DETERMINANTS OF HEALTH INSURANCE UPTAKE AMONG INFORMAL SECTOR WORKERS: A CASE OF NATIONAL HEALTH INSURANCE FUND PROGRAM AT KENYATTA MARKET, KIBRA SUB-COUNTY, KENYA.

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A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND MANAGEMENT AT THE UNIVERSITY OF NAIROBI

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DECLARATION

This research project report is my original work and has not been presented for award of a degree in any other University.

Signature……..Date……

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L50/86016/2016

This research research project report has been submitted for examination with my approval as university supervisor.

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DEDICATION

To my great friend and critique Mr. Edward, your criticism compelled me to develop a plan aimed at completion of the research work. My motivator and thought provoker Tombo M, thank you for always challenging my knowledge seeking habits. To Kasiri T, your wit amazes me and last but not least to Mikai Z, you bring happiness to my work. I will forever be grateful for the roles you all played.

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ABBREVIATIONS AND ACRONYMS

CHI	**:**	Community Health insurance
FKE	:	Federation of Kenya Employers
KDHS	:	Kenya Demographic Health Survey
KNBS	:	Kenya National Bureau of statistics
LMIC	:	Low- and Middle-Income Countries
MOH	:	Ministry of Health
MSMEs	:	Micro Small and Medium Enterprises
NHIF	:	National Health Insurance Fund
NHIS	**:**	National Health Insurance Scheme
OOP	:	Out of Pocket
SHP	:	Social Health Protection
UHC	:	Universal Health Coverage
VPHI	:	Voluntary Private Health Insurance
WHO	:	World Health Organization

ABSTRACT

Health financing is a problem globally. To attain coverage of health universally, countries have adapted the insurance option which guarantees that an individual will be guaranteed quality healthcare any time. The rate at which people take up health insurance in many countries is quite low, particularly in Africa and East Asia. In Kenya, the National Health Insurance has been lowly taken up by employees involved in the informal economy, this has been credited to a host of factors. This research assessed the influence of education level, income level, marital status, and religious affiliations on the rate at which the National Health Insurance is taken up by informal sector employees in Kenyatta market. Maslow's theory of hierarchy of needs and Planned behaviour theory were anchors for the study. Research design of descriptive nature was used. The study targeted all the 608 informal workers at Kenyatta market. A sample of 241 respondents was chosen from the different strata identified based on a simple random sampling technique. Piloting of the research instruments was done in Toi market that is located in Kibra sub-county and shares similar characteristics in terms of respondents. Instruments validity was checked by experts in the field while Cronbach alpha coefficient was used in checking reliability. The analysis indicated that 64.4% of the sampled respondents had enrolled in NHIF scheme and 35.6% had not despite government policy that every Kenyan 18 years and above must enrol for NHIF. In addition, based on the binary logistic regression, it was found that education and income were positive significant predictors of NHIF uptake, religious affiliations have a negative influence on uptake of NHIF, and marital status was not significant predictor of uptake of NHIF. This research is anticipated to have an immense influence on the field of project management, particularly concerning health projects financing.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The World Health Organisation constitution enshrines the inviolable right of humans to obtain appropriate medical attention. (WHO, 2017). Unfortunately, disparities in the economic status of individuals and the development levels of countries across the globe make it difficult for governments to provide free and proper healthcare to their citizenry. In situations where proper healthcare is available, the cost of accessing it is quite high making it difficult for the ordinary citizens of underdeveloped and developing countries to afford it. In the United States, citizens have the possibility of obtaining health insurance from both private providers and publicly-funded government healthcare programs (Zieff, Kerr, Moore, & Stoner, 2020). The uptake of healthcare insurance in USA in 2020 stood at those having private healthcare insurance were 66.5 percent and 34.8 percent were dependant on healthcare insurance offered by the government, while those who had not taken up any insurance were 8.6 percent (Keisler-Starkey & Bunch, 2021). Germany uses a multi-player healthcare system that integrates a subsidised health care system available for the low-income citizens as well as a private system that takes care of the healthcare needs of the higher income citizens (Unger & Paepe, 2019).

According to Sustainable Development Goal (SDG 3.8) that was formulated during a sitting of the United Nations, countries targeted the achievement of universal health coverage which includes protection from financial risk by 2030. The attainment of this target requires that countries do away with the out-of-pocket payment (OOP) and adopt a prepayment system which guarantees that both the vulnerable and poor populations can have access to proper healthcare when they need it. By financing healthcare using payments from their pockets such as cash payments, majority of the households run the risk of lacking or missing to attend to their healthcare needs when they do not have finances (Namuhisa, 2014). Universal health coverage can be attained by employing prepayment measures such as using health insurance, this is a common payment system in developed countries globally which have attained universal health coverage. European countries such as Italy, Germany, Britain, and France, as well as other countries like Canada in North

America and Australia have also embraced insurance both private and public as a means of financing health care, which has helped eliminate OOP payment as well as enhance universal health coverage (Wenzl, & Mossialos, 2016). According to WHO (2021) report health expenditure globally, the expenditure on health in countries with low income was primarily financed by out-of-pocket payments at 44% and external aid at 29%. In Asia, Laksono, Rukmini, Tumaji, Ipa, and Wulandani, (2022) carried out research with a view of determining the antecedents to health care insurance subscription, their independent variables were gender (male and female), marital status (divorced, married, never married, and widowed), age (under 18, 18 – 64, over 64), employment status (jobless and employed) and level of education. They established that employment status had the highest influence on enrolment while age had the least influence.

For increament in healthcare access as well as shielding of susceptible families against the financial related vagaries of having ill-health, governments should encourage its population to enrol in health insurance, whether private or public (Thompson, Cylus, Evetovitis, & Srakar, 2019). An advantage of having a health insurance, is that it protects the policy holder from high cost of financing healthcare in the event of hospitalisation in inpatient care. In recent years, majority of the countries which fall in the category of either having low- or middle-income have started embracing mandatory health insurance for all adults to help them mitigate the vagaries of ill-health. This has seen an increase in the implementation of a mix of private and public health insurance schemes in the last decade (Garshong & Akazili, 2015). There has been an emergence of community and social insurance schemes which provide social protection to members of the community. Several countries in the African continent such as Tanzania, Ghana, Senegal, Rwanda, Nigeria, and Kenya finance their healthcare in remote parts of the country by mobilising the members of the community to subscribe to a community-based or social insurance scheme which mobilize resources from public and the private sector (Adebayo, Uthman, Wiysonge, Stern, Lemont & Ataguba, 2015). Societal influences, including age, religion, culture, and family size, economic elements like educational attainment, income, and relationship status, and systemic components like premiums and the caliber of care (Fenny, Kusi, Arhinful, & Asante, 2016) may all factor into an individual's choice to procure health coverage. In Nigeria, Ogundeji et al (2019) found that the out-of-pocket payment (OOP) account to

almost 70% of health expenditure financing, which is greater than the WHO (2016) recommended maximum level of 30%, they established that the factors contributing to the reported low rate of take up of healthcare insurance by households were; income, education level, occupation of the person heading the household, the gender of an individual, the age of an individual, and the number of individuals living in the household.

The National Health Insurance Fund (NHIF) - Kenya, formerly referred to as the National Hospital Insurance Fund, came into existence as a parastatal in 1966 through a legislation via a parliament act and then domiciled under the Ministry of Health to cover civil servants. It later expanded and commenced operation in 1999 to cover the self-employed individuals as well. The function of the fund was to allow contributions by public servants as well as self-employed individuals towards catering for their medical bills when need be. In 2021, the fund's name was altered to National Health Insurance Fund by legislation act 21/2022 of the Kenyan parliament (www.parliament.go.ke). The act provides that all state officers and employees of both the national and county government are required to make a mandatory contribution to the NHIF by having their employer directly deducting the funds from their salary and submitting. Self-employed individuals are also expected to contribute towards the fund. Despite the efforts made by the government in making sure that universal health coverage is attained by the year 2030 through encouraging all citizens above the age of eighteen (18) years to voluntarily enrol as members in the National Health Insurance Fund, there is still some reluctance by self-employed individuals to enrol in the fund. This study intended at exploratory the influence of hypothesised determinants of health insurance take-up on the decision to enrolment in the NHIF among the informal sector workers domiciled at Kenyatta market, Kibra sub-county.

1.2 Statement of the Problem

Health insurance is commonly embraced as a means of achieving universal healthcare coverage, yet a substantial number of countries are yet to achieve the desired health insurance uptake levels (public and private). A host of researchers have studied the factors limiting the rate of healthcare insurance uptake, particularly in underdeveloped and developing countries (Masengeli, Mwaura-Tenambergen, Mutai, & Simiyu, 2017; Maina, Kithuka, & Tororei, 2016). A good understanding of the aspects that are linked with the

low rate of take-up of healthcare insurance will aid policy makers in coming up with policies or schemes of health insurance which satisfy the health needs of the populace and hence help in attainment of universal health coverage. Gaining insight into the components associated with the low adoption of healthcare insurance will assist policy makers in formulating remedial policies and plans that meet the public health needs and thus facilitate the realization of universal health coverage (UHC). According to data on NHIF (www.nhif.or.ke) as of December 2021, there were approximately 10.13 million registered members, out of which 5.03 million were active members, which represents 49.7% of all the registered members. Among the active NHIF members, 3.25 million are from the formal sector while the remaining 1.78 million are from the informal sector. With over 14.5 million Kenyans employed in the informal sector across the country (KNBS, 2019), the small number workers enrolled in the NHIF indicates that a bulk of the workers in the informal sector finance their hospitals/health bills directly from their pockets anytime they visit a health facility.

To attain UHC, the Kenya government, through the Ministry of Health, has been pushing for maximum enrolment into the national health insurance fund by all adults, this has however, not been fully attained particularly in the informal sector in which contribution was usually voluntary. In Kenya, the informal sector employs nearly 83% of the country's workforce, with youth and women making up 60% and 50% of that total, respectively (Murunga, Muriithi, & Wawire, 2021). Despite the high number of employees in the informal sector, a paltry 39% are covered by NHIF (KDHS, 2021). According to Institute of Economic Affairs Kenya (2021) this might largely be due to NHIF scheme historically known to focus on the workers in the formal sector since the law requires that the employer does the NHIF deductions directly from their monthly salary. Notwithstanding the inadequate contribution to the NHIF scheme, the informal sector members consume 33% of the benefits paid out (Okungu, Chuma, Mulupi, & McIntyre, 2018). According to the KNBS (2019) census report, the population of Kibra sub-county was 181,509 with 102,688 being above the age of 18 years. Out of these, 74, 411 which represents 72.5% of the adult population are working in the sector that is informal sector. In general, 21.3% of the residents of Kibra have enrolled in a health insurance scheme (WHO, 2020), this includes employees working in both the informal and formal economy sectors. A health survey

conducted in 2021 by the Department of Health Services of the Nairobi County Government showed that only 13.6% of the informal sector employees had enrolled in the NHIF scheme (www.nairobi.go.ke). In Kibra sub-county the report specifically indicated that a paltry 4.7% of the informal sector employees had enrolled in the NHIF scheme. Several factors have been attributed to low uptake of NHIF across the country, but no study has been done in Kenyatta Market of Kibra sub-county to establish the antecedents of the national health insurance take-up among workers in the informal sector. The research strive to fulfill the scholarly depth by evaluating the effect of religious affiliations, educational attainment, marriage status, and financial level, on the utilization of the National Health Insurance Fund (NHIF) in Kenyatta market, Kibra sub-county, Kenya.

1.3 Purpose of the Study

The main purpose of this research study was the determination of the influence of selected hypothesized determinants on health insurance uptake on the among the informal sector workers; a case of National Health Insurance Fund (NHIF) in Kenyatta Market, Kibra sub-county, Kenya.

1.4 Objectives of the Study

This research study was directed by the following research objective:

i. To assess the influence of level of education on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.
ii. To assess the influence of level of income on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.
iii. To examine the influence of religious affiliation on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.
iv. To assess the influence of marital status on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.

1.5 Research Questions

The research study provided answers to the following research questions:

i. What is the influence of level of education on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya?

ii. What is the influence of level of income on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya?

iii. What is the influence of religious affiliation on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya?

iv. What is the influence of marital status on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya?

1.6 Research Hypothesis

The study tested the following research hypothesis:

H_{01} : There is no significant influence of level of education on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.

H_{02} : There is no significant influence of level of income on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.

H_{03} : There is no significant influence of religious affiliation on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.

H_{04} : There is no significant influence of marital status on the uptake of National Health Insurance Fund program in Kenyatta Market, Kibra sub-county, Kenya.

