

**EFFECT OF TAX INCENTIVES ON RETIREMENT SAVING AMONG
EMPLOYEES IN AUDIT FIRMS IN NAIROBI COUNTY, KENYA**

BY

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Department of Accounting and Finance in Partial Fulfillment of the
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DECLARATION

Declaration by Candidate

I declare that this research project is my original work and has not been presented either in full or part for examination or award of a degree in this University or any other. I have also given all the necessary and appropriate credit to the sources used.

Signed..... Date.....

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Declaration by the Supervisors

This research project has been submitted with our approval as the University Supervisors.

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DEDICATION

This work is dedicated to James Ochieng, Monica Achieng, and my daughter Jemimah.

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I would like to acknowledge and express my gratitude to the following people who contributed to the completion of this work. These are people without whom this project might not have been written and to whom I am immensely indebted.

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ABSTRACT

Most governments across the world have put in place laws and policies to ensure that their citizens actively partake retirement saving. Neo-liberal deregulatory policies have been directed towards an “entrepreneurship of the self” where provisions for pension are to be made by individuals rather than by the state. To boost retirement saving, many governments have tax benefits for private retirement plans. The Kenyan government provides substantial tax incentives for retirement saving. These incentives include tax exemption on contributions to retirement savings accounts by taxpayers, tax exemption on investment income accrued within retirement accounts, and tax exemption on withdrawals from retirement schemes. These tax incentives for retirement saving in Kenya have been in place for quite a while. However, a significant percentage of the working population, 80%, are not covered in any retirement pension scheme. Additionally, only 15% out of the 20% covered are confident they have savings to keep them through retirement life. The question of whether these tax incentives are effective in boosting retirement saving remains unanswered. This paper explores the implication of these tax incentives on retirement saving. The aim of the study was to determine the effect of tax incentives on retirement saving. The literature review conducted for this study indicated that all the relevant existing research is of international nature while this study was conducted from a Kenyan perspective and focused on the effect of the tax incentives on retirement saving in Kenya. The theories and concepts guiding this study included the incentive theory of motivation, lifecycle theory, liquidity preference theory of interest, and prospect theory. The study adopted explanatory research design. The target population included employees working in 705 audit firms in Nairobi County with the sample size being employees working in 256 audit firms. Simple random sampling technique was used to select the sample from the population. Primary data was gathered using a simple structured questionnaire and the data collected was analyzed quantitatively to explain the characteristics of the study variables. Descriptive and inferential statistics were employed in data analysis. Descriptive statistics included percentages, means, and standard deviations. Further, inferential statistics such as Pearson correlation and regression analyses were used to test the relationship between the study variables. A multiple regression model was estimated. The study’s findings revealed that tax exemption on retirement contributions, tax exemption on investment income accrued within retirement accounts, and tax exemption on withdrawals from retirement schemes had a positive and significant effect on retirement saving. The findings indicated that tax exemption on retirement contributions had a positive and significant effect on retirement saving ($\beta = 0.261$, $P = .000 < .05$). The findings also showed that tax exemption on investment income accrued within retirement accounts had a positive and significant effect on retirement saving ($\beta = 0.240$, $P = .002 < .05$). Further, the findings indicated that tax exemption on withdrawals from retirement schemes had a positive and significant effect on retirement saving ($\beta = 0.254$, $P = .002 < .05$). The study concluded that tax incentives contribute positively to retirement saving. The government through the Retirement Benefits Authority should review policies relating to tax exemption on retirement contributions, investment income accrued within retirement accounts, and withdrawals from retirement schemes. Furthermore, the government should create awareness to the public on tax exemptions available on retirement contributions, investment income accrued within retirement accounts, and withdrawals from retirement schemes.

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OPERATIONAL DEFINITIONS

Pension Investment Income: This refers to income earned from investment of pension funds. When pension schemes invest members contributions, the income earned is accrued to the member and is payable upon retirement.

Retirement Contributions: Retirement contribution refers to a monetary contribution made to a retirement plan. Retirement contributions can be pretax or after-tax, depending on whether the retirement plan is qualified

Retirement Income: Retirement income is the money received by an individual after retirement from employment. Withdrawals from pension schemes also qualify as retirement income.

Retirement Saving: Retirement saving entails putting funds aside for the period in which work-related income ceases.

Tax Incentive for Retirement Saving: Are tax incentives specifically meant to encourage people to save towards retirement.

Tax Incentives: Are special deductions or tax credits offered by the government to encourage certain types of investment or behaviour (Jens and Roach, 2012).

Can also be defined as preferential tax treatments that are offered to a selected group of taxpayers and may take the form of tax holidays, exemptions, credits, investment allowances, preferential tax rates and import tariffs (or custom duties) and deferral of tax liability (United Nations New York, 2018)

ABBREVIATIONS AND ACRONYMS

AKI:	Association Kenya Insurers
RBA:	Retirement Benefits Authority
KRA:	Kenya Revenue Authority
OECD:	Organization for Economic and Cooperation Development
EET:	Exempt Exempt Tax
EEE:	Exempt Exempt Exempt
TTE:	Tax Tax Exempt
ITA:	Income Tax Act
NSSF:	National Social Security Fund
PERP:	Popular Retirement Savings Plan
PIH:	Permanent Income Hypothesis
LCH:	Life Cycle Hypothesis
RIH:	Relative Income Hypothesis
RRSP:	Registered Retirement Savings Plans
DC:	Defined Contribution
DB:	Defined Benefit
IRA:	Individual Retirement Account
UK:	United Kingdom
US:	United States
TESSAs:	Tax Exempt Special Savings Accounts
ISAs:	Individual Savings Accounts
NACOSTI:	National Commission for Science, Technology, and Innovation

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter discusses the research background, problem definition, research objectives, research hypotheses, research significance and research scope.

1.1 Background of the Study

A rapidly ageing population and shorter working lives of people is increasing pressure on public finances and pension systems around the world to formulate guidelines for assessing the adequacy of personal savings for retirement. One of the traditional techniques used by governments to encourage retirement savings is to apply special tax regimes or tax incentives to funds held in certain types of savings accounts and saving through pension schemes. Retirement saving tax incentives are available in many countries and are often used to encourage retirement saving in retirement plans (Attanasio, Banks & Wakefield, 2004). More recently, governments have introduced neo-liberal entrepreneurial deregulation policies (Garland, 1996; Rose, 1999; Williams, 2007) which require that pension provisions be made by individuals rather than the state. To increase private retirement saving, many private pension plans receive tax incentives (Organization for Economic Co-operation and Development, 2007). Therefore, tax incentives are used as a tool to encourage people to save and thereby accumulate wealth for retirement. This is achieved either by individuals increasing the amount of total savings or by adjusting the composition of the asset portfolio by allocating more funds to "long-term" savings (retirement plans).

Gaining an understanding of retirement saving is fundamental in helping individuals have a sense of future control since retirement in itself is a process that one needs to perceive and think about in advance (Kapoor et al. 1994). According to Magera (1999),

retirement planning is a systematic way to provide resources (money), business projects and time for income in old age. Therefore, retirement planning is important because it plays an important role in maintaining human dignity, social inclusion, and survival when income-generating activities decline (Keizi, 2006). Saving for retirement is an activity that should be started at an early stage of ones working life and should be reviewed periodically. To properly and adequate save for the future, there should be a tradeoff between current expenditure and saving and the tradeoff should be well understood by the individual (Kapoor et al. 1994).

As one saves for retirement, the individual needs to perceive themselves as properly saving for retirement since perceptions drive actions. This approach is supported by the symbolic interaction theory, which states that conduct is determined by one's beliefs rather than what is actually true (Andersen, Taylor, & Logio, 2015). Studies on workers' attitudes toward retirement have lent support to the symbolic interaction theory. Workers with a good attitude towards retirement are interested in retirement planning and would consider getting professional financial advice (Joo & Grable, 2001; Mutran, Reitzes, & Fernandez, 1997). As noted by Kemp, Rosenthal, & Denton, (2005), examining subjective factors in retirement saving is key because the factors are linked to perception which further has an influence on saving behaviour.

The inclusion of tax incentives in pension plans greatly boosts retirement saving, which can be attributable to two factors; People actually increase their overall savings by contributing more to pension schemes or by shifting savings from traditional vehicles through reallocation which at the end of the day leaves total savings unchanged. Understanding this contrast is fundamental in the sense that an increase in retirement savings from new savings result in an overall increase in the national savings whilst an increase as a result of reallocation could bring about a decrease in national savings

thereby making the tax incentive costly. Any country with an aim of increasing national savings by using tax incentives needs to ascertain the role of (existing) tax incentives on the saving for purposes of policy formulation and implementation. This goes hand in hand with gauging the awareness of the citizens of the tax incentives and whether their decisions to save for retirement take into account the available tax incentives.

As one saves for retirement, it is important that the amount of savings is sufficient for retirement's financial needs. Binswanger & Schunk, (2012) believe that people understand what adequate retirement income constitutes and that they are aware of their ability to meet their retirement goals together with the risks associated with retirement income inadequacy. Results from the studies conducted by Kim & Hanna, (2015) and Munnell, Golub-Sass, Soto, & Webb, (2008), indicate that peoples retirement preparedness is a key element when they conduct an assessment on themselves. According to the studies, one-third of people believe they are appropriately investing for retirement. However, they do not save enough for retirement on an objective basis. With this, there exists a gap between reality and perception and this negatively affects an individual's ability to save adequately for retirement noting that they will not be taking the necessary actions that would prepare them adequately for retirement.

For retirement tax incentives to attain their goal of encouraging people to save (more), it has to be the case that the level of saving responds positively to an increase in the disposable income or (marginal) return to savings from the various forms of savings. If that has to be the case, then funds moving to the various saving vehicles should originate from the reduction of the levels of consumption by individuals as opposed to money moving from one form of savings to another. Ayuso, Jimeno and Villanueva (2019) show that when examining the effect of tax incentives on pension provisions, certain factors make it difficult to determine the effect of tax incentives on retirement saving:

age, liquidity or patience limits, absence of consumption microeconomic data, savings and wealth to monitor various financial and personal characteristics that determine marginal tax rates, income fluctuations, retirement wealth, discounts and interest, as well as information on income levels, wealth and composition of people, and the different effects that tax incentives can have if introduced in a situation where incentives have been in place for a long time because the desired savings rate and optimal financial ratios can be adjusted gradually after the introduction of tax incentives

Retirement planning has attracted research from a variety of disciplines. Psychologists (Wang & Shi, 2013), economists (Adams & Rau, 2011; Banks & Smith, 2006; Donaldson, Earl & Muratore, 2010) and gerontologists (Ekerdt et al. 2001) have researched this topic. The results of the diverse literature indicate that adequate pension provision, financial and psychosocial planning are central aspects. Longitudinal studies from the Health and Retirement Survey of America show that financial and psychosocial planning has made a significant contribution to the financial satisfaction and health of retirees (Noone, Stephens & Alpass, 2009). In addition, Adams and Rau (2011) show that quality of life in retirement is very important for retirement provisions and retirement planning.

Adams & Rau, (2011) further indicate that people have taken more seriously their personal responsibility for retirement saving and the other aspects of retirement preparation. However, even with the assumption of Noone, Stephens and Alpass, (2009) that people are aware that proper planning for retirement results in a positive outcome and a good life in retirement, US data still indicate that a good number of old workers don't save towards retirement (Adams & Rau 2011; Ekerdt et al. 2001). This makes retirement saving seem normative and calls for keen attention to proper retirement planning, in terms of retirement saving (Jex and Grosch, 2013).

The study conducted by Hershey, Henkens, & van Dalen, (2010) finds that workers across Europe are worried about the adequacy of their retirement income. The same study reports that the level of worry in countries with well-developed pension systems like Scandinavia and the Netherlands is low as compared to countries that have less developed pension systems like the Eastern European countries. In the US, it is observed that 63% of workers are confident that they have sufficient funds to make them live comfortable during retirement (Helman, Copeland, & VanDerhei, 2016). At the same time, some scholars have used perceived retirement adequacy score to gauge retirement confidence and have found that there is a moderately high level of retirement confidence among workers in the US and Dutch and low levels among workers in Israeli and Hong Kong (Chou et al., 2015; Segel-Karpas & Werner, 2014; Van Dalen et al., 2010).

Retirement planning is still an important issue in Canada. As the country embarks on changing the pension system and expanding pension coverage, a drop in the employed Canadian population covered by Registered Pension Plans (RPPs) has been observed to have reduced from 46% to 38%. This could be a result of the decrease in defined benefit plan coverage. The existing research further suggests that Canadians of middle class don't save adequately for retirement, leaving them at the risk of under-saving. In 2014 for example, 78% of the people aged 25 to 64 indicated that they were prepared financially for retirement as compared to the 81% in 2009. At the same time, 45% indicated that they were aware of the amount they required to achieve their desired living standard in retirement in 2014 as compared to 46% in 2009. This shows that there is variance in the number of people who were saving for retirement and those who were aware of the amount they needed to save.

The majority of people in Japan have no plans for retirement. This has been attributed to a lack of financial awareness, particularly among women and youths, which makes it difficult for them to plan for retirement and save for it. Prior to 2004, when the public pension system in Japan was changed, the legislation provided that the state would pay for the pension benefits attributed to an individual. This meant that the working population would shoulder the retirees' pension burden. Following the modifications in the laws, a defined contribution pension plan was established, and people were held responsible for their own retirement savings and planning (Sekita, 2011).

When compared to Western countries, Hong Kong's population is ageing significantly more quickly, notwithstanding worldwide trends (Lum, 2011). According to the latest estimates, Hong Kong's demographic structure will change significantly, with the proportion of the population aged over 65 years increasing from 15.4% in 2015 to 33.1% in 2064 (Census and Statistics Division, 2015). This trend may lead to higher demand for financial stability among older people, which is also closely related to satisfaction in retirement (Taylor & Geldhauser, 2007; Wang & Shultz, 2010). Unlike in Western countries, elders in Hong Kong follow the custom of receiving financial assistance from the younger generation.

Retirement saving has been a low priority for both the government and the people in Africa, resulting in an underdeveloped practice. Retirement saving is generally low, and most people rely on others in their social circles, particularly family members, for support throughout retirement (Naxitis Investment Managers, 2015). Low retirement saving in the general population in South Africa is responsible for inadequate retirement planning, consumer debt accumulation, and a low savings rate (Klapper, Lusardi, & Oudheusden, 2014); (Rousseau & Venter, 2016). The fact that members of a retirement

plan did not reserve their benefits when they left their jobs or resigned solidified the country's habit of ignoring retirement preparation (Oseifuah, 2010).

Many African countries are now concerned about poor retirement savings, which could lead to insufficient retirement income. In Nigeria, for example, pension payments have remained less generous over the past decade and the amount of pension funds needed to reduce indexation or normal pension entitlements has increased (Ayegho., James & Odoh, 2013; Anyim., Olusanya & Okere, 2014; Njera, Dominic & Fredrick, 2015; Pay, 2016; Were., Iravo & Wanjala, 2017). As a result, guaranteed post-retirement benefits are at risk and people are urged to play a greater role in planning for a financially secure retirement (Biobele, 2015; Onyx & Daker, 2016; Were., Iravo & Waujala, 2017; Antolin, 2018; Davis and Hu, 2018).

