INFLUENCE OF SOCIO-ECONOMIC DETERMINANTS ON NATIONAL HEALTH INSURANCE MEMBERSHIP RETENTION IN THE INFORMAL SECTOR IN HOMABAY COUNTY, KENYA.

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DECLARATION AND APPROVAL

Declaration by the student

This study project is an original work that has not been previously submitted for academic or other considerations to any other institution or university.

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Approval by the supervisor

This study project has been submitted for review with my consent as the supervisor of the university.

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DEDICATION

This work is dedicated to my family. I specifically thank my wife Alice for her continuous support, which enabled me to complete my research work.

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My deepest appreciation goes to the following.

Great God for his gift and guidance to complete the project successfully.

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ABSTRACT

The role that health insurance plays in helping low-income economies pay for healthcare is becoming increasingly apparent in today's globe. The attainment of Universal Health Coverage (UHC), an objective that wishes to guarantee that all individuals have contact to necessary healthcare services without imposing financial strain or destitution, is an exceedingly high priority for emerging nations. This study intended to investigate the influence of socioeconomic factors on the maintenance of national health insurance coverage in the unorganised sector in Homabay County, Kenya, with a particular emphasis on the income, work status, educational attainment, and health status of those working in the

unorganised sector. The Weberian Model of Social Stratification Expected Utility theory and Rational Choice Theory were the two primary theories examined in this study. In this examination, both qualitative and quantitative research methods was applied. A structured interview guide was used to collect most of the quantitative data using a focus group discussion technique, which was double-checked for accuracy and completeness. Information from the NHIF database was gathered at many sites using a cross-sectional survey design. The Homabay branch, Mbita station, and Oyugis station made up the target population. The correlation coefficient results (R = 0.866) revealed a strong positive correlation between the predictors (income, education, employment, health status) and the dependent variable (member retention). This suggests that as socio-economic conditions improve, retention rates may also increase. The R Square (0.750) indicated that approximately 75% of the variance in national health insurance membership retention can be explained by the four socio-economic factors. Study recommends that authorities should consider revising the NHIF contribution structure to introduce a tiered system that accounts for varying income levels, particularly in the informal sector. NHIF members should engage in community forums to discuss their experiences and challenges related to health insurance. NGOs and community-based organizations should partner with NHIF to create localized programs that build awareness and educate informal sector workers about the importance of health insurance. The study concluded that households with regular income exhibit a greater capacity and commitment to making consistent NHIF contributions. This finding highlights a critical link between financial stability and health insurance participation; members who can rely on steady income are more inclined to view NHIF as an essential safety net. The fact that a substantial portion of respondents believes that higher education correlates with self-insurance capabilities suggests a disparity in health literacy within the informal sector. Given the study indication that regular income enhances commitment to NHIF contributions, subsequent research should investigate how fluctuations in income over time affect membership retention.

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ACRONYMS AND ABBREVIATIONS

MDGs Millennium Development Goals

NHIF National Hospital Insurance Fund

SDGs Sustainable Development Goals

UHC Universal Health Care

WHO World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The role that health insurance plays in helping low-income economies pay for healthcare is becoming increasingly apparent in today's globe. It enables individuals to access highquality medical care expeditiously (Muketha, 2016). Reaching Universal Health Coverage (UHC), a goal aimed at ensuring that everyone has access to essential healthcare services without experiencing financial difficulty or destitution, is an exceedingly high priority for developing nations (WHO, 2010). A worldwide development plan known as the Sustainable Development Goals (SDGs), established by world leaders in 2015 to set objectives through 2030, include Universal Health Coverage (UHC) as a reflection of this commitment (United Nations, 2015). Countries must lower the direct expenses that residents must pay to receive healthcare services, enhance population coverage through pre-payment methods, and broaden their offerings of healthcare services to achieve UHC (Chan, 2016).

According to a 2015 report by the World Health Organization (WHO), approximately 400 million individuals worldwide lack access to basic medical care. This staggering figure highlights a critical gap in healthcare delivery that affects not only individual well-being but also impedes broader socioeconomic progress. Attaining Universal Health Coverage (UHC) is anticipated to yield numerous positive effects across health systems, economies, and political structures, benefiting both individuals and nations. By ensuring access to a comprehensive range of essential healthcare services, UHC goes beyond mere health promotion. It encompasses crucial aspects of care, including prevention, treatment, rehabilitation, and even palliative care, thus addressing the diverse needs of populations across the lifespan. The shift towards UHC has the potential to transform health outcomes significantly, leading to enhanced population health and increased productivity. With access

to decent healthcare, individuals are empowered to take charge of their health, reducing the burden of disease and alleviating economic strain caused by medical expenses. Furthermore, UHC can foster social equity by diminishing health disparities that often exist along socioeconomic lines. By prioritizing healthcare access for marginalized and vulnerable groups, nations can create a more just society where everyone has the opportunity to thrive. Politically, the commitment to UHC can facilitate stronger governance and accountability, as health becomes an essential component of national development agendas. In summary, achieving UHC is not merely a health policy goal; it is a pathway to holistic progress for individuals and societies alike.

The evidence increasingly indicates that health service utilization is significantly hindered when patients are required to pay for services at the time of delivery. This remuneration model creates a barrier for those who cannot afford immediate payment, effectively sidelining individuals from receiving necessary medical care simply because they lack the financial means. As a result, a troubling paradox emerges while the economically disadvantaged are forced to forgo essential health services, those who can afford medical care often find themselves in precarious financial positions due to overwhelming healthcare costs. This dual burden—where the sick is denied care and the financially precarious are driven to ruin—highlights the urgent need for a systemic overhaul in the form of universal health care (UHC). Kutzin (2013) emphasizes that UHC is not merely a matter of improving access to health services; it is a fundamental human right that protects individuals from the financial risks associated with health care expenses. Without universal coverage, the gap between the healthy and the sick widens, perpetuating cycles of poverty and inequity. Individuals facing unexpected health crises shoulder a staggering financial burden that can lead to disastrous consequences, including the loss of savings, homes, and even livelihoods.

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Therefore, transitioning to a UHC model is not solely a public health necessity; it represents a moral imperative to ensure that all individuals, regardless of their economic status, have access to timely and affordable health care. Such a system would help dismantle existing barriers, promoting a healthier society where everyone can seek medical attention without the fear of financial ruin.

United Nations Sustainable Development Goal (SDG) number three emphasizes the importance of ensuring health and well-being for all individuals, regardless of age. Achieving this goal is particularly challenging in the United States, where the healthcare system is predominantly reliant on Private Health Insurance (PHI), constituting approximately 35% of total medical expenses.

This reliance on PHI can create disparities in healthcare access, as not all individuals can afford insurance or may not have coverage for necessary treatments. In contrast, public spending in the U.S. accounts for 44.9% of total medical expenses, highlighting the significant role that government funding plays, albeit within a more fragmented system. The stark comparison to healthcare systems in other nations, such as the United Kingdom, further illustrates the challenges and potential benefits of different funding models. The National Health Service (NHS) in the UK offers universal healthcare coverage financed through taxation, covering 86% of all medical costs.

This model effectively minimizes out-of-pocket (OOP) expenses for patients, which are considerably lower in the UK at 11.1% of total health expenditures compared to the U.S. The American model, where OOP costs are about 13.5%, often leads to financial strain for many individuals and can act as a barrier to accessing necessary healthcare services. As countries strive to meet SDG 3, it is essential to evaluate and possibly reform healthcare funding

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structures to ensure equitable access and promote the health and well-being of all citizens (Boyle, 2011).

As a financial safety net, health insurance sets aside funds to pay for medical bills in the event of illness (Ndung'u, 2015). Setbacks caused by illness can lower a household's ability to generate money, particularly if the primary breadwinners are unable to work because of their bad health and the ensuing medical expenses. By pooling money and sharing the risks of unforeseen medical crises, the cost of healthcare is lessened when people have health insurance. The idea of risk-sharing, which benefits both well and ill people while lowering out-of-pocket costs, is what makes it so appealing. In countries with low and intermediate incomes, government health insurance is becoming more and more popular as a means of financing healthcare (Lagomarsino et al., 2012).

For some reason, international research emphasizes the difficulties in obtaining broad coverage in the unorganized sector through a voluntary, influential method (McIntyre et al., 2013). First off, a sizable percentage of unorganized sector employees earn a smaller amount of money than their peers inside the official sector, which makes it challenging so they could afford health insurance (Alkenbrack et al., 2013; Oxfam, 2013). Second, there is little organization in the unorganized sector, which makes it challenging to sign up for, register for, and receive consistent donations in an economical way from an administrative standpoint. Since membership and premium payments are frequently optional, there is little engagement, a high attrition rate, and adversarial assortment (Jowett, 2015; (Lagomarsino et al., 2012), which increases the attrition rates in this demographic and creates challenges for premium collection on a regular basis.

93 percent among the global diseases are found in the lower and middle classes nations, but these nations only provide 11 percent of the world's health spending. Funds for the healthcare

industry are restricted in developing nations due to reasons like slow economic growth, limited ability to collect taxes, and conflicting priorities. Consequently, many of these developing nations continue to have terrible health conditions (WHO World Health Statistics, 2010). The World Bank (2016) ascribes this situation to inadequate funding for healthcare, poor oversight of public health programs, and public primary care institutions' incapacity to keep up with population growth. The world community committed in 2000 to end severe poverty and make better the health and well-being of the poorest countries in the world by implementing a set of time-bound objectives known as the Millennium Development Goals (MDGs). Since health is a recognized indicator of human well-being and plays a key role in reducing poverty, it was given a central place in the MDGs.