1.7 Significance of the Study

The findings of this research are anticipated to have a major influence on the project planning and management course, specifically in the area of project financing. It will precisely guide financing of social projects in Kenya and more so Health projetcs by highlighting the determinants of social Health insuarance that needs to be put into consideration. The study also aspires to motivate students of project planning and management as well as other local researchers and academicians to explore the unchartered field of health financing through social health insurance for universal health coverage.

An examination of the evidence revealed the impact of particular precursors on the acceptance of social/community health insurance plans by informal sector personnel in particular the NHIF plan in Kenya. The study provides contextual findings to individuals doing research, organisations involved in healthcare funding reseachers as well as scolars in general, who are interested in carrying out research in the area of healthcare funding.

This research is anticipated to contribute to the pre-existing body of knowledge regarding national/social/community health insurance and the informal sector. The study may guide implementers of SHI on factors to consider in motivating the informal business sector to enroll in SHI schemes and what strategies to use in retention of the informal sector to achieve UHC. The study can therefore act as a means of reference by stakeholders and implementers of social health insurance schemes to guide project implementation for desirable outcomes.

1.8 Delimitation of the Study

This investigation explored what influences people's decisions to take out health insurance. In terms of variables, the inquiry was limited to examining the impact of religious denomination, educational attainment, marital status, and financial status as the hypothesized determinants of the NHIF program. Geographically, the study was delimited to Kenyatta market in Kibra, Nairobi county, Kenya. The choice of Kenyatta Market in Kibra sub-county was motivated by the reported low uptake of NHIF by the residents of Kibra Sub-County. Kenyatta Market hosts diverse informal businesses and can therefore provide sufficient information for the attainment of the research objectives. The research concentrated on individuals in the unofficial field, taking into account the reality that, in spite of NHIF enrolment being mandatory, the Kenyan government has not implemented any measures to ensure that everyone over the age of 18 is paying into NHIF. Primary data was acquired through semi-structured questionnaires and interview guide research tools.

1.9 Limitation of the Study

This research encountered the following limitations; First and foremost, not all the sampled study respondents were initially confident enough to provide information about their health insurance uptake apart from furnishing facts about determinants of health insurance uptake, which they considered as private information. To address this, the aims of the study were

detailed and thoroughly conveyed to the participants, as well as ensuring them of the security and confidentiality of the data they would provide and emphasize that the data will solely be utilized for educational objectives, and no one's identity would ever need to be disclosed, while also ensuring them of its secrecy. Another anticipated limitation was some respondents being semi-illiterate due to the location of the study, this was mitigated by the researcher enlisting the services of research assistants who were averse with the language of communication in the area, this enabled them to translate the contents of the research instrument to the respondents and in return record their feedback. The study may also be limited by not being capable of establishing a causal relationships between the determinants and healthcare insurance uptake, as there may be other unmeasured factors at play. This will be solved by just presenting the strength of association but not inferring any causality. Lastly, the results of the investigation may not be able to be applied to other groups of people, regions, or types of healthcare insurance.

1.10 Assumptions of the Study

This investigation asserted that elements such as spiritual connection, economic rank, marital status, and educational achievement impact the uptake of the NHIF by informal sector personnel in Kenyatta Market. The research further hypothesized that the chosen respondents would offer facts that is truthful with assurance, as well as, the study supposes that the data employed for the analysis is exact, trustworthy, and illustrative of the population being surveyed. Further, the investigator assumed that some of the respondents would have registered in the NHIF scheme, and that the population have similar chances to access health insurance and that the choice to uptake insurance is based on individual inclinations and health needs.

1.11 Definitions of Significant Terms

This section gives a contextual definition of the key terms used in this study;

Health Insurance Scheme: refers to a program instituted by governing bodies, either in the public or private sector, aiming to furnish healthcare to the public in order to eliminate the need for any individual expenses for medical services.

Determinants of health insurance uptake: refers to social and economic elements including renumeration, nuptial status, edicational attainment and religious connections that are believed to drive the adoption rate of health cover plans.

Informal sector: Refers to units that are involved in producing goods and offering services with the basic aim of income generation. They generally operate as micro, small, and medium enterprises providing employment to several individuals. They are characterised by difficulties in complying with the tax requirements, limited capital base, and administrative capacities.

Uptake of NHIF: refers to the state of an individual being signed up for the National Health Insurance Fund initiative.

NHIF: This refers to the institution mandated by Kenya government to provide medical insurance to all Kenyans.

Level of Education: refers to the duration of formal education obtained.

Level of Income: refers to the cumulative amount of income earned by a respondent at the end of the month cycle.

Marital Status: refers to whether an individual is in a marriage or not. It is indicated by single, married, divorced, and widowed.

Religious Affiliation: refers to the religious group an individual subscribes to. This is indicated by no religion, Christian, Islam, and Traditional.

Health Financing: in this context means raising money for healthcare services.

1.12 Organization of the study

This study consists of five primary sections. The opening chapter introduces the research context, formulates the problem of inquiry, outlines the aims and objectives of the exploration, and describes hypotheses, value, extent, and restrictions. It also establishes postulates and precisely defines the key terms used in the context. The second chapter provides an overview of the relevant literature by presenting the contents of the literature review, examining the utilization of National Health Insurance, analyzing precursors to health insurance consent based on other analysts' outcomes, and examining the four

dimensions under study (religious affiliations, matrimonial state, educational level, and income level). It also involves the theoretical and conceptual frameworks before noting gaps in the literature. Chapter three of this study probes the methodological approach taken to carry out the investigation. This involves the research design, subject population, sampling approach, data collection techniques, validation and dependability of the research instrument, data analysis methods, and precise definition of variables. Chapter four then presents and discusses the study findings, which are examined through both descriptive and analytical methods and depicted in tables and cross tabulations. Finally, Chapter five furnishes a summary of the findings, discourses, conclusions, and suggestions for addressing the study objectives and for future research.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The examines the correlation between a variety of variables and the acceptance of social/national/community health insurance. These determinants consist of educational level, earnings, religious beliefs, and marital status. A theoretical review, conceptual framework, research gap, and summary are provided in the discussion.

2.2 Uptake of Health Insurance Programs

Health Insurance is considered as one of the major and key approaches of enhancing universal health coverage by the year 2030 which was agreed by nations during the UN convention as a sustainable development goal. It incorporates protection from financial risks as well as enabling all citizens to have equal access to essential health services which are of good quality. Globally, nations are striving to achieve the laid down SDG 3 through the universal health care (Fadlallah et al., 2018), since it does encourage equity in health care provision (van Hees, et al, 2019; Kanmiki et al, 2019). According to Kuwawenaruwa et al., (2022) and Maurya and Mintrom (2020), the best bet to attainment of universal health coverage (UHC) which guarantees improvement in healthcare utilisation and financial protection is by use of health insurance. Universal health coverage grew out of the need for quality improvement in health services in addition to making it easily accessible (Ji & Chen, 2016). The uptake of health insurance in countries that are considered to have low-and-middle income (LMICs) is generally low with low-income countries having an average uptake of 7.9%, middle-income countries in the lower level having an average uptake of 27.3%, and lastly, middle-income countries in the upper level having an uptake average of 52.5% (Hooley, Afriyie, Fink, & Tediosi, 2022), these lower rates indicate that majority of the population in those countries depend on out-of-pocket payments which threaten the success of universal health coverage. In countries considered to be having high – income like England, Canada, Australia, and so on, health insurance coverage is 100% provided by the state and supplemented by private health insurance which offers coverage for discretionary services. Israel has 95% coverage by the national health insurance which is obligatory for all except foreigners, army, and prison service officers who are supposed to

take up private insurance (Tikkanen, Osborn, Mossialos, Djordjevic, & Wharton, 2020). A study done by Barasa, Kazungu, and Nguhiu (2021) investigated the prevalence of health insurance coverage in different regions of Sub-Sahara Africa countries and painted a bleak picture of a paltry 10% or less of the adult populace had taken up health insurance.

Majority of employees in the labour force in countries with low-and middle-income are in the informal sector and generally live in communities that are highly characterised by poverty (Patankar & Patwardhan, 2016). This is in line with the assertions of the proponents of marginalisation thesis who claim that workers in the informal sector live in squalor conditions and find it hard to make ends meet (Williams, 2015). With limited income majority of the informal workers do not usually take up health insurance, they opt for out-of-pocket payment which put them at risk when they need health services but do not have money. In Indonesia, Muttaqien et al (2021) established that out of the 69 million informal settlement workers, only 30 million (43.5%) were enrolled in the Jaminan Kesehatan Nasional (JKN) which is a form of health insurance scheme, out of those who had enrolled, only 14 million were active members (47%), this indicates that only 15.9% of the informal sector employees are active members of the social health insurance. Several factors have been attributed to the low uptake of social/national/community health insurance among the informal sector workers. This study seeks to add onto the research by establishing the influence of selected hypothesised determinants on the rate at which National health insurance Fund scheme is being taken up by informal sector employees in Kenyatta Market in Kibra sub-county.

This study endeavors to generally ascertain the relationship between identified hypothesized causes and acceptance of health insurance with specific concentration on the National Health Insurance Fund (NHIF) program instituted by the Kenyan Government. Determinants of health insurance uptake considered are marital status, education level, religious affiliations, and income level. The subsections that follow present extant literature on the nexus between the selected hypothesised determinants of health insurance uptake and uptake of National Health Insurance Fund.

2.2.1 Level of Education and Uptake of Health Insurance Fund

The highest education level attained by an individual has been found to be key in decision making. In a research survey executed in Awutu Senya, situated in the Western District of Ghana, Alesane and Anang (2018) gathered a random sample of 178 participants to gauge the relationship between the greatest educational level achieved by an individual and their subscription to a medical insurance program. The results affirmed a positive correlation between the two variables. They claimed that education enabled the respondents to understand the benefits of health insurance and hence motivated them to subscribe, in addition, an educated person has the necessary knowledge to make choices regarding their health and hence purchase a health insurance that can cushion him/her against unexpected health expenditure. Ngetich, Aruasa, Too, and Newa (2021) conducted a study at a referral hospital in Eldoret town, Kenya to try and establish the antecedents to enrolment to a health insurance scheme by the patients visiting the Moi Teaching and Referral Hospital. Using a sample of 234 respondents, they established that education positively influenced the decision made by an individual on whether to or not to take up a health insurance policy. The concept of educational level was framed in terms of obtaining a university degree, completing secondary school, having gone through primary school, and having no schooling whatsoever.

In Ghana, Seddoh and Sataru (2018) carried out a household survey of cross-sectional nature to establish the existing connection between the highest education level an individual has attained and their probability of enrolment into a health insurance scheme. Data was collected from 625 respondents randomly selected from two districts of Ashaiman and Adaklu using questionnaires of semi-structured nature then analysis was carried out by the application of both the single variable and multiple variable techniques of logistic regression nature. The survey findings indicated that education was positively correlated with NHIS enrolment. They particularly reported that individuals with education up to the graduate level (degree and diploma) were five times ($p = 0.00$) more probable to join the NHIS as compared with those respondents that were non-educated, and those with secondary level education were four times ($p = 0.01$) more probable to join the NHIS as compared with those respondents that were non-educated.

Dror et al. (2016) undertook a descriptive analysis in Low- and Middle-Income Countries (LMICs) to determine the contributory elements for the scanty adoption of health insurance among the population. One of their key objectives was the determination of the association existing between an individual's highest education level attained and voluntary uptake of health insurance. It was ascertained that enrolment in a national/governmental/social-based health insurance plan was correlated with the educational attainment of the household's head and conceptualised in terms of years spent studying, As such, it was concluded that in locations with limited literacy, the uptake and retention rates of healthcare cover schemes are likely to be low. Another study was carried out by Nguru (2018) in Embu town among patients attending private and public health facilities with the aim of establishing the inhibitors to the take-up of health insurance. By employing the random sampling, they selected 384 respondents who visited selected health facilities within Embu town. Using chi-square technique, they arrived at the conclusion that there exists a significant association between the readiness of an individual to subscribe to a health insurance scheme and the highest education level attained. They particularly found that acceptance of health insurance was greatest amongst the research respondents who had attained university/college education and least among the respondents with no education. A similar study was conducted by Mukhwana, Ngaira, and Mutai (2015) among workers involved in the informal sector of Kakamega town in Kakamega County. They employed a research methodology of mixed nature and utilised a sample of 400 randomly selected respondents. Data collection was done using questionnaires as well as interviews. Results from the multiple regression of logistic nature data analysis indicated that education level was significantly linked with subscription to the NHIF scheme.