Many people today are aware that they do not want to plan for their retirement. In particular, people rarely think about their future retirement status (Lusardi & Mitchell, 2007), and when they do, they hesitate to adjust their planning and saving habits (Thaler & Benartz, 2004). As a result, it is believed that many people run the risk of inadequate saving for retirement. According to the Retirement Trust Survey, more than 40% of US workers believe that when they retire they will not have enough money to live well (Helman, Copeland & VanDerhei, 2016). In Nigeria, more than a quarter of workers worry that they will not be able to maintain their standard of living in retirement if they do not save enough (Wijzer in Geldzaken, 2014). As a result, many people need to take a more active role in preparing for retirement.

Because of South Africa's high unemployment rate, many people are unable to plan for retirement, and once they reach the age of 60, they will be reliant on old-age pensions. However, for the 70% of the workforce that is working, there is a well-established

occupational and individual retirement fund. The fund offers coverage rates ranging from 66 to 84 percent for individuals working in the formal sector, corresponding to 46 to 59 percent for the overall employed population (South Africa, National Treasury, 2004; Statistics South Africa, 2016).

Despite the high levels of retirement fund coverage for those in the formal sector, it is estimated that more than half of those who retire with a funded pension will receive a retirement income that is less than 28 percent of their pre-retirement income, due to employees cashing out their retirement funds when they change jobs (South Africa, National Treasury, 2004, 2007). This is concerning because it has been suggested that, in the context of South Africa, even a 75 percent replacement rate may be insufficient to ensure a comfortable retirement, as studies have found that, in many cases, post-retirement consumption levels in South African households do not decrease when compared to pre-retirement levels. Furthermore, certain households face higher medical costs, resulting in even higher levels of post-retirement spending. As a result, many people may have to postpone retirement in order to have an assurance of enough retirement savings (Butler & Van Zyl, 2012).

Saving for retirement is essentially absent in African countries, Kenya not excluded, due to traditional systems of old-age support by children and a lack of understanding about saving options (Odundo, 2003), as illustrated by the fact that just 15% of Kenyans were enrolled in any type of pension plan in 2009. According to Odundo (2003), less than 5% of the Kenyan population contributes to a social security fund. This means that the great majority of individuals will have to establish their own retirement plans.

According to Kirago (2007), the majority of people believe they will work till they die. The majority of young people are indifferent about saving for retirement. Many

Kenyans start thinking about retirement when they are about to retire, only to realize they did not plan ahead of time. Kirago (2007) goes on to say that in order to avoid preventable financial problems, one should budget for every cent and save the surplus. According to the survey, when confronted with new issues, most people simply sit down to consider the ramifications of numerous courses of action and choose one. This is due to the fact that most people do not have a thorough financial plan, do not understand why they need one, and typically wait until it is too late to start saving for retirement.

As retirement benefits dwindle, medical expenditures continue to rise as people get older. Inflationary pressures eat away at the meager retirement savings. Another difficulty is that Kenyans retire with only 20% of their pre-retirement income, which is insufficient to support one in retirement, especially as social culture changes and parents can no longer rely on their children to assist them in old age. As a result, old-age savings should be prioritized, and efficient pension fund administration is also essential to ensure old-age savings (Gichuki, 2008). Pension provision is highlighted as a critical component for achieving economic growth and faster financial sector development in Kenya's Vision 2030 (strategic strategy to fulfil key economic milestones by 2030). In the long run, the population should be empowered to make financial decisions that will aid in the reduction of old-age poverty because the population will be able to make rational financial decisions that are in their best interests in both the short and long term (Kefela, 2010).

Providing tax incentives for private pension plans will only be successful if investors consider taxes and the incentives available when making retirement saving decisions. However, no actual evidence for such an effect has been found. According to studies, taxes appear to have an impact on retirement saving decisions (Basset et al., 1998; Duflo

et al., 2006; Engen et al., 1996; Holden and VanDerhei, 2001; Huberman et al., 2007; Power & Rider, 2002). Simultaneously, there is evidence indicating that such an influence does not exist (Duflo et al., 2007, Engen et al., 1996; Holden and VanDerhei, 2001; Jappelli & Pistaferri, 2003). Noting that the extent to which tax incentives influence retirement saving is debatable and that no systematically documented information about the effect of tax incentives on retirement saving in Kenya exists, this study focuses on exploring the various tax incentives in Kenya with the goal of understanding their role in retirement savings.

1.2 Statement of the Problem

Low retirement saving increases the burden on the government to provide for the old age and, at the same time, intensifies the financial exposure of the elderly leaving them to heavily rely on family and the government for support. In Kenya, old-age dependency rates and old-age poverty rates stand at 55 percent and 56 percent respectively. Currently, this is a major concern of the government because the responsibility of supporting old people who are needy is continually falling on the government (Githui & Ngare, 2014). This is evident from budgetary allocations by the government to the cash transfer to old people programme. Ndegwa, G. I., & Mwaniki, G. (2020) note that the cash transfer programme is honourable but is unsustainable in the long run and is also out of touch with the current global trends of shifting from state-funded social security schemes to individually funded schemes.

Over 80 percent of the total working population in Kenya is not covered under any retirement schemes available (Omondi, 2018), and of those covered, only 15 percent of their savings is directed towards their retirement even though 85 percent of them are not very confident of outliving their retirement savings (Social security study group, 2018). It, therefore, means that at one point in retirement, most people will either be

wholly dependent on others or will live in poverty (Ndegwa, G. I., & Mwaniki, G., 2020).

To encourage people to prepare for retirement, limit risk, and protect the government from heavy expenditure on the elderly, different measures, including tax incentives for retirement saving, have been created to help motivate Kenyans to save (more) for retirement. Despite having reforms and mechanisms in form of tax incentives to encourage saving for retirement, the objectives of the reforms and policies are yet to be fully achieved.

Tax incentives for private pension plans can only be effective if investors consider taxes into their retirement planning. However, no actual proof of such an effect has been discovered. According to studies, tax incentives have an impact on retirement saving decisions (Basset et al., 1998; Duflo et al., 2006; Engen et al., 1996; Holden and VanDerhei, 2001; Huberman et al., 2007; Power & Rider, 2002). At the same time, there is evidence suggesting such an influence does not exist (Duflo et al., 2007, Engen et al., 1996; Holden and VanDerhei, 2001; Jappelli & Pistaferri, 2003). Investors' lack of tax expertise (Blaufus and Ortlieb, 2009), fiscal complexity (Boylan and Frischmann, 2006; Duflo et al., 2007; Rupert et al., 2003), and uncertainty about whether tax benefits will be retained or eliminated in the future all explain why taxes are ignored in investment decisions (Blaufus and Ortlieb, 2009; Collins and Murphy, 1995).

From the existing research, the actual ability of tax incentives to promote saving behaviour among people is not clear (Hecht & Hanewald, (2012); Heim & Lurie (2012); Jordan & Treisch, (2010); Marino et al. 2011) but some scholars are of a contrary opinion. Despite there being a widespread agreement in the economic literature regarding the urgent need for increased retirement saving culture, the efficiency of tax

incentives in accomplishing this goal has sparked a variety of debates (Marino et al., 2011).

The current literature does not systematically document the existence of information regarding the influence of tax incentives on retirement saving in Kenya. In light of the foregoing, this study sought to examine the effect of tax incentives on retirement saving among employees working in Audit Firms in Nairobi County, Kenya.

1.3 Research Objectives

The following objectives guided the study:

1.3.1 General Objective

Generally, the study intended to find out the effect of tax incentives on retirement saving in Kenya.

1.3.2 Specific objectives

- i. To determine the effect of tax exemption on retirement contributions on retirement saving.
- ii. To establish the effect of tax exemption on investment income accrued within retirement accounts on retirement saving.
- iii. To determine the effect of tax exemption on withdrawals from retirement schemes on retirement saving.

1.4 Research Hypothesis

H₀₁: Tax exemption on retirement contributions has no significant effect on retirement saving.

H₀₂: Tax exemption on investment income accrued within retirement accounts has no significant effect on retirement saving.

H₀₃: Tax exemption on withdrawals from retirement schemes has no significant effect on retirement saving.

1.5 Significance of the Study

From an academic perspective, this research adds to existing knowledge by helping to understand the relationship between tax incentives for retirement and saving behaviour in Kenya. The study piques the interest of scholars and academicians in conducting research in other regions and sectors of the economy since the researcher makes recommendations for additional research that goes beyond the scope of this study.

Practically, the findings of this study may aid the government and other policymakers in determining the efficacy of tax incentives in encouraging people to save for retirement. Interested parties like the Retirement Benefits Authority (RBA), Ministry of Finance and the Kenya Revenue Authority (KRA) may be in a better position to devise retirement savings alternatives and tax incentives other than the current standards available while at the same time creating awareness among the citizens of the existing tax incentives.

To individuals, the study gives more insight into the value of tax incentives regarding retirement saving and may help them take advantage of the existing tax incentives to save more for retirement.

1.6 Scope of the Study

The study focused on the current tax benefits for retirement savings and targeted employees in Kenyan audit firms having a presence in Nairobi County between August and September 2021. Save for being the capital city, Nairobi County was chosen as the study's location because of its huge and diversified population, making it more representative of Kenya's population as a whole, as well as the researcher's geographical convenience. Secondly, because they are among the population group that the government is targeting with tax incentives, the study focused on people who are currently employed and are working in Audit firms.

1.7 Assumptions of the Study

- i. The use of questionnaires as a data collection tool was an appropriate method for gaining insight into Kenyans' attitudes with regard to retirement tax incentives.
- ii. The sampling method was appropriate and the sample size adequate.
- iii. Respondents in the survey provided truthful answers to all questions and were willing to provide all information requested. For example, whether they are saving for retirement and whether they are willing to save more should there be better tax incentives.
- iv. Nairobi County has a relatively high workforce and the most diversified population, making it more representative of Kenyans.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter describes the problem of retirement saving which affects both individuals and governments around the world and discusses tax incentives as a policy that governments use to encourage retirement saving.

The literature review starts by discussing the theories that support the study and then discusses three tax incentives, namely tax exemption on retirement contributions, tax exemption on investment income accrued within retirement accounts and tax exemption on withdrawals from retirement schemes. The literature review is based on these tax benefits. The discussion expands on the various tax incentives and their impact on retirement saving. The literature review also focuses on the works of other researchers who have conducted studies on the same topic under the empirical literature section. The conclusion contains a summary of all components mentioned in the literature review, as well as a discussion of the research gap and the conceptual framework.

2.2 Review of Study Concepts

2.2.1 Retirement Saving

Retirement saving, which entails putting funds aside for the period in which work-related income ceases, plays an integral role in achieving positive retirement funding adequacy. Making plans and judgments on how restricted financial resources should be allocated, as well as how to strike a balance between present and future consumption, are all part of retirement saving (Hershfield et al. 2011).

To adequately save for retirement, an individual should have an understanding of their consumption level and reduce it to a level that will leave them with sufficient funds for

retirement. When an individual retires and no longer has a stable income from employment or company pursuits, their retirement savings should be sufficient to supply them with income (Kim & Feldman, 2000)

With sufficient savings, an individual will have high levels of financial resources in retirement, thereby, making individuals have control over their financial affairs, providing them with a sense of financial security and financial independence as well as enabling individuals to maximize their wealth over the long term.

To attain financial security during retirement and to reduce the risk of having inadequate funds at retirement, an individual should understand their financial needs and balance between current consumption and future consumption. This will allow an individual to determine the amount of financial resources required during retirement and, as a result, how much of the income to set aside for retirement, as well as when to start saving.

Retirement saving is clearly significant and necessary to achieve retirement funding adequacy and, as a result, financial independence in retirement. When people save adequately for retirement, the pressure on governments to provide for the old citizens is also reduced thus availing more funds to develop social infrastructure. However, the question that remains inadequately answered is whether tax incentives play a significant role in increasing retirement saving.

2.2.2 Tax incentives

According to Roach and Jens (2012), tax incentives are one-of-a-kind deductions or tax credits offered by the government to encourage specific types of investments or behaviours. According to Jens and Roach (2012), most tax incentives are meant to induce taxpayers to do things they don't necessarily want to do. Tax incentives can also

be defined as preferred tax practices offered to certain groups of taxpayers and can be in the form of tax exemptions, credits, investment allowances, preferential tax rates, and import tariffs (or duties) and withholding taxes (United Nations New York, 2018).

Tax incentives for retirement saving are used to encourage people to save (more) for retirement. To achieve this, most governments give tax incentives that either promote contributions to pension schemes or encourage investment in certain investment vehicles. Traditionally, governments have allowed individuals to deduct contributions to pension schemes from their personal income tax base and also to exempt investment income accrued within retirement accounts from taxes (or tax them at a preferential rate), while retirement withdrawals or payments are usually taxed at the appropriate tax rate (Yoo & De Serres, 2004). This tax regime is usually referred to as "tax-free" or EET.

To promote contributions to pension plans, the tax incentives are meant to reduce the tax burden of the individual by exempting the contributions made to the scheme from taxation. With the reduced tax burden, it is expected that an individual will be left with more disposable income which can be used as savings. Another tax incentive available for retirement saving and that is used to promote contribution to pension schemes is tax-exempt withdrawal from pension plans. Upon retirement, withdrawal from a pension scheme is tax-exempt and the amount varies from country to country and from period to period as the policies keep changing. In general, tax incentives depend on how individuals distribute their accumulated wealth after retirement. The Global Review shows that tax incentive rules apply based on whether the individual receives a lump sum, programmed withdrawal, pension, or a combination thereof.

Tax incentives can also be used to encourage consumers to engage in certain investment vehicles, such as interest-bearing accounts, direct equity ownership, or intermediated products like unit trusts or investment trusts. Income earned from these investment vehicles are tax-free and, therefore, make it attractive for people to channel funds towards such investments.

Countries promote pension contributions by taxing retirement savings in pension plans differently from alternative forms of savings or by offering other financial incentives. Half of OECD countries have introduced some type of pension incentive system. In the Exempt-Exempt-Taxed (EET) retirement savings system, for example, both contributions and investment income are tax-free, but retirement income is taxed at the time of withdrawal. Other tax regimes implement EEE, in which contributions, capital gains, and retirement income are tax-free, while other tax regimes tax two of the three income streams. In addition, the TTE savings system is usually applied for savings in other vehicles (Yoo, K. Y. & De Serres, A. 2004).

Yoo and De Serres (2004) also postulate that the differential tax treatment of retirement plans and other savings accounts for monetary gains when people save on retirement plans. In most cases, individuals save on taxes owed to the state by paying the same pre-tax amount into the pension system rather than saving into the taxable savings base. Individual payments to the pension system and returns on investment receive preferential tax treatment, resulting in tax benefits.

Tax exemption on retirement contributions

Contributions to pension schemes can be made in the form of employer contributions (matching contributions), employee contributions and voluntary deductions by the self-

employed (and other beneficiaries). All these various types of contributions are given the same tax treatment (Bateman Hazel, 2018).

Contributions to a registered pension scheme are tax exempt in Kenya. As per section 22 of the Income Tax Act (ITA), any contribution to a registered pension scheme is tax-deductible. This means that while determining the tax payable by an individual, contributions to a registered pension scheme are deducted from the income and the net amount thereof subjected to tax. Since the contributions are made on a pre-tax basis, this removes the contribution from the taxable income of an individual thereby reducing the tax payable by the individual (Income Tax Act, Kenya).