Several developed nations have universal healthcare coverage, including Denmark, United Kingdom, Portugal, France, and Germany. Wang et al. (2012) draw attention to the fact that although health insurance initiatives in African nations have received a lot of time, money, and effort, most of these programs only cover a tiny portion among the populace, mainly those working in the official sector. In many developing countries, it is challenging to provide health insurance to the unorganized sector because of poverty and the challenges associated with collecting payments from personnel in the unorganized sector who are spread geographically. Despite these challenges, a handful of African countries have succeeded in expanding health insurance-based healthcare accessibility. 74% of the population had health insurance coverage by 2007, in line with the World Health Report (2010), because the government of Rwanda aggressively promoted the formation of more than 1000 cooperative health insurance schemes. Community health workers gather premiums under this program, which are subsequently deposited into a fund at the district level and used to cover medical expenses.

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According to Smith et al. (2010), the establishment of the National Health Insurance Scheme (NHIS) in Nigeria can be traced back to Act 35 of 1999, which laid the foundation for the country's healthcare financing reforms. This initiative was designed to provide all Nigerians with affordable and easily accessible healthcare services through a framework of various prepayment options. The NHIS aims to alleviate the financial burden on individuals seeking healthcare, thus promoting equity in health service access across the population. At the heart of the NHIS is the principle of prepayment, whereby insured individuals make regular contributions, often modest in nature, to fund their healthcare needs. This innovative funding mechanism helps to ensure that healthcare remains accessible to all, particularly to vulnerable groups. Notably, the program specifically targets expectant mothers and children through the maternity and child health project, which serves approximately 300,000 beneficiaries. Additionally, civil servants in regular employment also fall under the NHIS umbrella, allowing them to receive necessary health services with minimal out-of-pocket expenses. Overall, the NHIS represents a significant step towards achieving universal health coverage in Nigeria, promoting both health equity and financial protection for its citizens.

According to the World Health Report (2010), the Rwandan government has actively supported the establishment of over a thousand cooperative health insurance schemes, demonstrating a commitment to enhancing health care accessibility for its citizens. By 2007, an impressive 74% of the Rwandan population had some form of health insurance coverage, a testament to the effectiveness of community-oriented health initiatives. Central to the success of these cooperative health insurance schemes in Rwanda is the role of community health workers, who play a pivotal part in gathering premiums from members. These collected premiums are deposited into a district-level fund, which serves as a financial resource for covering medical expenses. This innovative approach not only empowers local communities to take charge of their health care financing but also fosters a sense of solidarity amongst

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members. By pooling resources, the community can mitigate individual health risks and ensure that even the most vulnerable populations have access to necessary medical services. The Rwandan model serves as an inspiring example for other countries in the region seeking to improve health insurance coverage and overall health outcomes, underscoring the potential for collaborative efforts in enhancing public health.

Access to healthcare in sub-Saharan African nations remains a pressing challenge, particularly for the nearly 90% of individuals living in low- and middle-income countries (LMICs). The lack of appropriate medical care significantly elevates the risks of serious health complications, premature mortality, and financial hardship. Many residents face exorbitant out-of-pocket expenses for healthcare, which can lead to financial ruin, especially among the most vulnerable populations. This situation creates a vicious cycle where those who need care the most are often the least able to afford it, further exacerbating existing inequalities in health and wealth. The consequences extend beyond individual households, affecting communities and nations at large, hindering economic development, and perpetuating poverty. As such, addressing these disparities is not only a matter of health equity but also a crucial step toward sustainable development in the region. Initiatives aimed at improving healthcare access and reducing the financial burden on patients are vital to breaking this cycle and fostering a healthier, more resilient population (Durairaj, D'Almeida, & Kirigia, 2010).

Reports show that recruitment and retention rates for members of the informal sector remain low, defying hopes that an enhanced benefits package would result in a rise in these numbers. There are obstacles in the way of implementing optional insurance coverage for members of the informal sector because these people frequently have little financial means. Furthermore, it is challenging to recruit, register, and collect donations due to their disorganization (Barasa, Mwaura & Rogo, 2017). The National Hospital Insurance Fund (NHIF) has approximately

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100% coverage of the formal sector, according to an assessment study carried out by the International Labor Organization in 2007. However, coverage of the informal sector is still quite low, making up only 19% of the Fund's total membership (WHO, 2011).

Ensuring universal healthcare accessibility is a key objective of Kenya's national development strategy and a vital component of the country's National Health Sector Strategic Plan Choma and Okungu (2011) and GoK (2009) are two such sources. FTDP, or the First Medium-Term Development Plan, was created in 2008 which outlines Kenya's Vision 2030, places considerable emphasis on the creation of fair and impartial finance structures for healthcare (Ministry of Public Health and Sanitation, 2011). Affordability, equity, capacity, and quality are ensured to be the primary aims of the entire social sector by the administration. Kenya, according to Chuma and Okungu (2011), has not made significant strides in the direction of attaining these objectives. Through the implementation of a public health insurance programme policy, the 2010 Millennium Development Goals Report and the 2010 World Health Report both call for the successful implementation of universal health care. It is emphasized that healthcare access disparities must be reduced, particularly for vulnerable and underprivileged groups (Evans & Etienne, 2010; UN, 2010).

A 2013 study by the Kenyan Health Spending by Household and Utilisation Analysis (KHHEUS) discovered that health insurance is typically linked to an individual's social status. Individuals in the wealthiest hose in the top quartile (41.5%) reported more coverage than those in the lowest quartile (2.9%). As in the previous study, there was a broad range of coverage; the counties with the The areas with the highest coverage were Kericho (31.5%), Nairobi (31.9%), Nyeri (32.9%), and Kiambu (34.0%), while the counties with the lowest coverage were Marsabit (1.8%), Samburu (6.7%), and Turkana (3.0%), which were primarily home to pastoral groups.

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To lower out-of-pocket costs and offer protection from financial risk against catastrophic costs and impoverishment, the NHIF introduced a significantly improved benefits package in 2015 that covered outpatient and outpatient care for people working in the unorganized sector (Health Market Innovations, 2014). In addition, the package was designed to improve service and population coverage. Inadequate finance presents a barrier to the implementation of initiatives aimed at addressing the unorganized sector in the pursuit of universal health coverage. In Kenya, out-of-pocket expenses, including cost-sharing, account for roughly 30% of total health expenditures (THE), with the government covering the remaining 34% (MOH, 2017). Government support for the health sector must more than quadruple in order to achieve UHC initiatives, as stated by Okungu et al. (2017).

The establishment of the National Social Health Insurance Fund (NSHIF) in Kenya in 2004 marked a significant step towards achieving universal health coverage. The government's initiative aimed to create a comprehensive framework for health insurance that would extend financial protection to all citizens, addressing long-standing inequities in access to healthcare services. However, despite its noble objectives, the NSHIF faced numerous challenges that ultimately hindered its implementation. Key among these challenges was the perception of the initiative as financially unfeasible, leading to concerns about the sustainability of funding mechanisms and budget constraints. Critics pointed out that the ambitious scope of the NSHIF required substantial financial resources that Kenya's economy, at the time, could not reliably support. Studies conducted by researchers such as Jesse (2010) and Kimani et al. (2012) highlighted the shortcomings of the existing social protection legislation and the daunting task of balancing the immediate healthcare needs of the population with the fiscal realities of the

nation's budget. As a result, the envisioned universal health insurance remained largely unfulfilled, and the legislative efforts aimed at solidifying the NSHIF were sidelined. This setback underscores the complexities involved in reforming health systems in resource-limited settings and raises critical questions about the path forward for health equity and accessibility in Kenya.

Effective approaches to tackle the difficulties encountered by marginalized communities, the unorganized sector, and the impoverished were demonstrated through endeavors like the Health Insurance Fund of the Nation (NHIF), which supplements such programs in collaboration with the World Bank, the Labour and Social Protection Ministries Services, and the Health Insurance Fund of the Nation (NHIF).The creation of the Health Insurance Subsidy Program (HISP) and the Sponsored Program was motivated by the need to assist vulnerable populations, such as the elderly, individuals with disabilities, and underprivileged families. The significant fact that employees in the unorganized sector are excluded from these two programs emphasizes the necessity for public and private insurers to include this demographic in their initiatives.

1.2 Statement of the problem

To enhance health coverage through a prepaid financing system, the Kenyan government has strategically chosen to use the National Health Insurance Fund (NHIF) as the primary tool (Medical Services Ministry, 2012; Munge et al., 2017). Expanding NHIF membership in Kenya's informal sector has become essential due to the limited size of the formal sector, which employs only about 1.9 million people. In contrast, the informal sector is rapidly growing, employing over 8.3 million individuals and significantly contributing to Kenya's GDP and livelihoods for the majority of the population. Despite its economic importance and

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role in providing livelihoods, the informal sector has largely been left out of mainstream health insurance programs, which leaves informal sector workers vulnerable to health risks and financial insecurity.

