2020

Factors influencing intent of uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County

Ngomba, Paul Kitheka
Strathmore Business School
Strathmore University

FACTORS INFLUENCING INTENT OF UPTAKE OF RETIREMENT PENSION AND PROVIDENT SCHEME PLANS IN THE INFORMAL SECTOR IN NAIROBI COUNTY

PAUL NGOMBA KITHEKA

MDF/52170/2017

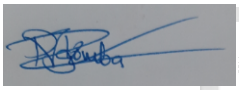
A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE DEVELOPMENT FINANCE OF STRATHMORE UNIVERSITY

OCTOBER, 2020

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis/dissertation (use as appropriate) contains no material previously published or written by another person except where due reference is made in the thesis/dissertation itself.

Name of Candidate: Paul Ngomba Kitheka

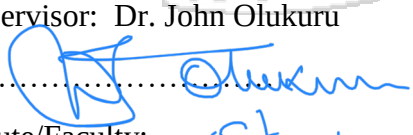
Signature 

Date… 

Approval

The thesis/dissertation of [Paul Ngomba Kitheka] was reviewed and approved for examination by the following:

Name of Supervisor: Dr. John Olukuru

Signature…… 

School/Institute/Faculty: Strathmore University Business School

Dr. George Njenga

Executive Dean

Strathmore University Business School.

Dr. Bernard Shibwabo

Director, Office of Graduate Studies

ABSTRACT

When it comes to social security at retirement, the formal sector has constantly received more attention compared to the informal sector. Formal coverage stands at only twenty per cent in Kenya. The rather vibrant but fragmented Kenyan informal sector has resulted in static economic growth despite its potential as a key contributor. The 2018 Economic Survey by the Kenya National Bureau of Statistics (KNBS) shows that the Jua Kali Sector accounted for approximately eighty-three per cent of country's total labour force and created over seven hundred and eighty-seven thousand new jobs in the period. The Jua kali sector however remains excluded, unregulated or largely underrated. Majority of the elderly in this sector have been left out of structured pension plans exposing them to poverty, health and other risks once they can no longer provide for their livelihood. The objective of this study was to determine the factors influencing intent of uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County. The specific objectives were to determine the influence of the level of income, the level of education, the association links and age on uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County. The study used a descriptive research design and the population was twelve million informal sector workers. The sample size employed was three hundred and eighty-four respondents and stratified random sampling was the sampling technique. Data was collected through structured questionnaires with the data subsequently being analyzed through a multiple regression model and correlation analysis. On the factor analysis it was noted that the factors explained approximately sixty five percent of the total variation based on the rotated loadings. The findings indicated that there was a positive correlation between age and intent to uptake pension and provident scheme plans. There was a strong positive correlation between association link and intent to uptake pension and provident scheme plans. There was a positive correlation between education level and their intent to uptake pension and provident scheme plans. There was a positive correlation between income level and intent to uptake pension and provident scheme plans. It was concluded that individual willingness to save in pensions plans increased with increase on age. Majority of the individuals working in informal sector considered membership in an informal sector association to be of importance. Provision of financial management education is key to ensuring that the informal sector workers invest in pension schemes and lack of sufficient earnings crippled their wish. It was recommended that irrespective of the age, NSSF and RBA should come up with sensitization strategies that ensure that employees of all age groups working within the informal sector are thoroughly educated on the importance of partaking in retirement benefits schemes. Government must come up with strategies that protect these informal sectors; which include measures such as tax reliefs, incubation programs and credit support programs, all with an aim of ensuring reliable income flows.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

DB	Defined Benefit
DC	Defined Contribution
GDP	Gross Domestic Product
ILO	International Labor Organization
IPPP	Individual Personal Pension Plans
KES	Kenya Shillings
KNBS	Kenya National Bureau of Statistics
NSSF	National Social Security Fund
OSA	Occupational Scheme Account
PAYG	Pay-as-you-go
RA	Revenue Account
RBA	Revenue Benefits Authority
RM	Ringgit
SSA	Sub-Sahara Africa
VAT	Value Added Tax
WIEGO	Women in Informal Employment Globalizing and Organizing

DEFINITION OF TERMS

RBA	Revenue Benefits Authority (RBA, 2015)
Means-tested benefit	A benefit that is paid only if the recipient's income falls below a certain level (Dorfman, 2015).
Pay-as-you-go	A method of financing whereby current outlays on pension benefits are paid out of current revenues from an earmarked tax, often a payroll tax (Abels & Guven, 2016)

CHAPTER ONE: INTRODUCTION

1.1 Introduction to the Study

This chapter provides a discussion of the background of the study, introduces the variables and their sub-variables, and describes the problem under study. It also presents the research objective and questions that this study seeks to answer, as well as the scope and significance.

1.2 Background of the Study

One of the fundamental global problems threatening the concept of social security protection is the fact that the greater part of world's population is excluded from any type of social security protection. Non-coverage is greatest in Sub-Sahara Africa and South Asia, where coverage is estimated at 5% to 10% of the working population with some countries falling below these statistics (ILO, 2001). Despite globalization and its expected outcome of greater income security and growing economies; there have been an increased number of workers, including women, forming part of the rather informal work force with stagnating growth in the formal employment in many African countries. The correlation between globalization and changing employment patterns comes because of the labor market adjusting to the pressures of competition with employers adopting more flexible labor policies and using non-standard and less secure forms of employment (Verick, 2006).

Hu & Stewart (2009) define informal sector workers as those that received low incomes or are self-employed in small unregistered companies including the household sector. This sector often engages in part-time work the service, agricultural and construction industries. On a global scale, it is apparent that the matter of retirements presents as a common theme in public discourse with the main reason for the phenomenon being a growing aging population (Ng et. al., 2011). Most global reforms and innovations aimed in addressing the challenge are however centered on formal workers (Hu & Stewart, 2009). Despite the fact that most of the affected individuals are informal sector workers in developing countries, comparative, little energy has been expanded to address the particular needs of the lower-income earners. The resulting scenario is thus one in which the disparity between the rich and the poor perpetuates through to old age; a concern particularly grave as only ten to fifteen percent of the growing world population currently contributes to pension funds (Gillion, Turner, Bailey & Latulipe, 2000).

The informal sector pyramid mainly comprises women as unpaid family workers and industrial workers where the average earnings are very low and the poverty risk is very high. Both men and women are in the middle of the pyramid occupying the informal wage workers and are own account operators. On the top of the pyramid, men are dominant; the povety risk is percieved low and the average earnings high (Chen, 2012).

All-inclusive social protection programs aim to address universal needs as food, shelter as well as education; additionally, sensitive matters as gender inequality and employment gaps that mainly haunt the female populace are covered. Social programs also promote economic growth by protecting and incentivizing its workers. One such social security program is the pension funds and institutions whose interest continues to grow owing to its increasing importance to institutional investors as well as to their substantial role within welfare systems. A pension is a fund into which monies earned during one's employment service are put in and from which periodic payments are to be drawn to support the person after retirement. Pension funds can be a "defined benefit (DB) plan" where a pre-determined fixed sum is paid regularly to a person, or a "defined contribution plan" under which a fixed sum comprising employer and employee contributions is invested and then together with its returns paid out at retirement (Thomas, 2013; Huberman, Iyengar & Jiang, 2007).

1.2.1 Informality in Africa

IMF estimates indicate that the informal sector in SSA accounts for about 90% of the 400 million existing jobs playing a major role in job creation, production and income generation (IMF, 2015). According to UNDESA, Population Division (2015), Sub-Sahara Africa is expected to have approximately 281 million young people in the age bracket of fifteen to twenty-four years of age by 2030: which will account for more than two thirds of the world's working population (World Bank & IMF, 2016). Unfortunately, with growing unemployment rates in the region, more people will be forced to take up low productivity and low paying jobs (Canning, Raja & Yazbeck, 2015). Fox (2014) states that only about a quarter of young and productive people should expect employment in the near future; clearly highlighting that informality in SSA will continue to remain persistent and evolve as formal employment fails to absorb the growing population.

The regional context evidences longstanding social assistance for informal workers in some African countries. South Africa, for instance, provides a government-revenue-based public pension plan crafted using the means-tested approach. The maximum allowed benefits amount is 940 Rand with decreasing allocations to higher income earners (Hu & Stewart, 2009). Namibia has also adopted a three-pillar pension scheme with a state universal pension system as the First pillar; a Second pillar comprising occupational pension schemes administered by private companies; and a voluntary system Third pillar also operated by private administrative firms and insurance companies (Zamuee, 2015). Ghana established the Social Security and National Insurance Trust (SSNIT) in 1972 to encompass its informal workforce which was previously serving the formal sector. The scheme, however, had numerous weaknesses resulting in great opposition and a consequent overhaul of the system in 2004 including the promulgation of a new Pensions Law, the National Pensions Act 766 in the year 2008 which championed for the three-tier pension scheme with mandatory first and second tiers and a voluntary third tier majorly for the informal sector (Darkwa, 2014).

In the local context, Kwena and Turner (2013) highlighted that more than eighty-three percent of the Kenyan working-age individuals are in the informal sector with eighty-one per cent working in micro, small, and medium-sized firms. The lack of focus on the demographic thus, with regard to provision of retirement support financing, results in disenfranchising of eighty three percent of working individuals. Kwena (2013) in addressing the need to provide convenient retirement planning tools to lower-income earners posit that lessons can be learnt from the success of the micro-finance movement in Kenya. In particular leveraging technologies such as mobile money allows for the collection and pooling of contributions from the population without the challenge of debilitating transaction costs; the Mbao Pension Plan presents as advancement to this end.

1.2.2 Pension Coverage in Kenya

In Kenya, a system of pension fund was established after independence. The first body dealing with pension was statutory and established in the year 1965; following which an independent regulatory body known as the Retirement Benefits Authority (RBA) was set up in the year 2000. The pension system in Kenya can be divided into four broad schemes: the NSSF, Civil

Servants Pension Scheme (CSPS), Occupational Retirement Schemes (ORS) and Individual Retirement Schemes (Kabare, 2018).

NSSF, founded to administer a provident fund scheme for all workers who had attained the retirement age of 55 years, is funded by employer and employee monthly contributions. The second pillar of pension scheme in Kenya is the Pension Scheme for public service employees and Armed Forces, which are governed under Pension Act and regulations, covering approximately 406,000 civil servants, teachers, police and prison staff and just over 180,000 pensioners. The third pillar, the Occupational schemes were set up by employers for the benefit of their staff and are regulated by the Retirement Benefits Authority under the Retirement Benefits Act (Government of Kenya, 1997). Lastly, the Individual Personal Pension Plans (IPPPs) comprise schemes set up by institutional providers to target individual members not necessarily tied to an employer or any formal setting (Simiyu & Kibet, 2016).

Persons employed outside the framework of occupational schemes and public pension schemes can contribute towards their pension through the Individual Personal Pension Plans (IPPPs), which are regulated by the RBA. IPPP membership has continued to experienced growth over the years with a growth rate of twenty eight percent in the year 2014 compared to 2013, who contributed to an asset growth of thirty one percent in the same period; there was also a thirteen percent and twenty six percent growth rate in membership and asset base respectively in the year 2016 (RBA, 2015; RBA, 2016). The scheme had 162,882 members in 2016 with its assets valued at KES 28.8 billion, however, if the scheme was to capture the entire informal workforce, its projected pension asset value base would have been KES 1 trillion by the end of 2016 (RBA, 2016). Despite this significant increase in informal membership, only 0.01 per cent of the total informal employment had subscribed to a pension scheme depicting a tremendous gap in the informal sector pension coverage in Kenya.

Kenya has witnessed a steady growth in its formal employment as opposed to a rapidly growing informal sector. In 2012, formal employment was 2.2 million and grew to 2.9 million in 2018; whereas informal workers grew from 10.5 million to 14.9 million in the same period. Over 80 per cent of its workforce is in the informal sector where the risk of not been covered in terms of pension is high. The distribution of the informal workforce in the various economic activities shows that the largest proportions of the workforce is in Wholesale and retail trade, Hotels and

Restaurants; followed by the manufacturing and then service sector being the third largest segment. It is then followed by transport and communications with construction being the smallest activity sector.

The issue of improving pension coverage among the informal sector workforce in Kenya lies in reforming the design and structures of micro pension schemes with consideration to the factors that primarily affect pension uptake in the sector (Onyango, Olungah & Oleche, 2016). Pension reforms would also address other socio-economic concerns such as alleviation of demographic pressures, poverty reduction and support for households affected by the HIV AIDS pandemic as well as regional conflicts. These reforms will contribute to resources being invested in infrastructure, health and education. Additionally, inclusivity of the informal sector will reverse the highly regressive systems brought about by the cross-subsidies required from indirect taxes (RBA, 2015).

The Mbao Pension Scheme (IPPP)

The Mbao pension Scheme, an IPPP, begun in 2009 and was opened up to all Kenyans in 2011 (Kabare, 2018). Mbao Pension Plan was created by the Retirement Benefits Authority (RBA) and the Kenya Revenue Authority (KRA) (Kwena & Turner, 2013). It is however run through a private public partnership with four main organizations performing different roles; the RBA plays the role of regulator, Eagle Africa Insurance Brokers assume the role of record keeping and registration, Kenya commercial Bank Limited holds the funds and finally, Co-operative Trust Investment Services invests the funds (Kwena & Turner, 2013).

The Figure 1.1 shows IPPP membership and asset base versus the informal economy in Kenya for the years 2013 to 2015. The main reason for the membership growth can be attributed to the development of the "Mbao Pension scheme" which targets the informal sector contribution of KES 20 (Mbao) per day (Onyango, Olungah & Oleche, 2016). According to RBA, there are a few consistent contributors as shown in the figure below (RBA, 2018). In 2017, its membership had risen to about 100,000 with a fund value of nearly Ksh.130 Million (RBA, 2018). As of 2018, the Mbao Pension had 100,000 members and a fund value of Ksh.134 million. The total subscription was however puny given the 12 million informal-sector population (Kwena & Turner, 2013); hence a 1% active membership (Kabare, 2018).

Arguably, the pension asset base could be almost a hundred times more if every single informal employee would make a contribution to the fund.

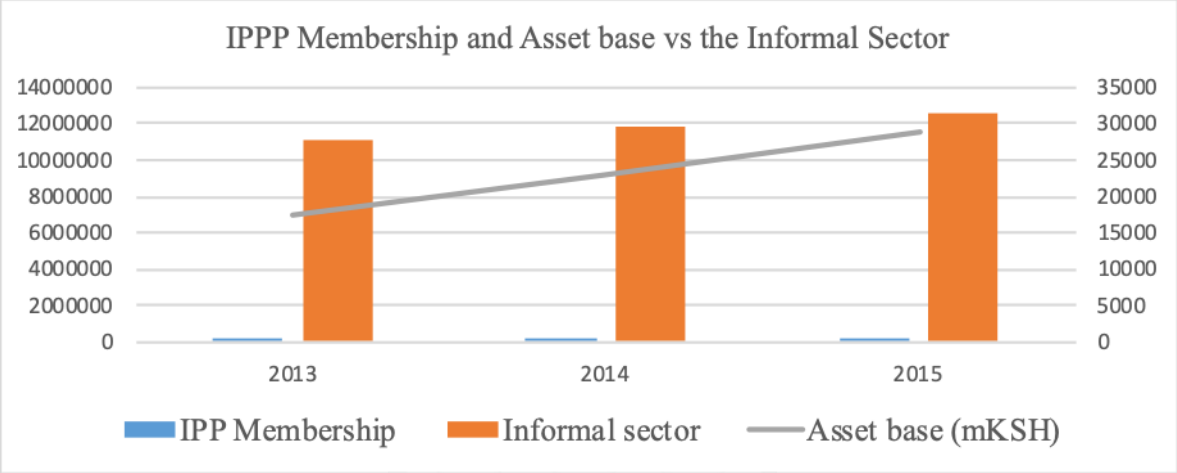


Figure 1.1: IPPP Membership and Asset Base verses the Informal Economy

Source: RBA (2015)

The Table 1.1 shows how membership and contributions in the Mbao Scheme has changed over the years.