Similarly, Basaza, Kyasiimire, Namyalo, Kawooya, Nnamulondo, and Alier (2019) conducted a survey among taxi drivers in Kampala to ascertain the influence of education on their readiness to pay for healthcare insurance. The researchers found that formally educated individuals had higher chances of enrolment into a health insurance scheme in contrast to individuals who had no proper education of any kind. It was further found that even among the formally educated respondents, there were distinctions in the levels of the keenness to pay for healthcare insurance. That is, a significant strong association that was positive in nature, was found between the keenness to pay for insurance and the level of

education an individual had attained. In particular, the order of willingness to pay was those with tertiary (81.5%), advanced level (80%), ordinary level (79.4%), and primary level (74.4%). A survey conducted in Ethiopia by Bayked, Kahissay and Workneh (2019) ascertained that the academic level of informal sector employees was a pivotal predictor of enrolment into the local health insurance program. Furthermore, Muhlis (2022) outlined that the low level of formal education amongst informal sector workers was the leading cause of low registration with the health insurance subsidized by the government of Indonesia. While all the research conducted thus far has indicated a positive correlation between academic level and participation in health insurance, minimal studies have been conducted on the association between the two in the informal sector of Kenya, particularly in Kibra. Consequently, this investigation seeks to bridge this knowledge void by delving into the association between educational attainment and participation in the national health insurance fund initiative with special emphasis on the Informal laborers of Kenyatta Market in Kibra sub-county.

2.2.2 Level of Income and Uptake of National Health Insurance Fund

Mukhwana et al., (2015) did a study in Kakamega on the personnel in the non-forma economy. They employed a composite methodological approach and utilised a sample of 400 randomly selected. Data collection was done using questionnaires of semi-structured nature as well as through interviews. The results of analysis of the data employing logistic regression revealed that those in the non-formal sphere with above average salaries (in excess of 10,000 Kshs.) had a greater tendency of enrolling in a health coverage plan, particularly NHIF, when compared to those with lesser earnings. Basaza et al., (2019) conducted a survey among taxi drivers in Kampala to ascertain the influence of income on their eagerness to subscribe to a community health insurance (CHI). The study results indicated that those with a higher level of affluence, in particular those in the fourth and fifth percentiles, had a propensity to be more inclined to remunerate for CHI in comparison to those with a lower socioeconomic standing. Muiya (2017) using a randomly selected sample of four hundred and fifty-six respondents gotten from the Nairobi and Machakos counties informal areas carried out research to uncover the precursors to joining health insurance schemes based on social consideration. The author revealed that the financial

standing of a family is an influential factor in deciding whether or not to participate in a medical coverage plan.

In Spain, Pinilla and López-Valcárcel (2020) conducted a quantitative analysis to explore the motives driving the inhabitants' requirement for voluntary private health insurance (VPHI). Using longitudinal data from the Bank of Spain for the years 2008, 2011, and 2014. They came to the conclusion that the likelihood of an individual purchasing a VPHI increased with increase in income. In particular, they found that in the year 2008 an increase of 1% in an individual's income level increased the chances of the individual taking up the voluntary health insurance by 0.064, whereas there was an increase of 0.116 in the year 2014. In a comprehensive assessment of determinants impacting the enrollment of a scheme for medical coverage in economically disadvantaged nations, conducted by Adebayo et al. (2015), it was determined that, based on both qualitative and quantitative evidence, the likelihood of individuals with meager financial resources subscribing to the community-based health insurance plans was practically non-existent. Similarly, Negera and Abdisa (2022) in their study on the factors linked with eagerness to subscribe to community-based health insurance by payment of monthly premiums found that among the 400 sampled respondents located in the South West Shoa Zone of Ethiopia, the greatest impediment to enrolment was low household income followed by high premiums.

In a study carried out by Dartanto et al. (2021) on the association between financial hardship and health insurance enrolment in the rural areas of Indonesia established the presence of a direct correspondence between the two variables. That is, respondents who had financial problems had the least chance of registering in a health insurance plan. A similar study was carried out among the women who fall in the reproductive age-group by Aregbeshola and Khan (2018) to establish the inhibitors of health insurance enrolment in Nigeria. They used data of secondary nature gotten from 38,948 women in the Demographic and Health Survey conducted in 2013 in Nigeria. The researchers established that a whopping 97.9% of the surveyed women were not members of any health insurance scheme. One of the major impediments to enrolment to a health insurance scheme was lack of stable income. In particular, they found that women who hailed from economically disadvantaged households had the least chances of subscribing to a health insurance as

compared to women from economically stable households. Women from poor households were found to have limited resources hence not being capable of doing monthly health insurance premium payments. This study was however carried out among women only in Nigeria; hence generalisations cannot be made in the population of Kibra sub-county in Kenya. Njogu (2019) did research with the sole objective of determining the link that subsists between income and uptake of health insurance in Nyeri County. Estimations were carried out using the probit model. It was established that income positively influences subscription to a health insurance scheme.

To determine the connection between household income and registration to a health insurance plan, Kagaigai, Anaeli, Mori, and Grepperud (2021) carried out a study of cross-sectional nature in Dodoma region that involved 722 households. Income was found to be statistically significant but having a very low influence on enrolment, this was based on the strength of association (odds ratio). Iyalomhe and Adekola (2021) also found a significant positive link exists between keenness to pay for health insurance that is community-based and the income level of an individual among dwellers of Awka slums, Nigeria. Drawing from the analysis of the available literature pertaining to the relationship between economic status and the acceptance of health coverage, it is determined that income typically has an impact on the adoption of health insurance. None of the studies reviewed was however carried out among informal sector employees, this study seeks to bridge this research gap.

2.2.3 Marital Status and Uptake of National Health Insurance Fund

Mukhwana et al., (2015) did a study among the informal sector employees in Kakamega County. They employed a mixed method research and used a randomly selected sample of 400 individuals. Data collection was carried out by the use of two instruments, that is, questionnaires of semi-structured nature as well as interviews. Results from data analysis using the logistic regression technique showed that people who are married and have families were more likely to join the NHIF scheme followed by single individuals, then widowed, and lastly the divorced. Boateng and Awunyor – Vito (2013) uncovered in their examination that the likelihood of a wedded person being an associate of a health coverage plan was greater than that of an individual who had experienced formal marriage

(separated/divorced) or was unmarried. The justification given was that, an individual in marriage particularly where both spouses have a source of income, is capable of setting aside some income for health insurance as compared to a household with only a single member. An examination conducted in Ghana by Badu, Agyei-Baffour, Acheampong, Opoku, and Addai-Donkor (2018) that utilised a cross-sectional approach to determine the impact of sociodemographic elements on the adoption and uptake of health insurance uncovered that marital status had an effect on one's decision to become a member of a health insurance plan.The married had higher chances as being registered in a health insurance as compared to the single individuals. Just like Mukhwana et al (2015), they also established that the group with the least chances of enrolment in a health scheme were the divorcees, this was assumed to be due to the financial constraints that are usually brought about by divorce. Njogu (2019) did research whose objective was to establish the link that exists between the status of marriage of an individual and enrolment into a health insurance scheme in Nyeri County. Estimations were carried out using the probit model. The researcher concluded that a transition from single to married or from divorced to married increases the chance of obtaining health insurance by 0.02%. This finding is consistent with the former research that realised that matrimonial status is a considerable element in swaying a person to subscribing to a medical insurance program (Mwaura, 2012; Ying et al., 2010).

Several other studies have investigated the link between health insurance scheme enrolment and marital status. For instance, Owusu-Sekyere and Chiaraah (2014) looked at how marital status among Ghanaians influenced their registration into a health insurance programme. The logit and probit models' findings indicated that the status of marriage of an individual was a strong indicator for enrolment. In particular, the prediction of the choices of individuals to register or not to register into a health insurance scheme were based on the estimations of the odds ratios and marginal effects. By using the linear extrapolation of coefficients estimated, they found out that a 100% probability change is represented by a change from either 1 to 0 or 0 to 1. Therefore, if counts of couples who are married increases by 100% (unmarried = 0, married = 1), then there is expected an increase of 5.3% in enrolment to a health insurance scheme. Kong (2010) also studied the nexus between subscription into a health insurance and marital status in USA. Utilizing

second-hand information acquired from a populace poll implemented by the United States Census Bureau in 2008, the investigator discovered that married adults had a more prominent likelihood of enrolling in a medical coverage plan as compared to the widowed, separated, and unmarried adults.

Maina, Kithuka, and Tororei (2016), Boateng and Awunyor-Vitor (2013), and Kirigia et al (2005) did research in Kenya, Ghana, and South Africa respectively to establish the nexus between health insurance subscription and marital status of women, they found that married women had higher chances of enrolling in a health insurance scheme in comparison to those not in marriage. They attributed this to the ability of married individuals having pooled resources thereby increasing their income level hence making health insurance affordable to them. In Bungoma, Masengeli et al (2017) established that married respondents were 10 times more probable to take up a health insurance plan in comparison to unmarried respondents. This was associated to the need to protect their family, particularly children who are prone to childhood illnesses from suffering when parents do not have finances for out-of-pocket payment. Other investigators who have evinced a noteworthy correlation between the adoption of health insurance and marital standing include (Kimani, Ettarh, Warren, & Bellows, 2014; Maketha, 2016, Amu & Dickson, 2016; Badu et al., 2018). All the studies reviewed have indicated a positive association between marital status in varying strengths. No study has looked at the association between the two variables in Kibra sub-county which is one of the largest slums in Africa and home to many adults in the informal sector. This investigation endeavors to satisfy the need for further inquiry in this field.

2.2.4 Religious Affiliation and Uptake of National Health Insurance Fund

Religion plays a key role in influencing the decisions made by individuals regarding many aspects of life. Badu et al (2018) conducted an exhaustive investigation in Ghana in order to determine the connection between uptake of a health insurance scheme and other variables. They found that in Central and Eastern Ghana, affiliation of a household with a certain religious outfit, whether Islam, Christianity, or Traditional increased the chances of that household enrolling in a health insurance scheme. However, in another related research done in the Upper Western parts of Ghana, the connection between religious affiliation and

take up of health insurance was moderated by gender. For instance, female Muslims had a higher likelihood of subscription to a health insurance scheme than their Christian counterparts while male Muslims were less probable to register in a health insurance scheme compared to Christian male.

Bhusal and Sapkota (2021) conducted an exploratory study in Nepal to ascertain the determinants of enrollment in a national/community/social health insurance scheme (HIS). Utilizing a cross-sectional research design, they surveyed 10,958 households. Their conclusions revealed that respondents who identified as Hindu had a greater probability of obtaining a health insurance policy than those who did not declare themselves as Hindu (adjusted OR 1.82; 95% CI 1.20 to 2.77). Using the 2013 Nigeria Demographic and Health Survey (NGHS) data, Aregbeshola and Khan (2018) found that among the women involved in their study, Christians were the most likely to take up health insurance followed by Muslims, and lastly the traditionalists. Similarly, Hassan, Mwaura-Tenambergen, and Eunice (2021) undertook an inquiry in Nairobi County, Kenya to establish the antecedents to health insurance uptake among the Muslim faithful. Using a random sample of 389 respondents only a paltry 86 which represents 22% of the respondents had enrolled for the national health insurance. It was established that shariah teachings and religious beliefs were the main reason as to why a good proportion of the sampled respondents did not choose to register in a healthcare insurance scheme of any kind, that is either private or public. They considered the insurance schemes not to be shariah compliant.

Musonda and Chowa (2022) did a study in Kalumbili Mining Community in Zambia to establish the factors that influence the uptake of life insurance. Religion was combined with culture and found to have no influence on uptake of life insurance. A qualitative study was carried out by Kumi-Kyereme, Amu, and Darten (2017) in Cape Coast, Ghana with a view of establishing the inhibitors to registration into a health insurance scheme. They established that holding religious beliefs significantly influenced the rate of health insurance take-up among the respondents. In a similar study, Ewulum et.al., (2022) established that among the formal sector employees, one of the significant and common barriers to health insurance uptake was found to be the religious belief of the respondent. In opposition to the conclusions of Ewulum et al (2022), Nguru (2018) arrived at the determination that religious beliefs had no effect on the enrollment of participants into a

medical insurance plan in her master's thesis. This was verified utilizing a chi-square test with a p-value of 0.233, surpassing the 0.05 significance level.

Gitau and Sile (2016) performed a random selection of 100 study subjects from a populace of 100 in Nairobi Central Business District to determine the association between religious belief and uptake of insurance. The study came at the conclusion that religion is a significantly influencer of the rate of health insurance uptake among the sample respondents. Ng'ang'a (2021) while using the probit model with uptake of health insurance being taken as the response variable and religion being one of the six independent variables established that religion was significant influencer of the rate of enrolment into NHIF in Kibera, Nairobi among the low-income populations. The present investigation endeavors to discern the effects of spiritual convictions on the adoption of the National Health Insurance Fund (NHIF) plan among the informal labor force in Kenyatta Market, Kibra sub-county, Kenya, in the wake of the conflicting discoveries from the scrutinized research.