While the NHIF aims to increase access to affordable healthcare by covering medical expenses, enrollment in the informal sector remains low. As of October 30, 2014, only 1,480,088 members from the informal sector were registered with the NHIF (NHIF Members' Register, 2014). Despite extensive media campaigns and outreach efforts to educate Kenyans on the benefits of health insurance, enrollment has not met anticipated levels. Research is needed to understand why NHIF adoption remains low among informal sector workers, particularly in rural areas.

In Homabay County, where 61% of the population lives below the poverty line (Society for International Development & Kenya National Bureau of Statistics, 2013), retaining NHIF membership among informal workers is crucial for advancing universal health coverage. NHIF’s 2014–2018 strategic plan focuses on extending coverage to the informal sector, with the introduction of outpatient services expected to boost membership uptake and utilization (NHIF, 2014). This study was therefore designed to examine the socio-economic determinants that influence the retention of NHIF membership among informal sector workers in Homabay County, Kenya, addressing key factors that may improve retention and coverage in this population.

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1.3 Purpose of the Study

The purpose of this study is to examine the influence of socio-economic determinants on the retention of National Health Insurance Fund (NHIF) membership among workers in the informal sector in Homabay County, Kenya.

1.4 Research Objectives

1. To ascertain the effect of income status on national health insurance membership retention in the informal sector in Homa Bay County, Kenya.
2. To establish the effect of educational attainment on the retention of national health insurance membership in the informal sector in Homa Bay County, Kenya.
3. To ascertain how employment affects the retention of national health insurance membership in the informal sector in Homa Bay County, Kenya.
4. To investigate how the health status of members affects national health insurance membership retention in the informal sector in Homa Bay County, Kenya.

1.5 Research Questions

1. How does one's income situation affect their ability to continue receiving national health insurance membership in the informal sector?
2. What impact does education level have on maintaining national health insurance membership in the informal sector?
3. What impact does employment status have on the informal sector's ability to maintain its national health insurance coverage?
4. What impact does health status have on the informal sector's ability to maintain its national health insurance coverage?

1.6 Justification

The research on socio-economic determinants and National Hospital Insurance Fund (NHIF) member retention was conducted in Homabay County, a region marked by a significant informal economy and evolving healthcare landscape. The decision to undertake this study is motivated by a noticeable gap in existing literature addressing the dynamics of NHIF membership within the context of socio-economic variables specific to Homabay. This gap presents an opportunity to explore how factors such as income levels, employment stability,

educational attainment, and access to health services influence individuals' decisions to join and remain active members of the NHIF.

Homabay County, with a considerable portion of its workforce engaged in the informal sector, faces unique challenges and opportunities in terms of health insurance uptake. The informal sector is often characterized by fluctuating incomes and lack of job security, which can significantly impact individuals' ability to consistently afford insurance premiums or prioritize health coverage amidst other pressing financial obligations. Understanding these socio-economic determinants is crucial for developing strategies that bolster NHIF membership retention, especially among groups historically underrepresented in formal insurance schemes.

Moreover, the County administration has recognized the importance of modernizing the healthcare industry, making it imperative to evaluate how socio-economic factors intertwine with healthcare access and insurance. By researching the interplay between these determinants and NHIF member retention, the study aims to provide actionable insights that can inform policy interventions. Such interventions could enhance healthcare accessibility and affordability, ultimately leading to improved health outcomes for the residents of Homabay County. Through this research, the goal is to contribute not only to the academic discourse but also to the practical efforts aimed at strengthening the healthcare system within the county.

1.7 Significance of Study

This research will be valuable to health insurers, informal sector workers, and policymakers. The findings are expected to present both opportunities and challenges for the health sector, ultimately influencing how effectively health insurance can deliver comprehensive services.

Given the large population in the informal sector, health insurers will gain insights into sustainable mechanisms for financing health insurance plans.

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The study's outcomes will also contribute to the existing body of knowledge in the medical field, particularly regarding health insurance in Kenya. Insights into how income status, education level, employment, and health status affect national insurance membership retention rates, as well as the benefits of having national health insurance, will be relevant for informal sector workers.

For policymakers, the study will offer a clearer understanding of why informal sector workers may choose not to join health insurance schemes. Health insurers will benefit from these insights by developing innovative models and interventions tailored to the unique characteristics of the informal sector. Additionally, the study is expected to provide guidance on critical decision-making areas, such as resource allocation, mobilization, and expenditure within various subsectors, and effective approaches to addressing related challenges.

1.8 Scope

The objective of this study was to investigate the influence of various socioeconomic factors on the retention of national health insurance coverage among individuals in the informal sector of Homabay County, Kenya. With the informal sector constituting a significant portion of the regional economy, understanding the dynamics of health insurance retention in this group is paramount for effective healthcare policy and planning. The study explored several critical variables, including health status, work status, education level, and income status, which are hypothesized to directly impact individuals' ability and willingness to maintain their health insurance coverage. By identifying these factors, the research aims to provide valuable insights that could help policymakers design targeted interventions to improve health insurance uptake and retention in this vulnerable population.

The research project was scheduled to run from August 2023 to September 2024, utilizing a mixed-methods approach that incorporated both quantitative and qualitative data collection

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techniques. Surveys was administered to gather information on participants' health status, employment conditions, educational attainment, and income levels. In-depth interviews and focus group discussions was also conducted to capture the experiences and perceptions of informal sector workers regarding health insurance coverage. By combining these methodologies, the study sought to create a comprehensive understanding of the barriers and facilitators impacting health insurance retention in Homabay County. This research has the potential to not only contribute to academic literature but also inform local health policies aimed at improving health outcomes and reducing disparities in health insurance coverage among informal sector workers.

Furthermore, the findings of this study could serve as a vital resource for stakeholders involved in healthcare delivery and social protection strategies within the region. By highlighting the correlations between socioeconomic factors and health insurance retention, the research may prompt discussions around the need for tailored policies that address the unique challenges faced by the informal sector. Such efforts could foster a more inclusive approach to health care, ensuring that all individuals, regardless of their employment status or income level, have access to essential health services. Ultimately, the successful retention of national health insurance coverage in Homabay County's informal sector can contribute to improved public health outcomes and a more resilient health system overall.

1.9 Limitations of the Study

The study faced challenges as some potential respondents were reluctant to disclose information, fearing it might be used against them or harm their reputation. A few individuals also declined to participate in the survey. This issue was addressed by presenting an introduction letter from the university and assuring participants that all information provided would be kept confidential and used solely for academic purposes.

Additionally, some respondents were unable to complete the questionnaire on time due to busy schedules or limited comprehension of the questions. This constraint was mitigated by leveraging a network to streamline the inquiries and provide clarity for the selected participants.

1.10 Study Delimitation

This study focused specifically on the informal sector workers within Homabay County, Kenya. It was delimited to assessing how four specific socio-economic factors—income, employment status, educational attainment, and health status—impact national health insurance membership retention in this area. The study exclusively analyzed members registered under the National Health Insurance Fund (NHIF) and did not extend to other insurance providers or informal health financing methods.

Further, the study utilized data collection methods including structured interviews, focus group discussions, and information from the NHIF database from three target locations within Homabay County: Homabay branch, Mbita station, and Oyugis station. This geographical and sectoral focus was chosen to reflect the unique socio-economic challenges in the informal sector of Homabay County. The scope was limited to data and participant perspectives from these regions, and the study does not claim generalizability to other counties or to Kenya's formal employment sector.

1.11 Assumptions of study

This study operated under the following assumptions:

1. Participant Honesty and Accuracy: It was assumed that participants would respond truthfully and accurately during interviews and focus group discussions, providing valid insights into their socio-economic status and their experiences with NHIF membership.

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2. Consistency of Socio-Economic Influence: The study assumed that the socioeconomic factors chosen (income, employment status, educational level, and health status) are among the primary influences on health insurance retention within the informal sector in Homabay County. It was presumed that these factors remain relevant despite fluctuations in Kenya's economic or health policies.
3. Representation of Sample Population: The sample selected from the three stations—Homabay branch, Mbita, and Oyugis—was assumed to be representative of the larger informal sector population within Homabay County. Thus, the findings are presumed to reflect the typical socio-economic and health insurance experiences of the county's informal sector workers.

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1.12 Operational Definitions of Key Terms

Education level -refers to the amount of schooling a person has completed.

Employment level - the quantity of individuals in an economy who are working productively.

Health status - is a gauge of individuals' opinions on their health, including ratings of excellent, very good, good, fair, or poor.

Income status - refers to the position of a person or household's income on a low-income line

National Social Health Insurance Fund - was founded in 1966 as a department under the Ministry of Health, making it a governmental parastatal.

Socio-economic determinants- These are factors such as income status, education level, employment status, health status, and social support that affect the lifestyle of individuals in the study.

Sustainable Development Goals - The Global Goals are an international initiative that the United Nations approved in 2015 with the intention of bringing about universal action to end poverty, safeguard the environment, and guarantee that by 2030 everyone lives in peace and prosperity.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter covers the study's Empirical Literature Review, Theoretical framework, Conceptual framework, and Chapter Summary.