Table 1.1: Membership and Contributions in the Mbao Scheme

	2010	2011	2012	2013	2014	2015	2016
No. of active members	164	5,233	23,949	18,123	24,550	17,685	11,684
No. of Contributions	477	17,732	122,451	148,053	203,818	117,938	73,733
Total amount (KES '000)	118	2,829	22,614	28,930	32,521	24,763	17,966

Source: (Kabare, 2018)

From table 1.1, in 2010 the number of active members was 164 with contributions of 477. Over the years up to 2012 the active membership has increased. However up until 2016 the number of active members has gone down to 11,684 members from 24,550 members in 2014. The membership in Mbao pension plan again has decreased over the years up until 2016. Also, the contributions have decreased over the same period 2016. These numbers show that the IPPP is not without shortcomings and challenges. Kwena & Turner (2013) noted that the low numbers are generally due to a lack of awareness of the fund hence indicating that promotion efforts

would serve to ensure that a large base is covered. Despite those challenges, however, the Mbao plan is a rubric for incisive approaches in retirement planning. The flexibility of the system, as evidenced by the low contribution (KES 20 a day) and flexibility in depositing funds, proves that targeted pension and provident funds crafted after the needs of the populations under consideration would go a long way in ensuring optimal coverage of informal workers (Kwena & Turner, 2013).

NSSF and Informal Coverage

Among the main targets of Kenya's Vision 2030 is the provision of a high quality of life for all citizens. There are both private and publicly run retirement plans within Kenya Social Protection system. The most widely subscribed-to plan is the National Social Security Fund, NSSF, which predominantly focuses on the formal sector albeit with provisions for informal sector participants (Kwena & Turner, 2013). The appreciated need for retirement planning, at the national level, has however resulted in the creation of alternative solutions with the most recent being the tax-financed Inua Jamii Senior Citizens' Grant that disburses KES 2,000 to citizens above the age of 70. Although there are 36 registered individual pension and provident schemes in the private sector, these account for the minority of subscribers to retirement saving plans (Registered IPPs, n.d.).

Despite its longstanding operations the NSSF does not address the needs of informal sector workers who generally receive lower income than their formerly employed counterparts. The Mbao pension plan was created specifically to address the needs of the disenfranchised lower-income earners within the informal sector.

1.2.3 Factors Influencing Intent of Uptake Pension and Provident Scheme Plans

The impact of age on the intent to uptake pension and provident scheme plans is hypothesized by different authors (Ghana, Adzawla, Baanni & Wontumi, 2015; Kwena & Turner, 2013). However, there is lacking consensus on the actual impact of the factor. This is evidenced by Collins-Sowah (2013) study which shows a decrease in likelihood of participation in pension schemes with increase in age. The specific aspect considered in operationalizing the variable for the current study is the actual age of the respondents.

Education is assessed in a twofold approach – as the actual level of formal education and as regarding the receipt of education on financial matters. This approach is similar to that taken by Joo & Grable (2005). Both factors are deemed to be of significance to the likelihood of participation in pension and provident funds. Also, of importance is the relative performance of the individual in both aspects of education (Lusardi & Mitchell, 2011). These three aspects; formal education, financial education, and education aptitude are used to operationalize the variable for this study.

The level of income is considered on the basis of the social context of the income. As opposed to focusing on the hard numbers earned, an approach that would present as a challenge in garnering responses, a sufficiency and frequency approach is taken in assessing the construct. The aspects under consideration are therefore; the relative amount of income as compared to peers, frequency of income and sufficiency of income vis-à-vis basic needs (Kwena & Turner, 2013).

The social context within which informal sector workers operate has an impact on their attitude towards money management (Beshears et al., 2015). This impact can take a positive or negative form depending on the particular circumstances. The study is thus centered on multiple aspects of association interaction with the individual. The particular sub-variables considered are as follows; knowledge of others saving behavior, participation in an association, receipt of information through associations (Beshears et al., 2015; Kinyanjui, 2010; Mathauer, Schmidt & Wenyaa, 2008).

1.3 Statement of the Problem

The social security and retirement policies have focused more attention to formal employees who have the benefit of a pension scheme being set up by the employer and who contribute through the scheme for retirement (Kunzler, 2016). However, coverage for the formal sector stands at approximately 20 % (Kunzler, 2016). The 2017 Economic Survey by the Kenya National Bureau of Statistics (KNBS) shows that the Jua Kali Sector accounted for 83.4 % of country's total labour force and created over 787, 000 new jobs in the period (KNBS, 2017). The Jua kali sector however remains excluded, unregulated or underestimated. A significant

number of informal workers and their dependents are left exposed to the various forms of poverty (KNBS, 2017).

Only about an estimated 1% of the informal workforce contributes to the current Mbao Pension Plan designed for the informal workers in Kenya (Kabare, 2018). Informal sector workers shy away from participating in pension schemes because they find the terms involved in contributions and withdrawal too strict (Lusardi, Michaud & Mitchell, 2017). The main problem that this study addressed was the dearth in findings on the relative impact of various demographic factors affecting intent to uptake pension and provident scheme plans. Whereas multiple authors, in the local context, assess the impact of different variables, few address them concurrently and with consideration of data from the population. This study sought to address this shortfall. Conflict in findings in the determinants of intent to uptake financial pension and provident scheme plans exist, for example, in Collins-Sowah (2013) study and those by Tameale et al., (2015) and Ng et al., (2011). Whereas as Collins-Sowah (2013) hypothesizes a negative link between age and participation in pension plans, the latter two indicate a positive link. This conflict presents a gap in literature which deserves further empirical studies. More recently Collins-Sowah, Kuwornu & Tsegai (2013) conducted a study on the demographic characteristics affecting the uptake of a micro pension scheme by the informal employees at Kenya Ports Authority, while their sample size was rather too small comprising three percent of the population at the Authority; the results focus on a particular activity of the informal sector. This study thus aimed at addressing the absence of evidence on the relative impact of multiple determinants of intent to uptake pension and provident scheme services in Nairobi County.

1.4 Research Objectives

1.4.1 General Objective

The main objective of the study was to determine the factors influencing intent of uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County.

1.4.2 Specific Objectives

To achieve the general objective, this study will address four major variables as shown in the following questions:

i. To determine the influence of the level of income on uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County.
ii. To establish how the level of education influences uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County.
iii. To determine the influence of the association links on uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County.
iv. To establish how age influences uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County.

1.5 Research Questions

i. How does the level of income influence uptake of retirement pension and provident scheme plan in the informal sector in Nairobi County?
ii. What is the influence of the level of education on uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County?
iii. What is the influence of association links on uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County?
iv. How does age influence uptake of retirement pension and provident scheme plan in the informal sector in Nairobi County?

1.6 Scope of the Study

This study focused on the factors influencing intent of uptake of retirement pension and provident scheme plans in the informal sector in Nairobi County. The primary data was collected from informal sector workers from nine constituencies in Nairobi County that included Langata, Kamukunji, Embakasi, Kasarani, Westlands, Starehe, Dagoretti, Makadara and Njiru and a sample of 384 respondents was used. The study covered a period of five months from December 2019 to April 2020.

1.7 Significance of the Study

The study findings provide a succinct relative comparison of the influencers of intent to uptake financial services. This information is of significance to policy makers as it allows for insight into more efficacious ways of structuring and restructuring strategies to increase pension uptake in the country. Ultimately, the poverty index will reduce as more people are capable to meet their needs especially in the old age.

To academicians, the study fills a gap of a dearth in concurrent comparative studies of influencers of uptake of the plans. In Kenya, most of the studies done revolve around the impact of financial literacy on pension uptake without much scrutiny to the parameters covered in this study. To pension and provident firms, the study offers insights into approaches to be used in structuring advertising ploys in the bid to attract more subscribers to the pension schemes. Additionally, the study shows working models in other African countries that can be adopted or altered to suit the growing informal workforce in the country.

1.8 Organization of the Dissertation

Chapter two discussed how the pension systems can be redesigned to incorporate the informal sector highlighting case studies for countries where this has been successful. The chapter concludes by addressing the circumstances or challenges that can make the uncovered to be covered showcasing the expected asset base and fund base for RBA, as well as providing justification for the significance of this study. Chapter three encompasses the research methodology including the research design, data collection and analysis techniques while Chapter four discussed the findings of the study and its interpretation. Finally, chapter five comprises the summary of the findings, conclusions and recommendations to achieve the objectives of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter commences with a discussion on the matters that influence participation by the informal sector in social protection matters. The chapter then moves to highlight the experiences and pension reforms adopted in selected countries identifying the policies that have been used to achieve extension of pension coverage to the informal sector. The chapter ends with a proposition on the possible procedures and amendments that can be done to attract this growing sector of the informal workforce.

2.2 Theoretical Review

2.2.1 Social Exchange Theory

This theory was proposed by Thibaut & Kelley (1959) which suggests that behavior can be predicted based on perceived costs and benefits. They proposed that for any two competing interests or alternatives, there must be a series of rewards or cost economies for one that outweigh the other, hence, opportunity cost. The theory assumes that individuals and groups make decisions based on the ramifications of their behavior with the aim of reducing costs and reaping the highest rewards (Agravat & Kaplelach, 2017). Consequently, the young population form a major proportion of savers compared to the older population. Among the factors affecting savings for the young is the dependency ratio given more dependents result in higher consumption levels of the family, resulting in depressed savings and low economic growth on savings rates. This theory depicts how age can affecting saving capability, additionally, it shows how the level of income of an individual can affect how it is spread between current expenditure and future savings. It can be concluded that national savings are higher amidst populations with low dependency rates and economies experiencing rapid growth (Agravat & Kaplelach, 2017).

This theory can be also be defined as a strategic behavior based on information asymmetry where one party in a contract is more knowledgeable than the other. It's relevance to the pension market is attributed to the fact that individuals choose from among a set of contracts

offered; such decisions are informed by an individual's evaluation on costs and benefits of engaging in a particular scheme compared to another (Wagstaff, 2010).

2.2.2 Economic Theory

This theory states that the decisions to participate or not in any social programme is determined by the perceived gain or utility from that particular choice (Adhikari, 2003). Castel (2009) argues that decisions about pension are based on acturial assumptions. If a worker perceives that their participation will result in a better state of wellbeing as opposed to not participating and/or saving a similar amount to the contributions required, then they will enrol for a social programme. This research demonstrated that a number of factors will be put into consideration before the final participation or non-participation decision is made; including but not limited to personal or preference characteristics, socioeconomic factors as well as return on investment calculated by the difference between the present value of the expected pension benefits less the costs of contribution made (Collins-Sowah, Kuwornu, & Tsegai, 2013). The theory implies that association links can affect the saving behaviour of individuals.

As a result, individuals can be either myopic by diverting all their income to their present needs leaving very little or none for future savings and retirement; or more rational long-sighted individuals who save for life after retirement despite their present needs. Diamond & Mirrlees (1978) stated that information asymmetry or lack of information therein was a major attribute affecting to such decisions as well as misinformed long-term decision-making where individuals could not reasonably estimate their future needs and therefore could not adequately plan for the same. Consequently, the state is tasked with the responsibility of providing for its ageing citizens. However, this does not include the rich citizens who can afford to meet their own needs without intervention; or even putting measures in place that force citizens to save for retirement. A pay-as-you-go program is advocated as an ideal pension system with the aim of ensuring income is set apart for future use, especially in the old age (Diamond & Mirrlees, 1978). The more rational participants anticipate and plan for not only their personal future needs including retirement, but also their dependants and other members of society; however, they expect public welfare in dire circumstances rendering them incapable of meeting their

needs even if the circumstances are conscious decisions to depend on social welfare even when an individual is capable of self-provident.

2.3 Empirical Review

This section discusses the variables under assessment in this study in light of the study objectives. Five main sections are thus included in the section.

2.3.1 Intent to Uptake Pension and Provident Scheme Plans

Kotun, Adeoye and Alaka (2016) in Nigeria studied how the productivity of employees is affected when they have a contributory pension scheme. The study used personal interviews and a questionnaire. Data collected was analyzed statistically by use of SPSS. It was noted that where the pension measures adopted are effective, they trigger efficiency, assist in reducing redundancy and conflict as well as boosting employee competency and productivity. However, the study was in the regional context and was limited to effect of pension scheme on employees' productivity. The study recommends that a pension scheme be subjected to frequent reviews in order to streamline it, adequate supervision of sensitization programs, as well as up-to-date information sharing with its stakeholders.

Chepkoech, Rotich & Ndambiri (2017) focused on factors affecting investment decisions in pension schemes in Kenya. The study adopted the descriptive research design. The study sampled 125 fund managers from 1,232 pension schemes using simple random stratified sampling techniques. Data was collected using questionnaire and examined using the SPSS. On the basis of the study findings, it was evident that risk-return trade off affected investment decisions of pension schemes in Kenya. It was made apparent that successful pension schemes investment should be one whose returns outweigh the risks. In this regard, it was evident that fund managers balanced the risk to ensure optimal return. Given that macroeconomic factors would influence investment decisions of pension schemes in Kenya, it was evident that pension schemes investment decision was influenced by interest rates, capital markets performance, the rate of national economic growth and other macroeconomic factors before making investment decisions.

Nderitu (2019) studied the factors affecting voluntary contribution to retirement benefits schemes among small scale entrepreneurs in Mlolongo Town, Machakos County. A descriptive research approach was employed and both qualitative and quantitative data were collected and analyzed by use of SPSS. The study concluded that financial literacy had a significant effect on membership in voluntary contribution schemes among small-scale entrepreneurs in Mlolongo town. However, age and gender did not significantly affect membership in voluntary contribution retirement schemes. In addition, the study concluded that more innovative modes of retirement savings that better cater to their client base such as M-Shwari proved to be the most popular method to make voluntary retirement contributions as 67% of respondents admitted to using the platform to for their saving.

2.3.2 Effect of Income Level on Pension Uptake

The informal sector is characterized by seasonal or fluctuating income, making it absolutely difficult for them to commit to pension contributions. According to Onyango, Olungah, & Oleche (2016), this sector is easily alienated owing to the instability in the informal sector causing a continuous change of jobs or the temporary nature of their employment. At times, the income they make can hardly meet their daily and more immediate needs resulting in them either having no savings for the future or simply putting those savings into other use that derives a current utility.

Consequently, the bigger the household, the less likely the workers are able or willing to contribute to a pension scheme. According to a study conducted by Collins-Sowah, Kuwornu, & Tsegai (2013) in Accra comprising 400 informal workers in the urban sector spanning across 4 different activities (drivers; beauticians, farmers and woodworkers); the resulting regression results indicated that the household size was a determining factor in the decision to participate in the Micro Pension Scheme. The random utility model results showed that for a given household, an increase in its membership by one-member lead to a 1.7% reduction in probability of willing to participate in a scheme. This can be attributed to the fact that an addition of a dependent member especially a child or a sick family member results in additional expenditures on basic needs as food and education which discourage participation.

