also analysed the respondent's performance on this question department wise. The results reported under Table 4.9 indicated that all the respondents from the ERS and the tax department obtained the correct answer. Audit, Consulting and Internal client services had an average of 81% each. It was observed that majority of the respondents had a good understanding of the financial interpretation of inflation.

Table 4.9: Inflation Analysis Per Department

		Department					Total
		Tax	Consulting	Audit	ICS	ERS	
Imagine that the interest rate on your savings account was 3% per year and the inflation rate was 5% per year. After one year, how much would you be able to pay with the money in the account?	Less than today	18 _a	11 _b	33 _{a, b}	24 _b	13 _{a, b}	99
	Exactly the same	0 _a	3 _b	4 _{a, b}	6 _{a, b}	3 _{a, b}	16
	More than today	0 _a	1 _a	3 _a	4 _a	0 _a	8
Total		18	15	40	34	16	123

T-test was also undertaken and the findings presented under Table 4.10. A strong association was observed between the financial interpretation and the departments, $\chi^2(8) = 4.777$, $p = .781$. Since the p-value of 7 percent is less than the level of significance (8), it was concluded that there is no significant difference in the response of the respondents across the different departments.

Table 4.10: T-Test Results for Inflation

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.		
						Sig.	99% Confidence Interval	
							Lower Bound	Upper Bound
Interval by Interval	Pearson's R	.130	.065	1.444	.151 ^c	.156 ^d	.147	.165
Ordinal by Ordinal	Spearman Correlation	.140	.078	1.560	.121 ^c	.116 ^d	.108	.124
N of Valid Cases		123						

4.3.2.3 Diversification

An analysis was undertaken on the respondent's performance on this question. As shown in Table 4.11, a relatively high number of the overall responses were incorrect, with 40.6 % of the respondents answering this question correctly and 59.7% giving the wrong answer. This was the worst performed question.

Table 4.11: Diversification Analysis

Score	Number	Percentage
Correct	50	40.6%
Incorrect	73	59.4%

A further analysis was undertaken on the respondent's performance across the departments and the results presented in Table 4.12. Audit and consulting departments presented the highest respondents who got the question correct at 60 %. Tax department was second with 33 % of respondents giving correct answers, followed by ICS with 26 %. The respondents from the ERS performed worst with only 13 % of the respondents getting the question correct as shown.

Table 4.12: Diversification Analysis per Department

	Department					Total
	Tax	Consulting	Audit	ICS	ERS	
Buying a single No	6 _{a, b}	9 _b	24 _b	9 _a	2 _a	50
company stock Yes	11 _a	2 _b	12 _b	19 _a	12 _a	56
usually provides a safer return than a stock mutual fund? Do not know	1 _a	4 _a	4 _a	6 _a	2 _a	17
Total	18	15	40	34	16	123

T-test was undertaken and the findings presented on Table 4.13. It was observed that the p-value is slightly higher than the degrees of freedom, hence, it was concluded that there is a significant relationship of department and the respondent's response to this question.

Table 4.13: T Test Result for Diversification

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.		
					Sig.	99% Confidence Interval	
						Lower Bound	Upper Bound
Interval by Pearson's R	.155	.080	1.729	.086 ^c	.085 ^d	.077	.092
Interval Ordinal by Spearman Correlation	.198	.084	2.219	.028 ^c	.027 ^d	.023	.031
N of Valid Cases	123						

4.4 Demographic Factors and Financial Literacy

The study analyzed the effect of demographic characteristics on financial literacy. Demographic factors considered were gender, education and age and their impact on financial literacy.

4.4.1 Gender

The financial literacy scores were analysed across the two genders and the findings presented on Table 4.14. There were differences noted in the financial literacy scores between males and females. It was observed that males were indeed more financially literate than females and performed better than the female students.