2.1 Concept of Socio-Economic Determinants

Lifespan and overall welfare are significantly influenced by various social and economic factors. These determinants include income, education, employment, social support, and neighborhood safety, all of which shape the options available to individuals and communities (Marmot & Bell, 2019). Socioeconomic factors influence critical life decisions related to housing stability, access to healthcare, and stress management, which collectively impact health outcomes (Braveman & Gottlieb, 2014).

Research highlights that expanding economic and social opportunities is essential for improving community health and longevity. For example, equitable remuneration enables individuals to access better housing, healthcare, education, childcare, and nutrition, which are fundamental to well-being (World Health Organization, 2013; Galea, 2016). However, the impact of social and economic variables on health is often overlooked in favor of individual behavior-focused interventions, which may have a limited effect on overall health outcomes compared to addressing systemic factors (Solar & Irwin, 2015).

Moreover, discriminatory practices and historical disinvestment in marginalized communities have led to limited social and economic opportunities for certain groups, particularly individuals of color and those in rural areas. These disparities contribute to unequal health outcomes and heightened vulnerabilities for these populations (Bailey et al., 2017).

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2.1.1 Income Status and National Health Insurance Membership Retention

The association between income and health insurance enrollment was examined in four papers (Jangati, 2012; Mhere, 2013; Gosh, 2013; Bourne & Kerr-Campbell, 2010). Bourne and Kerr-Campbell (2010) conducted study on modeling and deciding health insurance coverage for Jamaicans, whereby they identified the substantial impact of income on the purchasing of health insurance. In comparison to individuals in the maximum income quartile, people in the bottommost income quartile were found to have a lower propensity to acquire health insurance. Moreover, their investigation underscored the correlation between individuals of lower socioeconomic standing, namely those residing in rural areas, and an increased likelihood of participating in temporary labor in the informal sector, which led to reduced income (Bourne and Kerr-Campbell, 2010). This demographic group often faced challenges in affording health insurance premiums, underscoring the significant impact that financial considerations have on the decision to purchase health insurance.

The study conducted by Barasa E, Kazungu J, Nguhiu P, et al. (2021) provides critical insights into the disparities and overall coverage of health insurance schemes across 36 countries in sub-Saharan Africa (SSA). Utilizing data from the most recent Demographic and Health Surveys, the researchers meticulously calculated the mean population coverage for various health insurance types, revealing that only a handful of countries have successfully achieved meaningful coverage. Of note, Rwanda, Ghana, Gabon, and Burundi emerged as outliers with coverage levels surpassing 20%, while the overall mean coverage across the sampled countries rested at a mere 7.9%.

This statistic starkly highlights the inadequate penetration of health insurance in the region, with only Rwanda achieving a remarkable 78.7%. Moreover, the study delved into the issue of inequality in health insurance access by employing concentration curves, indices, and

analyses of rich-poor disparities. The findings underscored a pro-rich inclination within the population, evidenced by a concentration index of 0.4, indicating that wealthier individuals were significantly more likely to be insured compared to their poorer counterparts. The researchers further dissected these inequalities through a generalized linear model, assessing various household and individual-level factors contributing to the pronounced disparities in health insurance coverage. Overall, the study paints a troubling picture of health insurance accessibility in SSA, revealing an urgent need for targeted policies that enhance coverage and equity, particularly for marginalized populations.

Through the years, the German social health insurance scheme has faced obstacles that have required a multitude of adjustments. Among these obstacles are declining incomes and increasing expenditures (Obermann et al., 2013). In Germany, there has been an observed shrinking in the proportion of individuals required to have private insurance, as higherincome cohorts opt for this alternative coverage. In addition, demographic shifts have led to an aging population, which has prompted reforms such as the 2011 reform, which divided statutory health insurance (SHI) contributions between employers and employees almost exactly. In response to escalating healthcare expenses, this reform implemented a freeze on employers' portion of SHI contributions. Previously, employees contributed 8.2 percent of their pre-tax income to SHI, while employers contributed 7.3 percent. Any subsequent cost increases would be borne by the insured.

According to Dalaba et al. (2012), the enrollment patterns in health insurance among different income groups align with consumer theory, which posits that health insurance functions as a normal good characterized by positive elasticity of demand. This observation is particularly evident in their study conducted in Ghana, where it was found that wealthier households displayed a significantly higher likelihood of enrolling in health insurance compared to their

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less affluent counterparts. Specifically, the research highlighted a stark contrast in uninsured rates across income quintiles, revealing that 34% of individuals in the poorest quintile lacked health coverage, whereas only 8% of those in the richest quintile were uninsured.

This disparity underscores the influence of income on health insurance enrollment and reinforces the argument that as individuals' income levels increase, so does their ability and propensity to seek out health insurance, reflecting a broader trend in consumer behavior toward health-related expenditures. The findings underscore the importance of addressing the barriers faced by lower-income households in accessing health insurance, as their inability to enroll may exacerbate health inequities and limit their access to essential healthcare services.

The installation inside the National Health Insurance Programmed (NHIS) in Ghana was intended to lower out-of-pocket healthcare costs (Nsiah-Boateng et al., 2019). As of December 2018, the initiative had expanded to encompass more than 4,000 healthcare professionals across 166 districts, catering to a population of 10.8 million (or 36 percent). An additional contribution from 2.5 percent of workers' pay into the Social Security and National Insurance Trust (SSNIT), contributions from informal sector employees, approved parliamentary funds, National Health Insurance Fund resources generated from investments and assistance from collaborator donors comprise the funding sources for this initiative
(Nsiah-Boateng et al., 2019).

In adherence to pro-poverty objectives, exemptions from premium payments to the plan are extended to vulnerable and disadvantaged populations. The demographic groups mentioned above consist of the following: individuals who are impoverished or classified as core poor; those who are 70 years of age or older; pregnant women; those under the age of 18; SSNIT retirees; The LEAP (Livelihood Empowerment Against Poverty) initiative beneficiaries; and pregnant women.

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Ebenezar and Anthony (2014) conducted a thorough investigation into the demand for health insurance in the Kumasi metropolis of Ghana, providing valuable insights into the varying inclinations towards health coverage among different income groups. Their research highlighted a critical disparity between formal and informal sector employees, shedding light on how socioeconomic status influences health insurance enrollment. Specifically, the study found that high-income earners exhibited a greater propensity to enroll in health insurance schemes, being 7% more likely to secure coverage compared to their low-income counterparts. This finding underscores the importance of economic stability in accessing healthcare resources, revealing that individuals in higher income brackets not only possess the financial means but also demonstrate a greater understanding of the benefits that health insurance can provide.

The implications of their findings are significant, particularly in the context of public health policy and the need to foster an inclusive healthcare system that addresses these disparities. As Ghana continues to develop its health insurance framework, acknowledging the trends identified by Ebenezar and Anthony is essential for crafting strategies aimed at increasing enrollment among low-income groups. By understanding the factors that contribute to the lower enrollment rates in this demographic, policymakers can implement targeted interventions, such as educational campaigns and subsidization of health insurance premiums, to enhance accessibility and encourage wider participation. This approach not only aims to strengthen the health system as a whole but also promotes equity in health access, ensuring that all citizens, regardless of their financial standing, can benefit from necessary medical care.

2.1.2 Education Level and National Health Insurance Membership Retention

Education plays a critical role in shaping individuals' economic potential, employment prospects, and health outcomes. By equipping individuals with knowledge and life skills,

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education enhances their ability to make informed health-related decisions. Research has shown that individuals with higher education levels tend to adopt healthier lifestyles and are better equipped to assess their own healthcare needs and those of their dependents (Baker et al., 2018).

Higher educational attainment is positively associated with better health outcomes and greater health insurance coverage, as educated individuals are more likely to understand the importance of preventive care and the benefits of sustained health insurance membership (Grossman, 2015). Educated individuals, especially women, demonstrate greater autonomy in decision-making and better control over personal and family health choices, which contributes to improved health and social welfare (Wagstaff & Lindelow, 2014).

Education also strengthens individuals' ability to navigate healthcare systems and evaluate health insurance options effectively. This enhanced capability can lead to better health insurance retention rates, as individuals with more education are typically better positioned to understand and appreciate the long-term benefits of health insurance coverage (Kim & Lee, 2016). Consequently, education level is a significant determinant of health insurance membership retention, influencing attitudes toward risk, healthcare utilization, and engagement in preventive health behaviors.

Mhere (2013) conducted an insightful study focused on the factors influencing nonparticipation in health insurance schemes in Zimbabwe. One of the key findings of the research was the positive correlation between individuals' education levels, particularly the number of years of schooling, and their likelihood of participating in health insurance programs. This discovery underscores the critical role education plays in shaping individuals' understanding of healthcare and insurance options available to them. Mhere posited that those with higher education levels tend to be more informed about health-related issues, which, in

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turn, makes them more likely to recognize the importance of safeguarding their families through health insurance coverage. The study highlighted that educated individuals are generally more aware of the diverse aspects of healthcare, including preventive measures, treatment options, and the financial implications of health-related emergencies. This awareness can lead to a greater appreciation for the value of health insurance as a means of providing security and access to necessary medical services. Furthermore, the educational curriculum in Zimbabwe may incorporate essential topics pertaining to healthcare and health insurance, thus equipping students with knowledge that enhances their ability to make informed decisions regarding their family's health. As such, education emerges not just as a pathway to personal advancement but also as a pivotal factor influencing collective health outcomes within communities. Mhere's findings provide important insights for policymakers and stakeholders aiming to increase health insurance participation and improve overall health literacy among the population.