A study was conducted by Castel (2008) on the willingness to take part in a voluntary defined benefit pension system in Vietnam. The study was based on a survey conducted to understand determining factors of the willingness of the informal sector to participate in social insurance schemes. Results of the study show that the more stable income is perceived to be, the higher the willingness to participate. Further, positive coefficients were associated with higher saving rates and higher level of taxes, both indicators of wealth (Agravat & Kaplelach, 2017).

Ng, et al. (2011) argue that Malaysia presents a unique context for the study of the implications of retirement system planning as the country is home to a wide variety of cultures that exhibit different retirement planning behaviours. In a qualitative study with a sample size of 217 the authors conducted ANOVA analysis to assess possible difference in variance as a function of bio demographic characteristics. Findings indicated that marital status, age and income level had an impact on the behavioural intention pertaining to retirement planning. In particular, with regard to level of income, through a post hoc analysis, the authors established that higher-income earners are more likely to engage in retirement planning as compared to their lower-earning counterparts. In particular, earners of over RM 40,000 presented behaviour ratings that were significantly different from those in the RM 20000 – 30,000 and below RM 20,000 categories. The inference therefore is that increase in earning has a positive income on the likelihood of saving to retirement.

In an exposition of saving behaviour among private-sector employees in the United Kingdom, Robertson-Rose (2019) posits that the prowess, among employees, in saving for retirement despite the mandatory defined contribution system, depends on employee saving behaviour. In particular, in a study featuring 25 respondents, the author observes that such factors as fixed-term employment, employer motivation and peer-group influence have implications on the saving amounts and behaviours of employees.

The uncertainty of renewal of contracts, as posited by Robertson-Rose (2019), is counter intuitively associated with lower savings, in that the affected opt to save money in hand for current use as opposed to investing in a more certain financial future. In relating this to the informal employment, it may be the case that the challenge of low wages is compounded with that of uncertainty to result in curtailed saving behaviours. It is however worthy to note that the sample size included in the study, 25 respondents, is significantly low. Additionally, the

difference in context, with the study conducted in an industrialized nation, may serve to hinder the generalizability of findings to the Kenyan context.

2.3.3 Effect of Education level on Pension Uptake

It has been proven that a positive linear relationship exists between education level, in particular financial literacy, and savings. The more educated the individual, the more they are likely to appreciate the role of saving for retirement. A study done by Lusardi in the United States of America found that people who score higher on the financial literacy questions are more inclined to save for retirement, leaving them better placed for life after retirement (Lusardi & Mitchell, 2011).

Collins-Sowah, Kuwornu & Tsegai (2013) conducted a study on the underlying factors that affect willingness to participate in micro pension schemes among the Ghanaian workforce. The study was a hypothetical exploratory research. The empirical results of the Binary Logit regression model revealed that years of schooling was significant in determining such participation and was positively correlated to the willingness to participate; especially for drivers and vegetable farmers being significant at 5% and 10% respectively.

Njuguna & Otsola (2011) in their study sought to assess the levels of financial and pension literacy as well as formulate recommendations that can be adopted in order to enlighten the subject of saving for retirement. The study found that literacy levels did not differ significantly between those with primary education and secondary education: but differed significantly with those with a form of tertiary education. The study further concluded that despite Kenyans having an above average literacy level; more effort should be done to increase their participation in pension schemes. Mwangi & Kihiu (2012) agreed with these findings by concluding that the insufficient level of financial literacy was a hindering factor to accessing pension funds and other financial services as citizens lacked proper information to aid financing decisions and evaluate financial products. In contrast, Thuku & Ireri (2013) analyzed a sample of 370 retirees above fifty years using Pearson product- moment and established that there was a negative linear relationship between retirement information and retirement preparation. The sample comprised respondents from both the private and the public sectors. The study, however, also found that the private sector was more prepared for retirement as

opposed to the public segment due to easier access to retirement information (Thuku & Ireri, 2013).

Ade (2013) also investigated the association between financial literacy and pension preparedness in the Kenyan informal sector. The study was done in predetermined markets in Nairobi using a stratified random sample of 30 traders. The informal sector was segmented into 6 categories (second hand clothes dealers, small shops and kiosks, Jua Kali artisans, hawkers, fruits and vegetable vendors and food processing kiosks) whereby 5 traders from each category were engaged in data collection via questionnaires. Data analysis showed that there was a positive linear relationship between retirement preparedness and factors as financial literacy, age, income, marital status and education level.

Joo & Grable (2005) took a different approach in assessing the contribution of education to retirement planning in that they considered both formal education and financial-planning specific education. The study was based on data collected from retirement confidence survey data. Findings indicated that among the main predictors of retirement planning was the level of education, income level, size of household, and attitude towards financial planning.

Additionally, the availability of financial planning education acted as a promoter of engagement in retirement planning. These findings are of importance to the current study as they provide a dualistic approach to education. This is of importance as traditional consideration of education as an influence of behaviour assumes a link between education and participation in the workforce; in particular, highly educated individuals are more likely than their lower-educated counterparts to gain entry into formal employment position. A conflation effect thus results from consideration of education level and level of income as independent variables given the interrelatedness of the two constructs with regard to higher employment typically signalling higher pay. Assessing specific education on financial planning thus offers an isolated variable with which to operationalize education; this approach is taken in the current study.

Sane & Thomas (2015) however, while being appreciative of the link between education level and income posit that the level of education can be used to reflect financial literacy. The argument put forward by this assertion is that through the course of formal education,

individuals interact with information that is useful in imparting knowledge of financial planning. In their study, Sane & Thomas (2015) assessed education on the basis of the highest education level among all members of the household. The others posit that the creation of a state-run voluntary pension program may serve to alleviate the challenge of low-income for the population. This observation serves to validate the approach taken by the Government of Kenya in way of providing the NSSF, Inua Jamii Senior Citizens' Grant, and by proxy, the Mbao Pension Plan.

In addressing the educational aspects of pension planning, Kwena (2009) postulates that taking such approaches as joint financial education campaigns serve to increase the uptake of pension and provident plans. In particular, educational efforts allow for confidence, among prospecting citizens, of the financial sectors thus promoting a culture of saving. Education, specifically on retirement plans, further serves to integrate the concept of retirement financial planning among individuals currently engaged in financial management. It is thus apparent that the concept of education, as pertains to retirement planning, should be viewed both in light of formal classroom education and its implication as well as specific education on the products and services offered within the market.

2.3.4 Effect of Association Links on Pension Uptake

Given that the informal sector does not have any direct association with the employer necessitating them to invest part of their remuneration in pension and other kinds of savings, most of the employees in this sector have formed associations amongst themselves. Collins-Sowah, Kuwornu & Tsegai (2013) found that an urban informal worker who was a part of a work-related association was less likely to participate in a pension scheme owing to the savings and other financial services accessible through the association's membership. Thus, those who were members of a work-related association have a negative relationship with willingness to participate as opposed to those who are not. This can be explained by the fact that those who belonged to associations could rely on members or the association for some form of social assistance or protection including drawing down savings, exchanges of gifts and loans (Collins-Sowah, Kuwornu, & Tsegai, 2013; Kpessa, 2010).

In assessing the impact of peer information on saving behaviour, Beshears, Choi, Laibson, Madrian, & Milkman (2015) provided employees with information on 401K savings of co-workers including matched payment information of at least 6%. The intention was to assess the impact that the higher savings information would have on other's savings behaviour. Findings indicated a discouragement effect in that those not automatically enrolled onto 401K plans contributed less and peers who viewed their contributions to be lower than those of others contributed less as well. In the view this finding in light of association links as applies to informal worker associations, it may be surmised that the discouragement effect present among lower-earning individuals within the associations could go down should the information on others' saving patterns be reviewed, either formally or informally, to participants. Knowledge of others' saving practices can thus be used as a possible predictor of saving intention.

In a study conducted among 1083 participants in the informal sector in Kenya, Njuguna (2012) opines that micro-pension firms need to address challenges in administrative issues to achieve higher impact. Among the firms considered in drawing these inferences were informal sector workers involved with the Jua Kali Federation of Kenya and the Kenya National Jua Kali Cooperative Society (KNJCS). Among the specific issues raised in assessment of efficacy of micro-pension approaches were governance concerns, design and regulations. This study thus reveals that associations can be used to impact on the structuring of target pension and provident funds.

Miracle, Miracle & Cohen (1980) in a seminal early publication on the nature of transactions in Africa point to a collaborative effort in handling of value outside of traditional payment means. In an example, the authors point to the use of rotation work groups that hire labour out, as a group, sharing the proceeds among themselves or saving towards loan provisions. The funds are also channelled to finance groups and community projects. The approach indicates that the associations involved in the informal sector can be leveraged for the common good of participants. In relaying this understanding to provision of pension services, it is apparent that pooling of resources can significantly influence the availably of value that can then be channelled into pension-specific programs.

A similar angling to collaborative efforts is presented by Ofreneo, Manasan & Orbeta (2012) who, focusing on social protections in the Philippines, categorize initiatives into three main

groups; protective, preventive and transformative. Among the protective measures, as outlined by the authors, is the provision of social assistance through pension programs on the basis of means tests. The preventative approach can be used as a rallying call for associations involved in informal work to collect resources for the affected. The authors evidence such an approach as present in the partnership between organized groups and the PhilHealth.

Work associations can be used as effective tools in the dissemination of information regarding pension and provident schemes. This is highlighted by Kwena (2009) who presented partnerships and outreach efforts with associations, as a means towards encouraging subscription to such plans. According to Mathauer, Schmidt & Wenyaa (2008) following a study in Kenya, the demand-side factors associated with uptake of pension and provident plans are not as convoluted as earlier imagined. The lack of adequate information presents as the main challenge to the demographic. Viewing this finding in light of associations such as the KNJCS, it is apparent that using links with established associations would present the associations as conduits of information on pension firms.

The use of information sector associations as channels of information is feasible given that as Kinyanjui, (2010) surmises, the informal sector is not as chaotic as previously understood. The author highlights that associations in this space are formed on a need basis, and are structured in accordance to commonly held norms and values. The pivotal role of associations in the informal sector presents in their influence of production and consumption of goods and services as well as in their protection and transformation of the social structure (Kinyanjui, 2010). The influence of associations is thus of pivotal importance to creation of retirement saving plans.

2.3.5 Effect of Age on Pension Uptake

The regression results of a Ghanaian study showed that age has a negative influence on participation in a Micro Pension Scheme. The study results further showed that with every one-year age increase of an urban informal worker, there was a 0.3% reduction in their willingness to be part of a micro pension scheme. The implication is that the younger an urban informal worker is the more likely they are willing to save for retirement (Collins-Sowah, Kuwornu, & Tsegai, 2013). Githui & Ngare (2014) who used Pearson's Chi-square tests to show how

gender, age, marital status, occupation, income and financial literacy influenced retirement planning: also concluded that all variables except gender significantly affected retirement planning.

Using a Hackman two-stage analysis approach to analyse data from 150 informal sector workers in Tamale, Ghana; Adzawla, Baanni & Wontumi (2015) posit that age, marital status, education level and income levels all have an impact on contribution to informal pension schemes. The authors further sought to assess the role of industry of specialization on contribution behaviour with findings revealing that traders and artisans were more likely, as compared to farmers, to contribute to the pension funds. Particularly focusing on the impact of age, the study revealed that the factor was associated with a marginal effect value of 0.1737 which was the third ordered, by magnitude, of the factors; the first and second being marital status and dependants respectively. It is thus apparent, from this finding that understanding the comparative importance of age, amidst other indicators, would be a useful finding in determining marketing approaches aimed at the various demographics. This is particularly important given the observations of Kwena & Turner (2013) that among the main limiting factors behind uptake of Mbao Pension Plan had been ineffective marketing of the product.

Ng et al., (2011) in a study conducted in Malaysia collect data from 216 individuals of whom 41.70% were aged between 20 and 29; 23.60% were between 30 and 39; 20.40% 50 to 59 and finally, 13% over 60. Findings from the study, conducted through ANOVA analysis, revealed significant variation in contribution intent with the older respondents indicating that retirement planning was a matter of importance. This finding is consistent with that done in Ghana, by Adzawla, Baani & Wontumi (2015) therefore indicating that despite the difference in geo-social context, age remains an important determinant of contribution intent. This study is of pertinence to the current study as it serves to indicate that uptake of retirement planning provisions can be assessed on the basis of the intention of respondents to take up such services.

The lacking consideration of low-income earners in the construction of pension and provident funds is showed by Collins-Sowah (2013) in a study conducted in Ghana. The author posits that the appreciation of the need to plan for old age, at a national level, has resulted in creation of ‘all inclusive’ schemes which are hyped to cater to the needs of the population. These schemes are however lacking in that they seldom include particular provisions for lower-

income earners. Beauticians, drivers, vegetable farmers and woodworkers, as posited by the author showed an 87% willingness to participate in retirement saving schemes. However, this willingness was curtailed by the lack of sufficiently structured pension plans. For instance, premiums offered were considered too high. With regard to the contribution of age to participation, the author opines that a unit increase in age (by one year) results in a 0.3% reduction in the willingness to participate in micro pension schemes. This study goes contrary to observations by Tameale et al., (2015) and Ng et al., (2011) thereby proving that the contribution of age as a factor impacting participation in planning for retirement is a factor meriting additional study.

2.4 Research Gap

Several studies have been carried out in regard to retirement pension and provident scheme plans including Collins-Sowah (2013) study and those by Tameale et al., (2015) and Ng et al., (2011). Whereas Collins-Sowah (2013) hypothesizes a negative link between age and participation in pension plans, the latter two indicate a positive link. This conflict presents a gap in literature and thus deserves further empirical studies to address. In Kenya, several studies have been done regarding pension coverage. Mwangi & Kihiu (2012) conducted a study on the effects of financial literacy access on financial services and concluded that knowledgeable citizens have more access to financial services including pension as they can evaluate products and weigh alternatives. The study, however, failed to consider that the system must deliver what it promises to deliver, otherwise, even with the perceived benefits people will object to invest.

A similar study was done by Ade (2013) with a focus on the informal sector in Kenya. The study showed that a positive relationship exists between financial literacy and retirement preparedness; however, it failed to articulate how retirement preparedness was to be measured. Similarly, the relationship between access to retirement information and retirement preparation was investigated by Thuku & Ireri (2013) who contrary to expectations had their data analysis result in a negative linear relationship between the variables. More recently, Collins-Sowah, Kuwornu, & Tsegai (2013) conducted a study on the demographic characteristics affecting the uptake of a micro pension scheme by the informal employees at Kenya Ports Authority. While

their sample size was rather too small comprising three percent of the population at the Kenya Ports Authority; the results focused on a particular activity of the informal sector.

Literature exists pertaining to the representativeness of the sample for the informal sector population as well as the use of secondary data from pension bodies and schemes that have resources to collect extensive data. Additionally, not much comparative research has been done with countries that have succeeded in increasing coverage for the informal sector. Whereas the World Bank advocated for a multi pillar solution, its implementation remains complex based on macroeconomic and financial prerequisites as well as the need to streamline processes and systems: compelling most nations to modify their existing pension systems (Koutronasa & Yew, 2017). Based on the four types of reforms by Schwarz (2006), the following considerations may be considered:

a) Parametric reforms as changing the contribution rates that the labor market can bear and keep constant over time; a minimum pension - a non-contributory system that guarantees pension for all despite their employment status offering some insurance against poverty and other uncertainties or ailments especially after retirement,

b) Regulatory reforms resulting in improvements to the quality of governance and regulation, ensuring welfare benefits to all individuals and fair treatment of the financially unsophisticated individuals. This includes law reforms advocating for compulsory contribution may create more employer involvement as compulsory NSSF registration for all informal employees will allow for deductions to be made at source. Employers may also be necessitated by law to match these contributions and submit as that of formal employees is done,

c) Administrative reforms as seen in the case for the current Mbao Pension Scheme administration and employment of digital technology to improve registration and contributions and additionally, educating citizens on the importance of saving for retirement – mobilize agents that can effectively reach and educate the informal sector.