Under the Kenya Income Tax Act, employer and employee contributions are treated differently in the Kenyan tax system. Employer contributions do not result in taxable income for the employee. In an instance where an employer makes contributions on behalf of an employee, for example, the case with NSSF where employers are required to match the employee's contributions, the amount contributed by the employer does not reduce the employee's taxable income. Employer contributions on behalf of the employees do not count as employee income and employees do not receive tax incentives on these employer contributions.

To protect the state from excessive tax cuts, retirement contributions are limited. There is a maximum employee income limit used to determine tax relief (Emmerson, C., 2016). Section 22A of the ITA regulates tax exemption on contributions, and any contributions that exceed the limit are not deductible and are taxable at the individual income tax rate. With the deductible limit, the maximum amount of tax-exempt contribution currently accorded to an individual can only be Kenya Shillings Twenty Thousand per month (Kshs. 20,000/-), translating to Kenya Shillings Two Hundred and

Fouty Thousand per annum (Kshs. 240,000/-). However, the deductible limit does not prevent an individual from contributing above the limit as there are other incentives that one gets afterwards.

Tax exemption on investment income accrued within retirement accounts

Contributions to pensions are invested and the income earned on the funds accrue to the contributor. At retirement, the principal amount together with the income earned, if any, is paid to the contributor. Most countries exempt from taxation investment income from pension schemes (Blake, 2003). However, in cases where investment income is taxed, the tax rate may vary depending on the period of investment (e.g. Australia), type of asset class (e.g. Italy) or program member income (e.g. Zealand). The tax treatment of withdrawals from retirement schemes is usually the same for different types of payments (life annuities, programmed withdrawals or lump sum). Only the Czech Republic, Estonia, and Turkey encourage people to reduce their retirement income by taxing pensions more favourably than projected income or by providing governmental subsidies (Bravo, Holzmann et al. 2018).

In Kenya, investment earnings on funds contributed to a pension plan by an employer or employee are not taxed (Income Tax Act, Kenya). According to Forman, J. B. (2016), this aspect of tax treatment of the pension program is referred to as "inside buildup". Pension assets that are included in the pension plan are also not taxed. The main asset classes for investing in a retirement fund are stocks, real estate, bonds, and cash. For the case of pensions, income from these investments is not taxed and for other cases, the income would be subjected to taxation save for investment in bonds. The tax-free investment income aid in generating more funds for reinvestment and thus help accumulate more funds to the individual for retirement (Naczyk, M., 2016).

Tax exemption on withdrawals from retirement schemes

Benefits from a pension fund are taxable as per section 3(2)(c) of the Income Tax Act. The tax rates are, however, different from individual tax rates. Per section 5 of the Third Schedule of the income tax act, the rates of tax for pension are also lower compared to the individual tax rates.

Part of the withdrawal made from a registered pension scheme in Kenya is exempted from taxation. The exemption is based on the amount withdrawn and the number of years the individual has contributed but is currently limited to a maximum amount of Kshs. 600,000/= as per section 8(4) of the ITA.

It, therefore, means that on retirement and before the age of 65 years, the annual tax-free pension is Kshs. 300,000/= and all pensions and lump-sum payments after age 65 years are tax-free. For lump-sum payments/withdrawals, the first Kshs. 600,000/= from a registered pension or individual retirement fund is currently exempted from taxation as per section 8(5)(a). Upon termination of employment, a lump sum withdrawal from a registered pension fund will have a tax incentive of Kshs. 60,000/= for every full year of membership in the scheme and this is subjected to a maximum amount of Kshs. 600,000/=.

Tax incentives and retirement saving

People must take increasing responsibility when preparing for retirement and ensuring their retirement arrangements as a result of the global phenomena of an ageing population and the corresponding impact on state finances is well balanced. To encourage individual retirement saving, the government offers tax benefits to persons who join private retirement programs (Hecht & Hanewald, 2012).

Various literature suggests that tax incentives embedded in funded pension plans have the potential of increasing retirement saving. It is important to note that the increase in retirement saving may be due to higher contributions from people who are already contributing or from new people who are contributing. At the same time, the increase may be the result of an actual increase in people's total savings (i.e., new savings) or people transferring savings from other savings vehicles (i.e., redistribution) while their total savings remain unchanged.

It is crucial to highlight that tax incentives and retirement saving have a significant relationship. Several studies have been conducted to investigate the relationship between changes in retirement tax incentives and changes in people's saving behaviour. Income and education are important factors in determining how society reacts to tax changes (Hecht & Hanewald, 2012), and changes in pension taxes result in a significant increase in pension contributions from low-income households (Heim & Lurie, 2012). Other research, on the other hand, has revealed ambiguous results.

According to Jordan & Treisch (2010), taxes are not the main factor in people's decisions to join a pension fund, while Marino, Pericoli & Ventura (2011) find that a significant increase in pension deductions in Italy does not increase pension contributions. A factor that plays a deterministic role in the effect of tax incentives on retirement saving is awareness of the tax incentives. For the tax incentives to attain their intended goal, people should be aware of the various incentives as this will be fundamental while making decisions on saving. Without tax literacy, especially knowledge of the tax incentives for retirement saving, individuals are highly unlikely to use the tax incentives while making retirement and savings plans.

2.3 Theoretical Review

According to Silvermann (2013), any scientific discovery is often evaluated in connection to the theoretical framework from which it arises and to which it may add. This research has, therefore, employed the use of theories to aid in understanding the research problem. The theories used in this study are; The Incentive Theory of Motivation, Life Cycle Theory, The Liquidity Preference theory, and Prospect Theory.

2.3.1 The Incentive Theory of Motivation

According to this theory, the likelihood of earning a reward or incentive for participating in or refraining from specific activities is the driving force behind people's actions. Incentives are rewards that urge people in a specific direction. These incentives can be either tangible or intangible, and they can be characterized as positive or negative. Positive incentives are rewards given to encourage specific behaviours by providing security and meeting an individual's wishes. Positive reinforcements are used in this form of incentive to meet the needs of the targeted persons. Negative incentives, on the other hand, are acts done against people to discourage undesirable behaviour (Sincero, 2012). This theory is relevant to this research because it aims to determine the sufficiency and efficiency of positive incentives (motivators), in this instance, tax incentives, in influencing people's behaviour and increasing their retirement saving behaviour.

2.3.2 Life Cycle Theory

The life cycle theory explains how rational consumers plan their spending and capital accumulation across their lifetime. Ando & Modigliani (1963) claim in this theory that in order to live a stable life, an individual's consumption must be evenly divided over their lives. As a result, they save assets in their early working life and then rely on their asset stock in their later years. To smooth consumption, the average inclination to

consume must be larger in the early stages of life since people must use their savings or borrow money against future income, but as they approach retirement, older or middle-aged persons must have a stronger propensity to save (Ando & Modigliani, 1963).

Despite the fact that the life cycle economic theory does not provide a comprehensive and accurate depiction of the realities of retirement saving, the ideas contained within it are noteworthy (Burtless, 2006). The life cycle economic theory provides a basis for scholars and financial practitioners to understand retirement as a change in people's lives rather than a single event. This covers contextual and psychological components that work together to provide a comprehensive description of the retirement process (Adams et al. 2002). This theory has long been regarded as the bedrock of people's understanding of financial planning. However, the assumptions advanced by life cycle economic theory have flaws because people may not know their future earnings even if they know their current salaries (Adams & Rau, 2011).

2.3.3 The Liquidity Preference Theory of Interest

In 1936, John Maynard Keynes proposed the interest rate preference theory. According to Keynes, the interest rate is just a monetary phenomenon because it is calculated in terms of money. It is a monetary phenomenon in the sense that interest rates are determined by the supply and demand for money. According to Keynes, interest is a return on prior liquidity over time. Meanwhile, liquidity refers to the ability to change one's abilities without losing money; it also refers to the ability to convert one's money into any sort of asset. As a result, money is the most liquid and universally accepted kind of currency.

According to the liquidity preference theory of interest, people have money for three major reasons: transaction motives, precautionary motives, and speculative motives (Belke & Polleit, 2010). The transaction motive is founded on the assumption that people save a little money to meet their daily necessities. Second, the urge to hold cash is linked to the precautionary purpose for holding money. This is to prepare for unforeseeable events such as job loss, accidents, or illness. Transactional and speculative reasons, according to Keynes, are somewhat inelastic, but income is enormously elastic (Engelhardt & Kumar, 2011). The speculative motive is motivated by a desire to keep one's assets liquid (i.e. cash) to profit from future interest rate or bond price movements.

Interest rates and bond prices are negatively connected. If bond prices are predicted to rise, interest rates are likely to decline because buyers will buy bonds with the intention of selling them later when prices rise. Interest rates are likely to climb if bond prices are predicted to fall, and people will sell bonds to avoid losses. The lower the interest rate, the larger the speculative money demand, according to Keynes, and the higher the interest rate, the lower the speculative money demand (Tushar, 2016). As a result, in the context of retirement saving, allocating funds through long-term asset investments entails giving up current liquidity to invest. As a result, the amount of money that people save for retirement is influenced by their liquidity preferences (Bibow, 2013).

2.3.4 Prospect Theory

The prospect theory is a theory of choice psychology and is used in behavioural economics and behavioural finance. This theory was developed by Daniel Kahneman and Amos Tversky in 1979 to describe how people make decisions when they have multiple choices. According to the theory, investors value gains and losses differently,

and if given the choice between two investment options, one with possible gains and the other with potential losses, the investor will choose the one with the potential gains.

As a result, according to the theory, measures to encourage households to save should include appropriate default automatic saving settings (e.g. automatic subscriptions to retirement savings). Individuals should be able to save automatically before receiving their net payments, making it a relatively "painless" way to save. The 'Save More Tomorrow' program, created by Thaler & Benartzi, (2004) took this technique. Without any coercion or additional incentives, this method has proven to be quite effective in raising people's retirement saving. People are encouraged upfront to invest part of their net pay raise in a savings fund. This turns out to be psychologically easier than being faced with a direct decrease in consumption (Thaler & Sunstein, 2008). People typically make decisions that do not appear to be in their best interests, according to Reeson & Dunstall (2009), and prefer to postpone things like saving for retirement, adhere to the default option even if it is not the best, and avoid making such decision should they find it too difficult.

The theory also suggests that adequate product design and saving incentives should be considered to address the problem of self-control in people's saving decisions and limited financial planning skills and that saving is essentially a matter of self-control for which a person is encouraged to be biased in preferences. The prospect theory is fundamental to this study as it helps understand human economic behaviour and their decision making.

2.4 Empirical Literature

The fact that theoretical models only give vague predictions about the effect of tax incentives underlines the need for empirical testing and a large number of studies have

taken up the challenge. The studies reviewed in this work vary in many different ways. The data sets used in the empirical literature review vary from aggregate data on countries to micro-data on household studies. The studies also vary according to whether they measure the impact of tax incentives directly or rely on some indirect inference by estimating the effects of other changes brought as a result of the ripple effects of the tax incentives.

Hoang and Harrington (2020) investigate the impact of tax incentives on retirement savings by examining a catch-up system that allows people at 50 years and older to make additional tax-deferred contributions per year to retirement accounts. According to the survey, middle-income people were more inclined to use employer match and 401(k) catch-up contributions to improve their retirement savings. According to the authors, deferred tax incentives favour households with total household incomes between \$50,000 and \$100,000 because that income group still fulfils the employer non-discrimination requirement. Individuals who have access to defined contribution plans typically take advantage of tax incentives to reduce their current-year taxable income while boosting their retirement contributions. According to the study, self-control traits such as spending behaviour and saving goals have a positive influence on increasing contribution rates in individual retirement accounts in people who do not have access to 401(k)s.

According to Ayuso, Jimeno, and Villanueva (2019), tax incentives have a slight but significant influence on retirement saving, particularly for persons with high salaries between the ages of 46 and 55. The authors investigate the influence of Spain's tax-free private pension schemes, which were implemented in 1988, on retirement contributions and saving. The authors first discovered that participants from the highest-income neighbourhoods paid more to personal retirement planning using an income tax return

panel. As a result, the second section of their investigation concentrates on these individuals. They contrasted the consumption increase of the population aged 36 to 65 years with the consumption growth of the population under 35 years old before and after the introduction of private pension, using the 1985-1991 wave of household expenditure surveys. They detected a little decrease in consumption among those approaching retirement age (ages 56 to 65), the group that contributes the most to the plan. People aged 46 to 55 experienced a greater decrease in consumer expenditure. According to one interpretation of the findings, consumers see pension funds and other types of savings as strong substitutes immediately before retirement and are more likely to contribute to the tax cut margin by transferring assets. Younger households, on the other hand, who are less likely to accumulate wealth and have fewer contribution constraints, must increase their savings in order to benefit from tax incentives. They predict that the total amount of new savings will be approximately 25 cents per euro on average.

When studying the influence of providing peer information on retirement savings decisions, Beshears, John et al. (2015) discovered that denial of peer information by QE recipients with non-enrollment default is rather high, especially among low-income workers. As a result, they explain that because these workers are discouraged by their poor economic status, peer information may make them less motivated to grow their savings. The authors also point out that peer-to-peer interventions can be adjusted once in a setting where many people are unsure which option is best for their circumstances, such as those whose choice is at the extremes of the distribution. Individuals who believe it is appropriate for them to diverge from the norm for their peers are not obliged to modify their convictions.

Jacobs-Lawson & Hershey (2005) show how future time perspective and risk tolerance interact to influence retirement saving. Risk aversion is a fundamental motivator of wealth accumulation for retirement, according to several authors, including Bajtelsmit et al. (1999), Reichenstein (1999), and Yuh, Hanna, and Montalto (1999). Individuals are increasingly able to allocate their pension assets among stocks and bonds or to make all of their own decisions. If many people's risk tolerances differ greatly from those of the fund managers who have traditionally handled this responsibility, the study indicates that retirement saving will become much more diverse in the coming years.

Marino, Percoli, & Ventura (2011) discovered, using data from the Bank of Italy Survey on Household Income and Wealth from 1995 to 2006, that while the government's tax incentives to encourage retirement savings were generous, there was a less-than-proportional increase in savings and the incentives did not significantly increase additional contributions to these schemes.

According to Heim and Lurie (2012), federal tax revisions from 1999 to 2005 increased the likelihood of saving by 0.39 percentage points, or 0.71 percent more than the baseline contribution rate of 54.9 percent in 1999. While contributions to tax-favoured accounts increased, the effect was more significant among higher-income workers, according to their findings. According to Disney, Emmerson, & Wakefield (2008), the change in contribution limits had an effect on private pension coverage rates among lower-income people in the United Kingdom, particularly among women.

Power & Rider (2002) focus on the self-employed individual in the United States. Taxes, the authors argue, have a major impact on people's saving decisions and the amount they pay for tax-deferred retirement savings plans. The Keogh Plan and the Simple Employee Retirement Plan (SEP) are available to self-employed individuals in

the United States. According to the plan, the self-employed are considered to be their own employees and are entitled to a certain amount of tax deductions. The authors used a sole proprietorship pool of individual tax files from 1985, 1989, and 1993 to assess the impact of changes in tax rates as a result of tax reforms and contributions to the Keogh and SEP plans. According to the findings, the reforms had varying effects on people with low and high incomes. The authors discover that contribution tax rates have a considerable impact on self-employed individuals' decisions to contribute as well as the amount they contribute to Keogh and SEP plans. A 1% rise in the tax rate is anticipated to result in a 0.25 percent reduction in the likelihood of contributing and a 2% reduction in the amount contributed.