2.3 Theoretical Framework

This study is anchored on two theories; Maslow Hierarchy of Needs and the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB).

2.3.1 Maslow's Hierarchy of Needs

This is a theory of motivation that was espoused by Abraham Maslow (1943). It states that human beings have five types of needs that have some form of precedence behavior, whereby satisfaction of a lower level need should happen before a higher need is desired. The needs were categorized in five levels; physiological needs, safety needs, social needs, esteem needs, and self-actualization. Medical care falls in the second tier which is safety needs. Thompson, Kreuter, and Boyum (2016), asserts that health needs of human beings are usually surpassed by the basic human needs. When a person is not capable of feeding his/her family or even provide shelter to them, then any health action becomes secondary concern. According to Maslow theory, so long as psychological needs such as food, water and clothing are met, the desire for safety and security needs such as mMedicare would arise. Consequently, the desire for high needs as per the pyramid.

In the perspective of this research, the theory underpins the fact that the seeking behaviour for health insurance being a safety need is motivated by attainment of physiological needs,

which in this case are food, water, clean air, and shelter. Consequently, it may be conjectured that persons who are able to adequately satisfy their fundamental requirements have an increased likelihood of signing up for a health insurance plan in comparison to those who struggle to fulfill their fundamental necessities, and this demographic chiefly consists of people in the informal labor market who gain daily or weekly pay.

2.3.2 Theory of Reasoned Action and Planned Behavior

Developed in 1975 by Martin Fishbein and Icek Ajzen. The reasoned action theory assumes that an individual will take into consideration the behaviour's consequences before engaging in a certain behaviour (Barbera & Ajzen, 2020). According to Nisson and Earl (2020), intention is an important characteristic in determining behaviour and behaviour change. Intention arises from the person's understanding of whether the behaviour is positive or negative together with his impression on how the society perceive the same behaviour. Personal attributes and social pressure are very key to the performance of behaviour and also for behaviour change. The TRA refers to behaviours which are voluntary because they involve conscious decision on the part of an individual (Hale, Householder, & Greene, 2002). The TRA does not include behaviours which require special skills or resources in order to be performed (Liska, 1984). Hale, Householder, and Greene, (2002) argue that an individual may fail to perform behaviour because of insufficient skills, lack of opportunity, and lack of support from others but not because of voluntary decisions.

The theory of reasoned action, according to Hale et al. (2002) claims that the greatest predictor of a voluntary behaviour is one's behavioural objective. Fishbein and Ajzen, (1975) opined that an attitude towards accomplishment of a particular behaviour is made up of the dogmas an individual hold towards that behaviour. According to Hale et al. (2002), the behaviour intention occurs as a result of individual and normative influences. Individual influence refers to the person's attitude to perform a volitional behaviour whereas subjective norm refers to a person's belief whether other people feel that he should perform a particular behaviour.

The theory of planned behaviour postulates that the performance of a behaviour is contingent upon the degree of control that the individual exercises over the behaviour and the intensity of their motivation to carry out the behaviour (Ajzen, 1985). The TPB comprises of three components that direct the intention of a person performing a certain behaviour and they include, subjective norm, attitude, and perceived behavioural control (Orbell et al., 1997). Randall and Wolff, (1994) reviewed Fishbein and Ajzen theory and established that the behaviour type that an individual adapts is usually linked to the strength of the connection that exists between the behaviour and intentions. (Han et al., 2010) opine that based on similar data, TPB is usually a good fit as well as having a good predictive power in comparison to the Theory of Reasoned Action.

According to Ajzen (2011), the behaviour of an individual is normally guided by the beliefs they have of the likely repercussions of his/her behaviour and the assessments of the repercussions. Performance of a certain behaviour may also be impeded or facilitated by beliefs regarding the normative anticipations of others. The central factor in the TPB is an individual's intention to carry out a certain behaviour, and intentions are presumed to be the motivational factors that affect the behaviour (Ajzen, 1991). In their review of the TPB, Kan and Fabrigar (2017) found out that the theory seemed to perform well across behavioural categories with regard to intentions but for the prediction of behaviour, its efficiency varied. (Randall & Wolff, 1994) speculated that the inability to effect one's intention in some instances may be due to personal and environmental control factors.

In the context of this research, the choice of whether to partake a medical security plan which in the Kenyan context was voluntary for the informal sector employees, until the year 2022, when the government decided to make it mandatory for everyone aged above 18 years, can be assumed to rely on the beliefs an individual has. In particular, does the individual believe that enrolment into NHIF will one day come to help him/her? It can also be noted that, the perceived usefulness as well as the perceived risks are important ingredients explained by TPB that play a key role in shaping the attitude of an individual towards purchasing a health insurance policy.

2.4 Conceptual Framework

This portion of the research elucidates the association between the independent and dependent factors in examining the impact of chosen determinants on the uptake of the National Health Insurance Fund (NHIF) among the informal sector in Kenyatta Market, Kibra Sub-County, Nairobi County, Kenya. The independent variables include; Religious standing, Education Level, Marital Condition, and Financial Status. The response variable being evaluated is the Adoption of the NHIF. This correlation is demonstrated in Figure 1.

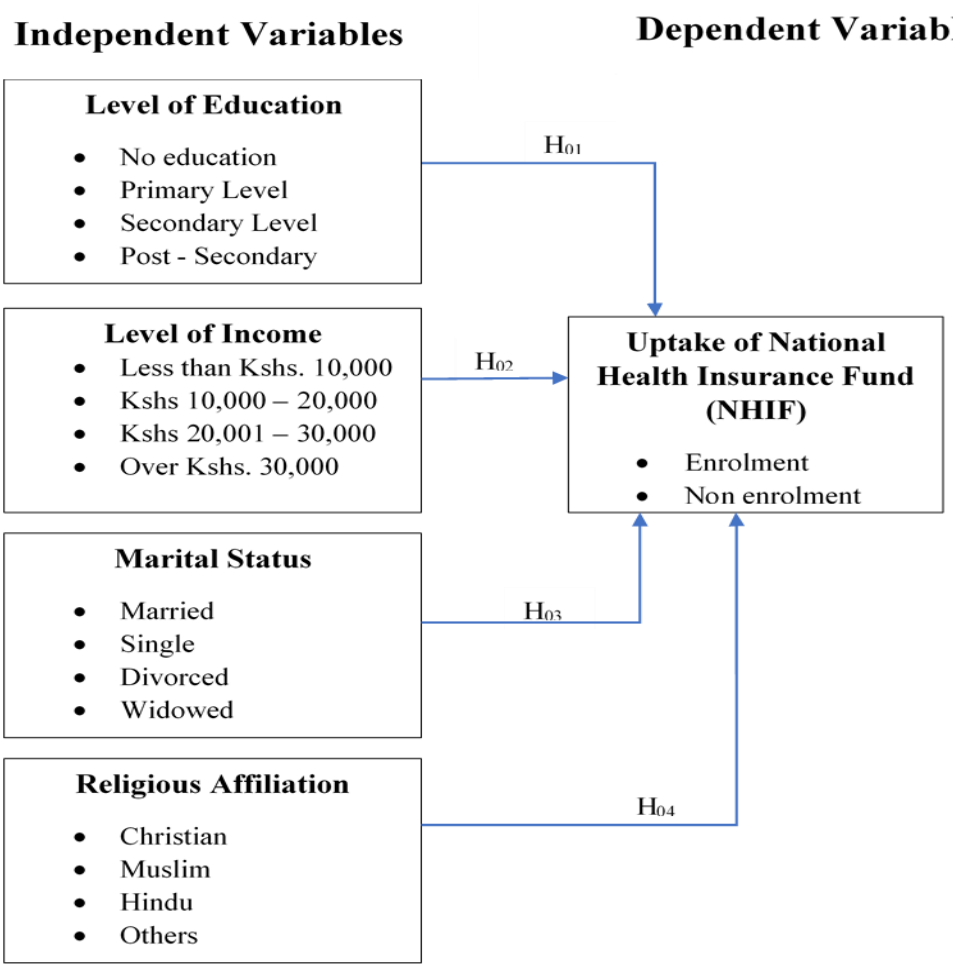

Figure 2.1:Conceptual Framework

The framework assumes that there exists an association between the independent variables (education, income, marital status, and religious affiliations) and the response variable (NHIF uptake).

2.5 Knowledge Gaps

This section provides a table that indicates the gaps in knowledge that were identified in the reviewed literature. .

Table 2.1: Knowledge Gaps

Authors	Study focus	Findings	Knowledge gaps
Ngetich, Aruasa, Too, and Newa (2021)	Heath Insurance Uptake and associated factors among patients at MTRH, Eldoret, Kenya	The level of education that an individual has attained plays a big role in influencing their willingness to take up health insurance policy	The research was conducted on all participants regardless of their occupation and type of profession. It is not possible to extend the results to the informal labor force.
Negera and Abdisa (2022)	Establishment of the factors that influence the willingness of an individual to pay for health insurance policy	Registration into a health insurance scheme is strongly dependent on the income level of an individual	The study was done in Ethiopia among rural households and the findings cannot be generalized to the Kibra setting.
Njogu (2019)	The association between marital status and uptake of NHIF in Nyeri County	It was ascertained that transitioning from single to married or divorced to married augmented the odds of obtaining a health insurance plan by 0.02%.	The study does not clearly bring out the nature of relationship between marital status and uptake of NHIF in informal sector.
Hassan, Mwaura-Tenambergen, and Eunice (2021)	Influence of religious beliefs on the uptake of health insurance	It was established that shariah teachings and religious beliefs were the main reason as to why the majority of the respondents did not register in any other the health insurance plans in their disposal.	The study was only focused on Muslims faithful and not all religious groups, hence the findings cannot be generalized in all contexts.

2.6 Summary of Literature Review

The objective of the present study was to identify the relationship between the antecedents of health insurance adoption and the adoption of National health insurance among workers in the informal economy, with particular attention to Kenyatta market in Kenya. According to the reviewed literature, there is an observable positive correlation between the highest level of education achieved by an individual and the uptake of health insurance; moreover, It has been established that there is a direct correlation between a person's earnings and their likelihood of taking out health insurance, manifesting in those with greater resources being more apt to acquire coverage. With regard to marital status, the majority of the studied sources have mainly suggested that married persons have a greater probability of taking up health insurance than single or divorced individuals. Furthermore, religious affiliation was found to have a mild negative relationship with health insurance adoption, as those who were deeply religious (Muslims and Christians) were less likely to take up health insurance, yet it could not be said for Hindus as they had higher chances of taking up health insurance when compared to non-Hindus.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The section offers a comprehensive look at the strategies implemented in the research study. It is composed of parts and subsections, comprising of the research plan, objective population, sample magnitude and sampling strategies, research tools, piloting, data collecting methods, data examination techniques, quantification of metrics and variables, and research ethical reflections to be taken into consideration .

3.2 Research Design

This study utilized a descriptive research design, a structure employed to resolve inquiries. Mishra and Alok (2022) posit that this approach can be employed to reveal the traits of a certain occurrence. Further, the methodology enables the researcher compute a correlation coefficient of the two variables (Huntington-Klein, 2021). In this instance, the two factors influencing the acquisition of the national medical insurance NHIF are critical.

3.3 Target Population

The investigation focused into the non-formal economy in the Kenyatta Market located in the Kibra Sub-County of Nairobi County. This collective test group had 608 members registered by the Nairobi County Government. The subsets of the group is listed in Table 3.1. Bloomfield & Fisher (2019) describe the study population as the collection of individuals chosen to take part in a research course.

Table 3.1: Study Population

Business	Number of Members
Food Vendors	132
Retail and Wholesale Shops	191
Saloons and Kinyozi	221
Motor Vehicle Mechanics	64
Total	**608**

Source: http://nairobi.go.ke/downloads/

3.4 Sample size and Sampling Procedure

Sileyew (2019) elucidates that a portion of the population surveyed constitutes the sample, and is analysed to create outcomes that can be extended to the entire research population. Consequently, its details are indicative of the entire population under examination.

3.4.1 Sample Size

The Taro Yamane (1967) formula was utilized to ascertain the requisite size for the experiment. In this regard, 241 individuals was culled from the total of 608 inhabitants as depicted beneath.

$$n = \frac{N}{1 + Ne^2} = \frac{608}{1 + 608 * 0.05^2} \approx 241$$

Where n is the size of sample

N is the size of the target population

e is the error term, taken at 5% significance level

This allocation of 241 was impartially distributed among the four business specialities as demonstrated in Table 3.2.