2.5 Conceptual Framework

The conceptual framework provided in Figure 2.5 provides a summary of the relationships heretofore discussed.

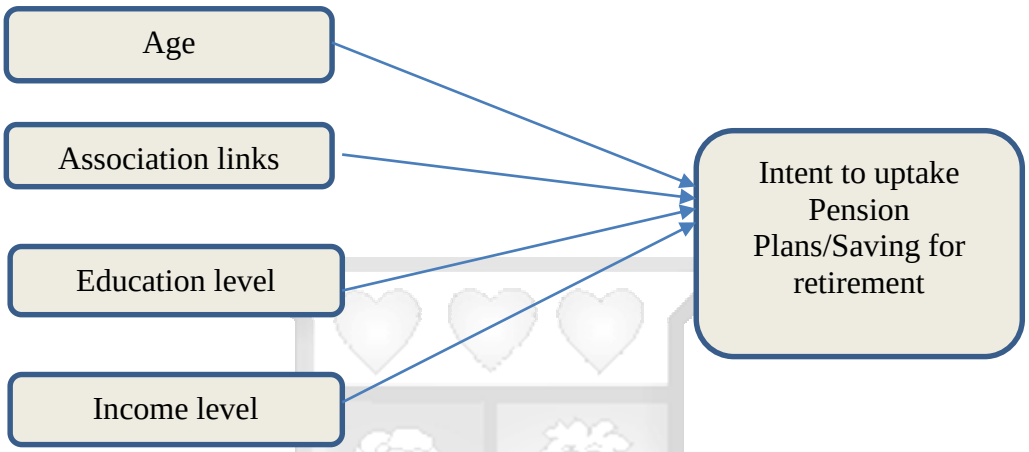


Figure 2.5:1 Conceptual framework

2.6 Operationalization of Variables

Table 2.2 provides a summary of the sub-variables considered in assessing the main constructs, their sourcing, and the level of measurement to be utilized in collecting data.

Table 2.2: Operationalization of Variables

	Variables	Measurement	Source
Dependent	Intent to uptake Pension Plans/Saving for Retirement • Intent to save • Intent to meet with qualified financial advisors • Intent to save regularly	Likert Scale	Rickwood et al. (2017)
Independent	Age	Continuous scale	Tameale et al., (2015)
	Association Links • Knowledge of others' saving behavior • Participation in an association • Receipt of information through association	Likert Scale	(Beshears, Choi, Laibson, Madrian, & Milkman, 2015; Kinyanjui, 2010; Mathauer, Schmidt & Wenyaa (2008))
	Education level • Formal education level • Financial education • Relative aptitude	Likert Scale	(Lusardi & Mitchell, 2011; Joo and Grable, 2005)
	Income level • Relative amount of income • Frequency of income • Sufficiency of income vis-à-vis basic needs	Likert Scale	(Kwena & Turner, 2013)

2.7 Summary of the Chapter

In conclusion, the informal sector is affected by many factors that hamper its workers from planning for retirement such as income, lack of employer links and insufficient financial literacy among others. These factors have been mapped as the independent variables for the study. From the empirical literature, it can be noted that most of the studies done revolve around explaining the relationship between financial literacy and retirement; however, this study is one of the influencing factors especially for the informal sector which is faced with other challenges. The sample size used in these studies is not proportionate to the segmentation of the informal sector activities in Kenya, raising questions on its representativeness. Additionally, no study has partnered with the relevant bodies such as RBA and pension administrators to analyze data that is already available on the sector nor have any recommendations been made based on the success of pension coverage in other countries in the world. This study seeks to fill these gaps and come up with a model that can be implemented to increase pension coverage in the informal sector in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter introduces the research methodology that this study used in order to address the study objectives. It is divided into the following subtopics; research design population and sampling, data collection methods, data analysis, research quality and ethical considerations in the research.

3.2 Research Philosophy

This research followed the positivism research philosophy (Saunders, Lewis &Thornhill, 2009). According to the authors, a positivism approach emphasizes the inter-relationship of constructs. In the current study, the researcher seeks to establish the link between intent to uptake pension and provident plan schemes and four independent variables – age, education level, income level, and association link. Quantitative data gathered through questionnaires was used to make inferences on the nature of relationship between the aforementioned variables.

3.3 Research Design

This study used a quantitative design, which uses statistical or quantifiable data to explain the relationship between all the independent variable and the dependent variable (Saunders, Lewis & Thornhill, 2009). The study used a descriptive approach to describe the status of the pension coverage in the informal sector.

3.4 Population and Sampling

The study population consists of informal workers' operating in Nairobi's informal sector. The unit of study is thus the individual informal sector worker. The specific focus on informal sector works is informed by Kabare (2018) observation that the population, owing to inconsistency in among and frequency of wages remains the most susceptible to unplanned retirement. According to Kwena & Turner (2013), most of the informal workers in Kenya operate within the capital. A cluster sampling approach was applied in reaching the target population. A stratified sampling approach – based on sub-county – was applied to the study.

An equal number of respondents, from the sample, were targeted within the regions. The approach allows for uniform representation of the population under study within a given region (Lewis, Saunders &Thornhill, 2009). The sample for the population is calculated based on the population of 12 million informal sector workers (Kabare, 2018) as shown:

$$z\text{^}2 * p(1-p)/\ (1 +\ ((z\text{^}2 * p(1-p)/e\text{^}2\ N))$$

Where

N = size of population (12,000,000)

p = population reliability (or frequency estimated for a sample of size n), where p is 0.5 which is taken for all population

e = margin of error considered as 5% for 95% confidence level

z = value for the selected alpha level (at 0.05 level of significance), Z is 1.96

$z\text{^}2 * p(1-p)$= 384.16

$1 +\ (\left(z^2 * \frac{p(1-p)}{e^2 N}\right) = 1.000032013$

384.16/1.000032013 = 384

The sample size is therefore 384 respondents.

Given there are nine constituencies in Nairobi County – Langata, Kamukunji, Embakasi, Kasarani, Westlands, Starehe, Dagoretti, Makadara and Njiru – 42 respondents were sought randomly from each constituency.

3.5 Data Collection Methods

A structured questionnaire – as indicated in appendix II – was used in the collection of data. This was structured into five main sections the first addressing general information and age of the respondents and the subsequent four addressing a study variable each. Likert scales, except for age, were used to measure responses (Lewis, Saunders & Thornhill, 2009). Age was measured on a continuous scale. A translated version of the questionnaire was created and included in the pilot test in estimation of the validity of the questions. The questionnaire was

distributed through research assistants who were charged with the role of clarifying the nature of the questions to any individual requiring further elaboration on the entails of the study. For the workers in the informal sectors who do not have basic reading and writing skills the research assistant read and translated the questions provided.

3.6 Data Analysis

The data collected was documented and analyzed to establish findings for the study. The study used quantitative methods to generate and analyze the information. Descriptive approach was employed when conducting comparisons in the primary data while statistical summaries were used to communicate the nature of quantitative information. All collected data was Trans-coded into SPSS Version 22 and was analyzed. A Correlation analysis was conducted which is a statistical tool that is used to determine the level of association of two variables (Hair *et al*., 2010). This analysis determines the relationship between the dependent and independent variables. Correlation values ranges from 0 to ±1.0, a value of 0 shows that there is no relationship between the dependent and the independent variables. On the other hand, a correlation of ±1.0 means there is a perfect positive or negative relationship (Hair et al., 2010).

A multiple regression model was applied to the study. The specific regression model is as follows:

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

Whereby: Y = Intent to uptake pension and provident scheme plans

X_1 = Age

X_2 = Association link

X_3 = Education Level

X_4 = Income level

β_0 = Constant Term; β_1, β_2, β_3 and β_4 = Beta coefficients which were employed for measuring dependent variable's sensitivity (Y) to a change in a unit of independent variables.

ε = Error term

3.7 Research Quality

Two main aspects of research quality were considered – validity and reliability. Validity entails the congruence between the research questions and the construct under assessment whereas reliability addressed the replicability of study findings through observance of similar methodology (Lewis, Saunders &Thornhill, 2009). A pilot study was conducted from informal sector workers in Machakos County to address the understandability and suitability of the research questions after which feedback was used to restructure the questions. Reliability of the scales used was addressed through computation of Cronbach's alpha where a base value of 0.6 was considered (Lewis, Saunders, Thornhill, 2009). To ensure that the research maintains high quality, the researcher was independent and did not alter any variables within the study. Use of both primary and secondary data sources ensured that data sources for the research are trustworthy and the right to access information of any organization was granted. The use of factual Retirement Benefit Authority data from popular publications increased the research quality as the statistical data is observable.

The results of the reliability of the research instruments and the findings are represented in Table 4.3.

Table 4.3: Reliability Analysis

Variable	Cronbach's Alpha	Verdict
Age	0.822	Accepted
Association Link	0.921	Accepted
Education Level	0.912	Accepted
Income Level	0.716	Accepted

Source: Author (2020)

From Table 4.3, it was revealed that association link had the highest reliability of 0.921. Education level had a reliability of 0.912, age had a reliability of 0.822 and income level had a reliability of 0.716. From the findings, the Cronbach's alpha of all the variables was above the threshold of 0.7 thus implying that the instrument was reliable and valid.

3.8 Ethical Issues in Research

One of the major ethical considerations was gaining access to information from pensions and organizations. However, when carrying this study permission was sought from the university. All participants who participated in the study received verbal and written information on the study. Their participation was anonymous and voluntary, and their responses remained confidential to ensure that the information they gave could not be used against them. It is paramount to uphold respect for anonymity and confidentiality for any information given. The researcher will seek approval from both the Strathmore Ethics Board and the National Commission for Science, Technology and Innovation. The results of the study were communicated to Jua Kali Federation of Kenya (JKFK) and the Kenya National Jua Kali Cooperative Society (KNJCS). The associations were asked to communicate the findings in their annual meetings – this will allow the respondents access to the value deriving from the study as captured in the significance of the study.

CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.1.1 Response Rate

The Figure 4.3 represents the response rate after the researcher administered the questionnaires to 384 respondents.

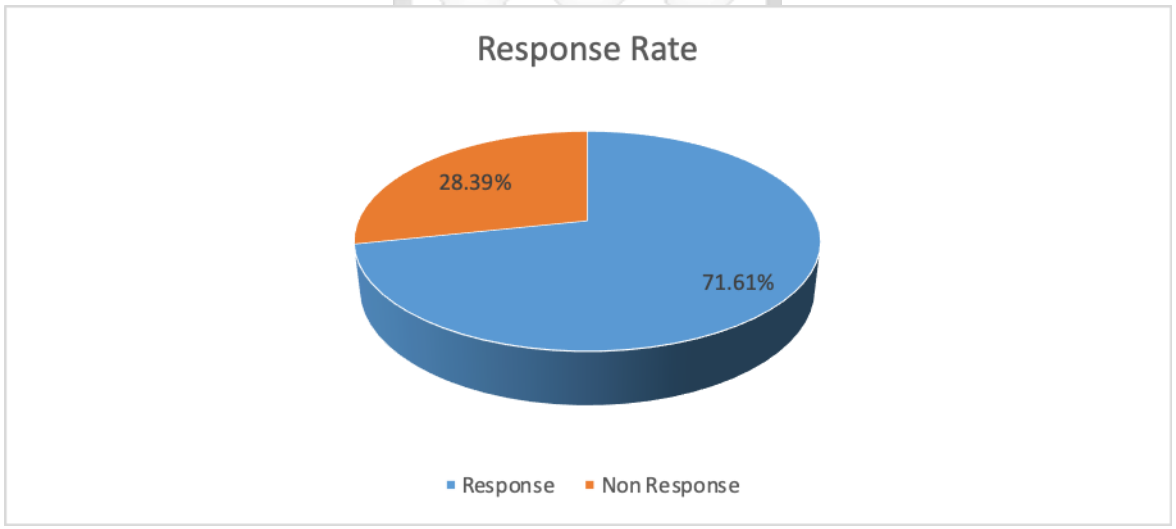


Figure 4.2: Response Rate

Source: Author (2020)

As revealed from Figure 4.3, the study targeted a sample size of 384 respondents from which 275 filled in and returned the questionnaires making a response rate of 71.61%. This response rate is deemed satisfactory and representative of the population to make conclusions for this study. According to Mugenda & Mugenda (2012), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent, consequently the response rate for this study was excellent.

4.1.2 Representation of Constituency

The Figure 4.4 represents representation of constituency visited by the respondents after administration of the questionnaires.

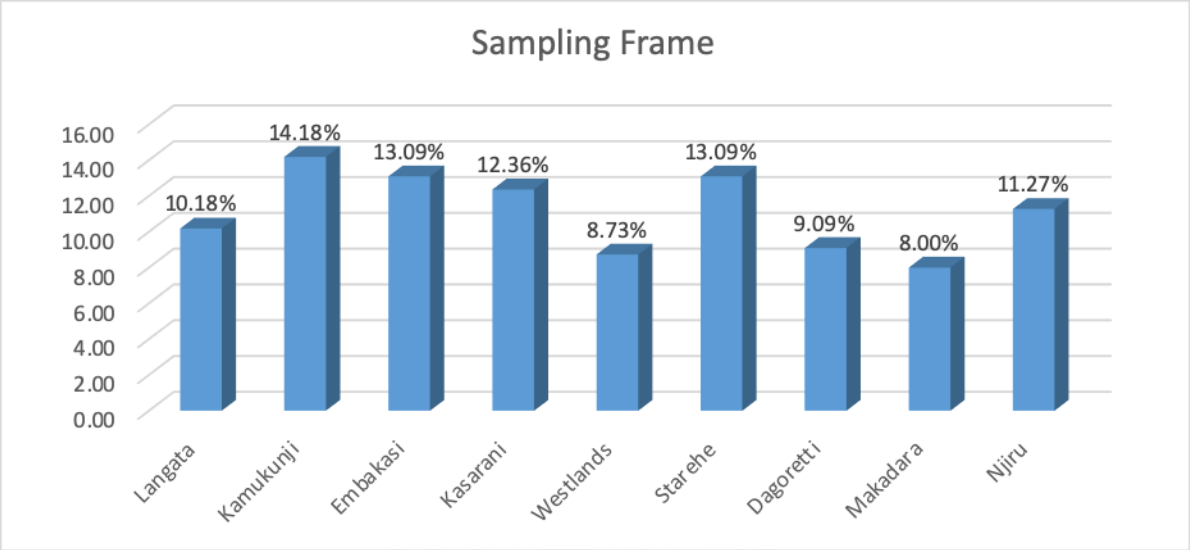


Figure 4.3: Sampling Frame

Source: Author (2020)

From the Figure 4.4, it was noted that there was a fair representation of the respondents that filled in and returned the questionnaires from the nine constituencies targeted in Nairobi County. From Langata constituency 28 (10.18%) respondents returned the questionnaires, from Kamukunji 39 (14.18%) respondents returned the questionnaires, from Embakasi 36 (13.09%) respondents returned the questionnaires while from Kasarani 34 (12.36%) respondents returned the questionnaires. Further it was revealed that from Westlands 24 (8.73%) returned the questionnaires, from Starehe 36 (13.09%) returned the questionnaires, from Dagoretti 25 (9.09%), from Makadara 22 (8.00%) returned while from Njiru 31 (11.27%) returned the questionnaires.