Chan, Marc K., et al. (2020) find that higher contribution caps induce strong labour supply responses before retirement among high-income earners. The authors' objective is to determine income and saving responses to tax incentives for private retirement savings and estimate cross-tax employment income elasticities between 0.06 and 0.3 to obtain the findings of their research. The findings suggest that the labour supply of high-income earners is sensitive to the tax treatment of private savings. While these responses are restricted to the high-income earners who are affected by the contribution caps, a general implication of the authors' findings is that overlooking labour supply responses to tax incentives for private savings may over-estimate the fiscal cost of these measures.

Kreiner, Claus Suchtrup, et al. (2017) used the Danish tax reform to examine the reaction to retirement savings with expected tax changes. The announcement of the tax reform, which reduced the marginal tax rate, provides a temporary incentive to remain put during the announcement period, which is when policy changes are announced but not yet implemented. According to research, announcing a reduction in marginal tax

rates encourages people to save more in their retirement accounts. The authors also discovered that over the reporting period, the increase in retirement contributions shifts to total savings and that the effect is due to less than 5% of those affected by the policy change. The authors also point out that, for the first 12 months after the tax changes take effect, there was no reduction in retirement contributions compared to pre-announcement levels.

Marginal tax rates have had a moderate impact on Canadians' decision to contribute to a Registered Retirement Savings Plans (RRSP), according to Milligan (2002). RRSP follows the EET paradigm, which states that contributions are tax-deductible, investment income accrued within retirement accounts is tax-free, and withdrawals are taxable income. Using a repeated cross-section of a survey of family expenditures from 1982 to 1996, the authors examine the effect of marginal tax rates on participation in RRSP. The results showed that the marginal tax rate influenced the household's decision to join the RRSP. According to research, marginal tax rates have minimal impact on participation in RRSP, with a 10% increase increasing the likelihood of participation by 8%. In addition, the tax rate only explains 5.1 percent of the development of RRSP members between 1982 and 1996.

While South Africans are unaware of proposed changes to tax incentives for persons participating in pension plans, Moolman & Marilize (2015) claim that enhanced incentives will motivate people to save more. When the authors wanted to know if the tax benefits were enough to attract South Africans to save for retirement, they discovered that 80% of respondents were eager to increase their savings if the planned higher tax incentives were enacted. The poll also reveals that most respondents and South Africans are ignorant of the anticipated tax changes, implying that greater effort to educate people about retirement tax advantages is required.

Crawford, Disney & Emmerson (2012) examined whether contributions and contributions to private pension plans in the UK increase when income tax rates rise above the higher threshold. According to the authors, those in the top tax bracket meet the tax incentive by boosting their participation in a tax-free retirement plan. Marginal tax relief will be obtained through taxable contributions, and participation in a private retirement plan is likely to be more attractive to those above the higher tax threshold than to those at the bottom. The authors examined not only whether employees with high incomes were more likely to participate in retirement plans, but also whether participation ended up at a higher rate. Individuals who earn more at higher income tax rates are more likely to be members of the pension system, according to sections of the Family Resources Survey conducted between 2000-01 and 2008-09. The authors point out that the results should be interpreted with caution, as tax reliefs on contributions are high at a higher rate threshold of income and taxpayers with higher tax rates assess the need for tax planning. In addition, the authors could find no evidence of an increase in the contribution share at the upper threshold value.

According to Carbonnier, Direr, & Houti (2014), tax incentives encourage high-income earners in France to contribute more to retirement savings accounts that necessitate annuitization, such as PERP plans. The authors estimated the difference between taxable income and income tax thresholds based on data from 2006 to 2009 with the primary objective of finding out whether people save in tax-exempt pension plans with the objective of declaring taxable income in lower tax brackets. The authors also compare the amount of money paid into retirement savings accounts by two groups of people; people with income above but close to a certain tax limit and people with taxable income just below this limit. Surveys are conducted at different tax limits and for different age groups. The authors conclude that there is no evidence that people save

to reduce their taxable income to a lower tax bracket. According to the authors, tax incentives are beneficial in increasing contributions to PERP plans for high-income workers with high marginal tax rates. This study focused on people in their forties and fifties. According to the authors, low-income people between the ages of 45 and 55 do not increase the amount of their contributions when the marginal tax rate changes. According to their findings, the design of the income tax system should not be seen as the most important factor for low-income taxpayers when determining the contribution rate.

According to Harju (2013), individual participation and contributions to voluntary private pension schemes in Finland were affected by tax adjustments in 2005. Prior to the tax reforms, individual payments into private pension schemes were deducted from income earned, return on investment was tax-free and pension distributions were subject to tax as income earned. After the reforms, contributions are deducted from capital income and the benefits are taxed as capital income, but declarations remain tax-free. As capital gains are taxed at a fixed rate, the tax reforms have shifted private pension insurance from progressive to proportional, increasing tax incentives for low-income workers (contributions were deducted at higher rates after reform), while decreasing tax incentives for high-income earners (contributions were cut lower after reform). Using panel data from 2000 to 2007, the author analyses the change in personal pension membership and contribution of those affected and those who were not affected following the 2005 reform. According to the author, the reform changed people's saving habits by lowering participation in personal pension plans by 4% for high-income earners and increasing it by 1 to 2 percentage points for low-income workers. Furthermore, the reform lowered high-income earners' annual contributions by more than 20%, with the projected effect being due to men's changed savings behaviour.

Beshears, John et al. (2017) in their study to determine whether pre-taxation encourages saving, using evidence from the introduction of a Roth 401(k), found that the total amount of retirement consumption purchased by 401(k) increases after making available the Roth. The authors find no evidence that the introduction of the Roth option to 401(k) reduces the total 401(k) rates. Further, the research reveals that employee misunderstanding and reliance on stocks, as well as a lack of understanding of the tax properties of Roth assets, hinder the introduction of post-Roth contribution rates from falling. In this method, the government might theoretically boost after-tax personal savings while keeping the tax rate relatively constant, effectively making savings non-deductible but free from pension taxes, rather than the other way around.

Feng (2014) is unable to substantiate the effect of a lower tax rate on salary sacrifice contributions in Australia. A salary sacrifice agreement is one in which the employee freely and contractually agrees to forego a portion of their pay in exchange for a payment to a superannuation fund to which the employer also pays the same amount. Salary sacrifice contributions are taxed at a lower rate of 15% rather than the marginal income tax rate (the same as mandated employer contributions). Based on data from the 10th wave of the Australian Household and Workforce Income Dynamics Survey, the authors find that tax incentives led to a slightly significant increase in participation in wage sacrifice schemes. The results are most likely due to the complexity of the incentive system and the competing requirements for long-term savings in Australia, according to the authors.

Brown, Cederburg, et al. (2017) looked at how progressive tax rates and future taxation uncertainty affect optimal retirement saving. Traditional savings are useful for minimizing current-period taxable income and creating a favourable correlation structure between investment success and marginal tax rates in retirement, whereas

Roth investments eliminate the tax risk of retirement savings. The data suggest that, in addition to the benefits of decreasing tax uncertainty, the combination of account types helps investors strike a positive balance between unmodulated account characteristics and tax code risks. Separate accounts, according to the authors, allow families to better control their spending throughout the course of their lives. Switching to a consumption tax system would also encourage people to use traditional Roth accounts; but a fixed income tax structure would lower the tax benefits of traditional investments, making Roth accounts more appealing. Households can also lower their risk by balancing standard and Roth savings accounts.

Future changes in contribution limits, according to Milligan (2003), have an influence on present RRSP contributions in Canada. In Canada, contribution limits were revised in 1990 and 1991. Using panel data from taxpayers from 1987 to 1991, the authors examine the effect of future adjustments to the contribution ceiling on changes in current contributions. The future contribution limit and present contributions have a negative relationship, according to the author's findings. The findings are explained by the fact that while the contribution limit restricts future contributions to the tax-favoured savings account, current contributions increase to take advantage of the existing contribution room. According to the author, this is a "use it or lose it" opportunity to participate. At the same time, when the ceiling rises, people may be able to make higher contributions in the future, reducing the need for taxpayers to contribute now.

UK tax reforms in 2001 had an impact on participation and contributions to personal accounts, according to Disney, Emmerson & Wakefield (2007). The government created advocacy pensions and changed tax incentives in April 2001, significantly increasing the contribution limit to private pensions for low-paid workers. Using

sections of the Family Resources Survey between 1999-2000 and 2002-2003, the authors examine private pension participation before and after the tax regime change. According to their findings, changes to contribution limits have an impact on participation and contribution rates in private pension schemes for low-income earners, particularly women and spouses. Those affected by the law have increased their private pension contributions by about 3% more than those who have not. Private pension contributions also increased by around £0.8 per week for single people and £4.3 per week for married couples affected by the law.

According to Rutledge, Wu, & Vitagliano (2014), the catch-up option is useful for increasing individual contributions to 401(k) pension plans in the United States. The catch-up scheme adopted in 2001 increases the contribution threshold to 401(k) for employees over the age of 50. The higher limit encourages workers who were previously constrained by the restrictions to increase their contributions but has no impact on workers who were not previously constrained by the restrictions. The authors use the US Social Security data on deferred tax income related to income collection and program participation from 1999 to 2005. The authors compare changes in 401(k) contributions with maximum contributions over the 50 years prior to the policy change similar to those of under 50 prior to the policy change. The analysis found that those over 50 who approached the 401(k) contribution limit before turning 50 increased their contribution by USD 540 more than those under 50. According to the study, older workers who were previously constrained by the contribution limit reacted positively to the increase in the contribution limit, where increasing the contribution limit in dollars resulted in a 49 cent increase in 401(k) contributions.

According to Benjamin (2003), about half of 401(k) holdings are new individual savings and the remainder are new national savings. Using cross-sectional data from

the 1990 Income Collection and Participation Program, the authors analyzed the wealth of 401(k) eligible and ineligible families in the subgroups. Units are designed so that households in the same subgroup can be compared in different ways. The results found that a quarter of the total 401(k) assets were new national savings, a quarter were contribution tax savings (lost tax receipts), and a quarter were conversions to existing Defined Contributions (DCs) or Deductions of Promised Defined Income (DB). The author also discovers that household responses to eligibility differ significantly. Households that save the most (for example, homeowners and IRA participants) reallocate other funds into 401(k) plans.

Tax incentives have a moderate but significant influence on retirement saving among high-income individuals aged 46 to 55, according to Ayuso, Jimeno, & Villnueva (2007). The authors examine the impact of the establishment of a tax-free private pension plan in Spain in 1988 on contributions and savings to pension funds. Using the tax return panel, the authors find that people from the highest income quartile contribute more to private pension plans. The authors also use the Household Expenditure Survey waves from 1985 to 1991 to compare consumption growth between those aged 36 to 65 and those under 35 before and after private pensions were implemented. Their findings show that consumption drops slightly as people approach retirement (56 to 65 years old) and that this is the group that contributes the most to the plan. Furthermore, they discover that consumption expenditures for persons aged 46 to 55 are significantly lower. This could be because households nearing retirement see pension funds and other types of savings as strong replacements, so they contribute up to the tax deductibility limit, even if it means reallocating savings. Younger households with lower wealth and lower contribution ceilings, on the other hand, are less forced to increase their savings to benefit from tax incentives.

Contributions to private pension schemes do not reduce ordinary savings in the UK, according to Guariglia & Markose (2000) and Rossi (2009). Both surveys used data from the Panel Survey of British Households, which were conducted from 1992 to 1998 and 1994 to 2003, respectively. The authors look at how personal pension plans affect savings displacement. Guariglia & Markose (2000) compare the factors that influence personal pension plan contributions to those that influence traditional savings. The two types of savings are accumulated according to their results for different reasons, for example, voluntary contributions to the provision of private pensions are made for retirement purposes and traditional savings are made for precautionary purposes. According to Rossi (2009), an increase in private pension contributions will not reduce ordinary savings but will instead increase it.

Gelber (2011) compared and contrasted the two groups of participants in the 401(k) Plan. According to research, meeting the conditions for a 401(k) plan increases the 401(k) balance without affecting other financial assets. Using longitudinal data from the 1996 Income Collection and Participation Program, the author compares changes in household savings for those who qualify for the 401(k) plan in the second year of employment with those who qualify in the same period. The author concludes that 401(k) eligibility raises 401(k) balances and that there is no statistically significant evidence that 401(k) eligibility influences an individual's other financial assets savings. However, because the confidence levels are high, the author cannot totally rule out a negative impact.

According to Attanasio & DeLeire (2002), new savings account form a modest percentage of assets in tax-favoured accounts in the United States. With regard to savings rates, changes in expenses and financial contributions outside of an IRA, the authors compare new contributions to an IRA (households that recently opened an IRA

account) with existing contributions to an IRA (households that previously made contributions to IRA). The authors used panel data from the Consumer Expenditure Survey between 1982 and 1990 to show that, for at least the first nine months after joining an IRA plan, there is no evidence that IRA contributions are paid out as a result of lower consumption. Furthermore, the authors discover that households paid their IRA contributions with pre-existing funds or with contributions they would have made anyhow.

According to Pence (2002), a 401(k) rating has a small but significant impact on US savings. Using a repeated cross-section of the Consumer Finance Survey, the author examines the change in the wealth of 401(k) eligible and ineligible employees between 1989 and 1998. According to the author, the actual average 401(k) balance came from \$4,000 in 1989 to \$11,000 in 1998, although the wealth of eligible households did not increase compared to that of illegible households. If retirement assets other than 401(k) are included in the wealth calculation, the results will be consistent across income levels. According to the study, inequalities in savings and real estate led to large account balances accumulated by eligible households in the 1990s rather than tax incentives in 401(k) plans.

According to Anton, Muoz De Bustilo & Fernandez-Makas (2014), tax incentives for retirement saving do not increase national savings in Spain. This study examines longitudinal data from the Spanish Household Finance Survey between 2002 and 2005 to determine the effect of participation in a pension plan on consumption, non-retirement wealth, and total wealth. The contribution of pension funds, according to the authors, does not reduce consumption and therefore does not increase national savings. Moreover, the results show that the tax relief increases household saving but not

national saving, because higher savings will result from higher disposable income withheld by individuals from the tax relief.

Despite the fact that high-income individuals benefited the most from the tax treatment of their retirement savings, Chetty et al. (2013) found that a unit shift in tax incentives in Denmark had no significant influence on voluntary savings, notably in high-income individuals. Furthermore, lower-income workers are more likely to be passive savers, meaning they do not respond to financial incentives, than higher-income individuals. Overall, the findings demonstrate that granting more substantial tax incentives would cost the government money while not increasing retirement contributions significantly.

Chetty et al. (2014) used panel data on savings in Denmark to show that tax incentives lead people to shift wealth from taxable accounts to tax-free retirement savings plans. This study examines the impact of tax incentives on total household savings using panel data on the wealth and savings of more than 4 million people from 1994 to 2009. The authors examine how people reacted to the 1999 government tax reform that reduced the amount of money that high-income workers could deduct for contributions to capital pension accounts. The fund described above offers a one-time retirement benefit. According to the authors, people in the highest tax bracket cut their pension payments after the reforms. It should also be noted that the decline was due to the 19% of high-income individuals affected by the law. Almost all of the money held by “active savers” is transferred to retirement plans and other savings accounts. The authors found that the surge in retirement savings was caused by funds that should have been held in taxable accounts but were now held.