Table 4.14: Gender Analysis

Score	Female	Male	Grand Total
100%	29%	40%	34%
67%	54%	43%	49%
0-33%	17%	17%	17%

4.4.1.1 Gender and Self Review

Respondents were asked to rate their level of financial literacy on a scale of 1 to 7 with 7 being the highest score. The results on Table 4.15 indicated that most of the respondents

who got all the answers correct valued their financial literacy on score 5 and 6 for both males and females respectively with 10% of the male respondents displaying higher levels of confidence that they were financial literate and as compared to 5 % of females who were moderately confident that they were financially literate. This tells a lot that the men have a high sense of confidence and their esteem is to prove themselves superior in terms of financial knowledge and interpretation.

Table 4.15: Gender Self Review Analysis

								Female Total							Male Total	Grand Total
Score	1	2	3	4	5	6	7		2	3	4	5	6	7		
100%	1	2	2	3	6	4		18		2	1	8	12	1	24	42
67%		2	5	5	1 2	8	1	34	2	2	7	7	7	1	27	60
33%			6	2	3	1		12	2		6	2			8	21
								64							59	123

4.4.1.2 Gender and Marital Status

The respondents' scores were also compared based on their marital status. From Table 4.16, it can be observed that there is a relationship between marital status and in terms of gender and the financial literacy level. The married respondents displayed higher financial literacy as compared to the single respondents.

Table 4.16: Gender and Marital Status

	Female		Male	
Responses	Married	Single	Married	Single
3 correct	24%	30%	23%	51%
2 correct	49%	58%	59%	35%
1 correct	27%	12%	18%	14%

4.4.1.3 Gender Analysis and Main Income Earner

A strong positive relationship was determined between the males who were main income earners against their counterparts. Majority of the males who were main income earners had a high level of financial literacy as compared to the females. Overall, it was observed that the main income earners for both genders attained high financial literacy scores.

Table 4.17: Main Income Earner Analysis

	Female		Male	
Score	No	Yes	No	Yes
100%	12%	39%	0%	46%
67%	57%	50%	71%	40%
33%	31%	11%	29%	14%

4.4.2 Age

The study analysed the relationship between age and financial literacy and the findings presented on Table 4.18. The analysis depicted that 89% of the respondents between the ages of 25-29 years scored above the pass mark, while 85% of the respondents below 25 years of age passed the test. Seventy eight percent of the respondents between the ages of 30 to 44 years were financially literate while 75% of those aged between 45 and 54 passed the test.

Table 4.18: Age

Score	25 to 29	30 to 44	45 to 54	Less than 25
100%	45%	23%	25%	23%
67%	44%	53%	50%	62%
33%	11%	24%	25%	15%

4.4.3 Education

The study also examined the relationship between education level and financial literacy and the results presented in Table 4.19. It was observed that there was a strong positive relationship between educational attainment and financial literacy, in particular for those who had attended university had a high probability of getting all the three financial questions correctly with a probability of 0.36 of the total respondents. It was also observed that none of the respondents whose education level was below secondary school obtained all the three questions correct. Hence, educational attainment was clearly a strong determinant of financial literacy.

Table 4.19: Highest education levels of respondents

	Highest education level			
	Category	Observed N	Expected N	Residual
1	Secondary School	0	24.6	-24.6
2		5	24.6	-19.6
3		2	24.6	-22.6
4		116	24.6	91.4
5		0	24.6	-24.6
Total		123		

Analysis of the descriptive statistics was performed and the results presented in Table 4.20. As expected the firm had most of the employees who were the respondents majorly from university, hence, the graph was skewed more to the right.

Table 4.20: Education Level Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Highest education level	123	2.90	.413	1	3

Chi square analysis also undertaken and the findings presented on Table 4.21. A strong association was observed between the level of education and the financial literacy, $\chi^2(4) = 425.171$, $p = .00425171$. Since the p-value of 4.25% is greater than the level of significance (4), hence conclude there is significant difference in the level of financial literacy and source information.