Akwasi and Joshua (2013) conducted a study to investigate the ownership of health insurance among Ghanaian women. By comparing subscription rates across several locations, the researchers identified socio-economic and spatial inequalities in the adoption of insurance among women. It is worth mentioning that there was a significantly higher likelihood of health insurance purchases among women who had partners with higher levels of education and greater wealth, in comparison to their less educated and economically disadvantaged counterparts. There was a higher probability that the partners of educated women held employment in the formal sector, which required deductions to be done at the source in a research carried out by Kirigia and colleagues (2005) it was observed that women in South Africa who had completed secondary education or above had a health insurance policy ownership rate that was twice as high as that of women with lower levels of education. They

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highlighted that schooling might have affected the knowledge, abilities, and output of the responders.

Ghosh (2013) discovered in a study looking at health insurance knowledge and willingness to pay in the Indian region of Darjeeling that persons with greater educational backgrounds were less inclined to pay premiums for coverage. This is attributable to the higher wages and investments in alternative types of savings that generate bigger returns for educated individuals. In their study examining the factors influencing enrollment in microfinance institutions (MFIs) and health insurance in Sri Lanka, Bending and Arun (2011) discovered that there was a statistically significant decrease in the likelihood of health insurance participation among household heads lacking formal primary or secondary education. This phenomenon can be attributed to the restricted revenue-generating prospects and lower income levels of persons with lesser educational attainment, which consequently increased their propensity to purchase family insurance.

2.1.3 Employment and National Health Insurance Membership Retention

In her 2009 review, Jill Bernstein examined the influence of the economy on healthcare in the United States. She emphasized that the economy significantly affects the connections between health outcomes, employment, health insurance coverage, healthcare expenses, and access to healthcare. In periods of economic recession, when employer-sponsored coverage encountered limitations, employers transferred the financial responsibility for premium expenses to the employees. A large number of employees consequently opted to forsake employer-sponsored coverage. Furthermore, during periods of economic recession, a significant proportion of the population secured employment in retail, temporary, part-time, and low-wage occupations, which frequently provided less extensive insurance coverage provided by the employer.

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In his 2012 study, Stan Dorn examined the state of health insurance coverage in the United States. His research specifically targeted low-income families, near-elderly adults, children, uninsured employees of small firms, and immigrants. The researcher discovered that 49% of the uninsured were self-employed or affiliated with businesses with fewer than 25 employees. A mere 52 percent of organizations including fewer than 10 employees provided health coverage, whereas the proportion of larger organizations, exceeding 200 workers, that offered health insurance was higher. A further noteworthy discovery was that within six months of losing their jobs, 56% of unemployed persons earning less than the federal poverty line foregone insurance coverage between January 2002 and July 2004. To address the requirements of vulnerable groups, the author suggested targeted measures such as tax credits and small business subsidies to assist low-income employees.

Perlman et al. (2009) investigated the multifaceted factors affecting the capacity of Russians to acquire and effectively utilize health insurance. Their findings highlighted an important trend: while there was a notable increase in health insurance coverage, jumping from 88% in 2000 to 94% by 2004, a concerning 10% of working-age men remained without coverage. This persistent gap raises questions about the accessibility and equity of the healthcare system in Russia, particularly among certain demographics. The study also emphasized the stark disparities faced by unemployed individuals, who were found to be three times more likely to lack health insurance compared to their employed counterparts. This differential highlights the vulnerabilities experienced by those out of work, suggesting that economic stability plays a critical role in one's access to necessary healthcare services. Furthermore, the research pointed out that self-employed males were disproportionately affected, with a lower prevalence of health insurance among this group. Such findings underscore significant issues related to fairness within the healthcare system, as self-employment—often viewed as a pathway to independence—can paradoxically lead to increased risks of being uninsured. Overall, the

insights from Perlman et al. call for a reassessment of the existing healthcare policies to ensure a more inclusive environment that addresses the needs of all segments of the population#

2.1.4 Health Status and National Health Insurance Membership Retention

Research indicates that multiple demand-side factors, coupled with various supply-side influences, significantly impact both enrollment in and retention of social health insurance programs. Studies conducted by Dror et al. (2016) and Ayitey & Nketiah (2013) highlight that individual perceptions of health insurance value, affordability, and accessibility play crucial roles in determining whether individuals choose to enroll in these programs. For instance, potential enrollees often weigh the perceived benefits against the premiums and out-of-pocket costs, leading to decisions that reflect their economic situation and health needs. Moreover, the supply-side factors, such as the availability of healthcare providers, the quality of services rendered, and the efficiency of claims processing, also influence individuals' decisions to stay enrolled.

Adebayo et al. (2015) further argue that systemic barriers—like complicated registration procedures or inadequate support for enrollees—can deter individuals from continuing their coverage. Thus, a comprehensive understanding of both demand-side and supply-side dynamics is essential for policymakers aiming to improve social health insurance uptake and retention. Addressing these factors holistically can lead to more effective strategies for increasing not only enrollment rates but also sustained participation in health insurance programs.

At the individual level, income, education, and age are variables that are positively correlated with enrollment (Sulzbach, Garshong & Owusu-Banahene, 2005; Owusu-Sekyere & Chiaraah, 2014). Gender, marital status, chronic health issues, and confidence in the scheme's management are further determinants (Jehu-Appiah et al., 2011; Osei-Akoto, 2018).

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Additionally, influential are supply-side characteristics including comprehension and awareness within the framework of the health insurance programme, opinions regarding the quality of healthcare, and confidence in scheme administration. Retention of coverage is favorably influenced by education level, household size, and confidence in the management of the plan. Further incentives for maintaining coverage encompass a thorough comprehension of the program, the caliber of healthcare rendered, and the fulfillment of advantages received throughout the preceding year.

Private health insurance, according to Folland, Goodman, and Stano (2010) facilitates expedited access to healthcare services, hence addressing deficiencies in the provision of healthcare. Nevertheless, informal sector employees may encounter difficulties in acquiring private health insurance as a result of various reasons including pre-existing diseases, age, lifestyle attributes, and financial capacity to cover premiums. As an illustration, Madison Insurance provides health care insurance that accounts for pre-existing diseases, such as Alpha Individual and Alpha Family. Individuals who are 60 years of age or older are obliga to furnish a health report from one of the suppliers authorized by the insurer (Madison

Insurance, 2017). Furthermore, it is important to note that services provided at reputable medical facilities like as a co-payment is required at the Aga Khan University Hospital,

Nairobi Hospital, Karen Hospital, and Gertrude's Garden Children's Hospital obligation of KSh. 500 (US$4.8). The copayment for outpatient visits to other service providers is KSh. 200 (about US$1.9). Moreover, dental and optical services are not included under the outpatient coverage.

Over the past five years, the informal sector has witnessed an average annual growth rate of 38 percent in SHI scheme enrollment, whilst the official sector has enjoyed a ten percent growth rate. The principal factor for this significant expansion of the SHI program is the incorporation of the informal sector. Notwithstanding this, there is variance in the amount of

participation among enrolled members, with high dropout rates being a frequent occurrence, as reported by Osei and Adamba (2011). In the informal sector, inactivity rates are notably high among members who voluntarily contribute; this is sometimes manifested in the form of inconsistent contribution payments over time. In general, the NHIF approximates that 30 percent of its members are inactive, with informal sector workers exhibiting notably higher levels of inactivity (WHO, 2011).

2.2 Theoretical Review

The main theories of the study were Rational Choice Theory, Expected Utility theory and The Weberian Model of Social Stratification.

2.2.1 Rational Choice Theory

The notion of rational choice serves as a crucial framework for understanding and modeling social behavior, as highlighted by Abel (1991). At its essence, rational choice theory asserts that social interactions and behaviors emerge from the decisions made by individual actors, who are motivated by their unique preferences and interests. This perspective emphasizes that individuals are not merely passive participants in their social environments but active decision-makers striving to maximize their utility based on the options available to them. By focusing on the individual's decision-making process, rational choice theory allows researchers to explore the myriad factors that influence these decisions, including preferences, constraints, and potential outcomes.

Furthermore, as Sen (2004) notes, the significance of rational choice theory lies in its predictive capability. By understanding the determinants of individual choices, researchers can better anticipate actual behaviors in various social contexts. This predictive power makes rational choice a valuable tool in a range of social sciences, providing insights into phenomena such as voting behavior, economic transactions, and even interpersonal relationships.

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However, the theory is not without its criticisms, particularly regarding the assumption that individuals always act rationally and have complete information. Nonetheless, its foundational premise remains influential, encouraging continuous exploration of the complexities inherent in social decision-making. Through this lens, we can better appreciate the interplay between individual agency and collective social dynamics, ultimately enriching our understanding of human behavior in society.