According to Paiella & Tiseno (2014), pension legislation implemented in Italy between 1993 and 1995 had only a minimal impact on savings rates. The purpose of

this change is to encourage private long-term savings to offset the decline in government pension payments. By establishing a pension fund as an independent legal entity, participation must be strengthened and, at the same time, favourable tax treatment of contributions and withdrawals is ensured. Contributions are taxed up to a certain amount, while withdrawals are taxed at a lower rate. The authors compare the savings rates of those who are contributing to a pension fund and those of those who are not contributing before and after the reform. This study is based on part of a survey of Household Income and Wealth conducted between 1989 and 2006. Although the reforms had no impact on savings rates, they did lead to a significant decline in liquid investment (government bonds and bank accounts), indicating that savings had been reallocated.

According to Engelhardt (2000), 401(k) eligibility significantly increases household savings for low to middle-income households. However, the overall impact on saving is modest. With the help of self-reported and company-reported pension data, the authors account for problems with measurements in both data types. In addition to using the broad definition of household savings, the authors examine specific data from the 1992 Health and Retirement Survey on 401(k) retirement plans, other pensions, social insurance, and personal wealth. It is emphasized that 401(k) eligibility significantly increases household savings for low to middle-income households, while the effect decreases with income and is not statistically significant for middle and high-income households. In addition, the author examines all households as a whole and conclude that 401(k) eligibility has no significant effect on household savings. Moreover, the study finds that 401(k) eligibility does not result in the substitution of financial assets and is related to other retirement assets, indicating a large 401(k) for replacing other pension assets at the business level.

According to Engen & Gale (2000), the impact of 401(k) eligibility on household wealth varies greatly depending on income level. Using repeated cross-sections of income and program participation surveys in 1987 and 1991, the authors examined the increase in household wealth in six different income groups for eligible and ineligible families. The authors find that 401(k) eligibility has a significant impact on savings for the low-income group, that is, they retain all of their 401(k) contributions by increasing their savings. The study also found that 401(k) eligibility did not have a large impact on wealth accumulation for high-income earners. This may be because the richest people have the most of their 401(k) savings. The authors estimate that between 1987 and 1991 only 0% to 30% of 401(k) shares represented a net contribution to private savings.

Chernozhukov & Hansen (2004) analyzed the impact of a 401(k)-retirement plan on wealth distribution. The study examines how 401(k) contributions affect net non-401(k) financial assets, net financial assets, and total wealth. The survey examined data from the 1991 Income and Participation Survey of a sample of households and showed that 401(k) participation had a positive and significant impact on net financial wealth and total wealth across asset distribution. The study also finds that the impact on financial assets other than 401(k) does not deviate significantly from zero. The increase in net financial wealth appears to be fully reflected in the increase in total wealth in low-income households, but there is strong evidence of substitution by other types of (non-financial) wealth in rich households. According to the study, the increase in total wealth through participation in a 401(k) was significantly smaller than the increase in net financial worth.

According to Engelhardt & Kumar (2011), retirement wealth increases total household wealth, with high-income households experiencing most of the redistributive effects.

The authors obtained accurate data on pensions and lifetime benefits for older workers by using detailed administrative records and information from the 1992 Health and Retirement Survey to determine the extent to which increases in pension wealth are associated with decreases in non-pension wealth (the so-called "crowding-out" effect). This study examines the impact of all types of occupational retirement and social security, not just one type of plan, such as a 401(k) plan. According to the report, every dollar of pension wealth is associated with a decrease in non-retirement wealth from 53 cents to 67 cents. As a result, retirement wealth increases the total value of household wealth. In addition, the crowding-out effect is especially noticeable in high-income households, where non-retirement wealth falls by 30 to 75 cents per dollar of retirement wealth. In conclusion, the authors argue that measures aimed at increasing the pension value of lower-income households would increase the overall household wealth accumulation on a dollar-by-dollar basis (without the crowding-out effect).

According to Sundar et al., (2000), there is a favourable association between Assesses age and tax planning awareness, yet, while employees are aware of numerous tax planning tactics, they rarely use them. Salaried employees are not provided with training or education on effective tax planning by either the Tax Administration or the Employer. Taxation, in its various forms, has an impact on an individual's ability and desire to work, save, and invest, but the impact varies depending on the tax base, rate, and degree of the tax burden.

According to James (2009), every effort should be made to ensure that incentives are affordable and that they do not jeopardize the state's revenue stream. Targeted tax incentives will benefit the country in a way that would not be possible without incentives and will also reduce the cost of revenue. In simple terms, the management of incentives should facilitate the collection of information and a feasibility assessment.

Frequent appraisals are also necessary. The incentives should be assessed regularly to determine their relevance and economic impact in terms of budgetary allocations and other expenditures.

Gupta (2009) argues in his study that some efforts to simplify the income tax structure can benefit the state and the people by increasing the number of assesses, improving the rate of GDP, improving compliance with tax laws and improving individual well-being.

Dorasamy (2011) presented an income tax management reform scheme as a method to increase revenue collection while increasing available resources for the common good. He noted that general tax policies encourage people to obey the law rather than using underhanded tactics to reduce their tax burden.

According to Gupta (2012), a tax savings program is a tool to teach saving and investing habits, as well as a means to direct resources for constructive purposes, but it is a daunting endeavour because people save to reduce their tax burden and don't save with the intention of making productive investments. The author also noted that a stable and prudent state tax structure is important in encouraging taxpayers to save and invest.

Nair et al. (2013) found that gender is a factor in deciding whether to save or pay taxes, with 62 percent of men preferring to save on taxes compared to 60 percent of women. They also find that age is a factor in determining whether to save or pay taxes and that socioeconomic status plays an important role in making tax choices. They urged that before deciding on any tax-saving choices, taxpayers should research the merits of the schemes available, examine one's own risk-return profile, and consider liquidity and flexibility.

2.5 Research Gap

Based on the review of the literature, it can be stated that the study is focused on the effect of tax policy on individual saving behaviour. As a result, similarities with the goals of this study were discovered, as this study was designed to investigate the effect of tax incentives on the savings behaviour of Kenyans.

Although the reviewed research's objectives and some of the goals of this study are similar, this study will add to the existing literature in that, unlike the reviewed research, which was done in developed countries, this study was done in Kenya. At the same time, literature linking tax incentives and retirement saving in Kenya is scanty and there also exists little empirical evidence on studies seeking to find out the effect of tax incentives on retirement savings in Kenya. With regards to the foregoing, it is evident that there exists a research gap and this study sought to fill that gap by determining the effect of tax incentives on retirement saving with the focus being employees working in Audit firms in Nairobi County.

2.6 Conceptual Framework

The conceptual framework examines and explains the impact of tax incentives on retirement saving. The key determinant is the attribute of tax incentives which is a composite of tax exemption on retirement contribution, tax exemption on investment income accrued within retirement accounts and tax exemption on withdrawals from retirement schemes, thus explained diagrammatically in figure 2.1 below:

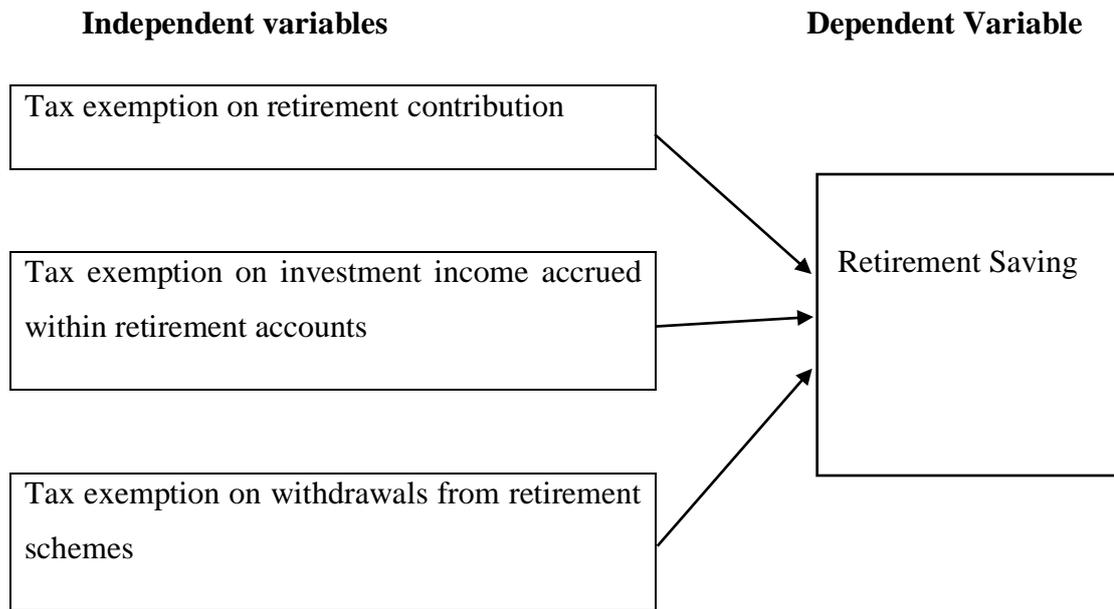


Figure 2:1: Conceptual Framework

Source: Researcher (2021)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter focuses on the discussion of the research design and methods adopted in this study. This chapter starts with a description of the study's design and sample details. The research tools are provided here, along with a detailed description of how the data was acquired. The final component of this chapter focuses on data analysis and covers the statistical tests that the survey accepts.

3.2 Research Design

Research design, according to Saunders, Lewis, & Thornhill (2003), is a distinctive plan for achieving research objectives as well as addressing research questions. The availability of various methodologies, methods, processes, protocols and sampling plans may limit study design alternatives. A study's design is a strategy for carrying out the research. It specifies the methods and procedures for receiving, measuring, and analyzing data. To achieve its goals, this study used explanatory research design. According to Gray (2021), explanatory design helps researchers to build causal relationships between the variables studied. For that matter, the design chosen helped the researcher determine the causal relationship between the independent variable (tax incentives) and the dependent variable (retirement saving).

3.3 Study Area

The research was conducted in Nairobi County. This location was chosen because it has a relatively high workforce and the most diversified population, making it more representative of Kenyans.

3.4 Target Population

The complete group of people or events that have similar features of interest to the researcher is referred to as the target population. The elements that make up the target population can be larger or smaller than the sample from which the researcher makes conclusions about the target population (Mugenda, 2003). The research includes Kenyans working in Nairobi County. The target population of this study was employees working in 705 Audit firms that are located and operate within Nairobi County (CPA Firms directory, 2021). The personnel working in audit firms were the unit of analysis in this study. Furthermore, senior workers and/or partners of audit companies served as the unit of observation. The choice of employees working in audit firms as the target respondents is justified because they form part of the individuals who benefit from the tax incentives offered for those who save for retirement through pension schemes.

3.5 Sample size and Sampling Technique

A sample was used by the researcher to infer the desired population from a smaller but representative set of units collected from a larger group, whereas the sampling frame was used to choose all units in the population. Researchers employ sampling techniques to pick the most representative sample of the population (Cooper & Schindler, 2006).

3.5.1 Sampling technique

The participants were selected according to a random sampling procedure and criteria. The process of selecting a small number of identical units for research and analysis is known as simple random sampling. It is most usually used when the purpose of the study is to completely understand and describe a certain group (Cohen & Crabtree, 2006). This sampling strategy was judged appropriate because the purpose of this study was to evaluate the saving behaviour of a specific group in Kenya and their attitudes toward using tax incentives to save for retirement.

Criteria selection, on the other hand, includes the selection of cases that meet the given criteria (Cohen & Crabtree, 2006). Since the study specifically focused on Kenyan workers working or living in Nairobi, specific sampling criteria was established beforehand. Cases that can provide useful information can be identified and understood using sample criteria (Cohen & Crabtree, 2006). One of the goals of this research was to see if the general public is aware of tax benefits for retirement savings and if people use tax incentives to make retirement saving decisions.

3.5.2 Sample size

A sample, according to Kendra (2019), is a subset of a population that is used to represent the entire group. In most studies, the population under study is too large and this makes it difficult to poll every member of the population when doing research. The sample size for this research was calculated by using the Taro Yamane (Yamane, 1973) formula with a 95% confidence level. The calculation formula of Taro Yamane is presented as follows:

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

Where;

n = sample size

N = number of people in the population

e = allowable error (level of precision at 0.05 for CI at 95%)

Therefore, the sample size is arrived at as follows:

$$n = \frac{705}{(1 + 705(0.05)^2)}$$

$$n = 256$$

As a result, the study's sample size is employees working in 256 audit firms. The sample size was chosen from the population using a simple random sampling technique.

3.6 Research Instruments

Data collection is a precise process that entails the methodical gathering of information required for a certain sub-problem in the study. The researcher used a questionnaire as the primary method for data collection. The use of questionnaires was justified because they are simple to comprehend and take less time to complete. The questionnaire has a set format and includes sections that correspond to survey variables. The survey used closed-ended questions organized using a five-point Likert scale for each part of the questionnaire to identify the opinions and attitudes of the respondents. The questionnaires were personally processed by staff at the audit firms using a “drop and selection” procedure. Self-administered questionnaires are a good way to get self-reports on respondents' ideas, attitudes, and values (Mugenda, 2003).

3.7 Data Collection Procedure

Before commencing the data collection process, the researcher received a research letter from Moi University. The researcher also applied to NACOSTI for a research license. This research relied on primary data. With the assistance of experienced scientific personnel, data was obtained by distributing surveys to target individuals.

3.8 Measurement of variables

Data on the variables was collected by the use of a questionnaire that was developed by the researcher. The questionnaire for this study had three parts; A, B, and C. The first part of the questionnaire covered the general data of the respondents, such as gender, age, education level and monthly income of the respondents. The questions were succinct but thorough. Part B of the instrument comprised of the independent variables (tax incentives) while part C of the questionnaire comprised of the dependent variable (retirement saving).

3.9 Pilot Study

This is a brief study that is carried out to determine the feasibility of the major investigation. This is done to determine the questionnaire's validity and reliability and occurs prior to the main study. It is used to discover and correct probable questionnaire inaccuracies (Lee, Whitehead, Jacques & Julious, 2014). The researcher, a few persons from the target group, the supervisor, and a few other people, including some of his colleagues and acquaintances, delivered and pre-tested the questionnaire. In this study, 10% of the sample size (26 questionnaires) was distributed to employees working in audit firms in the neighbouring Kiambu County. According to William, Gunasekaran, & Mcgaughy (2011), a pilot study requires 5 to 10% of the population sample. Comments and recommendations were examined and integrated into the questionnaire where applicable.

3.9.1 Validity

The amount to which study findings mirror the characteristics of the general population is referred to as validity. Validity is the extent to which the findings derived from the evaluated study data represent the variables under consideration (Okwako, 2013). Both content and construct validity were examined in this study. Content validity was used

in this study to confirm the type or importance of any judgment made before any hypothesis. Content validity was assured by having the research supervisor go through the questionnaire and guide on areas to improve. On the other hand, construct validity was achieved by ensuring that there are questions for every variable in the study.

3.9.2 Reliability

Reliability refers to the degree to which an instrument measures the same way each time it is used under the same settings with the same participants. Cronbach's alpha was used to test the instrument's reliability (Cronbach, 1951). The coefficient is a number that ranges from 0 to 1. The better the alpha, the higher the value. The minimum needed alpha value is 0.7, therefore anything less would be ignored because for a research instrument to be dependable, its Cronbach alpha value must be at least 0.7.