Table 4.21: Education Level Test Statistics

	Highest education level
Chi-Square	425.171 ^a
df	4
Asymp. Sig.	.000
Exact Sig.	.000
Point Probability	.000

4.5 Socioeconomic Factors and Financial literacy

The study examined the effect of socioeconomic factors (occupation status & type, personal income and other wealth factors) on the respondents' literacy levels based on the results of the financial knowledge test questions.

4.5.1 Income

Financial literacy of the respondents was reviewed based on their income levels and the findings presented in Table 4.22. It was observed that all the respondents earning below KShs 30,000 were financially literate. Fifty percent of the respondents earning between KShs 31,000 to 60,000 were financially literate as compared to 92% of the respondents earning between KShs 61,000 and KShs 90,000. Sixty seven percent of those earning between KShs 91,000 and 120,000 were financially literate while 90% of those earning above 120,000 were financially literate.

Table 4.22: Income Analysis

Score	KShs 31,000 -60,000	KShs 61,000 - 90,000	KShs 90,000 - 120,000	Less than KShs 30,000	More than KShs 120,000
100%	17%	41%	13%	50%	40%
67%	33%	51%	53%	50%	50%
33%	50%	8%	34%		10%

T-test was also undertaken and the results presented in Table 4.23. It was observed that the differences in the correct response rate in relation to the inflation and risk diversification questions was at least 18% for the income bracket above KShs 120,000. The respondents earning less than KShs 30,000 had a probability of 1% of obtaining the correct answer. This observation indicates that there is a strong relationship between the respondent's income level and their financial literacy.

Table 4.23: T-Test results for Income

	Frequency	Percent	Valid Percent	Cumulative Percent	Bootstrap for Percent			
					Bias	Std. Error	95% Confidence Interval	
							Lower	Upper
KShs 31,000 to KShs 60,000	17	13.8	13.8	13.8	.0	3.1	7.3	20.3
KShs 61,000 to KShs 90,000	37	30.1	30.1	43.9	.1	4.1	22.0	38.2
Valid to KShs 120,000	15	12.2	12.2	56.1	.1	3.0	6.5	18.7
Less than KShs 30,000	2	1.6	1.6	57.7	.0	1.2	.0	4.1
More than KShs 120,000	52	42.3	42.3	100.0	-.2	4.5	33.3	50.4
Total	123	100.0	100.0		.0	.0	100.0	100.0

4.5.2 Employment Status

An analysis was performed on the respondent's employment status and financial literacy and the findings presented on Table 4.24. Eighty four percent of the respondents of manager grade passed the financial literacy test while 83% of the respondents of non-manager grade obtained the pass mark.

Table 4.24: Employment Status and Financial Literacy

Scores	Manager	Non-manager
100%	20%	38%
67%	64%	45%
33%	16%	17%

T-Test was undertaken and the results reported in Table 4.25. It was observed that the probability of the non-manager respondents obtaining all three answers correct was 0.3 Respondents who were managers on the other hand had a probability of 0.04.

Table 4.25: T-Test Results for Employment Status

		Frequency	%	Valid %	Cumulative %	Bootstrap for Percent ^a			
						Bias	Std. Error	95% Confidence Interval	
								Lower	Upper
Valid	Manager	25	20.3	20.3	20.3	.0	3.6	13.8	27.6
	Non-manager	98	79.7	79.7	100.0	.0	3.6	72.4	86.2
	Total	123	100.0	100.0		.0	.0	100.0	100.0

Chi-square test was also undertaken and the findings presented in Table 4.26. It was observed that the p value is greater than the degrees of freedom hence it can be concluded that there is no significant relationship between employment status and financial literacy.