The theoretical framework surrounding decision-making processes posits that individuals assess their options by weighing personal inclinations against the constraints they face in their circumstances. This perspective holds particular significance for employees in the unorganized sector, where many individuals grapple with minimal financial resources. For these workers, the struggle for survival often dictates their choices, with the scarcity of income compelling them to prioritize basic necessities over long-term investments like health insurance. Take, for instance, a single-parent household with multiple dependents: under financial pressure and with a limited budget, the head of the family is likely to focus on immediate concerns such as securing food, clothing, and shelter, relegating health insurance to a lower priority despite its potential importance. In such situations, the inherent limitations of income force individuals to navigate a precarious balancing act, where every decision is a reflection of present needs rather than future security. The choice between allocating scarce resources to health insurance versus fulfilling essential daily requirements illustrates the stark reality faced by many in the unorganized sector.

This prioritization of immediate welfare over health-related safety nets highlights a broader issue: the systemic inequalities that affect marginalized populations. The consequence of such decisions can be profound, as the lack of health insurance may lead to higher long-term costs when medical emergencies arise, yet in the moment, the choice feels inevitable.

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An additional point of interest concerning the theory is decision-making. Rational decisionmaking, as defined by Lawrence and David (2008), entails the selection of the choice that an individual desires most strongly from the set of alternatives at hand. These options may consist of a variety of objects or a spectrum of actions. When considering acts, the ones that genuinely concern an individual are the consequences that arise from every possible course of conduct. In this framework, actions function as tools utilized to attain predetermined results.

Rational choice theorists assert that decision-making is inherently linked to a social contract, reflecting the intricate dynamics of human interaction. According to Mitchell and Croanzano (2005), communication serves as a social exchange process, where individuals engage in behaviors that have associated costs and rewards. This perspective highlights how choices are shaped by a careful consideration of potential outcomes, prompting individuals to evaluate which actions will yield the greatest benefits or minimize losses. As people navigate their social landscapes, their preferences and decisions are largely driven by selfinterest.

This self-interested motivation leads individuals to engage in a continuous assessment of available options, akin to a mental calculus that weighs the pros and cons of various choices. Within this framework, every decision becomes a form of negotiation—a balancing act where the individual seeks to optimize their utility in the context of their interactions. The implications of this perspective are profound, suggesting that social ties and communication are not merely incidental but fundamental to the rational decision-making process. As individuals pursue their goals, they must also consider how their decisions affect others, creating a feedback loop in which social dynamics inform personal choices.

Ultimately, the rational choice model invites us to view social interactions as complex exchanges, where the interplay of costs, rewards, and individual preferences shapes both individual behavior and broader societal patterns.

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The present study utilizes the rational choice theory to elucidate how informal sector employees are influenced by their preferences and aspirations in shaping their objectives. They arrive at decisions on health insurance based on the information at their disposal and within the limitations put upon them. The correlation between limitations and preferences can be comprehended through the lens of the means-end relationship. Due to the impracticability of informal sector employees achieving every desired target, they are compelled to make decisions concerning the affordability and acquisition of health insurance.

2.2.2 Application for Rational Choice Theory

A paradigm predicated on the idea that people make decisions in accordance with their restrictions, beliefs, and preferences. It is extensively employed in sociology, political science, economics, and other fields to forecast and explain human conduct in a variety of settings.

This section will examine some of the practical applications of rational choice theory and how it may be used to better understand the results and ramifications of various decisions based on an individual income, education level, employment status and hearth status. We will also talk about some of the drawbacks and restrictions of rational choice theory, as well as how alternative methods might strengthen or supplement it. We may study how consumers choose what to buy, how much to spend, and how to divide their income among various goods and services. It is considered that consumers have preferences among various product bundles, and that, given their income status, educational level, employment and hearth status, they select the bundle that maximizes their utility (satisfaction).

The rational choice theory also explains how customers react to adjustments in income and other variables that influence their NHIF membership retention. For instance, rational choice theory predicts that, other things being equal, buyers will purchase more goods when their price decreases and fewer when it increases. We call this the law of demand. In a similar vein,

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rational choice theory predicts that, other things being equal, customers will purchase more of a typical good when their income rises and less when it falls. The income impact is the term for this. The theory of rational choice can also assist us in comprehending how employed individuals set expectations for future earnings and prices and modify their current consumption in response. For instance, rational choice theory predicts that when customers anticipate greater costs in the future, they would save more and spend less, and vice versa. The intertemporal substitution effect is the term for this.

2.2.3 Expected Utility Theory

Nyman's "Expected Utility Theory" from 2001, It is compatible with any purchase made in a normal market economy. from a gain standpoint, serves as the foundation for this investigation. In this instance, the utility gain is an anticipated utility, where the item bought is additional cash in a predetermined condition (such as when unwell). Every time a customer purchases a good or service, they lose money that could have been used to purchase other goods and services. In this case, these extra products and services are sometimes lost in one condition of illness and sometimes in another state of health. Two instances best illustrate how Nyman's theory can be applied.

A portion of the person's disposable income is given up in the first scenario in order to cover health. Health insurance covers medical expenses in the event of illness or injury; occasionally, the cost of care exceeds premium payments, resulting in a profit. In case number two, the person lacking health insurance will eventually be responsible for paying for treatment when illness strikes without having any backup plan to fall back on. This is because they will not be paying premiums, leaving them with greater spare cash. All of the progress he had achieved in not paying premiums could be lost due to the high expense of therapy.

This theory's strength is that it considers the expected financial benefit of health insurance during illness rather than the assurance that. Those who purchase health insurance do so with the expectation that the advantages will exceed the disadvantages, with regard to the value of the commodities and services that are lost in favour of the insurance. In this instance, purchasing insurance serves as an additional source of income when unwell. There is no way to choose between assurance and uncertainty because uncertainty occurs both with and without insurance, which is the issue with this method. Consumers buy insurance in order to profit from an uncertain income increase.

2.2.4 Application of Utility Theory

Utility theory, often referred to as consumer behavior theory, originated in the groundbreaking work of Swiss mathematician Daniel Bernoulli in 1736. This theory delves into the decision-making processes of individuals, particularly in the context of risk assessment and choice outcomes. At its core, utility theory posits that when faced with a dilemma involving multiple actions, an individual must evaluate potential future states and the associated probabilities of these outcomes.

It emphasizes the psychological factors that influence a decision-maker's preferences and choices, illuminating how emotions and biases can shape rationality. In essence, utility theory articulates that individuals possess a set of possible actions, denoted as action set A, from which they must choose. Each action leads to a potential future state, represented as S, which carries its own likelihood, P(S). The decision-maker's goal is to navigate these options to maximize efficiency—essentially seeking the course of action that yields the highest perceived value. This assessment is not merely a mathematical exercise; it intertwines logic with human psychology, acknowledging that decisions are often laced with subjective interpretations of risk and reward. By understanding how individuals weigh their choices, utility theory provides

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valuable insights into consumer behavior, enabling businesses and marketers to tailor their strategies effectively to meet the needs and preferences of their target audiences.

The fundamental idea is that a numerical function U on the consequence set represents the decision maker's preference structure. Since then, only the values of those making decisions are consistent with "rationality," According to the 1944 book by John von Neumann and Oskar Morgenstern, an individual's income status, education level, employment position, and health status "Theory of Games and Economic Behavior." Under the presumption that "people" exist, action set A's utility function will existThe system's axiomatized expectation utility theory, which contends that decision-makers will give a subjective value to each, was thus suggested as a new utility perspective. alternative when faced with a risky choice and the most determining factors are its level of income, education level, employment status and the health status of an individual. This implies that following consideration of the advantages and disadvantages, gains and losses, and benefits and losses of Among each option, the decision-maker will select the plan with the highest valuation of subjective utility. Clearly, before selecting the action plan with the greatest subjective anticipated utility value, decision-makers aggregate subjective and subjective utility values in a linear approach. They also offer a common measure of the utility value and the utility function for figuring out the
utility.

2.2.5 The Weberian Model of Social Stratification

Social stratification serves as a fundamental framework for understanding the organization of societies and the inequalities that arise within them. According to Macionis and Linda (2010), this differentiation process divides individuals within a community into socioeconomic strata based on key factors such as occupation, income, wealth, social standing, and power.

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This classification does not merely reflect individual achievements or capabilities; rather, it often stems from historical contexts, systemic structures, and inherited circumstances that dictate access to resources and opportunities. For instance, individuals from affluent backgrounds may have greater access to advanced education and networking opportunities, effectively perpetuating their advantageous position within the societal hierarchy.

Building on this concept, Giddens et al. (2009) elaborate that social stratification is characterized by structural disparities that segregate various social groups. This perspective underscores that stratification is not only about individual rankings but also about the broader systemic forces that sustain inequalities. As a result, members of stratified societies find themselves categorized into groups that experience differing levels of privilege and disadvantage. This division can manifest in countless ways, influencing access to quality healthcare, education, and employment opportunities, thereby shaping the life chances of individuals

The present study utilized the Weberian Model of Social Stratification, a framework that establishes three distinct elements of social stratification: political influence, economic status, and social standing. According to the model's proponent, Max Weber, wealth, reputation, and power are interdependent and exert mutual influence within society (Hurst, 2007). The social an aspect of the Weberian Model. concerns the status and honor bestowed upon an individual, whereas the economic aspect corresponds to wealth and the holdings of commodities and services held by an individual. The third dimension, political power, comprises the jurisdiction that an individual exercise over others. Particular attention was devoted to the economic and social aspects within the framework of this research.