3.10 Data Analysis and Presentation

For the analysis to yield results, the obtained data was checked for completeness and was entered and coded in Statistical Package for Social Science (SPSS version 21). The data was analyzed using descriptive and inferential statistics. In descriptive statistics, means and standard deviations were employed to describe the characteristics of variables. Correlation and regression analysis, on the other hand, are inferential statistics that served to examine the link between variables. Tables and figures were used to present the findings.

3.11 Model Specification

The following multiple regression model was estimated:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Where;

Y = Retirement saving

β_0 = Constant

β_1 - β_3 = Regression Coefficients

X_1 = Tax exemption on retirement contributions

X_2 = Tax exemption on investment income accrued within retirement accounts

X_3 = Tax exemption on withdrawals from retirement schemes

ε = Error term

3.12 Assumptions of Regression Model

3.12.1 Test for normality

To accurately anticipate the population, a representative sample of the real population is assumed to follow the same population distribution model. The sample's population characteristics were determined to be underrepresented or only underrepresented, while the sample's mean range was near to the population mean range (Sekaran & Bougie, 2016). Normality testing was done using the Shapiro-Wilk test. The null hypothesis of a normal distribution is accepted if the probability value obtained is greater than 0.05 and vice versa.

3.12.2 Test for Multicollinearity

Multicollinearity refers to a high degree of correlation between independent variables (Kothari, 2004). The independent variables should not be significantly related to each other, as this reduces the accuracy of the estimated coefficients and thus the statistical power of the regression model. A multicollinearity test was performed using VIF, with a VIF value greater than 10 indicating a multicollinearity problem and a VIF value less than 10 indicating no multicollinearity problem.

3.12.3 Test for Linearity

It is preferable to determine if the predictor variable and the result variable have a linear connection before starting regression analysis. Linearity testing was done using scatterplots to demonstrate whether a linear connection exists between two continuous variables before the assessment of regression was performed. A linear scatterplot is expected if two variables have a linear relationship

3.12.4 Homoscedasticity

According to Garson (2012), this feature indicates that the relation being investigated is similar for the complete range of the dependent variable. Larger errors in some portions of the range in comparison to others show the lack of this property. The residue creates a point cloud without a model if this assumption is met. Levene's test of equality of error variances was used to test for homoscedasticity. The null hypothesis of constant variance is accepted if the probability value obtained is greater than 0.05 and vice versa.

3.13 Ethical Considerations

Ethical considerations must be taken into account throughout investigations. Ethics refers to acceptable standards of behaviour that distinguish between what is right and wrong. They aid in differentiating between acceptable and unacceptable behaviour. Information obtained from respondents was kept anonymous, and the respondent's name was not included in the interview notes, to ensure that the investigation adheres to rigorous ethical concerns. The answers given were also kept confidential so that participants are not identified based on the answers given.

To ensure neutrality and avoid the fabrication of results, personal integrity was maintained when conducting the study. Respondents were also made aware of the study's goal before giving their assent. Participation was purely voluntary, and people

could withdraw from participation at any time with no consequences. Participants were also asked to sign a consent form, stating that they had read and understood the information and freely agreed to take part in the study. Incentives to participate were not offered. Research results were used exclusively for scientific purposes. Upon request, participants would receive a summary of the results.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents research findings and discussion. The chapter starts by presenting response rate and reliability test results. Further, findings on the background information of the respondents are presented. This is followed by descriptive analysis, correlation and multiple linear regression analysis results. The findings are also compared with empirical literature in chapter two.

4.2 Response Rate

The proportion of field questionnaires received was studied to better understand the response and non-response rate that characterized this study. Figure 4.1 depicts the findings of this investigation.

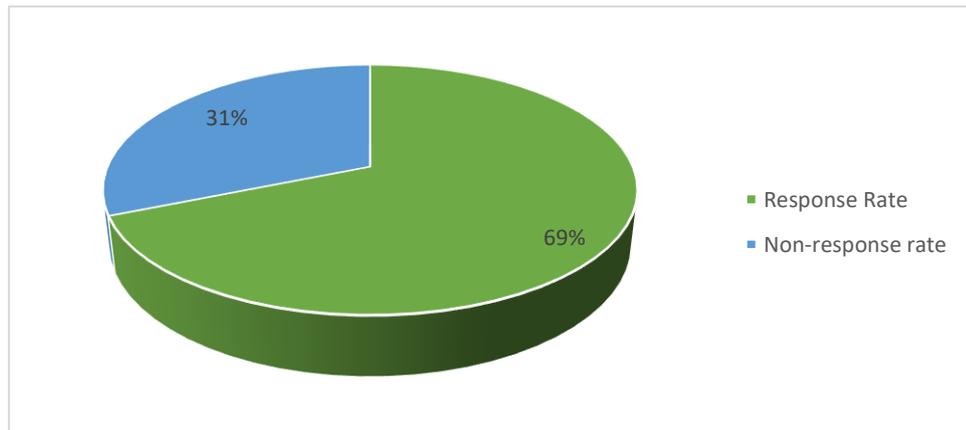


Figure 4.1: Response Rate

Source: Field Data (2021)

The findings in Figure 4.1 revealed that out of 256 questionnaires issued to the respondents, 69% (176) were properly filled and returned. The remaining (31%) were not returned. A response rate of more than 50%, according to Saunders et al. (2012), is considered adequate for statistical analysis.

4.3 Pilot Test Results

The pilot data was used to conduct reliability and validity tests.

4.3.1 Reliability test

The study applied reliability analyses to test the internal consistency of the data instrument. Cronbach alpha was used because it is considered to be a more precise indicator of internal consistency. Results are shown in Table 4.1.

Table 4.1: Reliability Test Results

Variables	Items	Cronbach	
		Alpha	Comment
Tax exemption on retirement contributions	4	0.726	Acceptable
Tax exemption on investment income accrued within retirement accounts	4	0.773	Acceptable
Tax exemption on withdrawals from retirement schemes	4	0.850	Acceptable
Retirement saving	4	0.777	Acceptable

Source: Field Data (2021)

The findings in Table 4.1 indicated that all the variables had Cronbach alpha values greater than 0.7. This suggested that the items measuring the study variables were reliable for statistical analysis.

4.3.2 Validity Test Results

The validity test was conducted using the Kaiser-Meyer - Olkin (KMO). Results are shown in Table 4.2.

Table 4.2: Validity Test

Variable	KMO	Bartlett's Test of Sphericity			Validity
		Approx. Chi-Square	df	Sig.	
Tax exemption on retirement contributions	.532	16.662	6	.003	Valid
Tax exemption on investment income accrued within retirement accounts	.571	12.779	6	.006	Valid
Tax exemption on withdrawals from retirement schemes	.589	14.611	6	.005	Valid
Retirement saving	.578	19.871	6	.003	Valid

Source: Field Data (2021)

The findings in Table 4.2 indicate that the variables tax exemption on retirement contributions, tax exemption on investment income accrued within retirement accounts, tax exemption on withdrawals from retirement schemes and retirement saving have KMO values above 0.5 and therefore, the data was valid.

4.4 Background Information

Background information results relating to the study respondents are presented in Table 4.3. The items include gender, age, marital status, education, personal income, family income and dependents.

Table 4.3: Analysis of Background Information

Category	Sub-category	Frequency	Percent
Gender	Male	76	43.2
	Female	100	56.8
	Total	176	100
Age	20-30 Years	12	6.8
	31-40 Years	96	54.5
	41-50 Years	61	34.7
	51-60 Years	7	4
	Total	176	100
Marital status	Married/In a stable relationship	126	71.6
	Single/Divorced/Widowed	50	28.4
	Total	176	100
Education	College/Technical School	45	25.6
	University	131	74.4
	Total	176	100
Personal income	40,001-60,000	12	6.8
	60,001-80,000	33	18.8
	80,001-100,000	88	50
	> 100,000	43	24.4
	Total	176	100
Family income	40,001-60,000	11	6.2
	60,001-80,000	26	14.8
	80,001-100,000	67	38.1
	> 100,000	72	40.9
	Total	176	100
Dependents	1 or 2 Dependents	62	35.2
	3 or 4 Dependents	95	54
	More than 5 Dependents	19	10.8
	Total	176	100

Source: Field Data (2021)

The results in Table 4.2 showed that female participants were more (56.8%) than male participants (43.2%). However, results indicate that there was a fair representation of both men and women in the study data. The findings also indicated that a large number of the respondents (54.5%) were aged 31-40 years and 34.7% were aged 41-50 years. This implied that most of the respondents were middle-aged and therefore expected to understand the concept of retirement saving. Further, the majority (71.6%) of the respondents were married/in a stable relationship. It is expected that individuals with families understand retirement saving better. The majority of the respondents (74.4%) had attained a University education. This means that the respondents have an adequate understanding of tax incentives and retirement saving. On personal and family monthly income, 50% and 40.9% of the respondents noted they earn 80,001-100,000 and > 100,000 respectively. The amount of income individuals and families earn per month is a great determinant of their retirement saving. Finally, most of the respondents (54%) had 3 or 4 dependents, and 35.2% have 1 or 2 dependents. The number of dependents is also attributable to the finances saved for retirement.

4.5 Descriptive Analysis

Descriptive analysis results are presented in this section. The results are depicted in terms of percentage, mean and standard deviation. A five-point Likert Scale was used as follows; 5= Strongly agree, 4= Agree, 3=Neutral, 2= Disagree and 1=Strongly Disagree.

4.5.1 Tax exemption on retirement contributions

The respondents were requested to state their views with regard to statements on tax exemption on retirement contributions. The results are shown in Table 4.4.

Table 4.4: Descriptive Statistics on tax exemption on retirement contributions

	SD	D	N	A	SA	Mean	Std. Dev
I contribute to a registered pension scheme.	8.5%	7.4%	6.2%	40.9%	36.9%	3.9	1.2
I contribute to a pension scheme because my contributions are not taxed.	4.0%	8.5%	5.1%	42.0%	40.3%	4.1	1.1
I make contributions from my untaxed income.	2.8%	5.7%	1.1%	43.8%	46.6%	4.3	0.9
Increasing or removing the limit of contributions exempted from tax would make me contribute more.	2.8%	5.1%	6.2%	48.9%	36.9%	4.1	0.9
Aggregate mean						4.1	1.0

Source: Research Data (2021)

The findings in Table 4.4 showed that the majority of the respondents were in agreement with the statement that they contribute to a registered pension scheme (mean=3.9), contribute to a pension scheme because the contributions are not taxed (mean=4.1), make contributions from the untaxed income (mean=4.3); and increasing or removing the limit of contributions exempted from tax would make them contribute more (mean=4.1).

Overall, most of the respondents were in agreement with the statements used to measure tax exemption on retirement contributions. This is supported by an aggregate mean of 4.1 and a standard deviation of 1.0. This suggested that most of the respondents acknowledged the importance of tax exemption on retirement contributions.

4.5.2 Tax exemption on Investment Income accrued within retirement accounts

The respondents were requested to state their views with regard to statements on tax exemption on investment income accrued within retirement accounts. The results are shown in Table 4.4.

Table 4.5: Descriptive Statistics on tax exemption on investment income accrued within retirement accounts

	SD	D	N	A	SA	Mean	Std. Dev
Considering that investment income from pension schemes is not taxed, I save through pension schemes.	2.8%	10.2%	2.8%	39.8%	44.3%	4.1	1.1
The tax I would have paid on investment income is re-invested thus helping me accumulate more wealth.	3.4%	6.2%	4.0%	42.0%	44.3%	4.2	1.0
The tax I don't pay on investment income is substantial.	5.7%	12.5%	8.5%	33.5%	39.8%	3.9	1.2
I save for retirement through other saving vehicles that generate investment income because I don't mind paying tax on investment income.	4.0%	8.5%	4.5%	39.8%	43.2%	4.1	1.1
Aggregate mean						4.1	1.1

Source: Field Data (2021)

The findings in Table 4.5 showed that the majority of the respondents were in agreement with the statement that considering that investment income from pension schemes is not taxed, they save through pension schemes (mean=4.1), the tax they would have paid on investment income is re-invested thus helping them accumulate more wealth (mean=4.2), the tax they don't pay on investment income is substantial (mean=3.9), and they save for retirement through other saving vehicles that generate investment income because they don't mind paying tax on investment income (mean=4.1).

Overall, most of the respondents were in agreement with the statements used to measure tax exemption on investment income. This is supported by an aggregate mean of 4.1 and a standard deviation of 1.1. This suggested that most of the respondents

acknowledged the importance of tax exemption on investment income accrued within retirement accounts.

4.5.3 Tax exemption on withdrawals from retirement schemes

The respondents were requested to state their views with regard to statements on tax exemption on withdrawals from retirement schemes. The results are shown in Table 4.6.

Table 4.6: Descriptive Statistics on tax exemption on withdrawals from retirement schemes

	SD	D	N	A	SA	Mean	Std. Dev
I am encouraged to save through pension schemes because, upon retirement, part of my income from a registered pension scheme is not taxed.	2.8%	7.4%	2.8%	42.0%	44.9%	4.2	1.0
The untaxed portion of my withdrawals from retirement schemes will help reduce my tax bracket thus making me pay less tax upon retirement.	3.4%	5.1%	3.4%	47.2%	40.9%	4.2	1.0
Taxing part of my withdrawals from retirement schemes upon retirement defers my tax liability to a later date making my money to grow at a faster rate during my working years than it would in a taxable product.	4.0%	7.4%	4.0%	40.3%	44.3%	4.1	1.1
Increasing or removing the limit on lumpsum pension drawings deductible for tax would encourage me to save (more) for retirement.	2.3%	5.7%	6.2%	44.9%	40.9%	4.2	0.9
Aggregate mean						4.2	1.0

Source: Field Data (2021)

The findings in Table 4.6 indicated that the majority of the respondents were in agreement with the statement that they are encouraged to save through pension schemes

because, upon retirement, part of their income from a registered pension scheme is not taxed (mean=4.2), the untaxed portion of their withdrawals from retirement schemes will help reduce their tax bracket thus making them pay less tax upon retirement (mean=4.2), taxing part of their withdrawals from retirement schemes upon retirement defers their tax liability to a later date making their money to grow at a faster rate during the working years than it would in a taxable product (mean=4.1), and increasing or removing the limit on lumpsum pension drawings deductible for tax would encourage them to save (more) for retirement (mean=4.2).

Overall, most of the respondents were in agreement with the statements used to measure tax exemption on withdrawals from retirement schemes. This is supported by an aggregate mean of 4.2 and a standard deviation of 1.0. This suggested that most of the respondents acknowledged the importance of tax exemption on withdrawals from retirement schemes.

4.5.4 Retirement Saving

The respondents were requested to state their views with regard to statements on retirement saving. The results are shown in Table 4.7.

Table 4.7: Descriptive Statistics on Retirement Saving

	SD	D	N	A	SA	Mean	Std. Dev
I make meaningful additional voluntary contributions to a retirement savings plan.	7.4%	13.1%	5.7%	36.9%	36.9%	3.8	1.3
I make a conscious effort to save for retirement through registered pension schemes.	5.7%	7.4%	6.2%	40.3%	40.3%	4.0	1.1
Relative to my peers, I have saved a great deal for retirement.	3.4%	9.1%	5.7%	29.5%	52.3%	4.2	1.1
Based on how I plan to live my life in retirement, I save accordingly.	1.7%	5.1%	4.5%	42.6%	46.0%	4.3	0.9
Aggregate mean						4.1	1.1

Source: Field Data (2021)

According to the findings in Table 4.7, the majority of respondents agreed with the statement that they make meaningful additional voluntary contributions to a retirement savings plan (mean=3.8), they make a conscious effort to save for retirement through registered pension schemes (mean=4.0), they have saved a lot for retirement in comparison to their peers (mean=4.2), and they save accordingly based on how they plan to live their life in retirement (mean=4.3).