Table 4.26: Employment Status Statistics

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.543a	2	0.17
Likelihood Ratio	3.007	2	0.222
N of Valid Cases	123		

4.5.3 Sources of financial information at the work place

In the study, the respondents provided multiple answers for the sources of financial information at the work place. An analyses of the relationship between sources of information at the work place and financial literacy of the respondents was carried out and the results presented in Table 4.27. It was observed that among the respondents who selected media as their source of information, 45% obtained the pass mark while 42% of those who selected personal education obtained the pass mark. Ninety three percent of the respondents who selected professional bodies answered more than two questions correctly while 42% of those who obtained the pass mark selected internally facilitated sessions. Ninety five percent and 91% of the respondents who obtained more than two questions correct selected professional associations and sponsorship to seminars. External sources of

financial literacy were seen to influence high levels of financial literacy observed among the respondents as opposed to internal sources.

Table 4.27: Source of Information Analysis

Source of information	33%	67%	100%
Media	55%	20%	25%
Personal financial education as part of the orientation program for new hires	68%	26%	16%
Professional bodies	7%	26%	67%
Sessions facilitated by internal staff who are experts in personal finance matters	58%	24%	18%
Meets the cost of membership for professional associations	5%	26%	69%
Sponsorship to seminars facilitated by external speakers	9%	13%	78%

T-Test was also undertaken and the results presented on Table 4.28. It was observed there was a 0.04 probability of individuals obtaining information from media sources obtaining a 100% score. It was also noted that respondents who indicated sponsorship to seminars facilitated by external speakers had a probability of 0.2 for correct interpretation of all the financial literacy questions. Those using internal publications has probability of 0.05 while those choosing personal financial education had a chance of 0.04. Subsidized costs of professional associations and professional bodies each had one respondent who got all the three questions correctly with a probability of 0.01. The probabilities give a clear indication of a strong relationship between the sources of information and the level of financial literacy. The respondents show that having an external financial guide rather than internal ones delivers tangible financial education which a lot of people tend to adhere to and retain and consider as important in their financial knowledge.

Table 4.28: Sources of Financial Information and Financial Literacy

Description	Probability	X_i	μ	σ
Media	0.18	X=22	3.96	9.901852
Personal financial education as part of the orientation program for new hires	0.07	X=9	0.63	0.709464
Professional bodies	0.01	X=1	0.01	4.94739
Sessions facilitated by internal staff who are experts in personal finance matters	0.03	X=4	0.12	2.82607
Meets the cost of membership for professional associations	0.13	X=16	2.08	5.659211
Sponsorship to seminars facilitated by external speakers	0.58	X=71	41.18	44.55008

Where:

$i=0,1,2,\dots$, The number of respondents per source of information

$n=123$ Total respondents

μ = Average

σ = standard deviation

sig. (8)

p-value =12.56

The chi square tests reported in Table 4.28 indicate that the p value greater than the significance level, hence it was concluded that there is a significance relationship between the source of financial information and the level of financial literacy.

4.6 Chapter Summary

The data analysed revealed the financial literacy level of employees at Deloitte was high. Significant observations were also observed between the demographic and socio-economic factors and the financial literacy levels of the respondents. Chapter five will discuss the findings, provide conclusion and recommendation for improvement of the study.

CHAPTER FIVE

5.0 SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary and conclusion of the study and also offers recommendations and suggests ideas for further research.

5.2 Summary of Findings

This study sought to determine demographic and socio-economic factors affecting financial literacy levels of employees working at Deloitte Kenya. The specific questions of this study were to determine the financial literacy of employees working at Deloitte across the different departments, investigate the relationship between financial literacy demographic and socioeconomic factors. The study also sought to determine the impact of organizational practices at Deloitte and financial literacy.

The target population was the 337 employees of Deloitte Kenya and sampling frame used was the list of employees provided by the human resource manager. The sampling technique employed in this study was stratified random sampling after which 183 employees was obtained. Data collection was via questionnaires distributed to the sampled participants. Data analysis was then carried out using SPSS. To a significant extent, the studies showed that the level of financial literacy among employees at Deloitte is generally high which is contrary to the findings of earlier studies. Overall, 73% of the respondents obtained the pass mark of 67%. The study further indicated that the level of financial literacy differed across the departments.