Table 3.2: Sample Size

Business	Number of Members
Food Vendors	52
Retail and Wholesale Shops	76
Saloons and Kinyozi	88
Motor Vehicle Mechanics	25
Total	**241**

3.4.2 Sampling Procedure

Siedlecki (2020) found that the value of research varied significantly depending on the way the respondents were sampled. By leveraging an approach of random selection to pick research subjects from each stratum, with the stratum denoting dissimilar informal

enterprises involved in trade in Kenyatta Market, it will facilitate the acquisition of a representative sample. This provided all study respondents with the same opportunity of being involved in the study. It eliminates the element of bias in a study.

3.5 Research Instruments

For this study, semi-structured questionnaire was employed as the main data collection tool, which was utelized to gather both numerical and non-numerical data of primary nature. The instrument comprised of structured sections, in which respondents could select from pre-defined options, as well as unstructured questions, soliciting concise clarifications or explanations. Jones, Baird, & Lunin (2018) characterizes research tool as any device used to collect empirical data.

3.6 Pilot testing of the Research Instruments

In accordance with Cooper and Schindler (2014), the research instruments were tested in Toi Market in Kibra sub-county where 24 individuals (10% of sample aize) participated. The choice of Toi Market ward was based on the area sharing similar characteristics in terms of respondents. Piloting of the research instruments is key in research since it enables the researcher to discover any flaws in the research instruments as well as estimating the amount of time that the respondents require to respond to the research instruments (Armstrong & Kepler, 2018).

3.6.1 Validity of the Research Instruments

The research team evaluated the correspondence between the research instruments and the content of the study in order to assess their appropriateness. Delphi method was used in measuring content validity where the university research supervisor looked at the content of the research instruments individually, then compared their rating before making a final decision on the constructs and advised on their appropriateness in achieving the desired research objectives. Content validity looks at the ability of the items that are contained in the research instruments being capable of measuring what they are meant to measure in terms of matter, it looks at the aspects of representativeness of the construct's definition, constructs linguistic aspects, instructions clarity, and item pool representativeness (Andrade, 2018). Validity is the ability of research instrument to correctly quantify and describe the elements being measured (Fetter et.al., 2013).

3.6.2 Reliability of the Research Instruments

Cooper and Schindler (2014) suggest that reliability is concerned with determining whether a research instrument yields consistent results when used repeatedly. There are several forms of reliability that are usually checked in research instruments, that is; stability reliability, alternative – form reliability, and internal consistency. In this study, stability reliability also known as test – retest reliability was checked by administering the research instrument (semi – structured questionnaire) a sample from the study population twice within a period of seven days, then a correlation coefficient was generated based on the Pearson's product moment correlation technique. Frey (2022) suggests that if the correlation between two tests is greater than 0.7, it indicates a strong correlation, making the research item reliable.

3.7 Data Collection Procedure

Upon successfully defending their proposal, the University of Nairobi issued a letter of introduction attesting to the researcher's current enrollment and the necessity of collecting data from human subjects. Subsequently, the letter was presented to the National Commission for Science, Technology, and Innovation (NACOSTI) to obtain the requisite authorization to conduct the data gathering in accordance with legal regulations. A research license was granted by NACOSTI. The questionnaires were self-administered and collected by the researcher with the help of research assistants who had been trained on data collection; this helped in increasing the overall response rate.

3.8 Data Analysis

The assessment of the information attained was conducted with both quantitative and qualitative approaches. Descriptive metrics, including frequencies and average, were utilized to examine the numerical facts, while a binary logistic regression method was implemented to determine the impact of the predictors on the dependent variable as displayed below. The resultant binary logistic regression model was of the form;

$$y = \ln\left[\frac{p}{(1-p)}\right] = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + E_i$$

where y is uptake of health insurance

β_0 is the intercept

$\beta_1 - \beta_4$ are regression coefficients for variables $X_1 - X_4$

X_1 is education level of respondent

X_2 is income level of respondent

X_3 is marital status of respondent

X_4 is religious affiliation of respondent

p is probability of enrolling in NHIF $(0 \leq p \leq 1)$

E_i is the error term

ln is the natural logarithm

The Pearson's chi-square method was administered to authenticate the link between the predictor and response variables. All assessments were performed using a 5% level of significance. Additionally, the qualitative information acquired from the open-ended queries was subject to thematic analysis in order to reinforce the results from the quantitative data investigation for display and understanding

3.9 Operationalization of Variables

The factors in the survey are quantified according to the data presented in Table 3.3.

Table 3.3: Measurement of variables

Research objective	Type of variable	Indicator	Measurement scale	Type of analysis	Tools of analysis
To establish how the uptake of national health insurance fund (NHIF) in Kenyatta market is influenced by level of education.	**Independent** Level of education	- No education - Primary Level - Secondary Level - Post - Secondary	Ordinal	Parametric	✓ Frequency ✓ Pearson Chi Correlation ✓ Binary Logistic Regression
To establish how the uptake of national health insurance fund (NHIF) in Kenyatta market is influenced by level of income.	**Independent** Level of income	- Less than Kshs. 10,000 - Kshs 10,000 – 20,000 - Kshs 20,001 – 30,000 - Over Kshs. 30,000	Interval	Parametric	✓ Frequency ✓ Pearson Chi Correlation ✓ Binary Logistic Regression
To establish how the uptake of national health insurance fund (NHIF) in Kenyatta market is influenced by marital status.	**Independent** Marital Status	- Married - Single - Divorced - Widowed	Nominal	Parametric	✓ Frequency ✓ Pearson Chi Correlation ✓ Binary Logistic Regression
To establish how the uptake of national health insurance fund (NHIF) in Kenyatta market is influenced by religious affiliations	**Independent** Religious Affiliation	- Christian - Muslim - Hindu - Others	Nominal	Parametric	✓ Frequency ✓ Pearson Chi Correlation ✓ Binary Logistic Regression

3.10 Ethical Consideration

Prior to beginning the research, approval was requested from NACOSTI, followed by notifying the relevant authorities at the County level of the researcher's intention to gather data within their domain. The individuals in the survey were then apprised of the situation and scheduling of the data gathering was done for simplification. At no time were the participants asked to give out any private information in the surveys to preserve their anonymity and bolster their trust in the research. The participants were also permitted to cease their participation in the study if they felt uncomfortable.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter provides a thorough examination of the outcomes generated from the analytical assessment of the data, in addition to interpretative examination of the research discoveries. It has been arranged into individual portions, which include the response rate of the questionnaires and survey members' demographic makeup. It also evaluates the outcomes and utilizes inferential statistical methods to ascertain the link between the factors and revlations classified in line with the objectives, and then presented through tables.

4.2 Questionnaire Response Rate

The researcher issued a total of 241 semi-structured questionnaires, of which 216 were completed and usable for research; this revealed a response rate of 89.6%, which is considered to be excellent according to Mugenda and Mugenda's (2012) criteria of 70% or greater. This suggests that the research team's methods of gathering information were effectual, productive, and triumphant with respect to recruiting, involving, suitably planned instruments and correspondence.

4.3 Background Information

This endeavor sought to determine the demographic characteristics of the research participants to gain insight into their ability to comprehend and appropriately react to the questions posed in the survey, as well as to ascertain the overall composition of informal sector employees in Kenyatta Market. This was done in sections covering the aspects of gender, age groupings, business speciality and and period in business. In addition, enrolment into the NHIF which is the dependent variable, was also covered.

4.3.1 Gender of Respondent

The sampled respondents were initially prompted to indicate their gender by selecting one of two provided options. The findings on the distribution of the respondents in terms of gender is presented in Table 4.1.

Table 4.1: Gender of Respondents

Gender	Frequency	Percent
Female	127	58.8
Male	89	41.2
Total	**216**	**100.0**

The analysis indicate that 58.8% of the sampled research respondents belonged to the female gender while the remaining 41.2% indicated that they belonged to the male gender. This can be ascribed to the fact that the predominant form of business in Kenyatta Market is hairdressing and small-scale hotels which are mostly run by women or have majority of employees being women. According to CoK (2012), it is recommended that any grouping of individuals should not have more than two-thirds of one gender. Consequently, the sampling of participants in the inquiry was gender-balanced.

4.3.2 Age of Respondents

The research necessitated that participants disclose their age bracket, with the distribution of participants by age represented in Table 4.2.

Table 4.2: Age Group

Age (Years)	Frequency	Percent
18 - 30	49	22.7
31 - 40	107	49.5
Over 40	60	27.8
Total	**216**	**100.0**

The results indicate that 22.7% of participants belonged to the 18–30 year demographic, while the majority of responders (49.5%) fell within the 31–40 year age range. In addition, a notable portion, amounting to 27.8%, of the study participants were aged 40 or higher,

indicating a considerable number of veteran personnel. It is assumed that people at that age are done with school and are busy looking for ways of making a living for their families. It was therefore expected that they have sufficient information regarding health insurance.

4.3.3 Nature of Business

The examination was conducted to identify the type of business the participants ran, with the data reported in Table 4.3.

Table 4.3: Nature of Business

Nature of Business	Frequency	Percent
Food Vendors	33	15.3
Retail and Wholesale Shops	52	24.1
Saloon and Kinyozi	113	52.3
Motor Vehicle and Motor Bike Mechanics	18	8.3
Total	**216**	**100.0**

Table 4.3 results from the analyzed data indicate that 15.3% of the research respondents were food vendors, 24.1% had retail and wholesale shops, retail and wholesale shops were operated/owned by 52.3% of the research respondents, while 8.3% of the research respondents who remained were motor vehicle and motor bike mechanics. It is observed that the most common business operated in Kenyatta market was that of saloon and kinyozi, this is attributable to the fact that, saloon and kinyozi businesses do not require much technical, monetary and regulatory investment.

4.3.4 Duration of Business Operation

The research sought to establish the duration in years that the sampled participants had operated their businesses. The outcomes of the assessment are presented in Table 4.4.

Table 4.4: Business time span

Duration (Years)	Frequency	Percent
Under 1	102	47.2
1 less than 3	61	28.2
3 less than 5	33	15.3
Over 5	20	9.3
Total	**216**	**100.0**

Table 4.4 results indicate that 47.2% (102) of the 216 sampled respondents had their businesses involved in economic activities at Kenyatta market for less than 1 years, 28.2% (61) had their businesses involved in economic activities at Kenyatta market for a period ranging between 1 year and 3 years, 15.3% had their businesses involved in economic activities at Kenyatta market for between 3 years and 5 years, while the remaining 9.3% were had been in period for more than 5 years. previous studies have indicated that majority of the MSMEs globally never survive beyond the third year. These findings evince that many informal traders (75.4%) had less than 3 years of operations in the market, which is more than three-quarters of the sampled businesses. This is in tandem with results on sustainability of MSMEs, in which majority of the businesses operated/owned by the informal sector employees in Kenyatta Market are found.

4.3.5 Enrolment in National Health Insurance Fund (NHIF)

The response variable investigated in the study was uptake of the NHIF medical cover, where participants were invited to indicate their enrolment status through a check box, outcomes documented in Table 4.5.

Table 4.5: Enrolment in NHIF

Response	Number	Percent
Yes	139	64.4
No	77	35.6
Total	**216**	**100.0**

The examination showed that 139 (64.4%) had registered for the NHIF, while the other 77 (35.6%) had not subscribed to the system. However, despite majority enrolment, statistics has shown that only a few members continue to be active. Similarly, 35.6% respondents not enrolled is quite worrying given the fact that the government policy states that every adult (over 18 years) must enrol for NHIF.

4.4 Level of Education and Uptake of National Health Insurance Fund (NHIF).

The study first purposed at assessing how the level of education of a respondent influences enrolment into a health insurance scheme, in particular, the take-up of NHIF. This was done in two parts, first establishing the extent of influence and next establishing the influence of constructs of level of education.

4.4.1 Extent to which Level of Education Influences the Uptake of National Health Insurance Fund (NHIF).

The study firstly aimed at doing an assessment of the degree to which education level influences the adoption of NHIF. This objective was accomplished by requesting participants to specify the extent to which they believed an individual's education level influences their intention to take the NHIF and outcomes documented in Table 4.6.

Table 4.6: Extent of Influence of Level of Education on the Uptake of National Health Insurance Fund (NHIF)

	Frequency	Percent
Not at all	3	1.4
Little extent	19	8.8
Moderate extent	33	15.3
Great extent	157	72.7
Very great extent	4	1.8
Total	**216**	**100.0**

The study demonstrated a robust relationship between the maximum educational accomplishment and NHIF enrollment; 72.7% of the individuals surveyed believed that this interlink was of a great extent. Furthermore, 15.3%, 8.8%, and 1.8% of the respondents

believed that the highest education attainment of an individual had a moderate, minimal, and considerable influence respectively. Lastly, 1.4% perceived no relationship between highest educational attainment and the uptake of the national health insurance fund. These revelations align with the findings of Mwaura et al., (2021) who proposed that a lack of education among citizens of the four countries studied had a considerable impact on the low uptake of health insurance.