4.2 Industry Category

The results from the work industry category are also presented in the Figure 4.5 in the form of percentages.

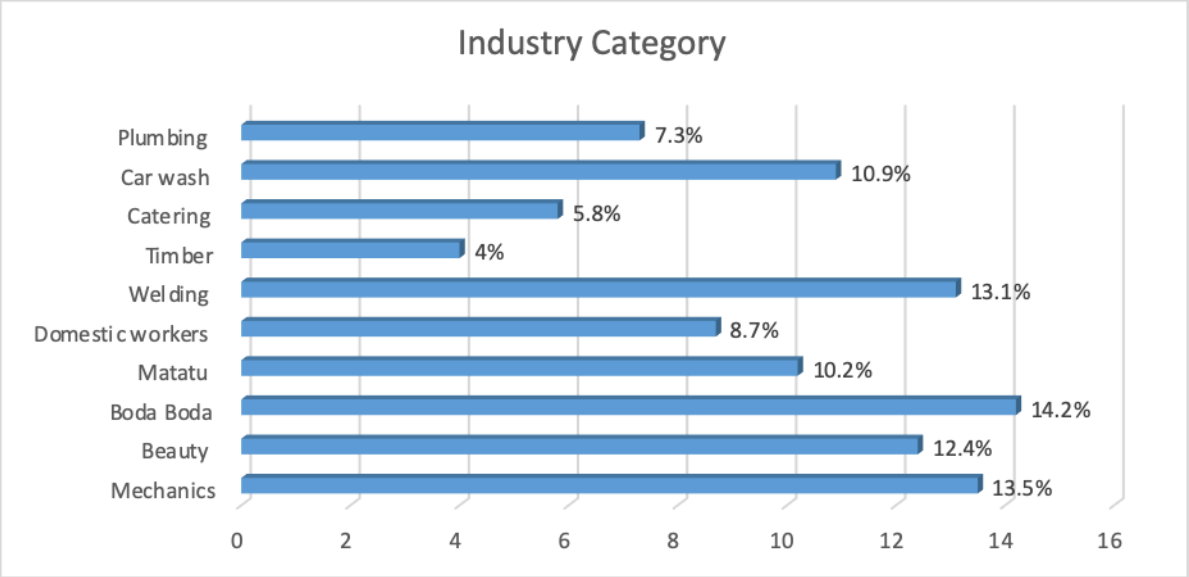


Figure 4.4: Industry Category

Source: Author (2020)

As indicated in Figure 4.5, results showed that 14.2% respondents worked with Boda industry, 13.5 % respondents worked with mechanics' sector, 13.1% respondents worked with welding industry, 12.4% respondents worked with beauty industry while 10.9% respondents worked with car wash industry. It was also noted that 10.2% respondents worked with the public transport 'matatu' industry, 8.7% respondents worked with domestic workers' industry, 7.3% respondents worked with plumbing industry, 5.8% respondents worked with catering industry 4% respondents worked with timber industry.

4.3 Income Level

The study sought to establish the effect of level of income on individual intent to uptake of retirement pension plans in Nairobi County. In this light respondent were required to indicate their level of agreement with the following statements relating to their level of income and the results are as per Table 4.4.

Table 4.4: Income Level

	N	Min	Maxi	Mean	Std. Dev
As compared to my peers, I generally have sufficient earnings.	275	1.00	5.00	1.95	1.11
My earnings allow for my settling of immediate basic needs.	275	1.00	4.00	1.60	0.64
I receive payment on a regular basis	275	1.00	5.00	1.64	0.63

Source: Author (2020)

From the study findings on Table 4.4, majority of the respondents strongly disagreed that their earnings allowed them to settle their immediate basic needs as shown by the mean of 1.60 which was in the range of the strongly disagree category of between 1.0 to 1.8. There was a less variation in the respondents' response which was an indication that the respondents didn't differ much in their responses based on the standard deviation of 0.64 which was less than the recommended value of 1. Majority also strongly disagreed that they received payment on a regular basis as shown by the mean of 1.64 which was in the range of the strongly disagree category of between 1.0 to 1.8. There was a less variation in the respondents' response which was an indication that the respondents didn't differ much in their responses based on the standard deviation of 0.63 which was less than the recommended value of 1.

Finally the respondents disagreed that they had sufficient earnings compared to their peers as shown by the mean of 1.95 which was in the range of the strongly disagree category of between 19.0 to 1.8. There was a high variation in the respondents' response which was an indication that the respondents differed much in their responses based on the standard deviation of 1.11 which was more than the recommended value of 1. The findings suggest that personal factors such as level of disposable income and personal investment objectives, macro and micro

economic related features such as inflation rates influences the individual intent to uptake retirement pension and plan. These findings support the research deductions by Thuku and Ireri (2013) who indicated that without an adequate level of income it is very difficult to enjoy a satisfying quality of life.

4.4 Education Level

The Table 4.5 shows the statements relating to education so as to get a better understanding of the influence of education on uptake of pension plan. To substantiate these claims, respondents were required to indicate their level of agreement with the following statements relating to individual education and awareness.

Table 4.5: Education Level

	N	Min	Maxi	Mean	Std. Dev
I have studied sufficient information on financial education	275	1.00	5.00	1.62	0.75
I generally have performed well in formal education	275	1.00	5.00	1.56	0.60

Source: Author (2020)

From the study findings as per Table 4.5, majority of the respondents strongly disagreed that they had performed well in formal education as shown by the mean of 1.56 which was in the range of the strongly disagree category of between 1.0 to 1.8. There was a less variation in the respondents' response which was an indication that the respondents didn't differ much in their responses based on the standard deviation of 0.75 which was less than the recommended value of 1. These findings concur with the study findings by Njuguna and Otsola (2011) who found that literacy in financial matters is determined by educational qualification. Majority of the participants had not studied sufficient information on financial education as shown by the mean of 1.62 which was in the range of the strongly disagree category of between 1.0 and 1.8. There was a less variation in the respondents' response which was an indication that the respondents didn't differ much in their responses based on the standard deviation of 0.60 which was less than the recommended value of 1. These findings support the research findings by Njuguna,

(2012) who asserted that financial literacy is of great importance in enhancing uptake of pension plans.

Results also showed that financial literacy and financial management practices contributed significantly to savings behaviour, with financial management practices being the most significant. Based on the assumption that education level plays an influential role on uptake of long-term investment decisions such as pension insurance schemes, it is thus necessary that at least substantial education level is needed for investors who opt for retirement pension and savings plans. However, on the contrary, majority of the employees in the informal sector had either secondary or primary education level. These sentiments are echoed by Mwangi and Kihiu (2012) who concluded that education and counselling of financial management practices are important in addressing workers' attitudes towards saving behaviour.

4.4.1 Education Qualification

Participants were required to indicate their highest educational qualification and the results are presented in the Figure 4.6

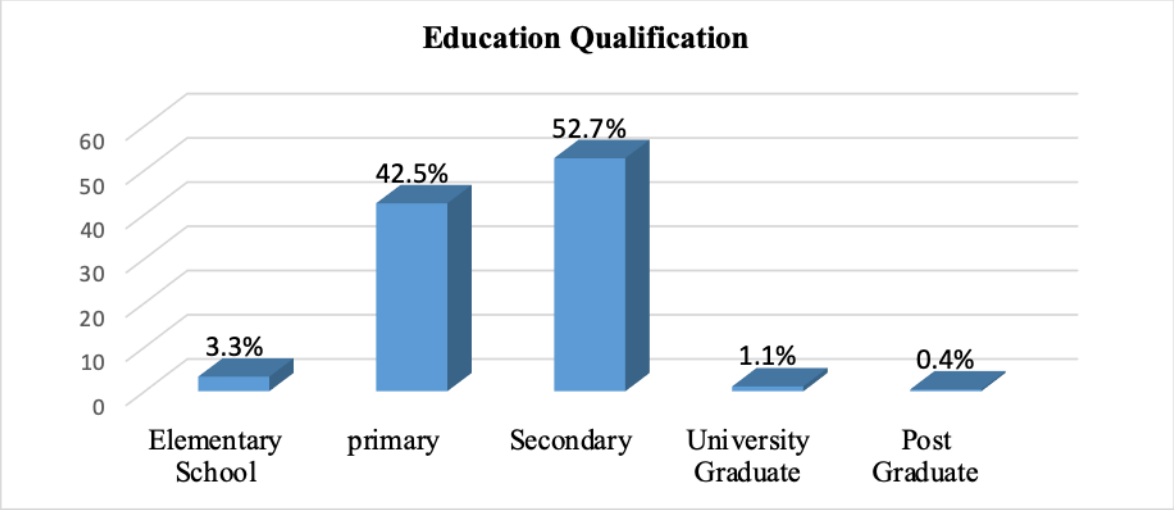


Figure 4.5: Education Qualification

Source: Author (2020)

Results from Figure 4.6 showed that majority of the respondents 145 (52.7%) had secondary education, 117 (42.5%) of the respondents had primary education while 9 (3.3%) of the respondents had elementary education. Further, 3 (1.1%) of the respondents had university

education while 1 (0.4%) of the respondent had post graduate education. This implied that majority of the individuals working with informal sector had either secondary or primary education. Education level, financial literacy and access to information play a role on individual intent to uptake of retirement pension and savings plan (Mwangi & Kihiu, 2012).

4.5 Association Link

The study sought to establish the effect of industry associated links on individual intent to uptake retirement pension and provident scheme plans in Nairobi County. These included institutional factors such as reputation of the fund manager, past performance, disclosure and transparency, accessibility and distribution network, minimum investment amount, product and regulatory. Respondents were required to indicate their level of agreement with the following statements relating to associated link. Results are presented in Table 4.6.

Table 4.6: Association Link

Statement	N	Min	Max	Mean	Std. Dev
My knowledge of the saving patterns of others is important to me.	275	1.00	5.00	1.97	1.08
Membership in an informal sector association is of importance	275	2.00	5.00	4.41	0.62
Getting information through informal sector channels is important	275	2.00	5.00	4.03	0.68

Source: Author (2020)

From the study findings as per Table 4.6, majority of the respondents disagreed that knowledge of the saving patterns of others was important to them as shown by the mean of 1.97 that was in the range of the disagreement category of between 1.8 and 2.6. There was a higher variation in the respondents' response, which was an indication that the respondents differed in their responses based on the standard deviation of 1.08, which was greater than the recommended value of 1. Majority of the respondents strongly agreed that membership in an informal sector association was of importance as shown by the mean of 4.41 which was in the range of the

strongly agree category of between 4.2 and 5.0. There was a less variation in the respondents' response, which was an indication that the respondents did not differ much in their responses based on the standard deviation of 0.62, which was less than the recommended value of 1.

It was agreed that getting information through informal sector channels was important as shown by the mean of 4.03 which was in the range of the agree category of between 3.4 and 4.2. There was a less variation in the respondents' response, which was an indication that the respondents did not differ much in their responses based on the standard deviation of 0.68, which was less than the recommended value of 1. These findings support the research deductions by Agravat and Kaplelach (2017) that knowledge of others' saving practices can a possible predictor of saving intention.

4.6 Age Category

The Figure 4.7 shows the age category distribution of the workers who were targeted in the study.

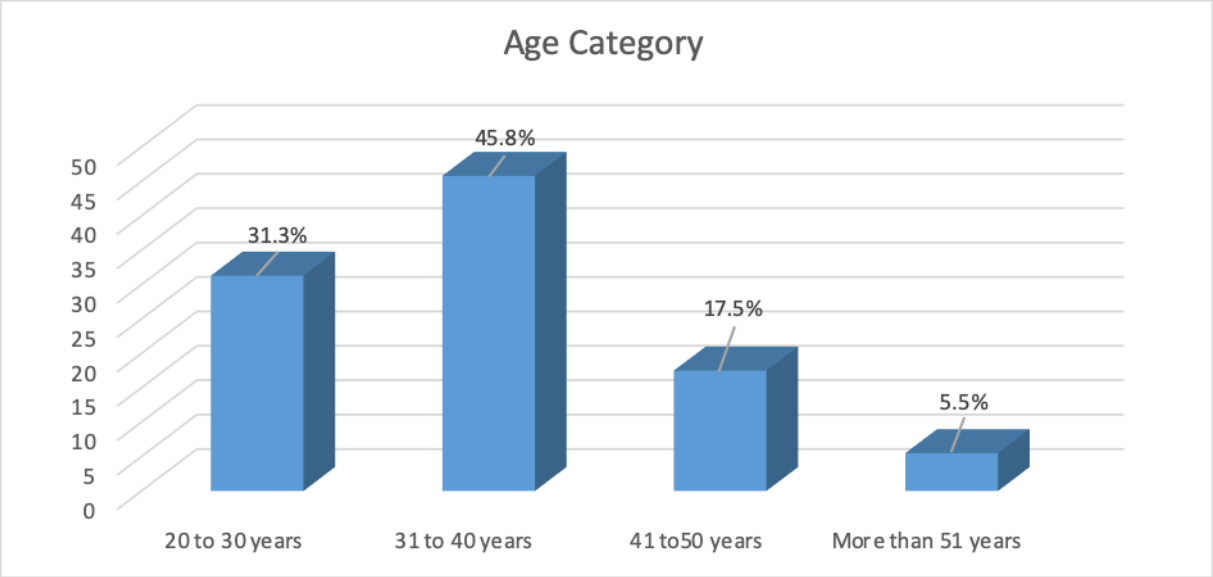


Figure 4.6: Age Category

Source: Author (2020)

From Figure 4.7 results showed that most of the respondents 126 (45.8%) were aged between 31 to 40 years, 86 (31.3%) of the respondents were aged between 20 to 30 years, and 48 (17.5%) were aged between 41 to 50 years whereas 15 (5.5%) of the respondents were aged

more than 51 years. Drawing from the results, it is evident that majority of individuals working with informal sectors were aged between below 40 years. Long-term investment objectives must be considered when calculating how much risk can be assumed. This means that personal factors such as age indirectly determine risk level as well as individual willingness to make investment decisions (Collins-Sowah, 2013).

4.7 Intent to Uptake Pension Plans/Saving for Retirement

The study sought to establish the individual's intention to participate in a retirement savings plan. In light of this, respondents were required to indicate their level of agreement with the following statements relating to willingness to participate in a retirement savings plan and the result findings are as per Table 4.7.

Table 4.7: Intent to Uptake Pension Plans/Saving for Retirement

	N	Min	Maxi	Mean	Std. Dev
I would like to save money for retirement through a pension plan or a provident scheme	275	2.00	5.00	4.17	0.78
I would like to meet with an advisor to assess the possibility of enrolment in a pension/provident fund	275	3.00	5.00	4.36	0.56
When able I would like to regularly send money to my pension/provident fund	275	3.00	5.00	4.39	0.59

Source: Author (2020)

From the study findings as per the Table 4.7, majority of the respondents strongly agreed that if they were able, they would be willing to regularly send money to their pension/provident fund as shown by the mean of 4.39 which was in the range of the strongly agree category of between 4.2 to 5.0. There was a less variation in the respondents' response, which was an indication that the respondents did not differ much in their responses based on the standard deviation of 0.59, which was less than the recommended value of 1. The respondents also strongly agreed that they would like to meet with an advisor to assess the possibility of enrolment in a pension/provident fund as shown by the mean of 4.36 which was in the range

of the strongly agree category of between 4.2 to 5.0. There was a less variation in the respondents' response, which was an indication that the respondents did not differ much in their responses based on the standard deviation of 0.56, which was less than the recommended value of 1.