The relationship between financial literacy and demographic was investigated. It was observed that males were financially literate than females. It was also noted that financial literacy was positively related to education level. Those respondents who had attained higher levels of financial literacy displayed higher financial literacy scores. The findings indicated that financial literacy does not have a linear relationship with age and was highest among the younger aged respondents.

The study also sought to establish the relationship between financial literacy and socioeconomic factors. The findings showed that financial literacy was related to income

and sources of information at the work place. Financial literacy increased with one's income level. It was also established that there was a strong relationship between financial literacy and the source of information. Those respondents who chose formal sources such as financial advisers and publications performed better in the financial literacy test. It was observed that financial literacy was not affected by the respondents' occupation status.

5.3 Discussion

5.3.1 Level of Financial Literacy of Employees

The results of the analysis of the respondent's responses to the financial literacy quiz indicated that level of financial literacy among employees at Deloitte is high Overall, 83% of the respondents obtained the pass mark of 67%. Furthermore, the findings also showed that there was a significant relationship between the employee's department and financial literacy score. Based on the results of the study, the audit department performed best with 39% of the total respondents attaining the pass mark belonging to this department. The consulting and ERS departments each were represented by 11% of the respondents who attained the pass mark. This results indicate that financial literacy levels varies significantly across the departments. This was not surprising given that the employees in the audit department deal with financial matters when serving their clients on a daily basis and hence expected to exhibit a better understanding of these concepts. Those in the ERS and consulting departments were more of information technology and strategy experts and hence the relatively poor performance.

The research also analysed the performance of the respondents on each of the three question. Overall, 96% of the respondents obtained the correct answer. From a departmental perspective, 99% of the respondents from the ERS and ICS answered the question correctly, followed closely by audit department with 95 percent. In third place was the tax department with 94 percent and finally consulting with 93 percent. The inflation question was answered correctly by 96 percent of all the respondents. The results per department indicated that all the respondents from the ERS and tax departments obtained the correct answer, audit, consulting and ICS had an average of 81 % each with the correct answer. Overall, the respondents performed poorest on the diversification question with only 41 % of the respondents getting it right. Across the departments, audit and consulting departments presented the highest respondents who got the question correct at 60 %. Tax

department was second with 33 % providing the right answer, followed by ICS with 26 %. The respondents from the ERS performed worst with only 13 % getting the question correct.

It can be concluded that the employees at Deloitte are generally financially literate. These observations were contrary to the study by Mbarire and Ali (2014) where it was observed that only 46% of the employees displayed high levels of financial literacy. The findings also contradict the conclusions made by various researchers on the low financial literacy levels of the general population (Botha, (2013), Louw *et al.*, (2013) and Shambare & Rugimbara, (2012).

5.3.2 Demographic Factors and Financial Literacy

Three demographic factors: gender, age and education levels were analysed to determine if they had an impact on the employees' financial literacy levels. It was observed that gender had an impact on financial literacy. It was observed that males were indeed more financially literate than their female counterparts. The findings are consistent with the works of Danes and Hira (1987) and Beal and Delpachitra (2003) that generally males have an upper hand to females so far as financial literacy and knowledge are concerned. Despite having the same education levels, the male respondents still performed higher than the females. This observation can be explained by the findings of earlier studies that indicated the low enthusiasm levels among the females on financial matters (Chen and Volpe, 2002). The respondents were also asked to rate their financial literacy levels. It was observed that females were moderately confident that they were financially literate as compared to their male colleagues who exhibited higher confidence levels and rated themselves quite highly. This tells a lot that the men have a high sense of confidence and their esteem is to prove themselves superior in terms of financial knowledge and interpretation. These findings confirm the gender gap in terms of financial literacy as confirmed in previous studies.