Marmot et al. have observed that due to the inequitable allocation of income, Lower income groups are more likely to spend money on goods and services that are harmful to their health

(2010). By implementing this viewpoint about the primary aim of the research, it may be inferred that individuals with lower incomes who are working in the unorganized sector exhibit a less propensity to purchase health insurance, preferring instead alternative healthcare options. As a result, there continues to be a restricted participation of informal sector employees in health insurance programs. Furthermore, to make the second goal more clear, the economic component of the Weberian Model of Social Stratification was applied. of knowledge and awareness of the advantages associated with health insurance coverage. The economic status of an individual has a substantial impact on their capacity to obtain education and knowledge through a range of media outlets, such as radio, television, and newspapers, the internet, and radio. The influence of educational attainment on information accessibility can consequently impact an individual's choice to acquire health insurance.

Weber additionally asserts that stratification, when seen through the lens of social status, comprises the benefits and drawbacks linked to social prestige. These elements are derived from elements such as way of life, formal education, and inherited or occupational standing (Tak & John, 2017). In order to make the second goal more clear, this study used social standing as determined by formal education. A greater propensity for individuals to be knowledgeable about health insurance and to comprehend its advantages is associated with higher levels of education, as opposed to individuals with lower levels of education or no education at all.

2.3 Conceptual Framework

The fundamental assumption of this research is that a comprehension of the factors influencing socio-economic status provides insight into the retention of National Health Insurance members.

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The framework investigated the socioeconomic factors that impact the retention of NHIF membership. To begin with, the socio-economic determinants encompass characteristics such as income status (regular, irregular, or savings levels). The education level, which is evaluated against primary, secondary, or tertiary levels, is the second factor. Third is a breakdown of employment status between employed and self-employed individuals. Finally, the health status will be assessed using indicators such as the accessibility of medical care, the standard of the surroundings, and understanding of insurance benefits. Membership retention, the dependent variable, was assessed using the turnover rate and premium payments as metrics. The factors in question are illustrated in Figure 2.1.

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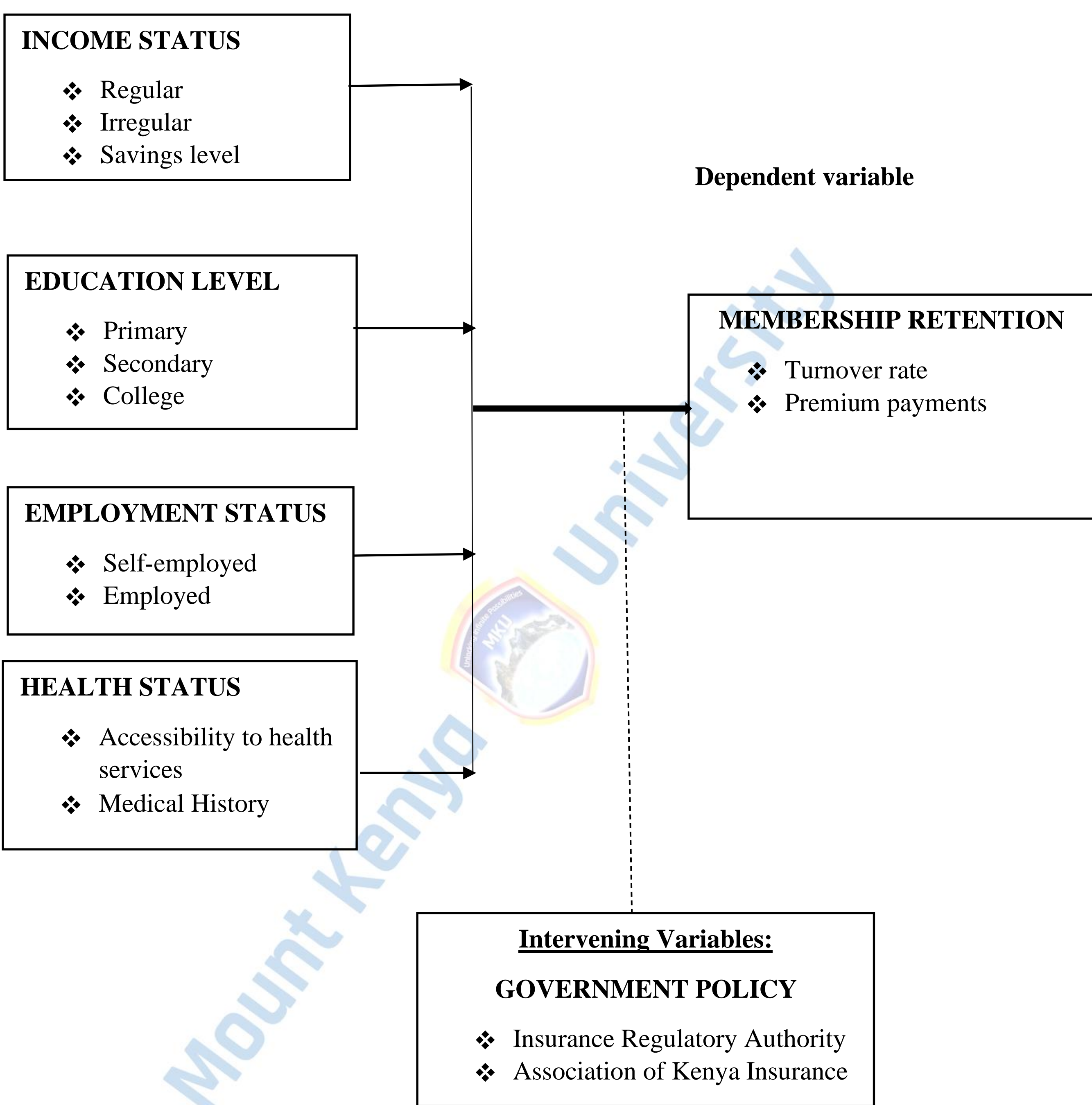

Figure 1: Conceptual Framework of Study Variables Source: Researcher (2023)

2.4 Research Gap

The review of the literature of previous studies reveals conceptual gap, methodological gap, and contextual gap as well, as shown in table 1 below.

Table 1: Research Gap Analysis

Scholar	**Area of Study**	**Results**	**Research Gaps**	**Current Study Focus**
Bourne and KerrCampbell (2010)	Effect of Income status on health insurance coverage for Jamaicans	Their research revealed that individuals with lower socioeconomic statuses, namely those living in rural regions, had a higher propensity to engage in seasonal employment in the informal sector, resulting in diminished earnings.	The study was conducted in Jamaica which is different from Kenya. Again, the study focused only on income status	This study is being conducted in Kenya and has three variables other than income status thus filling the gap
NsiahBoateng et al. (2019)	The National Health Insurance System (NHIS) in Ghana	As of December 2018, the program is operating in 166 districts nationwide, serving a population of 10.8 million (36 percent), with over 4,000 healthcare providers.	This study was done in Ghana, thus which is different from Kenya.	This study is being carried out in Kenya thus filling the gap
Mhere (2013)	Zimbabwe's nonparticipation in health insurance programmes	The study findings revealed that an individual's level of education, as reflected in the number of additional years of schooling, increased their likelihood of participating in such schemes	The study concentrated only on the education level as the variable for the study	This study extends to other variables such as income status, employment status, and health status thus filling the conceptual gap

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Ghosh (2013)	Health insurance awareness and readiness to pay in the Indian district of Darjeeling	The findings showed that educated individuals were less inclined to pay higher amounts for health insurance. This can be attributed to the higher incomes of educated individuals and their investment in other	The study focused only on Education and used a questionnaire as a research instrument thus conceptual and methodological gaps	This study focuses on other three variables and will use an interview guide as a research instrument hence filling the gap
		forms of savings that yield greater returns		
Jill Bernstein (2009)	The United States' healthcare system and the economy	The findings of the study indicated that companies transferred the financial responsibility for premium expenses on employees during periods of economic recession when employer-based coverage encountered limitations.	The study applied empirical study design so the need for a Descriptive research design of a similar study	This study is being done in Kenya and will use a descriptive research design thus filling the gap
Perry and Rosen (2001)	The research investigated the comparatively diminished enrollment of selfemployed individuals in the United States in relation to wage earners.	It was shown that the proportion of selfemployed individuals with insurance plans was considerably lower than that of wage earners; specifically, only 51.4 percent of the self-employed possessed coverage, while 74.1 percent of wage earners did.	The study concentrated only on employment status as the variable for the study	This research addresses a conceptual void by incorporating additional variables, including health status, education level, and income status.

Source Researcher

In conclusion, there are still research gaps in the study area. For example, a conceptual gap arises since no prior study has examined the four socioeconomic variables that will be the focus of this investigation. The influence of these socioeconomic determinants—education level, income, work position, and health—on membership retention is examined. Regarding

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the contextual gap, no prior academic work has conducted a study of this kind in Homabay County; yet the county is experiencing significant progress in economic growth. A methodological gap is there in the employed research instrument. Previous investigations have primarily focused on questionnaires, so neglecting the potential utility of interview guides as research instruments.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

A synopsis, ethical considerations, data collection processes, analysis and presentation methodologies, research instruments, study population, sampling technique, piloting, research design, and data analysis and presentation are all included in this chapter.