4.4.2 Influence of Level of Education Aspects on Uptake of National Health Insurance Fund (NHIF).

This research endeavored to gauge the impact of educational attainment on the utilization of the NHIF. To acquire data on the level of education of the population, items were designed and analyzed on a Likert scale. Participants were requested to respond to the questions by selecting one box only. The outcomes of this investigation can be seen in Table 4.7.

Table 4.7: Level of Education Indicators

	Statement	Mean	Std. Dev.
1	I have never attended school	1.04	0.13
2	I dropped out of primary school	1.98	0.79
3	I finished primary level education	2.91	0.87
4	I dropped out of secondary school	3.14	0.89
5	I finished secondary school	4.29	0.33
6	I have never attained any post-secondary education	3.99	1.17
7	I have post-secondary school training	2.06	0.24
	Composite	**2.77**	**0.87**

The results presented in Table 4.7 demonstrate that the research respondents displayed a strong disagreement with the statement "I have never attended school", as indicated by the arithmetic mean of 1.04 and average variability of 0.13. This signifies that the a greater percentage of the persons polled had acquired a certain degree of educational instruction. Furthermore, the second line item "I dropped out of primary school" yielded an arithmetic

mean of 1.98 and average variability of 0.79, indicating that the research participants disagreed with the statement. This suggests that a limited number of respondents dropped out of their primary education. The third statement was, I finished primary level education, this gave an average of 2.91 with an average variability of 0.87, this reveals that the research respondents were indifferent on the statement, this basically implies that the respondents were divided on the statement. This was credited to the assumption that data collection was carried out among respondents with varied academic attainments, some of whom had cleared primary school education as well as those who dropped out. The fourth line item, I dropped out of secondary school, the mean was 3.14 and an average variability of 0.89, this demonstrates that the sampled respondents were neither in disagreement nor agreement with the line item, the large average variability points to the fact that the respondents had divergent views with regard to the statement. The fifth line item, which was "I finished secondary school," yielded an arithmetic mean of 4.29 with an SD of 0.33, indicating that the participants in the study were largely in consensus. The sixth line item, "I have never attained any post-secondary education," resulted in an arithmetic mean of 3.99 with an SD of 1.17, suggesting that the majority of the research subjects were in agreement, though the elevated SD relative to the mean implies a divergence in opinion. The seventh item was; I have post-secondary school training, the item arithmetic average was 2.06 with an average variability of 0.24, pointing to the fact that the respondents of the research were in disagreement with the line item, hence majority of them did not have post-secondary school training, and this is a predominant characteristic of informal sector employees, where the vast majority of them majorly have primary and secondary level of education.The computed average of 2.77, with associated standard deviation of 0.87, illustrates a lack of consensus concerning the level of education-related statements in the sample population.

The respondents of the research were also tasked with the job of briefly indicating how else they thought the level of education of a person influences their decision on take up the national health insurance fund (NHIF). A few responses were sampled and presented verbatim as follows; One respondent wrote,

> *I believe the education level of a person helps them in making a choice on the type of health insurance to take up, given the fact that there exist several other private health insurances apart from the NHIF, a person who is well educated can therefore look at the several insurances in the market and decide which one to take up. (Respondent 2)*

Another respondent said:

> *Education is a significant influencer of uptake. I don't think an illiterate person would understand the advantages of taking insurance, and therefore, they may not take it up. The more educated the person is the greater the chances of the person taking up health insurance, not necessarily NHIF but any health insurance that they feel meets their needs. (Respondent 8)*

While the two respondents indicated a direct connection between education level and take-up of the national health insurance fund, there were few who thought there existed no association between the two variables. For instance, one wrote,

> *I don't think I need to have formal education to understand the importance of taking up health insurance. All I need is the government or the insurance companies to come and explain to me the benefits of health insurance and I will decide whether to take it up or not. In my opinion, education level cannot influence a person's decision on whether to take or not to take health insurance. (Respondent 5).*

The basic conclusion that is arrived at based on the Likert statements analysis and the statements given by the respondents point to the fact that the education level of a person has influence on their decision to take-up of health insurance. The precise level of influence is determined on the inferential section.

4.5 Level of Income and Uptake of National Health Insurance Fund (NHIF).

The academic inquiry endeavored to assess the effect of an individual's fiscal standing on their decision to obtain medical coverage, particularly the NHIF plan. This was done in two parts, first establishing the extent of influence and next establishing the influence of constructs of level of income.

4.5.1 Extent to which Level of Income influences National Health Insurance Fund (NHIF) enrolment.

The second purpose of this research was to evaluate the extent to which income level is a factor in the uptake of the NHIF. This objective was accomplished by requesting participants to specify the extent to which they believed an individual's income level influences their intention to adopt the NHIF and outcomes tabled in 4.8.

Table 4.8: Level of Income Effect on Uptake of NHIF

	Frequency	Percent
Not at all	2	0.9
Little extent	11	5.1
Moderate extent	16	7.4
Great extent	169	78.2
Very great extent	18	8.3
Total	**216**	**100.0**

The data in Table 4.8 demonstrate that a substantial proportion of the 216 surveyed research participants (78.2%) believed that the income level of an individual has a significant bearing on the choice to either opt-in or opt-out of the NHIF. The study found that among the 216 participants, 8.3% strongly agreed that income level plays a crucial role in influencing an individual's decision to enroll in the national health insurance fund, while 7.4% agreed to a moderate degree. In contrast, 5.1% believed that the level of income has a minor effect on the decision to take up health insurance, and a mere 0.9% thought that income had no bearing. In general, more than 85% of the respondents of the research concur with the fact that the one's financial standing largely influenved the subscription NHIF in Kenya. These findings corroborate those of Mohamed (2021), Mukhwana et al

(2015), and Kamano (2022) who all showed in their studies that income plays a key position in the decision of a person to take up health insurance.

4.5.2 Influence of Level of Income Aspects on Uptake of National Health Insurance Fund (NHIF).

The study also intended to do an assessment the influence of income level indicators on the take-up of the NHIF. The statements used derivatives of income level indicators and measured them based on a Likert scale. The respondents were tasked with respond ing to the statements provided by ticking a single box that best describes their feeling.

Table 4.9: Level of Income Indicators

Statement	Mean	Std. Dev.
I earn less than Kshs. 10,000 a month	3.67	0.30
I earn between Kshs. 10,000 – Kshs. 20,000 a month	3.71	0.18
I earn between Kshs. 20,001 – Kshs. 30,000 a month	2.79	0.86
I earn more than Kshs. 30,000 a month	2.64	0.71
Combined	**3.20**	**0.53**

The outcomes displayed in Table 4.9 indicate that, with regard to the first line item, that is; "I earn less than Kshs. 10,000 a month", returned an arithmetic average of 3.67 with an average variability of 0.30 pointing to the fact that the respondents of the research were in tandem with the content of the line item. The second line item in the research revealed that the respondents earned between Kshs. 10,000 – Kshs. 20,000 a month, yielding an arithmetic mean of 3.71 and an average variability of 0.18, indicating a consensus among respondents in regard to the content of the line item. The subsequent line item, which noted earnings between Kshs. 20,000 – Kshs. 30,000 a month, produced an arithmetic average of 2.79 and an average variability of 0.86, suggesting that respondents did not have a unified stance with respect to the line item; the high average variability relative to the average indicates that the participants had disparate views on the line item. The fourth line item, I earn more than Kshs. 30,000 a month, gave an arithmetic average of 2.64 with an average variability of 0.61, this suggests that the respondents of the research were not in tandem

with the line item, hence leading to the high average variability due to divided opinions on the line item. Finally, an aggregated avearge was calculated, resulting in a value of 3.20 with an average variability of 0.53, this shows that the respondents generally had split opinions on the role of income level on the decision of a person to take-up the national health insurance fund (NHIF) in Kenya.

Additionally, the research asked the respondents to briefly describe how else they thought the role of level of income was in the uptake of NHIF. The responses were sampled and some are indicated below literally. One respondent wrote:

> *My income level is a very important determinant of insurance uptake. When I cannot take care of the primary needs such as food and rent, then it becomes impossible for me to make a contribution towards a health insurance scheme which I may not use the entire year. When I fall sick I simply go to a local clinic and pay for treatment and leave, rather than paying some fixed amount monthly. (Respondent 102)*

Another respondent added;

> *I totally agree that income associates with uptake of NHIF positively, those who have high income can easily put some money into insurance while those who do have low income do not the luxury of putting money in an insurance fund which they may not use for an entire year due to the difficulty involved in accessing NHIF funding in both public and private hospitals in Kenya. (Respondent 42)*

There was however, a respondent who had a negative opinion on the association between level of income a person and their chances of enrolling in a health insurance scheme, the respondent wrote;

> *I do not think what I earn influences my decision to take up health insurance. Just because I earn little money should not*

deter me from enrolling in NHIF, this low income should in fact encourage me to enroll in NHIF so that I can enjoy good health services any day. In my opinion, income and uptake have no association at all. (Respondent 121)

From the several respondents' descriptions sampled, it can be inferred that level of income positively associates with the decision of a person to take-up the national health insurance fund (NHIF). The determination of whether the association is significant or not will be determined in the inferential section of this research.

4.6 Marital Status and Uptake of National Health Insurance Fund (NHIF).

The third research objective was assessment of the influence of marital status on the uptake of the national health insurance fund (NHIF). This was done in two parts, first establishing the extent of influence and next establishing the influence of constructs of marital status.

4.6.1 Extent to which Marital Status influence the Uptake of National Health Insurance Fund (NHIF).

This exploration endeavored to examine the effect of one's matrimonial standing on the uptake of the NHIF and the results demonstrated in table 4.10.

Table 4.10: Extent of Influence of Marital Status on the Uptake of National Health Insurance Fund (NHIF)

	Frequency	Percent
Not at all	39	18.1
Little extent	48	22.2
Moderate extent	41	19.0
Great extent	53	24.5
Very great extent	35	16.2
Total	**216**	**100.0**

The findings depicted in Table 4.10 demonstrate that 53 (24.5%) of the population surveyed perceived that marital condition influenced the takeup of NHIF. Roughly half of

the sample (48, 22.2%) espoused the idea that marital status had a slight impact on the uptake of the NHIF, 41 (19.0%) held the view that it had a moderate influence, and 39 (18.1%) maintained that it had no effect at all. Equally, 35 (16.2%) of respondents believed that matrimonial status played a considerable role in the uptake of the national health insurance fund. Cumulatively, 59.7% which is more than half of the sampled respondents of the research were of the belief that matrimonial condition had a bearing on the acauisition of NHIF plan. These results are in tandem with those of Ngetich (2021), Fadlallah et al (2018), Badu et al (2018), and Dror et al (2016) who all arrived at the conclusion that the status of marriage of a person associates with take-up of health insurance, in particular, the married individuals had increased likelihoods of enrolment into a health insurance scheme as compared to the single, widowed, and divorced individuals. Marriage was seen as increasing the health burden of individuals, hence forcing them to register in a health insurance scheme.

4.6.2 Influence of Marital Status on the Uptake of National Health Insurance

This study scrutinized the effects of marital condition on individual subscription to NHIF plan and the outcomes of analysis depicted in Table 4.11.

Table 4.11: Marital Status Aspects

Statement	Mean	Std. Dev.
I am married	3.87	0.61
I am single	2.39	0.65
I am divorced	2.88	0.38
I am widowed	2.24	0.42
Composite	**2.85**	**0.74**

The outcome presented in Table 4.11 indicates that, the first line item; I am married, had a mean of 3.87 with an average variability of 0.61 pointing to the fact that the respondents of the research were in general approval of the line item statement, this generally points to the facts that a bulk of the research respondents were in marriages. The second line item; I am single, returned a line item average of 2.39 with an average variability of 0.65,

indicating that the research respondents were in general disagreement with the line item statement, hence most of them were not single. The third statement was; I am divorced, this returned an arithmetic average of 2.88 with an average variability of 0.38, this shows that the respondents of the research were neither in disagreement nor agreement with the the line item. The fourth statement was; I am widowed, the line item average was 2.24 with an average variability of 0.42 point to the fact that the research respondents were in disagreement with the line item, hence indicating that few respondents were widowed. The composite arithmetic average and composite average variability of the items constituting marital status were 2.85 and 0.74 respectively, which suggests that respondents of the study demonstrated a limited degree of reliance on the matrimonial status of a person when making decisions regarding the adoption of the national health insurance fund.