It was evident from the study that age had an impact on financial literacy. The findings indicated that financial literacy scores were lowest among the respondents aged between 45 - 54 years and highest among the respondents between 25-29 years. These observations contradict the findings of earlier studies since it suggests that age has a non-linear effect on financial literacy. The study by Van Rooij *et al.*, (2007) found a negatively skewed relationship between financial literacy and age. Financial literacy was found to be low among the young, highest among the middle aged respondents and declining significantly

among respondents of an advanced age. The same observations were made by Almenberg and Save-Soderberg (2011). The findings of this study are consistent with that of Gallery *et al.*, (2011) had findings which contradicted the conclusions of other researchers. In their study, they found that there was a positive association between age and financial literacy. The high levels observed among the middle aged respondents in earlier studies could be attributed to work experience according to Ansong and Gyensare (2012). In the same vein, the lowest financial literacy levels observed in those older than 55 were attributed to the declining cognitive ability that came with old age (Malmendier & Nagel, 2011).

Respondents were also analysed based on the highest level of education attained. It was observed that there was a strong positive relationship between educational attainment and financial literacy. In particular, those who had attended university scored better than those that did not. It was observed that none of the respondents who did not attain university education got all the three questions correct. Hence, educational attainment was clearly a strong determinant of financial literacy. This again, is consistent with earlier studies that have consistently shown that individuals with higher levels of education are the most likely to be financially literate. Those individuals who completed university or college degree are more likely to be financially knowledgeable than those with low education level (Cole *et al.* (2008), Lusardi & Mitchell (2006, 2008), Almenberg & Säve-Söderbergh (2011)).

Based on the results of this research we can confirm that there is consistency with regards to the impact of gender and education on financial literacy. Consequently, there is now fairly robust evidence confirming the earlier studies that the females do not do well in financial calculations and do not have a firm grasp of inflation and risk diversification. However, there is inconsistency with the literature regarding age since it suggests that it does not have a non-linear effect on financial literacy and that financial literacy peaks in the younger ages and decreases beyond the middle ages. This means that the youngest generations displays the highest level of financial literacy while the oldest members of the community are the least financial literate. This observation can only be linked to the biological concept of cognitive ability. The lower financial scores among the older aged members of the population can be explained by decline in their cognitive abilities (Malmendier & Nagel, 2011).

5.3.3 Socioeconomic Factors and Financial Literacy

The respondents provided information on their income levels, employment status and sources of information at the work place which were then analysed to determine if they had an impact on their financial literacy. With regards to income, the respondents gave information on the monthly salary received. It was observed that employees at the lowest income bracket of less than KShs 30,000 exhibited the high financial literacy scores with 100% obtaining the pass mark. However, only 50% of the respondents earning between KShs 31,000 and 60,000 obtained the pass mark. Ninety-two percent of earning above KShs 120,000 obtained the pass mark. Although it was observed that strong relationship between the respondent's income and their financial literacy scores, the pattern observed was not consistent with the findings of other studies. This is because the highest scores were observed among those that were in the lowest income bracket. Previous research findings by ANZ Survey (2008) that found financial literacy scores to be generally associated with personal income levels, with higher financial literacy scores being displayed by individuals with higher levels of personal income and lower scores by those with lower incomes.

It was also observed in this study that there is no significant association between employment status and levels of financial literacy among the respondents who took part in this survey. 84% of respondents in the manager grade obtained the pass mark as compared to 83% of the respondents in the non-manager grade. In other words, all the respondents, regardless of their employment status, displayed an equal competitive performance in the financial knowledge test. Earlier studies found that occupation status and type were significant in explaining the respondents' financial scores. ANZ Survey (2008), Worthington (2006, 2008) in their study confirmed this and found financial literacy scores to be typically higher amongst those who are in professional and managerial occupations. Therefore, this study contradicts the findings of earlier researchers.

Respondents were analysed based on the sources of information at the work place. It was observed that majority of respondents with low financial literacy relied very often on internal tools such as media, internal publications, e –learnings, internet sources who are experts in personal finance matters. Respondents who exhibited high financial scores on the other hand relied on external sources such as sponsorship to external seminars facilitated by financial experts and subsidized costs of membership to professional bodies and associations. The findings support the results of van Rooij *et al.*, (2007), who found

that households with high financial literacy levels are most likely to use financial experts as opposed to financial magazines or internet to assist with their decision making.