Finally, the respondents agreed that they were willing to save money for retirement through a pension plan or a provident scheme as shown by the mean of 4.17 which was in the range of the agree category of between 3.4 to 4.2. There was a less variation in the respondents' response, which was an indication that the respondents did not differ much in their responses based on the standard deviation of 0.78, which was less than the recommended value of 1. The findings supported Kabare (2018) findings that many people in the informal sector are willing to uptake pension plans/saving for retirement but are faced by financial constraints.

4.8 Factor Analysis

The Table 4.8 represents the factor analysis of the statements relating to the objectives of the study and it helps the researcher to estimate the communalities for each variance.

4.8.1 Communalities

Table 4.8: Communalities

Communalities		
	Initial	**Extraction**
As compared to my peers, I generally have sufficient earnings	1	0.686
My earnings allow for my settling of immediate basic needs.	1	0.292
I receive payment on a regular basis	1	0.613
I have studied sufficient information on financial education	1	0.575
I generally have performed well in formal education	1	0.839
My knowledge of the saving patters of others is important to me.	1	0.674
Membership in an informal sector association is of importance	1	0.723
Getting information through informal sector channels is important	1	0.766
Age is important factor in investment in pension plan	1	0.43
I would like to save money for retirement through a pension plan or a provident scheme	1	0.687
I would like to meet with an advisor to assess the possibility of enrolment in a pension/provident fund	1	0.669
When able I would like to regularly send money to my pension/provident fund	1	0.816

Source: Author (2020)

This is the proportion of variance that each item has in common with other factors. The statement ‘as compared to my peers, I generally have sufficient earnings’ had 68.6% communality or shared relationship with other factors. The statement ‘my earnings allow for my settling of immediate basic needs’ had 29.2% communality or shared relationship with other factors. The statement ‘I receive payment on a regular basis’ had 61.3% communality or

shared relationship with other factors. The statement ‘I have studied sufficient information on financial education’ had 57.5% communality or shared relationship with other factors. The statement ‘I generally have performed well in formal education’ had 83.9% communality or shared relationship with other factors. The statement ‘my knowledge of the saving patters of others is important to me’ had 67.4% communality or shared relationship with other factors. The statement ‘membership in an informal sector association is of importance’ had 72.3% communality or shared relationship with other factors.

The statement ‘getting information through informal sector channels is important’ had 76.6% communality or shared relationship with other factors. The statement ‘age is important factor in investment in pension plan’ had 43% communality or shared relationship with other factors. The statement ‘I would like to save money for retirement through a pension plan or a provident scheme’ had 68.7% communality or shared relationship with other factors. The statement ‘I would like to meet with an advisor to assess the possibility of enrolment in a pension/provident fund’ had 66.9% communality or shared relationship with other factors. The statement ‘when able I would like to regularly send money to my pension/provident fund’ had 81.6% communality or shared relationship with other factors.

4.8.2 Total Variance Explained

In Table 4.9, the researcher used Kaiser Normalization Criterion, which allows for the extraction of components that have an Eigen value greater than 1.

Table 4.9: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.654	13.787	13.787	1.654	13.787	13.787
2	1.494	12.451	26.238	1.494	12.451	26.238
3	1.359	11.324	37.562	1.359	11.324	37.562
4	1.154	9.62	47.182	1.154	9.62	47.182
5	1.109	9.242	56.424	1.109	9.242	56.424
6	1	8.335	64.76	1	8.335	64.76
7	0.979	8.157	72.917			
8	0.801	6.677	79.593			
9	0.747	6.223	85.816			
10	0.71	5.918	91.734			
11	0.679	5.661	97.395			
12	0.313	2.605	100			

Source: Author (2020)

The principal component analysis was used and seven factors were extracted. As the table shows, these factors explain 64.76% of the total variation based on the rotated loadings. Factor 1 contributed the highest variation of 13.787%. The contributions decrease as one move from factor one to the other.

4.9 Inferential Analysis

After the descriptive analysis, the study used inferential statistics (Pearson correlation and regression test) to predict the linear association between the predictor variables and explanatory variables as well as in determining the strengths of association in the model. The statements relating to the four independent variables and the dependent variable were used to compute correlation analysis and regression test.

4.9.1 Influence of the Level of Income on Uptake of Retirement Pension

Correlation Analysis of Level of Income and Uptake of Retirement Pension

In order to confirm the relationship between levels of income on uptake of retirement pension, the study used Pearson moment correlation to determine the relationship. The results are as shown in Table 4.10.

Table 4.10: Correlation Analysis of Level of Income and Uptake of Retirement Pension

		Intent to uptake pension schemes	Income Level
Intent to uptake pension schemes	Pearson Correlation	1	.431**
	Sig. (2-tailed)		.000
Income Level	Pearson Correlation	.431**	1
	Sig. (2-tailed)	.000	

Source: Author (2020)

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

The study found a positive correlation between income level and intent to uptake pension as shown by correlation coefficient of 0.431. The significant value was 0.000, which was statistically significant at 1% as the p value was less than 0.01. The findings supported those of Castel (2008) who proved that individuals with stable income are perceived to have high willingness to participate in long-term investment programs.

Regression Test of Level of Income and Uptake of Retirement Pension

In this study, a linear regression analysis was conducted to test the influence of level of income on uptake of retirement pension. The model summary is presented in the Table 4.10.

Table 4.11: Model Summary of Level of Income and Uptake of Retirement Pension

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431[a]	.185	.182	.66074

Source: Author (2020)

From Table 4.11, R, which is the correlation coefficient, showed that there existed a moderate positive relationship between the income level and intent to uptake pension as indicated by the correlation coefficient of 0.431. The R squared, also called the coefficient of determination is the percent of the variance in the dependent variable explained uniquely or jointly by the independent variables. The model had a coefficient of determination (R^2) of 0. 186 and which implied that 18.6% of the variations on intent to uptake pension and provident scheme plans were explained by the income level.

ANOVA of Level of Income and Uptake of Retirement Pension

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in Table 4.12.

Table 4.12: ANOVA of Level of Income and Uptake of Retirement Pension

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	27.139	1	27.139	62.164	.000[b]
Residual	119.185	273	.437		
Total	146.324	274			

Source: Author (2020)

Critical value = 3.876

From the ANOVA Table 4.12, the study established that the regression model had a significance level of 0.000%, which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (62.164> 3.876) an indication that

income level had a significant effect on intent to uptake pension and provident scheme plans in Kenya. The significance value was less than 0.05 indicating that the model was significant.

Coefficient of Level of Income

In addition, the study used the coefficient table to determine the study model. The findings are presented in the Table 4.13.

Table 4.13: Coefficient of Level of Income

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.837	.239		16.054	.000
	Income level	.805	.102	.431	7.884	.000

Source: Author (2020)

Finally, test regression results showed that unit change in income level while holding the other factors constant would enhance the uptake retirement pension and provident scheme plans in Nairobi County by a factor of 0.805. The p value was 0.000, an indication that income level had a significant influence on uptake of retirement pension and provident scheme plans at 5% significance level. All the variables had a t-value of above 1.968 at 5% significance level an indication that all the variables were significant. Similar research observations were made by Oleche (2016) that individuals tend to be more motivated to concern on retirement planning preparation as well as take action for their retirement when increase in their level of income.

4.9.2 Influence of the Level of Education on Uptake of Retirement Pension

In order to confirm the relationship between the levels of education on uptake of retirement pension, the study used Pearson moment correlation to determine the relationship. The results are as shown in Table 4.14.

Table 4.14: Correlations of Level of Education on Uptake of Retirement Pension

		Intent to uptake pension schemes	Level of Education
Intent to uptake pension schemes	Pearson Correlation	1	.381**
	Sig. (2-tailed)		.000
Level of Education	Pearson Correlation	.381**	1
	Sig. (2-tailed)	.000	

Source: Author (2020)

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

The study found a positive correlation between education level and their intent to uptake pension and provident scheme plans as shown by correlation coefficient of 0.381. The significant value was 0.000, which was statistically significant at 1% as the p-value was less than 0.01. These findings support the empirical findings by Collins-Sowah, Kuwornu and Tsegai (2013) that education is critical in facilitating the expertise of decision-making and choice from a range of financial products and providers.

Regression Test

In this study, a linear regression analysis was conducted to test the influence of level of education on uptake of retirement pension. The model summary is presented in the Table 4.15.

Table 4.15: Model Summary of Level of Education on Uptake of Retirement Pension

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.381[a]	.145	.142	. 67691

Source: Author (2020)

From Table 4.15, R, which is the correlation coefficient, showed that there existed a moderate positive relationship between the level of education and intent to uptake pension as indicated by the correlation coefficient of 0.381. The R-squared, also called the coefficient of determination is the percent of the variance in the dependent variable explained uniquely or jointly by the independent variables. The model had a coefficient of determination (R^2) of

0.145 and which implied that 14.5% of the variations on intent to uptake pension and provident scheme plans were explained by the level of education.

ANOVA of Level of Education on Uptake of Retirement Pension

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in Table 4.16.

Table 4.16: ANOVA of Level of Education on Uptake of Retirement Pension

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.234	1	21.234	46.342	.000[b]
Residual	125.090	273	.458		
Total	146.324	274			

Source: Author (2020)

Critical value = 3.876

From the ANOVA Table 4.16, the study established that the regression model had a significance level of 0.000%, which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (46.342> 3.876) an indication that level of education had a significant effect on intent to uptake pension and provident scheme plans in Kenya.

Coefficient

In addition, the study used the coefficient table to determine the study model. The findings are presented in the Table 4.17.

Table 4.17: Coefficient of Education

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.271	.213		20.030	.000
	Income level	.676	.099	.381	6.808	.000

Source: Author (2020)

Results showed that a unit change in education level while holding the other factors constant would positively change uptake retirement pension and provident scheme plans in Nairobi County by a factor of 0.676. The p-value was 0.000, an indication that education level had a significant influence on uptake of retirement pension and provident scheme plans at 5% significance level. Similar results are made by Devaney (1995) who mentioned that education level serves as a motivator or guidance for individuals to start the retirement planning preparation.

4.9.3 Influence of Association Link on Uptake of Retirement Pension

In order to confirm the relationship between association links on uptake of retirement pension, the study used correlation, the results are as shown in Table 4.18.

Table 4.18: Correlations on Association Link on Uptake of Retirement Pension

		Intent to uptake pension schemes	Association Link
Intent to uptake pension schemes	Pearson Correlation	1	.403**
	Sig. (2-tailed)		.000
Association Link	Pearson Correlation	.403**	1
	Sig. (2-tailed)	.000	

Source: Author (2020)

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

The study also found a positive correlation between association link and intent to uptake pension and provident scheme plans as shown by correlation coefficient of 0.403; the significant value was 0.000, which was statistically significant at 1% as the p value was less than 0.01. These results concurs with the research findings by Miracle, Miracle and Cohen (1980) that employees working in the informal sector lack proper channels for contributing to retirement scheme hence communication channel becoming a significant factor.

Regression Test

In this study, a linear regression analysis was conducted to test the influence of association link on uptake of retirement pension. The model summary is presented in the Table 4.10.

Table 4.19: Model Summary on Association Link and Uptake of Retirement Pension

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	. 403[a]	.162	.159	. 67003

Source: Author (2020)

From Table 4.19, R, which is the correlation coefficient, showed that there existed a moderate positive relationship between association link and intent to uptake pension as indicated by the correlation coefficient of 0.403. The R squared, also called the coefficient of determination is the percent of the variance in the dependent variable explained uniquely or jointly by the independent variables. The model had a coefficient of determination (R^2) of 0.162 and which implied that 16.2% of the variations on intent to uptake pension and provident scheme plans were explained by association link.

Summary of One-Way ANOVA

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in Table 4.11.

Table 4.20: ANOVA on Association Link on Uptake of Retirement Pension

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	23.764	1	23.764	52.934	.000[b]
Residual	122.560	273	.449		
Total	146.324	274			

Source: Author (2020)

Critical value = 3.876

From the ANOVA Table 4.20, the study established that the regression model had a significance level of 0.000%, which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (52.934> 3.876) an indication that

association link had a significant effect on intent to uptake pension and provident scheme plans in Kenya. The significance value was less than 0.05 indicating that the model was significant.

Coefficient

In addition, the study used the coefficient table to determine the study model. The findings are presented in the Table 4.21.

Table 4.21: Coefficient on Association Link

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.797	.264		14.383	.000
	Income level	.879	.121	.403	7.276	.000

Source: Author (2020)

Results showed that a unit change in association link while holding the other factors constant would positively uptake retirement pension and provident scheme plans in Nairobi County by a factor of 0.879. The p value was 0.000, an indication that association link had a significant influence on uptake of retirement pension and provident scheme plans at 5% significance level. Similar research observations were made by Folk, Beh & Baranovich (2012) who found that perceived financial well-being and financial education is a catalyst for both financial satisfaction and keeping up to date with changing financial knowledge.

4.9.4 Influence of Age Category on Uptake of Retirement Pension

In order to confirm the relationship between age categories on uptake of retirement pension, the study used Pearson moment correlation to determine the relationship. The results are as shown in Table 4.22.

Table 4.22: Correlations of Age Category on Uptake of Retirement Pension

		Intent to uptake pension schemes	Age Category
Intent to uptake pension schemes	Pearson Correlation	1	.418**
	Sig. (2-tailed)		.000
Age Category	Pearson Correlation	.418**	1
	Sig. (2-tailed)	.000	

Source: Author (2020)

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

From Table 4.22, there was a positive correlation between age and intent to uptake pension and provident scheme plans as shown by a correlation factor of 0.418. This relationship was found to be statistically significant at 1% significance level as the p value was 0.000 which was less than 0.01. According to Adzawla, Baanni, and Wontumi (2015) a younger and an urban informal worker is more likely to participate in the Micro Pension Scheme.

Regression Test

In this study, a linear regression analysis was conducted to test the influence of association link on uptake of retirement pension. The model summary is presented in the Table 4.10.

Table 4.23: Model Summary of Age Category on Uptake of Retirement Pension

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.418[a]	.175	.172	. 66511

Source: Author (2020)

From Table 4.23, R, which is the correlation coefficient, showed that there existed a moderate positive relationship between age and intent to uptake pension as indicated by the correlation coefficient of 0.418. The R-squared, also called the coefficient of determination is the percent of the variance in the dependent variable explained uniquely or jointly by the independent variables. The model had a coefficient of determination (R^2) of 0.175 and which implied that 17.5% of the variations on intent to uptake pension and provident scheme plans were explained by age.

Summary of One-Way ANOVA

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in Table 4.11.

Table 4.24: ANOVA of Age Category on Uptake of Retirement Pension

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	25.557	1	25.557	57.773	.000[b]
Residual	120.767	273	.442		
Total	146.324	274			

Source: Author (2020)

Critical value = 3.876

From the ANOVA Table 4.24, the study established that the regression model had a significance level of 0.000%, which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (57.773> 3.876) an indication that age had a significant effect on intent to uptake pension and provident scheme plans in Kenya. The significance value was less than 0.05 indicating that the model was significant.

Coefficient

In addition, the study used the coefficient table to determine the study model. The findings are presented in the Table 4.25.

Table 4.25: Coefficient of Age Category

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.949	.233		16.927	.000
	Age	.816	.107	.418	7.601	.000

Source: Author (2020)

From the regression model obtained above, a unit change in age while holding other factors constant would positively change uptake retirement pension and provident scheme plans in

Nairobi County by a factor of 0.816. The p-value was 0.000, an indication that age had a significant influence on uptake of retirement pension and provident scheme plans at 5% significance level. These findings contradict the observations made by Kwena & Turner (2013) who found that age is a significant to retirement planning among various age groups.