The research respondents were also required to provide a brief description on an open-ended question by indicating how else they felt marital status influenced the decision of a person to either not join or join a health insurance scheme, with specific prominence put on the national health insurance fund (NHIF). The responses were varied and some are captured verbatim as follows. One respondent said:

> *I have a feeling the marital status of an individual influences their choice of whether to take or not to take health insurance. Married individuals are more probable to take health insurance since they have combined income and the other reason could be the fact that they have children who are prone to childhood maladies, hence they need a cover that can take care of their needs. (Respondent 112)*

Other responded wrote;

> *Marital status has a significant role in uptake of NHIF because of the added need of the health requirement of the children in the family. (Respondent 209)*
>
> *Once you get married, you realize that you have a family to take care of, the needs of the family either double or even triple your*

> *health budget, there are times when you do not have money and your child is sick, such scenarios compelled me to take up a health insurance policy. I can always rest knowing that my health needs are taken care of. In addition, when in marriage, I can benefit from my spouse cover. I actually enrolled in NHIF after getting married, I therefore feel that marital status influences the decision to enroll or not. (Respondent 33)*

Contrary to the positive responses, some respondents wrote;

> *Issues of health cannot be pegged on whether one is married or not, we all get sick at some point irrespective of our marital status, I strongly believe that my choice on whether to adopt or not a health insurance cover is not premised on my marital status. (Respondent 21)*

> *I am single and enrolled in NHIF, I just feel the need to take care of my health by enrolling so that if at any point I become sick but do not have money to go to a health facility right then, I am sure insurance can cater for my hospital bill. So, to me marital status does not affect enrolment decision of a person, it is about education on the benefits of insurance. (Respondent 11)*

It is widely held that marital status can influence an individual's choice to join the NHIF. This is reinforced by the findings of Reshmi et al (2021), Kituku et al (2016), and Dror et al (2016), who have all demonstrated that marriage can influence the acquisition of medical indurance. Based on the relative importance index (RII), the researchers found that married individuals had the highest likelihood of taking up health insurance in comparison to the other classes of marriage, while single individuals had the least chance of taking up health insurance.

4.7 Religious Affiliation and Uptake of National Health Insurance Fund (NHIF).

The last objective aimed at doing an assessment of the nexus between religious affiliations and the adoption of the NHIF. This was done in two parts, first establishing the extent of influence and next establishing the influence of constructs of religious affiliation.

4.7.1 Extent to which Religious Affiliation Influences the Uptake of National Health Insurance Fund.

The investigator purposed to determine the extent to which religious affiliation may influence enrolment in the NHIF. Participants of the study were asked to indicate the level to which they regarded religious affiliation as a factor in an individual's likelihood to take up the NHIF.

Table 4.12: Extent of Influence of Religious Affiliation on the enrolment of NHIF

	Frequency	Percent
Not at all	10	4.7
Little extent	23	10.5
Moderate extent	17	7.9
Great extent	122	56.5
Very great extent	44	20.4
Total	**216**	**100.0**

Table 4.12 yields statistical evidence that a considerable proportion of the 216 research participants (56.5%, or 122 people) opine that faith is a paramount factor in a person's inclination to join the national health insurance fund. 20.4% believe that religious affiliation of an individual has a very great influence on their uptake of national health insurance fund, 10.5% believe religious affiliation influences to a little extent a person’s desire to register in the national health insurance fund, 7.9% believe religious affiliation influences a person’s desire to register in the national health insurance fund to a moderate extent, and lastly, 4.7% believe that the religious affiliation of a person has no influence on a person’s desire to register in the national health insurance fund. These results corroborate those of Ng’ang’a (2021), Nguru (2018), Hassan, (2017), Gitau (2016) and Fenny (2016)

who in their research arrived at the conclusion that religion plays a significant part in the take-up of medical cover plan.

4.7.2 Influence of Religious Affiliation Aspects on Uptake of National Health Insurance Fund (NHIF).

The study also intended to do an assessment of the influence of constructs of religious affiliation on the take-up of NHIF. The participants were assessed with respect to their religious affiliation by means of statements rated on a Likert scale; they were asked to indicate their agreement with each statement by selecting one box only, and outcomes presented in Table 4.13.

Table 4.13: Religious Affiliation Indicators

	Statement	Mean	Std. Dev.
1	I am a Christian	4.04	0.11
2	I am a Muslim	2.98	0.29
3	I am a Hindu	2.73	0.52
4	I am a Traditionalist	1.42	0.16
5	I do not subscribe to any religion	2.14	0.62
	Composite	**2.66**	**0.38**

Table 4.13 yields the result that the mean score of 4.04 for the first line item, "I am a Christian," is accompanied by a low average variability of 0.11, thereby demonstrating that the study participants exhibited a high degree of collective agreement with this statement. This demonstrates that majority of the respondents subscribed to the Christian faith. The second question in the survey, pertaining to an avowal of Muslim belief, generated an average of 2.98 (SD of 0.29), suggesting that the participants were neutral thus implied that nearly half of the surveyed population was Muslim. The third line item, which indicated adherence to the Hindu faith, produced an arithmetic mean of 2.73, accompanied by an average variability of 0.52, demonstrating that the respondents were largely ambivalent, implying a low proportion of Hindus among them. The fourth line item, which concerned traditionalism, yielded a mean of 1.42 and an average variability of 0.16, indicating a strong

level of disapproval, thus pointing to a minimal number of traditionalists in the survey group. The fifth statement was, I do not subscribe to any religion, this gave an arithmetic average of 2.14 with an average variability of 0.62, implying that the respondents were in disagreement with the line item. Lastly, a composite average of 2.66 with an average variability of 0.38 was found, this shows that the in general the respondents believe that religious affiliation has some influence on the registration into the NHIF.

The respondents of the research were also tasked with briefly indicating if they thought the religion of an individual influences their decision on uptake of the NHIF. A few responses were sampled and presented verbatim as follows; One respondent wrote,

> *Religion has a big role to play in a person's decision to adopt or not to adopt a health insurance scheme. Some religions will discourage people from enrolling while others will encourage people to enroll. I generally feel that the religion that a person is affiliated to plays a key role in influencing their decision on whether they should take-up a health insurance scheme or not to take-up. (Respondent 2)*

The basic conclusion that is arrived at based on the Likert statements analysis and the statements given by the respondents point to the fact that the religious affiliations of a person has influence on their decision on enrolment in a health insurance scheme. The precise level of influence is determined on the inferential section.

4.8 Inferential Statistics

Inferences are usually carried out with a view of finding the strength of relationship amongst study parameter. The regression technique of binary logistic nature was adopted since the dependent variable was of a binomial nature, where NHIF enrolment status was indicated, while the independent variables were; education level, income level, marital status, and religious affiliation. The outcome of the analyzed data are discussed as follows,

4.8.1 Goodness of fit statistics

To assess whether the proposed model accurately represents the information set, a goodness-of-fit assessment was conducted and the outcomes presented in table 4.14.

Table 4.14: Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	63.127	4	.000
	Block	63.127	4	.000
	Model	63.127	4	.000

The analysis demonstrate that the constructed model is an effective fit, as evidenced by the p-values being under the 0.05 threshold. That is the model is a good-fit in comparison to the null model which usually has no variables.

4.8.2 Model Summary

The model summary provides an account of the extent of variability/alterations in the response variable (uptake of health insurance) that can be linked to the predictor variables (religious affiliation, education level, marital status, income level) observed in the model produced. The results of the analysis are shown in Table 4.15.

Table 4.15: Model Summary

Step	-2 log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	43.064[a]	.351	.617

a. Estimation terminated on iteration number 7 because parameter estimates changed by less than .001

The results in Table 4.15 show a pseudo R squared value, the commonly used value is the Nagelkerke R square value since it is an adjusted value of the R squared value generated based on the Cox & Snell approach. The Nagelkerke R square metric of 0.617 conveys that 61.7% of the variance in enrolment in NHIF can be allocated to the predictors in the model, in this case are; educational, financial, marital and spiritual standings.

4.8.3 Variables in the Equation

This section is used to determine which of the predictor variables has a statically significant effect on the decision of a person to enroll in NHIF. The outcomes of the data analysis are displayed in table 4.16.

Table 4.16: Variables in the Equation

		β	S.E	Wald	df	p	$Exp(\beta)$
Step 1[a]	Education Level	0.103	0.012	8.746	1	0.001	1.108
	Income Level	1.950	0.537	21.173	1	0.000	7.029
	Marital Status	0.006	0.038	0.065	1	0.327	1.006
	Religious Affiliation	-0.071	0.025	4.266	1	0.039	0.931
	Constant	1.636	0.689	3.761	1	0.052	3.807

a. Variable(s) entered on step 1: Education level, Income Level, Marital Status, Religious Affiliation.

The results in Table 4.16 show the connection that exists among the outcome and predictor variables. Beta (β) denotes the anticipated change in the log odds $(Exp(\beta))$. In this case, it is observed that the probability of an individual enrolling in NHIF if they are educated or for every year of increased education is 1.108 higher than those individuals who have a low education level, given a p-value of $0.001 < 0.05$ this implies that education level is significant forecaster of enrolment in NHIF. The probability of an individual enrolling in NHIF if they have a higher income is 7.026 times greater than those individuals who have a low level of income, Given that the p-value was less than 0.05, it was determined that income level was a pertinent factor in predicting whether or not an individual would join NHIF. Conversely, marital status did not have a noteworthy influence on the decision to take up the medical cover ($0.327 > 0.05$). Lastly, religious affiliation was established as being a statistically significant forecaster of enrolment in NHIF ($0.039 < 0.05$), the negative value of the beta coefficient however indicates that the more affiliated the people were to their religion the less they were to enroll in NHIF.

In general, it is concluded that education level, income level, and religious affiliations were significant predictors of uptake of NHIF while the status of marriage of an individual was not a significant predictor of uptake of NHIF. The resultant model is of the form;

$$y = \ln\left[\frac{p}{(1-p)}\right] = 1.636 + 0.103x_1 + 1.950x_2 + 0.006x_3 - 0.071x_4$$

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this section, the results from the examination are divulged and explored, elucidating the ramifications of the verdicts. The chapter is done in sections as follows;

5.2 Summary of Findings

The study was designed to respond to four objectives that were further put into research questions. Data was analyzed both qualitatively and quantitatively and the major findings presented as follows:

5.2.1 Level of Education and Uptake of National Health Insurance Fund (NHIF)

The first research objective was to assess the connection between education level and national health insurance fund (NHIF) uptake. This was done based on both the descriptive and inferential techniques. The analysis demonstrated that educational attainment had a major bearing on NHIF adoption. It was demonstrated that a large proportion of the respondents had obtained secondary school level education. Statistical inference revealed that there was a notable direct correlation between an individual's educational level and their choice of whether to take out health insurance. It was concluded that an individual's educational level could be used to forecast correctly the probability that they will acquire medical cover plan, with a higher level of education resulting in a higher likelihood.

5.2.2 Level of Income and Uptake of National Health Insurance Fund (NHIF)

The second research objective was to assess the connection between income level and national health insurance fund (NHIF) uptake. This was done based on both the descriptive and inferential techniques. The computed mean revealed that the study participants held the opinion that income had a critical effect on the acceptance of NHIF. It was also

ascertained that the majority of the participants earned a salary that was not more than Kshs. 20,000, which is equivalent to a little over one dollar a day. The results of the analysis indicated that income was the foremost factor pertaining to the subscription of a national health insurance scheme, with an increment in income heightening the likelihood of an individual registering for such a plan by a factor of seven. It was additionally determined that income level significantly predicts the decision of an individual to enrol in the national health insurance.

5.2.3 Marital Status and Uptake of National Health Insurance Fund (NHIF)

The researcher's third component was to prove the interconnection between marital status and national health insurance fund (NHIF) uptake. This was done based on both the descriptive and inferential techniques. The computed composite arithmetic average and average variability showed that the research respondents considered marital status as having little influence on the decision of the research respondents to register or not register for NHIF among the informal sector workers. Majority of the workers were married, and from the qualitative data collected, it was specifically picked they were the ones who had a strong belief that being in a marriage increases the chances of an individual registering in health insurance due to the added health burden brought about by children and the pooled income also made it easier for them to register in health insurance. The findings from inferential analysis corroborated the ones from the descriptive analysis by indicating that marital status did not have any influence on health insurance uptake that could be considered to be statistically significant. It was confirmed that one's matrimonial situation had no influence on the resolution of someone to enroll in the medical care plan.