Overall, most of the respondents were in agreement with the statements used to measure retirement savings. This is supported by an aggregate mean of 4.1 and a standard deviation of 1.1. This suggested that most of the respondents acknowledged the importance of retirement savings.

4.6 Regression Assumptions

This section presents findings on linear regression assumptions. The tests included multicollinearity, normality, linearity and homoscedasticity.

4.6.1 Multicollinearity test

A multicollinearity test was conducted using VIF. The results are shown in Table 4.8.

Table 4.8: Multicollinearity test using VIF

	Tolerance	VIF
Tax exemption on retirement contributions	0.694	1.442
Tax exemption on investment income accrued within retirement accounts	0.581	1.722
Tax exemption on withdrawals from retirement schemes	0.551	1.816

Source: Field Data (2021)

Table 4.8 indicate that the VIF values for all the variables were less than 10, implying that the independent variables were not multicollinear. In other words, the independent variables in this study were not highly correlated.

4.6.2 Normality test

The Shapiro-Wilk test was used to determine normality of the data. Results are shown in Table 4.9.

Table 4.9: Normality test using Shapiro-Wilk

	Statistic	df	Sig.
Retirement savings	0.953	176	0.110
Tax exemption on retirement contributions	0.927	176	0.062
Tax exemption on investment income accrued within retirement accounts	0.951	176	0.244
Tax exemption on withdrawals from retirement schemes	0.93	176	0.097

a Lilliefors Significance Correction

Source: Field Data (2021)

The findings in Table 4.9 revealed that all the variables had p values (Sig.) >0.05 . This resulted in the non-rejection of the null hypothesis of normal distribution. Therefore, the study data was normally distributed.

4.6.3 Homoscedasticity test

Homoscedasticity test was conducted using Levene's Test. The findings are shown in Table 4.10.

Table 4.10: Homoscedasticity test using Levene's Test

Dependent Variable: Y			
F	df1	df2	Sig.
2.097	75	100	0.105

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Source: Field Data (2021)

The results displayed in Table 4.9 showed a significance (Sig.) value of 0.105, which is greater than 0.05. This denoted that the null hypothesis of constant variance of error terms was accepted. Therefore, the variance of the residuals was homogeneous.

4.6.4 Linearity test

Linearity test was conducted using scatter plots. The results are illustrated in Figures 4.2, 4.3 and 4.4.

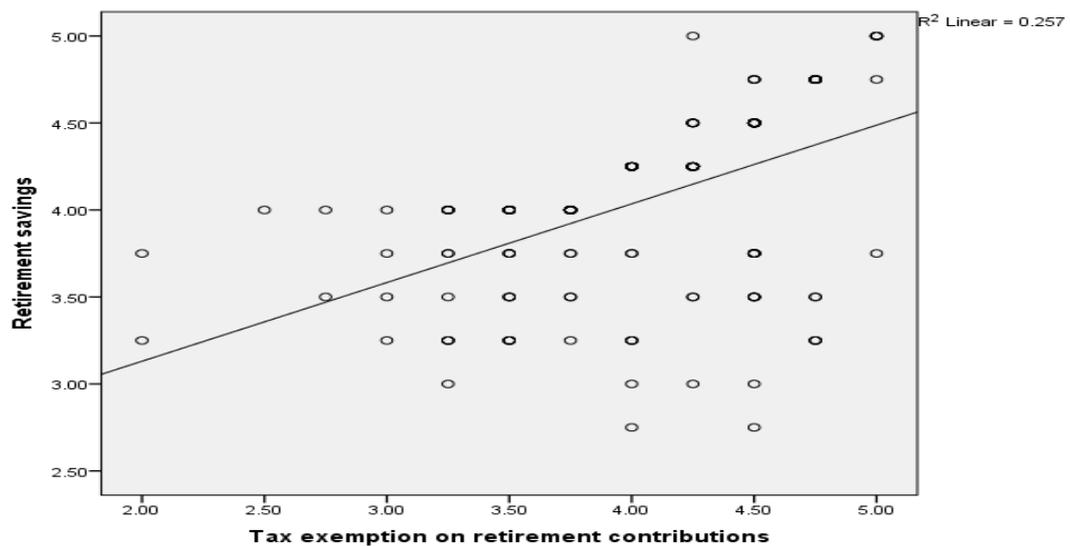


Figure 4.2: Linearity test; tax exemption on retirement contributions and retirement saving

Source: Field Data (2021)

The scatter plots demonstrate that there is a linear relationship between tax exemption on retirement contributions and retirement saving. This is confirmed by the straight line connecting the data for the two variables.

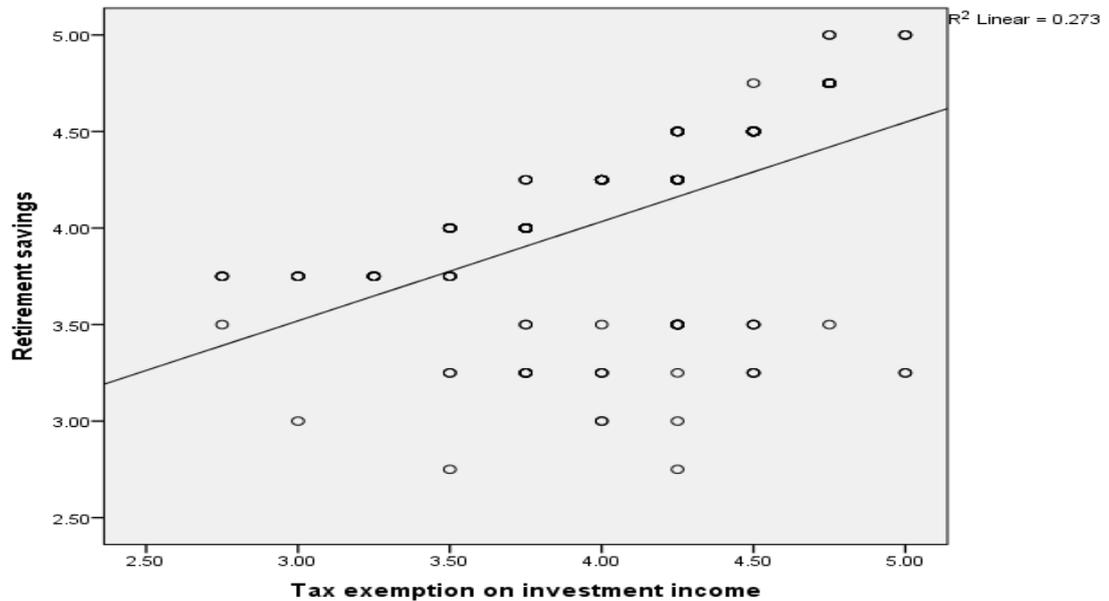


Figure 4.3: Linearity test; tax exemption on investment contributions and retirement saving

Source: Field Data (2021)

The scatter plots demonstrate that there is a linear relationship between tax exemption on investment benefits and retirement saving. This is confirmed by the straight line connecting the data for the two variables.

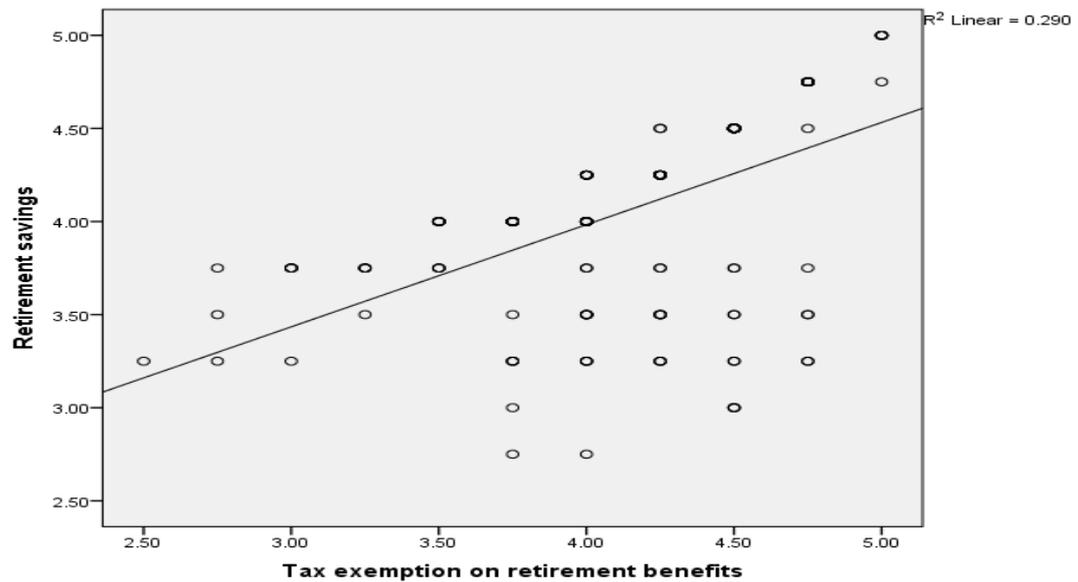


Figure 4.4: Linearity test; tax exemption on withdrawals from retirement schemes and retirement saving

Source: Field Data (2021)

The scatter plots demonstrate that there is a linear relationship between tax exemption on withdrawals from retirement schemes and retirement saving. This is confirmed by the straight line connecting the data for the two variables.

4.7 Correlation Analysis

The correlation analysis was conducted to determine the strength and direction of the relationship between the independent variables and dependent variable. Table 4.10 shows the results.

Table 4.11: Correlation analysis

		Retirement saving	Tax exemption on retirement contributions	Tax exemption on investment income accrued within retirement accounts	Tax exemption on withdrawals from retirement schemes
Retirement saving	Pearson Correlation Sig. (2-tailed)	1			
Tax exemption on retirement contributions	Pearson Correlation Sig. (2-tailed)	.507** .000	1		
Tax exemption on investment income accrued within retirement accounts	Pearson Correlation Sig. (2-tailed)	.523** .000	.476** 0	1	
Tax exemption on withdrawals from retirement schemes	Pearson Correlation Sig. (2-tailed)	.539** .000	.517** 0	.622** 0	1

** Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2021)

The findings in Table 4.11 indicated that tax exemption on retirement contributions had a moderate positive and statistically significant relationship with retirement saving ($r = .507$, $p = .000$) at a 95% confidence interval. This implied that both tax exemption on retirement contributions and retirement saving change in the same direction.

The findings also revealed that tax exemption on investment income accrued within retirement accounts had a moderate positive and statistically significant relationship with retirement saving ($r = .523$, $p = .000$) at a 95% confidence interval. This implied that both tax exemption on investment income accrued within retirement accounts and retirement saving change in the same direction.

Further, the findings showed that tax exemption on withdrawals from retirement schemes had a moderate positive and statistically significant relationship with

retirement saving ($r=.539$, $p=.000$) at a 95% confidence interval. This implied that both tax exemption on withdrawals from retirement schemes and retirement saving change in the same direction.

4.8 Multiple Linear Regression Analysis

A multiple linear regression analysis was conducted to establish the joint influence of tax incentives on retirement saving. The findings are shown in Tables 4.12, 4.13 and 4.14 respectively.

Table 4.12: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.629a	0.395	0.385	0.40402

a Predictors: (Constant), Tax exemption on withdrawals from retirement schemes, Tax exemption on retirement contributions, Tax exemption on investment income accrued within retirement accounts

Source: Field Data (2021)

The model summary findings in Table 4.12 revealed that the independent variables jointly explain 39.5% ($R^2=0.395$) of changes in the dependent variable. This implied that 39.5% of variations in retirement saving can be attributed to tax incentives in form of tax exemptions on retirement contributions, investment income accrued within retirement accounts and withdrawals from retirement schemes. There is also an indication that there are other factors that affect retirement savings but were not captured in this study model.

Table 4.13: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.339	3	6.113	37.451	.000b
	Residual	28.076	172	0.163		
	Total	46.415	175			

a Dependent Variable: Retirement saving

b Predictors: (Constant), Tax exemption on withdrawals from retirement schemes, Tax exemption on retirement contributions, Tax exemption on investment income accrued within retirement accounts

Source: Field Data (2021)

The ANOVA results in Table 4.13 revealed an F statistic of 37.451 and reported P-value of 0.000. The *P* value being less than the alpha value ($P < .05$), denoted that the proposed model was statistically significant (good fit). Therefore, tax incentives are good predictors of retirement saving.

Table 4.14: Coefficients of Regression

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.079	0.285		3.787	0.000
	Tax exemption on retirement contributions	0.233	0.064	0.261	3.669	0.000
	Tax exemption on investment income accrued within retirement accounts	0.236	0.077	0.240	3.087	0.002
	Tax exemption on withdrawals from retirement schemes	0.259	0.081	0.254	3.183	0.002

a Dependent Variable: Retirement saving

Source: Field Data (2021)

Coefficient of regression results in Table 4.14 showed that tax exemption on retirement contributions had a positive and significant effect on retirement saving ($\beta = 0.261$, $P = .000 < .05$). This means that a one-unit increase in tax exemption on retirement contributions would result in a 0.261 units increase in retirement saving.

The findings also showed that tax exemption on investment income accrued within retirement accounts had a positive and significant effect on retirement saving ($\beta = 0.240$, $P = .002 < .05$). This means that a one-unit increase in tax exemption on investment income accrued within retirement accounts would result in a 0.240 units increase in retirement saving.

Further, the findings indicated that tax exemption on withdrawals from retirement schemes had a positive and significant effect on retirement saving ($\beta = 0.254$, $P = .002 < .05$). This means that a one-unit increase in tax exemption on investment income accrued within retirement accounts would result in 0.254 units increase in retirement saving.

The estimated statistical model was:

$$Y = 1.079 + 0.261X_1 + 0.240X_2 + 0.254X_3$$

Where;

Y = retirement saving

X_1 = Tax exemption on retirement contributions

X_2 = Tax exemption on investment income accrued within retirement accounts

X_3 = Tax exemption on withdrawals from retirement schemes

4.9 Hypothesis Testing

The test of hypotheses was based on p-values reported in Table 4.14. The rule was to reject the null hypothesis if the p-value was less than 0.05 critical value. The first null hypothesis (H_{01}) stated that tax exemption on retirement contributions have no effect on retirement saving. The p-value of $0.000 < 0.05$ suggested that the null hypothesis

should be rejected. Therefore, tax exemption on retirement contributions has a significant effect on retirement saving.

The second null hypothesis (H_{02}) stated that tax exemption on investment income accrued within retirement accounts has no effect on retirement saving. The p-value of $0.002 < 0.05$ suggested that the null hypothesis should be rejected. Therefore, tax exemption on investment income accrued within retirement accounts has a significant effect on retirement saving.

The third null hypothesis (H_{03}) stated that tax exemption on withdrawals from retirement schemes has no effect on retirement saving. The p-value of $0.002 < 0.05$ suggested that the null hypothesis should be rejected. Therefore, tax exemption on withdrawals from retirement schemes has a significant effect on retirement saving.