CHAPTER FIVE: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

From the analysis of the data collectesd, the following discussions, conclusion and recommendations were made. The main objective of the study was to assess the factors influencing intent to take up retirement pension and provident scheme plans in Nairobi County. Specifically, the study sought to establish how the level of income influences the informal workers' intent to uptake pension and provident scheme plans; to establish how the level of education influences the informal workers' intent to uptake pension and provident scheme plans; to establish how association links influence the informal workers' intent to uptake pension and provident scheme plans; to establish how age influences the informal workers' intent to uptake pension and provident scheme plans.

5.2 Discussions

5.2.1 Impact of Income Level

The study sought to establish whether the level of income contributed significantly towards individual intent to uptake retirement pension and provident scheme plans in Nairobi County. Results showed that increase in income raised concurrently with willingness to make long term investments. Test regression results showed that a unit change in income level while holding the other factors constant would enhance the uptake retirement pension and provident scheme plans in Nairobi County. Similar research observations were made by Oleche (2016) who indicated that individuals tend to be more motivated on retirement planning preparation as well as to the uptake of retirement when their level of income increase.

Evidence presented in the correlation analysis showed a positive link between income level and the intent to uptake pension and provident scheme. These findings were in supports of the research finding by Castel (2008) who showed that the more income is perceived to be stable, the higher the willingness to participate. Descriptive results showed that most of the employees in the informal sectors lacked adequate income to settle their immediate basic needs. Majority did not have guaranteed income flow when compared to their peers; most workers generally had insufficient earnings. These findings supported the research deductions by Tsegai (2013)

who indicated that without an adequate level of finances it is very difficult to enjoy a satisfying Quality of Life.

5.2.2 Impact of Education Level

The ANOVA statistics results found that educational level had a significant influence on individual intent to uptake retirement pension and provident scheme plans in Nairobi County. Further Pearson correlation results also unveiled a positive correlation between education level and intent to uptake pension and provident scheme plans. The findings supported the empirical findings by Collins-Sowah, Kuwornu, & Tsegai (2013) who indicated that education played a critical role of equipping consumers with the knowledge required to make wise decisions when choosing among the myriad of financial products and providers.

Descriptive findings disclosed that individual willingness to save increased with education status however it's regrettable that majority of the individual working with informal sectors only had primary or secondary education as aspect that indirectly limited their uptake on pension savings plan. Test regression results showed that a unit change in education level while holding the other factors constant would positively enhance the uptake retirement pension and provident scheme plans in Nairobi County. Similar results were made by Devaney (1995) who mentioned that education level serves as a motivator or guidance for individuals to start the retirement planning preparation.

The findings of this study showed that most of the employees in the informal sectors performed poorly in their previous formal education. These findings concurred with the study findings by Njuguna and Otsola (2011) who found that intent to adopt pension savings plan differs significantly from demographic factors such as educational qualifications. On the same note, results showed that majority of the employee's in the informal sector had no sufficient information relating to financial education. These findings support the research deductions by Njuguna (2012) who asserted that financial literacy is of great importance towards the uptake retirement pension.

Results also showed that financial literacy and financial management practices contributed significantly to savings behaviour, with financial management practices being the most positive influence. These sentiments were echoed by Mwangi & Kihiu (2012) who concluded

that education and advice on financial management practices was important in addressing workers' attitudes towards saving behaviour.

5.2.3 Impact of Association Links

The study established that associated links contributed significantly on individual intent on uptake of retirement pension and provident scheme plans in Nairobi County. The study also found a strong positive correlation between association link and intent to uptake pension and provident scheme plans. These results concurs the research findings by Miracle, Miracle, & Cohen (1980) employees working in the informal sector lack proper channels for contributing to retirement scheme hence communication channel becoming a significant factor.

Test regression results showed that a unit change in association link while holding the other factors constant would positively enhance the uptake retirement pension and provident scheme plans in Nairobi County. Similar research observations were made by Folk, Beh and Baranovich (2012) who found that perceived financial well-being and financial education stimulates financial satisfaction while simultaneously meeting the challenge of staying current on constantly changing financial knowledge. Descriptive findings disclosed that majority of employees working in the informal sectors were unaware of their colleagues saving patters and neither did they consider such knowledge important to them. However, majority of individuals working in informal sector considered membership in an informal sector association to be of importance and that getting information through informal sector channels was important. These findings support the research deductions by Agravat & Kaplelach, (2017) Knowledge of others' saving practices can a possible predictor of saving intention.

5.2.4 Impact of Age

Descriptive results showed that majority of individuals working with informal sectors were aged below 40 years. These findings concurred with study findings by Githui and Ngare (2014) who used Pearson's Chi-square tests to show how gender, age, marital status, occupation, income and financial literacy influenced retirement planning. Results from the test regression model predicted that a unit change in age while holding other factors constant would positively enhance the uptake retirement pension and provident scheme plans in Nairobi County. These

findings concur with the observations made by Kwena & Turner (2013) who found that age is a significant to retirement planning among various age groups.

Descriptive findings revealed that individual willingness to save in pensions plan increased with increase in age, in other words individuals aged above 35 years tend to save more as opposed to those below 35 years. Evidence from Pearson correlation model revealed a positive correlation between age and intent on uptake pension and provident scheme plans among workers in informal sector. According to Adzawla, Baanni & Wontumi (2015), the younger an urban informal worker, the more likely they are willing to participate in the Micro Pension Scheme.

5.3 Conclusion

The study concluded that majority of individuals working in the informal sectors were aged below 40 years and that individual willingness to save in pensions plan increased with increase in age. That is to say, those younger informal workers were less likely and willing to participate in a Micro Pension Scheme.

The study concluded that majority of employees working in the informal sectors were unaware of their colleagues' saving patterns and did not consider such knowledge important to them. However, majority of the individuals working in informal sector considered membership in an informal sector association to be of importance. Knowledge of others' saving practices is a possible predictor of saving intention and the employees working in the informal sector lacked proper channels for contributing to retirement scheme hence communication channel becoming a significant factor.

The study concluded that education played a critical role in equipping consumers with the knowledge required to make wise decisions when choosing among the myriad of financial products and enhancing their investment in the pension schemes. Provision of financial management education is vital in ensuring that the informal sector workers spend, invest and have adequate subscription to the pension schemes.

The study concluded that majority of the employees working with informal sector were willing to regularly send money to their pension/provident fund however lack of sufficient earnings

crippled their desire. Further, most of the people working in informal sector were ready and willing to meet with an advisor to assess the possibility of enrolment in a pension/provident fund and that majority were willing to save money for retirement through a pension plan or a provident scheme.

5.4 Recommendations

5.4.1 Policy and Regulatory Recommendations

Irrespective of age, NSSF and RBA should come up with sensitization strategies that ensure that employees of all age groups working within the informal sector are thoroughly educated on the importance of partaking in retirement benefits schemes. The NSSF in collaboration with other sectors that support trade must come up with feasible education development programs through which workers in the informal sectors can upgrade their knowledge and skills and especially in regard to financial decisions.

Given that macro and micro associated factors were also found to play a significant role in individual intent to partake in retirement benefits scheme, NSSF in collaboration with national and county government must establish strategic measures that cushion the workers in the informal sectors against their day-to-day challenges. This should be done in view of inducing them toward the uptake retirement pension and provident scheme plans.

Government must come up with strategies that protect the informal sector; including measures such as tax reliefs, business incubation programs and credit support programs, all with an aim of ensuring constant and reliable income flows.

5.4.2 Managerial Recommendations

The main objective of the study was to determine the factors influencing intent to uptake retirement pension and provident scheme plans in Nairobi County. Study results showed that 42.5% of the variations on intent to uptake pension and provident scheme plans were explained by the independent variables under study (age, association link, education level and income level). Other factors accounting for 57.5% charges on uptake retirement pension and provident scheme plans in Nairobi County must be identified and their impact assessed as well.

5.5 Limitations of the Study

There were a number of limitations in the study; the respondents approached did not give full information fearing that the information sought would be used against them. The study assured them of confidentiality and that the information would not be shared to anyone. Some respondents even turned down the request to fill questionnaires. The study handled the problem by carrying an introduction letter from the University and assuring them that the information they gave would be treated with confidentiality and would be used purely for academic purposes. The study also encountered problems in eliciting information from the respondents as the information required was subject to areas of feelings, emotions, attitudes and perceptions, which cannot be accurately quantified and/or verified objectively. The study sought to minimize this by making the questions objective.

REFERENCES

Abels, M., & Guven, M. (2016). Pension Systems in Sub-Saharan Africa: Brief Review of Design Parameters and Key Performance Indicators. *Social Protection & Labour Discussion Paper No. 1610*.

Ade, D. P. (2013). The Effect Of Financial Literacy On Pension Preparedness Among Members Of The Informal Sector In Kenya. Nairobi: University of Nairobi.

Adhikari, e. a. (2003). An Analysis of Willingness to Participate in Wilderness or other Primitive Areas. *Southern Agricultural Economics Association Annual Meeting*, (pp. 1- 14). Alabama.

Adzawla, W., Baanni, S. A., & Wontumi, R. F. (2015). Factors Influencing Informal Sector

Agravat, D. P., & Kaplelach, S. (2017). Effects of Demographic Characteristics on Micro Pesion Uptake among Informal Employees of Kenya Ports Authority. *Journal of Business and Strategic Management*, 95 -117.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.

Albouy, F. (2019). *Micro-Pensions in Sub-Saharan Africa: The Solution to Population Ageing?* Paris, France: Fondation du Risque - Institut Louis Bachelier.

Amadou, N. (2017). *Africa Growth Initiative: Leveraging African Pension Funds for Financing Infrustructure Development.* Addis Ababa, Ethiopia: Brookings Institution.

Ando, A., & Modigliani, F. (1963). The" life cycle" hypothesis of saving: Aggregate implications and tests. *The American Economic Review*, 55 - 84.

Barr, N., & Diamond, P. (2009). Reforming pensions: Principles, analytical errors and policy directions. *International Social Security Review, 62*(2), 5 - 29.

Barr, N., & Diamond, P. (2010). *Pension Reform. A Short Guide.* Oxford University Press.

Beshears, J., Choi, J. J., Laibson, D., Madrian, B. C., & Milkman, K. L. (2015). The Effect of Providing Peer Information on Retirement Savings Decisions. *Journal of Finance, 70*(3), 1161–1201. https://doi.org/10.1111/jofi.12258

Big Coalition. (2009). *Making the difference! The BIG in Namibia. Basic Income Grant Assessment Report.*

Canagarajah, S., & Pörtner, C. (2003). Evolution of Poverty and Welfare in Ghana in the 1990s: Achievements and Challenges. *Africa Region Working Paper Series No. 61*.

Canning, D., Raja, S., & Yazbeck, A. (2015). *Africa's demographic transition: dividend or disaster?* Washington DC: World Bank.

Castel, P. (2009, April 15). *SSRN*. Retrieved from Voluntary Defined Benefit Pension System Willingness to Participate. The Case of Vietnam.: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1379607

Charmes, J. (2016). The informal economy: Definitions, size, contribution and main characteristics' in Kraemer-Mbula and Wunsch-Vincent. In *The informal economy in developing nations: Hidden engine of innovation?* Cambridge UK: Cambridge University Press.

Chen, M. (2012). The informal economy: definitions, theories and policies. *WIEGO Working Paper No. 26*.

Chepkoech, S., Rotich, G., & Ndambiri, A. (2017). Factors affecting investment decisions of pension schemes in Kenya. *The Strategic Journal of Business & Change Management, 4*(24), 432 – 452.

Chiripanhura, M., & Niño-Zarazúa, M. (2013). ocial safety nets in Namibia: Structure, effectiveness and the possibility for a universal cash transfer scheme. *15th Annual Symposium of Bank of Namibia* , (pp. 1 -30).

Collins-Sowah, A. (2013). Willingness to participate in micro pension schemes: Evidence from the informal sector in Ghana. *Journal of Economics and International Finance*, *5*(1), 21–34. https://doi.org/10.5897/jeif12.097.

Collins-Sowah, P., Kuwornu, J., & Tsegai, D. (2013). Willingness to participate in micro pension schemes:Evidence from the informal sector in Ghana. *Journal of Economics and International Finance, 5*(1), 21 - 34.

Darkwa, O. K. (2014). Reforming the Ghanaian social security system: Prospects and challenges. *Journal of Cross-Cultural Gerontology, 12*(2), 175-187.

Diamond, P. A., & Mirrlees, J. A. (1978). A Model of Social Insurance with Variable Retirement. *Journal of Public Economi, 10*(3), 295 - 336.

Dorfman, M. (2015). Pension Patterns in Sub- Saharan Africa. *Social Protection & Labor Discussion Paper No. 1503*.

Dutch Association of Company Pension Funds. (n.d.). *The Dutch Pension System: An Overview of the Key Aspects.* Den Haag: Dutch Association of Company Pension Funds.

Eckard, S. (2002). Extension of Social Security. *Namibia's Universal Pension Scheme: Trends and challenges*(6).

Essien, B., & Akuma, M. (2014, January). The New Contributory Pension Scheme in Nigeria: Gleaning From Past Pension Schemes. *IOSR Journal of Economics and Finance, 2*(5), 33 - 40.

European Commission . (2013). *The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013 - 2060).*

Fox, L. (2014, May 5). *Meeting the youth employment challenge in Africa – six myths*. Retrieved from World Bank blog: https://blogs.worldbank.org/jobs/meeting-youth-employment-challenge-africa-six-myths.

Gillion, C., Turner, J., & Bailey, C. Denis Latulippe, eds. 2000. *Social Security Pensions: Development and Reform*.

Githui, T., & Ngare, P. (2014). Financial Literacy and Retirement Planning in the Informal Sector in K. *International Journal of Education and Reserach*, 3 - 7.

GoK. (1997). The Retirement Benefits Act. *Kenya Gazette Supplement No. 139*.

Government of Kenya. (1997). *The Retirement Benefits Act (No. 3 of 1997).* Nairobi.

Government of Kenya. (2010). *Constitution of Kenya.* Nairobi, Kenya: Government of Kenya.

Government of Kenya. (2013). The National Social Security Fund Act. *Kenya Gazette Supplement No. 179*.

Guven, M. (2019). Extending Pension Coverage to the Informal Sector in Africa. *Social Protection & Jobs: Discussion Paper No. 1933*, 1 - 20.

Hu, Y. W., & Stewart, F. (2009). Pension coverage and informal sector workers.

Huberman, G., Iyengar, S. S., & Jiang, W. (2007). Defined contribution pension plans: determinants of participation and contributions rates. *Journal of Financial Services Research, 31*(1), 1-32.

ILO and Women in Informal Employment: Globalizing and Organizing (WIEGO). (2013). *Women and men in the informal economy: a statistical picture.* ILO and WIEGO.

ILO. (1993). 15th International Conference of Labour Statisticians: Statistics of Employment in the Informal Sector. (pp. 25 - 32). Geneva: ILO.

ILO. (2001). Social Security: Issues, Challenges and Prospects . *International Labour Conference 89th Session 2001* (pp. 3 - 40). Geneva: ILO.

IMF . (2015). *World Economic Outlook, April.* Washington DC: International Monetary Fund.

Joo, S. H., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Journal of Financial Counseling and Planning*, *16*(1), 37–49.

Kabare, K. (2018). *The Mbao Pension Plan: Savings for the Informal-Sector.* Nairobi: Development Pathways.

Kanbur, R. (2014, August). Working paper . *Informality: Causes, Consequences and Policy Responses*.