Based on the results of this research we can confirm that there is consistency with regards to the impact of sources of information at the work place on financial literacy. Consequently, there is now fairly robust evidence confirming the earlier studies external formal sources have a positive influence on financial literacy. This is because, unlike an organization which is mainly focused on making profits, external and professional organizations invest a lot in the acquisition of and passing of financial knowledge. An organization is not likely to invest in equipping its staff with this knowledge and thus internal tools of sharing financial information are likely to be faced with some knowledge gap. However, there is inconsistency with prior literature on the impacts of income levels and employment status on financial literacy. This is because this study suggests that high financial literacy is associated with lower levels of income. Earlier on, it was observed that financial literacy was highest among the younger respondents. It can be argued that the acquisition of financial knowledge may be motivated by the need to grow and manage one's wealth which is high among the younger employees who have just started their careers. Financial literacy may be at its peak for the young respondents as they need this to ensure they make optimal investment decisions as they seek to accumulate wealth before they reach the retirement age (Ameriks *et al.*, 2002). While earlier studies observed a strong relationship, in this study it was concluded that there was no significant relationship between employment status and financial literacy.

5.4 Conclusion

5.4.1 Level of Financial Literacy of Employees

In this study it was determined that participants were to a great extent lowly financially literate. These findings were consistent with earlier studies on financial literacy. This shows that in Kenya, employees who have gone through secondary and university education still do not possess knowledge on basic financial concepts.

Further it was noted that financial literacy levels differed across the various departments in Deloitte. Further most employees were aware of the interest rates and inflation concepts of financial literacy but performed poorly on the diversification question. Therefore,

employers, the government and other policy holders need to take the necessary measures to ensure that awareness is created about financial literacy matters.

5.4.2 Demographic Factors and Financial Literacy

This study analysed the relationship between demographic factors and financial literacy. The factors under analysis were age, gender and education. In this study, it was further determined that gender was a significant determinant of financial literacy among employees of Deloitte. Males were observed to exhibit higher levels of financial literacy as compared to their female colleagues. This was consistent with the findings of earlier studies. The findings also indicated that when it came to self-rating, males exhibited higher levels of confidence and rates themselves higher than their female colleagues.

Past studies have demonstrated that there is a significant association between age and financial literacy. The findings of this study contradicted with prior researchers. It was observed that financial literacy was highest among the young, and declined among the older respondents. This implies that financial literacy does not have a linear relationship with age.

Previous studies have consistently shown that individuals with higher levels of education were more financially literate as compared to those with lower levels of education. It was observed that there was a strong positive relationship between educational attainment and financial literacy, in particular for those who had attended university scoring higher than those that did not. This implies that basic financial principles can be taught at school and especially at the institutions of higher education such as universities and colleges.

5.4.3 Socioeconomic Factors and Financial Literacy

This study also analysed the influence of socio-economic variables on financial literacy. The variable analysed were income, employment status and sources of financial information at the work place. It was observed that employees at the lower income brackets exhibited the highest financial literacy scores while those with higher income levels exhibited lower scores. These findings were inconsistent with earlier studies.

Further a high proportion of the respondents who consulted financial experts or relied on membership to professional bodies and associations in obtaining financial information exhibited higher scores in the financial literacy test. Analyses of the findings also revealed

that majority of respondents with low financial literacy rely very often on informal tools such media sources and internally organized sessions facilitated by internal staff who are experts in personal finance matters.

There was no significant association observed in this study between occupation status and levels of financial literacy among the respondents who took part in the survey. Thus, regardless of their occupation status, displayed an equal competitive performance in the financial knowledge test.

5.5 Recommendations

This study recommends the following measures which will help improve financial literacy studies and areas for further research.