4.10 Discussion of the Findings

The first objective of the study was to determine whether tax exemption on retirement contributions have an effect on retirement saving. The correlation analysis findings revealed that tax exemption on retirement contributions had a moderate positive and statistically significant relationship with retirement savings ($r = .507$, $p = .000$). The regression analysis results indicated that tax exemption on retirement contributions had a positive and significant effect on retirement saving ($\beta = 0.261$, $P = .000$). This has the implication that an increase in tax exemption on retirement contributions would significantly increase retirement saving. The findings agreed with Kreiner, Claus Suchtrup, et al. (2017) assertion that the increase in retirement contributions shifts to total savings. Similarly, Moolman Marilize (2015) claim that enhanced incentives will motivate people to save more.

The second objective of the study was to assess whether tax exemption on investment income accrued within retirement accounts has an effect on retirement saving. The correlation analysis findings revealed that tax exemption on investment income accrued within retirement accounts had a moderate positive and statistically significant relationship with retirement savings ($r = .523$, $p = .000$). The regression analysis results indicated that tax exemption on investment income accrued within retirement accounts had a positive and significant effect on retirement saving ($\beta = 0.240$, $P = .002$). This has the implication that an increase in tax exemption on investment income accrued within retirement accounts would significantly increase retirement saving. These findings were consistent with those of Chan, Marc K., et al. (2020) who established that tax incentives enhanced private retirement savings.

The third objective of the study was to find out whether tax exemption on withdrawals from retirement schemes has an effect on retirement saving. The correlation analysis findings revealed that tax exemption on withdrawals from retirement schemes had a moderate positive and statistically significant relationship with retirement savings ($r = .539$, $p = .000$). The regression analysis results indicated that tax exemption on withdrawals from retirement schemes had a positive and significant effect on retirement saving ($\beta = 0.254$, $P = .002$). This has the implication that an increase in tax exemption on withdrawals from retirement schemes would significantly increase retirement saving. These findings concurred with Ayuso, Jimeno, and Villanueva (2019) revelation that tax incentives have a considerable effect on retirement savings.

CHAPTER FIVE

SUMMARY OF KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of key findings, conclusions and recommendations. The general study's intent was to find out the effect of tax incentives on retirement saving among employees in audit firms in Nairobi County, Kenya.

5.2 Summary of Key Findings

The study sought to analyze the effect of tax incentives on retirement saving among employees in audit firms in Nairobi County. The results of the multiple regression analysis indicated that variations in tax incentives explain 39.5% of the variations on retirement saving.

5.2.1 Tax exemption on retirement contributions

The first objective sought to determine the effect of tax exemption on retirement contributions on retirement saving. The descriptive analysis findings indicated that most of the respondents noted that they contribute to a registered pension scheme, contribute to a pension scheme because the contributions are not taxed, make contributions from the untaxed income and increasing or removing the limit of contributions exempted from taxation would make them contribute more. Correlation analysis results revealed that tax exemption on retirement contributions had a moderate positive and statistically significant relationship with retirement saving. The results of the regression analysis indicated that tax exemption on retirement contributions had a favourable and significant effect on retirement saving. The study found that tax exemption on retirement contributions had a significant influence on retirement saving ($\beta = 0.261$, $P = .000$) at the 95 percent confidence level. As a result, the study rejects the

null hypothesis that tax incentives on retirement contributions have no influence on retirement saving.

5.2.2 Tax exemption on Investment Income accrued within retirement accounts

The second objective sought to determine the effect of tax exemption on investment income accrued within retirement accounts on retirement saving. The descriptive analysis findings indicated that most of the respondents noted that they save through pension schemes, the tax they would have paid on investment income accrued within retirement accounts is re-invested thus helping them accumulate more wealth, the tax they do not pay on investment income is substantial and they save for retirement through other saving vehicles that generate investment income because they do not mind paying tax on investment income. Correlation analysis results revealed that tax exemption on investment income accrued within retirement accounts had a moderate positive and statistically significant relationship with retirement saving. The results of the regression analysis indicated that tax exemption on investment income accrued within retirement accounts had a favourable and significant effect on retirement saving. The study found that tax exemption on investment income accrued within retirement accounts had a significant effect on retirement savings ($\beta = 0.240$, $P = .002$) at the 95 percent confidence level. As a result, the research rejects the null hypothesis that tax incentives on investment income accrued within retirement accounts have no influence on retirement saving.

5.2.3 Tax exemption on withdrawals from retirement schemes

The descriptive analysis findings indicated that most of the respondents noted that they are encouraged to save through pension schemes because, upon retirement, part of their drawings from a registered pension scheme is not taxed, the untaxed portion of their withdrawals from retirement schemes will help reduce their tax bracket thus making

them pay less tax upon retirement, and increasing or removing the limit on lumpsum pension drawings deductible for tax would encourage them to save more. Correlation analysis results revealed that tax exemption on withdrawals from retirement schemes had a moderate positive and statistically significant relationship with retirement saving. The results of the regression study indicated that tax exemption on withdrawals from retirement schemes had a favourable and significant effect on retirement saving. The study found that tax exemption on withdrawals from retirement pension schemes had a significant influence on retirement saving ($\beta = 0.254$, $P = .002$) at the 95 percent confidence level. As a result, the study rejects the null hypothesis that tax incentives on withdrawals from retirement schemes have no influence on retirement saving.

5.3 Conclusions

In regard to the first objective, the findings confirmed that tax exemption on retirement contributions has a positive and significant effect on retirement saving. This implies that tax exemption on retirement contributions has a significant positive contribution to retirement saving in Kenya. On the second objective, the results found out that tax exemption on investment income accrued within retirement accounts has a positive and significant effect on retirement saving, implying that tax exemption on investment income earned from pension schemes has a significant positive contribution to retirement saving in Kenya. Finally, on the third objective, the study established that tax exemption on withdrawals from retirement schemes has a positive and significant effect on retirement saving thus concluding that tax exemption on withdrawals from retirement schemes has a significant positive contribution to retirement saving in Kenya.

The analysis verifies some previously proposed reasons for the effect of taxes in individual retirement savings decisions. Furthermore, the study uncovered elements

that had previously not appeared to be important to tax investigations. Some of these issues, such as the importance of the social decision-making context and other motivations behind retirement saving decisions other than "just" saving for one's old age, must be addressed more thoroughly in order to comprehend retirement saving decisions in general, and the influence of tax perception in particular.

5.4 Recommendations

The desire to be financially independent when people leave employment is the primary motivator for many who save for retirement. Even if no tax incentives were available, these people would save for retirement. To encourage individuals to save more, the government should modify its approach and provide people with more than simply tax incentives. One suggestion is to compensate those who refer new savers to retirement planning institutions. The reward may be decreased life insurance premiums, or it could be a one-month contribution to an existing saver's retirement fund for each new saver successfully introduced. The government may fund these incentives in the same manner that it provides tax incentives for retirement savings by allocating a share of tax income to this purpose.

According to the study, education is a critical aspect in establishing a culture of saving. As a result, it is advised that the government and other stakeholders undertake education and training programs to raise awareness of retirement saving, tax benefits associated with retirement saving, and tax avoidance strategies at an early stage of people's working lives.

According to the findings of this study, tax incentives appear to play a part in people's saving decisions; nevertheless, the researcher does advocate a few improvements to the current tax incentives that could encourage retirement saving. A reward system, for

example, may be developed to recognize those who save for their own retirement and do not withdraw their savings early. The incentive could be a lower tax rate on retirement savings annuities derived from their retirement assets. To discourage early withdrawals, retirement savings that are withdrawn prematurely may be taxed at a higher rate.

5.5 Contribution to Theory, Policy and Practice

This research is projected to make a significant contribution to theory, policy, and practice. The study adds to the body of information on the relationship between tax incentives and retirement saving from a theoretical standpoint. Furthermore, the research supports the theoretical framework and the theories that were utilized to explain the variables.

In terms of policy, the study's findings could help the government analyze the effectiveness of tax incentives to encourage people to save for retirement. Despite the fact that the evidence acquired during the interviews suggests that enhanced tax incentives would push people to save more, it is evident that the government should make a deliberate effort to urge people to take advantage of the tax benefits to save more for retirement. Tax incentives have been demonstrated to have considerable predictive ability in influencing retirement savings and should, therefore, be given special attention.

In practice, the study instructs Kenyans on how to effectively take advantage of the existing tax incentives to increase their savings for retirement while reducing their tax burden.

5.6 Suggestions for Further Research

The research sought to find out the effect of tax incentives on retirement saving in Kenya. The study focused on three dimensions of tax incentives, which explained 39.5% of changes in retirement saving. Future research should look into other factors that could explain the remaining sixty percent. Further, future studies could consider introducing variables that influence the relationship between tax incentives and retirement saving.

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APPENDICES

Appendix I: Instruction Letter

Dear Participant,

You are invited to participate in an academic research study conducted by Ventrick Ochieng, a Master's student in the Department of Accounting and Finance at Moi University.

The purpose of the study is to determine the effect of tax incentives on retirement saving. Please note the following:

This study involves an anonymous survey. Your name will not appear on the interview notes and the answers you give will be treated as strictly confidential. You cannot be identified in person based on the answers you give.

Your participation in this study is very important to me. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.

Please answer the questions as completely and honestly as possible. This should not take more than one hour of your time.

The results of the study will be used for academic purposes only and may be published in an academic journal. I will provide you with a summary of our findings on request.

Thank you in advance for your co-operation and active participation in this academic effort.

Yours Faithfully,

Ventrick Ochieng

Appendix II: Questionnaire

Thanks for your willingness to take part and participate in this survey. The purpose of this survey is to collect data on the relationship between tax incentives and retirement saving. This is an anonymous survey and all the information collected shall be treated with utmost confidentiality. You cannot be identified and the answers you will provide shall be used for academic purposes only. There are no right or wrong answers. Please complete all the sections of the questionnaire.

PART A: GENERAL INFORMATION

<p>1. What is your gender?</p> <p style="text-align: center;">Male [<input type="checkbox"/>] Female [<input type="checkbox"/>]</p>
<p>2. What is your age bracket?</p> <p style="text-align: center;">20-30 Years [<input type="checkbox"/>]</p> <p style="text-align: center;">31-40 Years [<input type="checkbox"/>]</p> <p style="text-align: center;">41-50 Years [<input type="checkbox"/>]</p> <p style="text-align: center;">51-60 Years [<input type="checkbox"/>]</p>
<p>3. What is your marital status?</p> <p style="text-align: center;">Married/In a stable relationship [<input type="checkbox"/>]</p> <p style="text-align: center;">Single/Divorced/Widowed [<input type="checkbox"/>]</p>
<p>4. What highest level of education have you attained?</p> <p style="text-align: center;">Primary [<input type="checkbox"/>]</p> <p style="text-align: center;">Secondary [<input type="checkbox"/>]</p> <p style="text-align: center;">College/Technical School [<input type="checkbox"/>]</p> <p style="text-align: center;">University [<input type="checkbox"/>]</p> <p style="text-align: center;">Other (Please specify)</p>
<p>5. What is your monthly personal income?</p> <p style="text-align: center;">≤ Kshs. 20,000 [<input type="checkbox"/>]</p> <p style="text-align: center;">20,001-40,000 [<input type="checkbox"/>]</p> <p style="text-align: center;">40,001-60,000 [<input type="checkbox"/>]</p>

60,001-80,000 []

80,001-100,000 []

> 100,000 []

6. What is your monthly family income?

≤ Kshs. 20,000 []

20,001-40,000 []

40,001-60,000 []

60,001-80,000 []

80,001-100,000 []

> 100,000 []

7. What is the number of your dependents?

No Dependents []

1 or 2 Dependents []

3 or 4 Dependents []

More than 5 Dependents []

PART B: TAX INCENTIVES**TAX EXEMPTION ON RETIREMENT CONTRIBUTIONS**

Please indicate whether you agree or disagree with the following statements relating to tax exemption on retirement contributions. Use the scale: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree.

Statement	1	2	3	4	5
I contribute to a registered pension scheme.					
I contribute to a pension scheme because my contributions are not taxed.					
I make contributions from my untaxed income.					
Increasing or removing the limit of contributions exempted from tax would make me contribute more.					

TAX EXEMPTION ON INVESTMENT INCOME ACCRUED WITHIN RETIREMENT ACCOUNTS

Please indicate whether you agree or disagree with the following statements relating to tax exemption on investment income. Use the scale: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree.

Statement	1	2	3	4	5
Considering that investment income from pension schemes is not taxed, I save through pension schemes.					
The tax I would have paid on investment income is re-invested thus helping me accumulate more wealth.					
The tax I don't pay on investment income is substantial.					
I save for retirement through other saving vehicles that generate investment income because I don't mind paying tax on investment income.					

TAX EXEMPTION ON WITHDRAWALS FROM RETIREMENT SCHEMES

Please indicate whether you agree or disagree with the following statements relating to tax exemption on withdrawals from retirement schemes. Use the scale: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree.

Statement	1	2	3	4	5
I am encouraged to save through pension schemes because, upon retirement, part of my drawings from a registered pension scheme is not taxed.					
The untaxed portion of my withdrawals from retirement schemes will help reduce my tax bracket thus making me pay less tax upon retirement.					
Taxing part of my withdrawals from retirement schemes upon retirement defers my tax liability to a later date making my money to grow at a faster rate during my working years than it would in a taxable product.					
Increasing or removing the limit on lumpsum pension drawings deductible for tax would encourage me to save (more) for retirement.					

PART C: RETIREMENT SAVING

Please indicate whether you agree or disagree with the following statements relating to retirement saving. Use the scale: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree.

Statement	1	2	3	4	5
I make meaningful additional voluntary contributions to a retirement savings plan.					
I make a conscious effort to save for retirement through registered pension schemes.					
Relative to my peers, I have saved a great deal for retirement.					
Based on how I plan to live my life in retirement, I save accordingly.					

Appendix III: Authorization Letter



Kenya School of Revenue
Administration



KENYA REVENUE
AUTHORITY

ISO 9001:2015 CERTIFIED

REF: KESRA/NBI/036

15th September 2021

TO: WHOM IT MAY CONCERN

RE: REQUEST FOR RESEARCH PERMIT

VENTRICK OCHIENG - REG. NO.: KESRA/105 /0043/2017

This is to confirm that the above named is a student at Kenya School of Revenue Administration (KESRA) Nairobi Campus pursuing Masters in Tax and Customs Administration.

The named student is undertaking Research on TOPIC: **“Effect of Tax Incentives on Retirement Savings: A Case of Employees in Audit Firms in Nairobi County, Kenya.”**

The purpose of this letter is to request your good office to assist the above student with the information he requires to enable him work on his project.

Your support to KESRA in this regard will be highly appreciated.

Thank you.

Dr. Marion Nekesa, PHD,
Head Academic Research
KESRA



P. O. Box 48240 – 00100, Nairobi

Email: kesratraining@kra.go.ke

Tel: +254715877535/9

Tulipe Ushuru Tujitegemee!

Appendix IV: Research License

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RESEARCH LICENSE



Date of Issue: 14/October/2021

This is to Certify that **Mr. Ventrick Ochieng of Moi University, has been licensed to conduct research in Nairobi on the topic: EFFECT OF TAX INCENTIVES ON RETIREMENT SAVINGS: A CASE OF EMPLOYEES IN AUDIT FIRMS IN NAIROBI COUNTY, KENYA for the period ending : 14/October/2022.**

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Appendix V: Plagiarism Certificate

EFFECT OF TAX INCENTIVES ON RETIREMENT SAVING AMONG EMPLOYEES IN AUDIT FIRMS IN NAIROBI COUNTY, KENYA

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