5.2.4 Religious Affiliation and Uptake of National Health Insurance Fund (NHIF)

The fourth research goal was to evaluate the interlinkage among religious affiliation and NHIF uptake. This was carried out based on both the descriptive and inferential techniques. The calculated multiple arithmetic average and average deviation showed that the research respondents considered religious affiliation as having a great influence on the decision of the research respondents to register or not register for NHIF among the informal sector

workers. The sampled research respondents were also found to be religious with most subscribing to the Christian faith. The results of the inferential examination demonstrated a statistically signifcant inverse relationship between enrollment in health insurance (NHIF) and religious conviction, specifically, individuals who held firm on their religious teachings were found to be less probable to register in a health insurance scheme. Lastly, affiliation to a religious formation was established to have a significant prediction power on the decision of an individual to adopt the national health insurance fund.

5.3 Discussion of Findings

In this part of the paper, a comparison is made between the discoveries of this investigation and the discoveries of other researchers in accordance with the goals of the study. This is illustrated in the following subsections;

5.3.1 Level of Education and Uptake of National Health Insurance Fund (NHIF)

The research was premised to exploring correlation between a respondent's educational attainment and the choice to join the national health insurance fund (NHIF). Results demonstrated a direct and significant relationship at the 5% significant level between educational attainment and NHIF registration. In particular, an increase in the level of education by one unit increased the chances of an individual enrolling in NHIF by 1.108. The research findings are in tandem with those of Muhlis (2022), Mwaura et al (2022), Ngetich et al (2021), Seddoh and Sataru (2018) and Dror et al. (2016) who all conducted studies on the association between the two variables and found that there existed a strong statistically significant direct link between the education level of a person and their willingness to register in a national/community/social-based health insurance in their different jurisdictions using the linear regression technique and the Pearson's correlation coefficient.

5.3.2 Level of Income and Uptake of National Health Insurance Fund (NHIF)

The inquiry secondly considered the effect of a respondent's earning on the choice of the person to join the national health insurance fund (NHIF). It was discerned that there was a

solid positive relationship that was statistically remarkable at the 5% essential level between remuneration and acceptance of NHIF. In particular, a unit increase in the level of income increased the chances of an individual enrolling in NHIF seven (7) times. The research results are in track with those of Mukhwana et al (2015), who based on logistic regression established that a growth in the income of an individual resulted in a rise in the chances of the individual taking up health insurance of any type. Other researchers such as Pinilla and López-Valcárcel (2020) also established a positive association, in particular, the showed that a 1% increase in the level of income of an individual resulted in a 0.064% increase medical care plan enrolment. The findings also in agreement with those of Basaza et al (2019) who carried out a study in Kampala and established that taxi drivers with low income were least likely to register in a health insurance.

5.3.3 Marital Status and Uptake of National Health Insurance Fund

The third research objective was assessment of the influence of a respondent's marital status on the decision of an individual to register in the NHIF. Based on the binary logistic regression results, it was found out that there existed a very weak direct correlation which was not significant at the 5% significant level between national health insurance fund (NHIF) uptake and marital status. A p-value of 0.327, which surpasses the accepted 0.05, demonstrates that there is no notable connection between marital status and the adoption of a national/social health insurance. This outcome contradicts the conclusions of the investigations of Mukhwana et al (2015), Masengeli et al (2017), Njogu (2019), and Badu et al (2018), which all suggested a positive correlation between marriage and utelization of medical care plan using both logistic and linear regression analyses.

5.3.4 Religious Affiliation and Uptake of National Health Insurance Fund (NHIF)

The fourth principal study aim invlived examining the weight of religious standing on uptake of medical cover NHIF. The binary logistic regression results demonstrated a moderate opposite relationship which was statistically noteworthy at the 5% critical level between religious association and acceptance of NHIF. Specifically, it was established that an increase in religious association, that is, the more devoted a person is, the chances of

taking up the health insurance dwindles. The research findings corroborate those of Hassan et al (2021) and Ewulum et al (2022) who established a negative association between the two variables. On the flipside, the findings are in contrast with those of Badu et al (2018), Bhusal and Sapkota (2021) and Kumi-Kyereme et al (2017) who all found a direct significant nexus between religious affiliation and take-up of health insurance. In addition, the findings do not also agree with those of Nguru (2018) and Musonda and Chowa (2022) who carried out a study in Zambia and established the existence of no relationship between religious affiliation and uptake of healthcare cover plan.

5.4 Conclusions of the Study

The academic enquiry scrutinized the variables that influence an individual's decision to join the national health insurance fund. Primarily, the strength and direction of the effect of educational attainment, income level, marital status, and religious affiliation on the uptake of the fund was assessed. Through this study, it can be concluded that;

1. On the first objective, which aimed at determining the relation between the education level of an individual and the adoption of the national health insurance fund, it was found that that the level of education of an individual had a great influence on the decision of an individual to take up national health insurance fund. In particular, every unit change in the education level of a person resulted in a rise in the chances of the person enrolling in the national health insurance fund by 1.108. Futhermore, educational attainment was a noteworthy forecaster of acceptance of the state health coverage scheme ($p=0.001<0.05$).
2. In regards to the second goal, which aimed to gauge the correlation between an individual's financial capability and taking up NHIF, it was determined that income is a substantial factor determining a person's resolution to join the national health insurance scheme. In particular, a unit change in the income level of an individual resulted resulted in a rise in the chances of the person enrolling in the national health insurance fund by 7.026. In addition, income level was found to predict the take-up of the national health insurance fund significantly, since its beta coefficient had a p-value of 0.000 which is less than the standard significance level of 0.05.

3. On the third objective, which aimed at the determination of the nexus between marital status of an individual and the adoption of the national health insurance fund. It was found that matrimonial standing had little effect on the individual's decision to adoption NHIF. In particular, a unit change in the marital status of an individual, which basically means the change in the status of marriage of an individual, resulted in increased chances of the individual's enrolment in the national health insurance fund by 1.006. Concerning the predictive capacity of matrimonial status, a probability figure of 0.327 which surpasses the acceptable criterion of 0.05, implies that matrimonial status was not a noteworthy prognosticator of the acceptance of the national health insurance system.
4. On the fourth objective, which sought to determine the nexus between religious affiliation and the take up of the national health insurance fund. It was found that an inverse association existed between religious affiliation and NHIF uptake. In particular, every unit change in the religious affiliation of an individual resulted in a decrease in the likelihoods of that individual getting enrolled in the national health insurance fund by 0.962. In addition, religious affiliation was found to significantly predict the adoption of the national health insurance fund since its beta coefficient had a probability value of 0.039 which is less than the standard significance level of 0.05.

5.5 Recommendations of the Study

This research propose that the following measures should be taken;

1. The investigation demonstrated that the amount of formal education attained by an individual increased their odds of enrolment into the national health insurance fund (NHIF). The government should educate both the informal sector employers and employees on the benefits of having health insurance. In addition, adult education should be enhanced particularly in slum and rural areas where the level of education of the people in such areas is particularly low, this will go a long way in improving the literacy level of the people which in turn will have a positive influence on NHIF registration and utilization.

2. Given that income had the most noteworthy influence on NHIF cover adoption, it is suggested that the government should raise the minimum wage to a higher level, thus allowing informal sector laborers to attend to their primary needs as well as setting aside some funds for health insurance.
3. Since religious affiliation was established to have a negative influence on the adoption of health insurance. It is recommended that religious leaders should be mandated to educate their followers on the significance of taking up and being active members of a health insurance program so as to increase the level of uptake.

5.6 Suggestions for Further Studies

The investigation anticipates that subsequent examinations should contemplate the following:

i. A study of longitudinal nature be carried out so as to determine the association between cultural factors and the adoption of the national health insurance fund.
ii. An investigation should be conducted to identify the determinants that shape the retention of NHIF membership among informal laborers in Kenya.

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APPENDICES

Appendix 1: Letter for Request of Transmittal of Data

Mary Okumu
University of Nairobi
Department of Management Science and Project Planning

Dear Respondent,

I am a student presently registered at the Department of Management Science and Project Planning at the University of Nairobi seeking a Master of Arts in Project Planning and Management. One of the requirements of my program is that I complete a project. The topic of my research is: DETERMINANTS OF HEALTH INSURANCE UPTAKE AMONG THE INFORMAL SECTOR WORKERS: A CASE OF NATIONAL HEALTH INSURANCE FUND IN KENYATTA MARKET, KIBRA SUB-COUNTY. To enable me successfully develop the report, I developed questionnaires for data collection. I wish to request that you fill this questionnaire for me as truthfully as possible. Confidentiality of your response is guaranteed.

Thank you.

Yours truly,

……..

Mary Okumu

Appendix 2: Research Questionnaire

INTRODUCTION

Greetings! I am Mary Okumu, a scholar at the University of Nairobi. I am thankful for your willingness to respond to this set of questions. My aim is to collect data regarding NATIONAL HEALTH INSUARANCE FUND UPTAKE AMONG THE INFORMAL SECTOR WORKERS IN KENYATTA MARKET, KIBRA SUB-COUNTY. The information gathered will be used to inform health policy review. Your responses are confidential.

Kindly read and respond appropriately.

SECTION I: BACKGROUND INFORMATION

2. In which age bracket do you belong?

18– 30 years	
31 – 40 years	
Over 40 years	

3. What is your gender?

Female	
Male	

4. What is the nature of business you are involved in?

Food Vendor	
Retail and Wholesale Shops	
Saloons and Kinyozi	
Motor Vehicle and Motor Bike Mechanics	

5. This business has been in operation for how many years?

Under 1 year	
1 < 3 years	
3 < 5 years	
Over 5 years	

6. Have you enrolled in the NHIF scheme?

Yes	
No	

SECTION 2: LEVEL OF EDUCATION AND UPTAKE OF NHIF

To what extent do you believe an individual's education level influences the uptake of the national health insurance fund?

Very great extent ☐

Great extent ☐

Moderate extent ☐

Little extent ☐

Not at all ☐

This section seeks to collect data on your level of education. Kindly read the statements provided, then indicate the level at which you agree or disagree with them by put a tick appropriately. The rating is based on a Likert scale of 1 to 5 where;

1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

	Statement	**5**	**4**	**3**	**2**	**1**
E1	I have never attended school					
E2	I dropped out of primary school					
E3	I finished primary level education					
E4	I dropped out of secondary school					
E5	I finished secondary school					
E6	I have never attained any post-secondary education					
E7	I have post-secondary school training					

How else do you think level of education influences the uptake of NHIF?

……

……

……

……

SECTION 3: LEVEL OF INCOME AND UPTAKE OF NHIF

To what extent do you believe an individual's income level influences the uptake of the national health insurance fund?

Not at all	☐
Little extent	☐
Moderate extent	☐
Great extent	☐
Very great extent	☐

This section seeks to collect data on your level of income. Kindly read the statements provided, then indicate the level at which you agree or disagree with them by put a tick appropriately. The rating is based on a Likert scale of 1 to 5 where;

1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree

5 = Strongly Agree

	Statement	**5**	**4**	**3**	**2**	**1**
I1	I earn less than Kshs. 10,000 a month					
I2	I earn between Kshs. 10,000 – Kshs. 20,000 a month					
I3	I earn between Kshs. 20,001 – Kshs. 30,000 a month					
I4	I earn more than Kshs. 30,000 a month					

How else do you think level of income influences the uptake of NHIF?

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SECTION 4: MARITAL STATUS AND UPTAKE OF NHIF

To what extent do you believe an individual's marital status influences the uptake of the national health insurance fund?

Not at all ☐

Little extent ☐

Moderate extent ☐

Great extent ☐

Very great extent ☐

This section seeks to collect data on your marital status. Kindly read the statements provided, then indicate the level at which you agree or disagree with them by put a tick appropriately.

The rating is based on a Likert scale of 1 to 5 where;

1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

	Statement	**5**	**4**	**3**	**2**	**1**
M1	I am married					
M2	I am single					
M3	I am divorced					
M4	I am widowed					

How else do you think marital status influences the uptake of NHIF?

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SECTION 5: RELIGIOUS AFFILIATION AND UPTAKE OF NHIF

To what extent do you believe an individual's religious affiliation influences the uptake of the national health insurance fund?

Not at all	☐
Little extent	☐
Moderate extent	☐
Great extent	☐
Very great extent	☐

This section seeks to collect data on your religious affiliation. Kindly read the statements provided, then indicate the level at which you agree or disagree with them by put a tick appropriately. The rating is based on a Likert scale of 1 to 5 where;
1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

	Statement	**5**	**4**	**3**	**2**	**1**
R1	I am a Christian					
R2	I am a Muslim					
R3	I am a Hindu					
R4	I am a Traditionalist					
R5	I do not subscribe to any religion					

How else do you think religious affiliation influences the uptake of NHIF?

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THANK YOU