5.5.1 Recommendations for Improvement

5.5.1.1 Level of Financial Literacy of Employees

The review of previous studies highlighted the lack of a standardized tool to measure financial literacy as a key hurdle in identification of the barriers to financial literacy. This study was limited to the use of a specific questionnaire to assess the financial literacy of the respondents. A standardized measure and analysis of financial literacy will improve a researcher's ability to identify deficiency in financial literacy of the population being studied. Further studies should focus on developing a uniform tool for measuring financial literacy.

5.5.1.2 Demographic Factors and Financial Literacy

It is clear from the findings and from the review of other literature that financial literacy differs by gender and income levels. However, the research did not identify the major cause of this gap. Further studies should investigate the factors contributing to this gap with an aim of reducing this gap. This will go a long way in improving the financial literacy and well-being of women and the low income earners who make up a huge portion of the Kenyan population.

5.5.1.3 Socioeconomic Factors and Financial Literacy

This study did not take into consideration other socioeconomic factors of the participants. It was only limited to three: income levels, employment status and sources of information

at the work place. More work should be carried out by other researchers to determine the impact of other socio economic factors on financial literacy. Understanding these other key variables and their influence on financial literacy will also help employers and policy makers design more effective financial education programs that address the varying needs of the workforce and population.

5.5.2 Recommendations for Further Studies

This study focused on the effect of demographic and socioeconomic factors on the financial literacy of employees working at Deloitte and therefore biased. It is recommended that similar researches should be replicated in other organizations and the results be compared so as to establish whether there is consistency of the findings of this study. Further, the studies should target the population segments in the rural areas as well.

Contrary to other studies, it was observed in this study that age did not have a non-linear effect on financial literacy. Financial literacy peaks in the younger ages and decreases beyond the middle ages. It is recommended that an in depth research is carried out on a wider population from a Kenyan perspective to determine if the consistency persists and why it contradicts the observations made in other studies.

It is clear from the results that financial literacy is affected by income levels and sources of information. This information is important to policy makers and financial advisors. Further research on this factors will help them incorporate different needs of the population and design suitable structures that improve their financial well-being.

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APPENDIX ONE-QUESTIONNAIRE

This study is in partial fulfillment of the requirement for the Masters in Business Administration (MBA) degree program at the United States International University-Africa (USIU). The purpose of this study is to investigate the impact of gender, age and education level, wealth, employment status and sources of information on the financial literacy levels of employees in Deloitte. Please note that this is an academic exercise and all information collected shall be confidential.

SECTION 1: General Information

1. Department

- Audit
- Tax
- Consulting
- Enterprise Risk Services
- Internal Client Services

SECTION 11: Financial Literacy

1. Suppose that you had KShs 1,000 in a savings account for five years and the interest rate is 2% per year. After five years, how much money will you have in the account?

- More than KShs 1,020
- Exactly KShs 1,020
- Less than KShs 1,020

2. Imagine that the interest rate on your savings account was 3% per year and the inflation rate was 5% per year. After one year, how much would you be able to pay with the money in the account?

- Exactly the same
- More than today
- Less than today

3. Buying a single company stock usually provides a safer return than a stock mutual fund

- No
- Yes
- Do not know

4. On a scale of 1 to 7, where one means very low and 7 very high, how would you assess your overall financial knowledge? _____

SECTION 111: Demographic Factors

1. Gender

- Male Female

2. Marital Status

- Married Single Separated Divorced

3. Age

- Less than 25

- 25 to 29

- 30 to 44

- 45-54

- Above 55

4. Highest education level

- University College Secondary school below secondary school level

SECTION 1V: Socioeconomic Factors

1. Gross salary per month

- Less than KShs 30,000

- KShs 31,000 to KShs 60,000

- KShs 61,000 to KShs 90,000

KShs 90,000 to KShs 120,000

More than KShs 120,000

2. Are you the main income earner?

Yes

No

3. Status at work

Manager

Non manager

4. Sources of financial information (select all that apply)

Financial consultants

Financial publications, magazines and internet sources

Friends

Colleagues

Family

Other (please specify) _____

END

Thank you for participating