Kinyanjui, M. N. (2010). Social Relations and Associations in the Informal Sector in Kenya. *Social Policy and Development*, 53. Retrieved from http://www.unrisd.org/publications/pp-kinyanjui

KNBS. (2013). *Nairobi County: EXploring Kenya's Inequality.* Nairobi: KNBS.

KNBS. (2017). *Economic Survey 2017.* Nairobi: KNBS.

KNBS. (2018). *Economic Survey 2018.* Nairobi: KNBS.

KNBS. (2019). *Economic Survey, 2019.* Nairobi: KNBS.

Kotun, A., Adeoye, O., & Alaka, N. (2016). Effects of contributory pension scheme on employees' productivity: Evidence from Lagos state government. *African Journal of Business Management, 10*(16), 384-396.

Koutronasa, E., & Yew, S. (2017). Considerations in Pension Reforms: A Review of the Challenges to Sustainability and Distributive Impartiality. *Malaysian Journal of Economic Studies, 54*(1), 159- 177.

Kpessa, M. W. (2010). Ideas, Institutions, and Welfare Program Typologies: An Analysis of Pensions and Old Age Income Protection Policies in Sub-Saharan Africa. *Poverty and Public Policy,*, 1 - 29.

Kumah, A. (2017). An Assessment of Pension Coverage among the Informal Sector Workers in Ghana. *International Journal of Latest Engineering Research and Applications (IJLERA), 02*(09), 8-19.

Kumah, A., Botsie, A., & Boachie, W. (2017, September). An Assessment of Pension Coverage among the Informal Sector Workers in Ghana. *International Journal of Latest Engineering Research and Applications (IJLERA), 02*(09), 8-19.

Kunzler, D. (2016). Social security reforms in Kenya: Towards a worker or a citizenship-based system? *International Social Security Review, 69*(1), 67-86.

Kwena, R. (2009). Enhancing Pension Awareness and Education in Kenya.

Kwena, R. M., & Turner, J. A. (2013). Extending pension and savings scheme coverage to the informal sector: Kenya's Mbao Pension Plan. *International Social Security Review*, *66*(2), 79–99. https://doi.org/10.1111/issr.12010

Kyengo, G. (2010, October). A survey of pension coverage of informal sector workers in Nairobi County. Nairobi: University of Nairobi.

Lesnoy, S., & Hambor, J. (1975). *Social Security, Saving, and Capital Formation. Social Security Bulletin 1975.*

Lusardi, A., & Mitchell, O. (2011). Financial literacy and retirement planning in the United States. *Journal of Pension Economics and Finance,* 509 - 525.

Lusardi, A., Michaud, P. C., & Mitchell, O. S. (2017). Optimal financial knowledge and wealth inequality. *Journal of Political Economy, 125*(2), 431-477.

MacKellar, L. (2009). *Pension Systems for the Informal Sector in Asia. Human Development Network.* Washington, DC: The World Bank.

Mathauer, I., Schmidt, J. O., & Wenyaa, M. (2008). Extending social health insurance to the informal sector in Kenya. An assessment of factors affecting demand. *The International journal of health planning and management*, 23(1), 51-68.

Miracle, M. P., Miracle, D. S., & Cohen, L. (1980). Informal Savings Mobilization in Africa. *Economic Development and Cultural Change*, *28*(4), 701–724. https://doi.org/10.1086/451212

Moleko, N., & Ikhide, S. (2017). Pension Funds Evolution , Reforms and Trends in South Africa. *International Journal of Economics & Finance Studies, 9*(2), 136 - 152.

Mugenda, O. M., & Mugenda A. G. (2012). *Research methods: Quantitative and Qualitative approaches*. Nairobi: Act Press

Mwangi, I. W., & Kihiu, E. N. (2012). Impact of Financial Literacy on Access to Financial Services in Kenya. *International Journal of Business and Social Science, 3*(19).

Natixis Investment Managers. (2018). *2018 Global Retirement Index: An in-depth assessment of welfare in retirement around the world.*

Nderitu, R. (2019). *The factors affecting voluntary contribution to retirement benefits schemes among small scale entrepreneurs in Mlolongo Town, Machakos County*. Project United States International University Africa.

Ng, T.-H., Tay, W.-Y., Tan, N.-L., & Lim, Y.-S. (2011). Influence of Investment Experience and Demographic Factors on Retirement Planning Intention. *International Journal of Business and Management*, *6*(2), 196–203. https://doi.org/10.5539/ijbm.v6n2p196

Njuguna, A. G. (2012). Critical Success Factors for a Micro-Pension Plan: An Exploratory Study. *International Journal of Financial Research*, *3*(4), 82–97. https://doi.org/10.5430/ijfr.v3n4p82

Njuguna, A. G., & Otsola, J. (2011). Predictors of pension finance literacy: A survey of members of occupational pension schemes in Kenya. *International Journal of Business Management*, 101 - 112.

NSSF. (2015). *CertifiedAnnual Report & Financial Statements for the Year ended 30th June 2015.* Nairobi: NSSF.

OECD. (2017). *Pensions at a Glance 2017: OECD and G20 Indicators.* Paris: OECD Publishing.

Ofreneo, R. P., Manasan, R. G., & Orbeta, A. C. (2012). *Strengthening Social Protection Components and Strategies in the Philippines: A Compilation of Social Protection Think*

Papers.

Okungu, V., Chuma, J., Mulupi, S., & McIntyre, D. (2018). Extending coverage to informal sector populations in Kenya: design preferences and implications for financing policy. *BMC Health Services Research*, 18(1), 13.

Onyango, C., Olungah, C., & Oleche, M. (2016, August). Attitude of Informal Sector Workers Towards Saving For Retirement. *International Journal of Novel Research in Interdisciplinary Studies, 3*(4), 12 - 19.

RBA. (2015). *Annual Report & Financial Statements 2015.* Nairobi.

RBA. (2016). *Annual Report & Financial Statements 2016.* Nairobi.

RBA. (2016). *Industry Brief Report.* Nairobi.

RBA. (2018). *Impact of the digitalisation of financial services on supervisory practices in the private pension sector.* Beijing, China: International Organization of Pension Supervisors (IOPS).

Registered IPPs. (n.d.). Retrieved from https://www.rba.go.ke/registered-ipps/

Rickwood, C. M., Johnson, L. W., Worthington, S., & White, L. (2017). Customer intention to save for retirement using a professional financial services planner. *Financial planning research journal*, 1(1).

Robertson-Rose, L. (2019). Good job, good pension? The influence of the workplace on saving for retirement. *Ageing and Society*, *39*(11), 2483–2501. https://doi.org/10.1017/S0144686X18000600

Rofman, R. A. (2015). *Beyond Contributory Pensions: Fourteen Experiences with Coverage Expansion in Latin America.* Washington, DC: The World Bank.

Sadhak, H. (2013). Pension Reform in India. In *The Unfinished Agenda* (pp. 110 - 112). New Delhi: Sage Publications.

Sane, R., & Thomas, S. (2015). In Search of Inclusion: Informal Sector Participation in a Voluntary, Defined Contribution Pension System. *Journal of Development Studies, 51*(10), 1409–1424. https://doi.org/10.1080/00220388.2014.997220

Schwarz, A. M. (2006). *Pension System Reforms.* Washington, DC: World Bank.

Simiyu, R., & Kibet, A. (2016). The Role of Pension Schemes in Economic Development: Comparing Kenya and Singapore. *Research Journal of Finance and Accounting*, 1-2.

Soto, M., Thakoor, V., & Petri, M. (2015). Pension Reforms in Mauritius: Fair and Fast Balancing Social Protection and Fiscal Sustainability. *IMF Working Paper /15/ 126*.

SSNIT. (2015). *Annual Report 2015.* Accra: SSNIT.

Thibaut, J., & Kelley, H. (1959). *The Social psychology of Groups.* Newyork: Wiley.

Thomas, P. &. (2013). *ERISA for Money Managers.* LegalWorks.

Thuku, P., & Ireri, A. (2013). Relationship between access to retirement infromation and retirement peparation among prospective retirees in Nyeri County, Kenya. *Open Journal of Social Science Research*, 1 - 6.

Tinuke, F. (2013, May). The Pension System and Retirement Planning in Nigeria. *Mediterranean Journal of Social Sciences, 4*(2), 25 - 33.

UNDESA, Population Divison. (2015). *World population prospects: the 2015 revision.* New York: United Nations.

Van Parijs, P., & Vanderborght, Y. (2017). *Basic income: A radical proposal for a free society and a sane economy*. Harvard University Press.

Verick, S. (2006). *The Impact of Globalization on the Informal Sector in Africa.* Addis Ababa: United Nations Economic Commission for Africa (UNECA).

Wagstaff, A. (2010). Estimating health insurance under unobserved heterogeneity: The case of Vietnams Health Care Fund for the poor. *Health Economics*(19), pp. 189 - 208.

Workers' Contribution To Pension Scheme in the Tamale Metropolis of Ghana, *5*(2), 37–45. https://doi.org/10.18488/journal.1006/2015.5.2/1006.2.37.45

World Bank and IMF. (2016). *Development goals in an era of demographic change.* Washington DC: World Bank and IMF.

Zamuee, M. (2015). American Journal of Marketing Research. *Efficiency of Pension Funds in Namibia, 1*(3), 106 - 112.

APPENDICES

Appendix I: Introduction letter

Ole Sangale Rd, Madaraka Estate,
P.O Box 59857 00200, Nairobi, Kenya.
Cell: +254 703 414/6/7, Twitter: @SBSKenya

Email: info@sbs.ac.ke or vist www.sbs.strathmore.edu

Strathmore UNIVERSITY
BUSINESS SCHOOL

Monday, 09 March 2020

RE: FACILITATION OF RESEARCH – KITHEKA PAUL NGOMBA

This is to introduce Kitheka, Paul Ngomba who is a Master of Science in Development Finance student at Strathmore University Business School, admission number MDF 52170/17. As part of our MDF Program, Paul is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MDF course. To this effect, he would like to request for appropriate data from your organization.

Paul is undertaking a research paper on **"Factors influencing intent to uptake retirement pension and providence scheme plans in Nairobi County"** The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MDF seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

Veronica Muniu,

Manager | Graduate Programmes, Strathmore University Business School

Appendix II: Consent Form

PARTICIPANT INFORMATION AND CONSENT FROM

STUDY TITLE: FACTORS INFLUENCING INTENT TO UPTAKE RETIREMENT PENSION AND PROVIDENT SCHEME PLANS

SECTION 1: INFORMATION SHEET–HEALTH PERSONNEL

Investigator: PAUL NGOMBA KITHEKA

Institutional affiliation: Strathmore Business School (SBS)

SECTION 2: INFORMATION SHEET–THE STUDY

2.1: Why is this study being carried out?

The purpose of this study is to assess the factors that impact on intent to uptake retirement pension and provident scheme plans.

2.2: Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you were interviewed (or required to fill out a questionnaire) to get information pertaining to the study topic.

2.3: Who is eligible to take part in this study?

- Informal sector participants

2.4: Who is not eligible to take part in this study?

- Any person not working as an informal sector participant

2.5: What will taking part in this study involve for me?

You were approached and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you were asked to sign the informed consent form (this form) and then taken through an interview or requested to fill out a questionnaire.

2.6: Are there any risks or dangers in taking part in this study?

There are no risks in taking part in this study. All the information you provide was treated as confidential and will not be used in any way without your express permission.

2.7: Are there any benefits of taking part in this study?

The information was used to assess the factors affecting intent to uptake pension and provident funds in Kenya.

2.8: What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

2.9: Who will have access to my information during this research?

All research records were stored in securely locked cabinets. That information may be transcribed into a database but this was sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information was kept confidential.

2.10: Who can I contact in case I have further questions?

You can contact me, PAUL NGOMBA KITHEKA, at SBS or my supervisor Strathmore faculty

I, _____, have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you;

Participation in the research study

☐ I AGREE to take part in this research

☐ I DO NOT AGREE to take part in this research

Storage of information on the completed questionnaire

☐ I AGREE to have my completed interview stored for future data analysis

☐ I DO NOT AGREE to have my interview stored for future data analysis

Participant's Signature: **Date: _____/_____/_____**

_____

DD / MM / YEAR

Participant's Name: **Time: _____ /_____**

_____

(Please print name) ***HR / MN***

I, _____ (Name of person taking consent) certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that she has understood the nature and the purpose of the study and consents to the participation in the study. She has been given opportunity to ask questions which have been answered satisfactorily.

Investigator's Signature: **Date: _____/_____/_____**

_____

DD / MM / YEAR

Investigator's Name: **Time: _____ /_____**

_____

(Please print name) ***HR / MN***

Appendix III: Questionnaire

SECTION A: GENERAL INFORMATION

Are you currently involved in the informal sector aka Jua Kali?

Within which industry do you operate?

Kindly indicate you age

SECTION B: ASSOCIATION LINK

This section assessing your associations within the industry within which you operate. Kindly indicate your level of agreement with the statements provided. The scale to be used is as follows;

1 – Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly Agree

	1	2	3	4	5
My knowledge of the saving patters of others is important to me.					
Membership in an informal sector association is of importance		4			
Getting information through informal sector channels is important					

SECTION C: EDUCATION LEVEL

This section contains questions on your general education experience. Kindly indicate your level of agreement with the statements provided. The scale to be used is as follows;

1 – Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly Agree

	1	2	3	4	5
I have studied sufficient information on financial education					
I generally have performed well in formal education					

Kindly indicate your highest level of education. Tick the box below the level.

Elementary School	Primary school	Secondary School	University Graduate	Post Graduate

SECTION D: INCOME LEVEL

This section contains questions on your general level of income. Kindly indicate your level of agreement with the statements provided. The scale to be used is as follows;

1 – Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly Agree

	1	2	3	4	5
As compared to my peers, I generally have sufficient earnings.					
My earnings allow for my settling of immediate basic needs.					
I receive payment on a regular basis					

SECTION E: INTENT TO UPTAKE PENSION PLANS/SAVING FOR RETIREMENT

This section assesses your intention to participate in a retirement savings plan. Kindly indicate your level of agreement with the statements provided. The scale to be used is as follows;

1 – Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly Agree

	1	2	3	4	5
I would like to save money for retirement through a pension plan or a provident scheme					

I would like to meet with an advisor to assess the possibility of enrolment in a pension/provident fund					
When able I would like to regularly send money to my pension/provident fund					

Appendix IV: Research Authorization Letter

Strathmore UNIVERSITY

7th April 2020

Mr Ngomba, Paul
paulngomba27@gmail.com

Dear Mr Ngomba,

RE: Retirement Planning

This is to inform you that SU-IERC has reviewed and **approved** your above research proposal. Your application approval number is **SU-IERC0638/20.** The approval period is **7th April 2020 to 6th April 2021.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

f/: Dr Virginia Gichuru,
Secretary; SU-IERC

Cc: Prof Fred Were,
Chairperson; SU-IERC

STRATHMORE UNIVERSITY INSTITUTIONAL ETHICS REVIEW COMMITTEE (SU-IERC)
07 APR 2020
TEL: +254 (0)703 034 000
P. O. Box 59857 - 00200
NAIROBI - KENYA

Appendix V: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **807609**

Date of Issue: **17/April/2020**

RESEARCH LICENSE

This is to Certify that Mr.. PAUL NGOMBA KITHEKA of Strathmore University, has been licensed to conduct research in Nairobi on the topic: FACTORS INFLUENCING INTENT TO UPTAKE RETIREMENT PENSION AND PROVIDENCE SCHEME PLANS IN NAIROBI COUNTY for the period ending : 17/April/2021.

License No: **NACOSTI/P/20/4798**

807609

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.