3.2 Research Methodology

In the study, both qualitative and quantitative research approaches were employed to gain a comprehensive understanding of the subject matter. The predominant focus was on quantitative data, which was collected through structured surveys designed to facilitate focus group discussions. This dual-method approach not only ensured the reliability of the numerical data gathered but also enhanced the depth of insights obtained from participants. By implementing a structured interview guide, the researchers aimed to maintain uniformity and consistency in the data collection process, thereby minimizing potential biases and variations in responses. However, one of the key advantages of utilizing a structured interview guide was that it allowed participants the flexibility to express their thoughts and opinions in their own words. While the structured nature of the surveys facilitated easier comparison and analysis of the quantitative data, the qualitative component enabled the respondents to elaborate on their experiences and perspectives.

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3.3 Research Design

The study focused on gathering information from informal sector employees at the three primary NHIF stations in Homabay County through cross-sectional surveys. This methodological approach was deemed appropriate as it allows for the collection of data at a single point in time, encompassing a diverse cross-section of individuals (Sedgwick, 2014; Singleton and Straits, 2011).

By employing this design, researchers could efficiently capture valuable insights from informal sector workers without the delays that longitudinal studies often entail. Furthermore, cross-sectional surveys present the unique advantage of investigating a population exhibiting various characteristics, which aids in capturing a wide range of outcomes and enhances the potential for inferring causal relationships (Mann, 2003). This flexibility is particularly crucial in understanding the dynamics within the informal sector, where variability in socio-economic status, work conditions, and health insurance awareness can significantly influence the patterns observed in the data collected.

Ultimately, the insights gained from this approach will contribute to a more comprehensive understanding of the challenges faced by informal sector employees in relation to their access to health insurance services.

3.4 Site of the Research

This study was conducted among the unorganized sector members enrolled in the health scheme within Homabay County, focusing specifically on the Homabay branch, as well as the Mbita and Oyugis satellites. The unorganized sector comprises individuals engaged in various informal economic activities who often lack access to structured health benefits, making it critical to understand their unique healthcare needs and challenges.

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By examining the experiences of these members in different geographical locations, the study aims to identify gaps in health service delivery and access, as well as the effectiveness of the existing health scheme. The selection of Homabay County as a focal point for this research is particularly significant given its socioeconomic dynamics, which reflect broader trends observed in many similar regions across the country. By incorporating insights from the distinct but related contexts of the Homabay branch, Mbita satellite, and Oyugis satellite, the research seeks to provide a comprehensive overview of the health scheme's implementation and operational hurdles. This approach not only sheds light on the perspectives of those who depend on informal health provisions but also facilitates targeted recommendations for policy improvements and resource allocation aimed at enhancing healthcare access in underserved communities.

Consequently, the findings of this study are expected to contribute to the broader discourse on health equity and the need for responsive health system reforms tailored to the realities faced by unorganized sector members.

3.5 Target Population

The target demographic was made up of workers in the informal sector who were enrolled in the Mbita, Homa Bay, and Oyugis stations of the National Health Insurance programme.

Table 2: Research Target Population

S/No	NHIF station in Homabay	Population
1	Homa bay branch	46,871
2	Mbita Satellite	4,675
3	Oyugis Satellite	19,485
TOTAL		**71,031**

Source: NHIF Data, Homa Bay County,2023

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3.6 Sample and Sampling Technique

Methods of sampling included stratified and basic random sampling, as well as purposeful sampling. To choose a representative sample from the unorganized sector employees, the research centered on the inactive living participants of the program. To ascertain the sample respondents, the researcher examined active and inactive members of the database to evaluate the data quality. The implementation of stratified sampling guaranteed the inclusion of a more extensive demographic subset. In each of the three strata, a random selection of participants was made. Excel's rand function was utilized to select samples at random from each stratum using the following sampling formular.

$$n = \frac{z^2 * t(1-t)}{m^2}$$

Where; z= z value (confidence interval of 1.96

for 95%) t = population, with assumption of 0.5

m = Margin of error (Confidence level)

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

$$n = 384$$

For finite population will be;

$$Study\ sample\ Size = \frac{n}{1 + \frac{n-1}{N}}$$

Where;

n = is the sample size

N = is the Total Population

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$$Study\ sample\ Size = \frac{384}{1 + \frac{384-1}{71031}}$$

$$Study\ sample\ Size = 382$$

Distribution of study sample among the s

$$ni = \frac{Ni}{N}.n$$

Where; ni = is the sample size in the

sub-sector Ni = is the total population

in the sub-sector n = is the sample size

N = is the total population

Using the above, formula the sample size from each sub-sector is computed as shown in Table 3 below:

Table 3: Research Sample

NHIF station in Homabay	Number of samples
Homabay Branch	252
Mbita Satellite	25
Oyugis satellite	105
Total	**382**

The respondent for the focus group discussion was identified using a random technique paying attention to the income level, employment status, education level and health status of the people in the informal sector who are registered for NHIF.

3.7 Research Instruments

A focus group discussion was employed as a key research methodology, utilizing a semistructured questionnaire to guide the conversation. This approach combined the

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advantages of both structured and unstructured formats, allowing researchers to gather rich, qualitative data while still maintaining a framework for the discussion.

The flexibility inherent in semi-structured questionnaires enabled the interviewer to explore nuanced topics more thoroughly, adapting the conversation to the flow of responses and allowing participants to express their thoughts in greater depth. As participants shared their experiences, the interviewer could ask follow-up questions that emerged organically from the discussion, helping to uncover diverse perspectives and insights that might not have been captured through rigid questioning.

The dynamic nature of focus group discussions promoted an interactive environment where participants could engage with each other's viewpoints, leading to a richer understanding of the subject matter. This collaborative dialogue often sparked new ideas and reflections, demonstrating the value of collective discourse in research. By encouraging open sharing and debate, the interviewer facilitated a space that welcomed varied responses and fostered a sense of community, which often resulted in a more comprehensive data set.

3.8 Testing for Validity and Reliability

3.8.1. Validity

The primary research instrument consisted of a focus group discussion, semi-structured questionnaire; the questionnaire served as an interview guide. The questionnaire underwent pre-testing to ensure validity, and the content validity of the study instrument was assessed. The interview guide comprised items that serve as indicators for the research, and two participants from each sub-station participated in pretesting. Kothari (2014) defines validity as the degree to which the data that is extracted is an accurate representation of the subject being investigated. The content validity of the research instrument utilized in the study was assessed by the researcher to ascertain the relevance of the items in the interview guide.

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3.8.2. Reliability

To ensure consistency during use, reliability tests was conducted on the interview guide. Pretesting was conducted at multiple locations frequented by workers in the informal sectors via a pilot study activity on 10% of the sample size. The correlation between the outcomes of the two tests was then used to calculate the reliability coefficient. The reliability coefficient limit exceeded 0.60, given that this coefficient signifies satisfactory dependability.

3.9 Data Collection Procedure

To get data from the participants, the researcher conducted focus group discussion. Since some respondents had limited educational attainment, it was necessary to record their responses, clarify any uncertainties, and verify that the appropriate respondent is involved. The responses were documented by the researcher through the use of checkboxes against each questionnaire and supplementary notes. The interview guide afforded the researcher the chance to employ probes and conduct in-depth inquiries, thereby facilitating the respondents' articulation of their understanding of health insurance in Kenya.

3.10 Data Analysis and Presentation

The analysis was conducted using the functionalities of Microsoft Excel and SPSS, following a rigorous process to ensure that the original data was accurately and comprehensively entered. Prior to any statistical testing, meticulous attention was given to data entry, safeguarding against errors that could skew the results. Once the dataset was validated, descriptive statistics were employed to provide a clear and concise overview of the data's key characteristics. These statistics are vital in interpreting the data, as they summarize and describe its essential features, and they were systematically presented in the form of tables and charts for better visual comprehension. The descriptive analysis primarily included calculations of percentages, means, and frequencies, which offered insights into the distribution and central tendencies of the variables examined. By employing these statistical measures, the analysis can effectively

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highlight patterns and trends within the data, allowing for a deeper understanding of the underlying phenomena. Additionally, the use of charts and tables not only enhances the clarity of the findings but also makes it easier for stakeholders to grasp the implications of the data. Overall, the descriptive summaries generated from this analysis greatly benefited from a structured approach, ensuring that the information conveyed is both accurate and relevant to the research objectives.

3.11 Ethical Considerations

In undertaking this academic research project, strict adherence to established research protocols was maintained to ensure the integrity and ethical standards of the study. Prior to commencing data collection, formal approval was obtained from the university's research department, which involved submitting a detailed proposal outlining the methodology and objectives of the study. This step not only affirmed the study's compliance with academic guidelines but also reinforced the commitment to conducting research responsibly. Consequently, a letter was drafted to request authorization from the appropriate authorities, underscoring the research team's dedication to transparency and collaboration. Once authorization was secured, the data collection process commenced with a focus on professionalism and confidentiality. Every effort was made to handle the collected information with the utmost care, ensuring that it was used exclusively for the intended research purposes. The integrity of the participants' responses was of paramount importance, and as such, robust protocols were established to safeguard their anonymity. In no circumstances were the identities of the respondents disclosed to any third parties, thereby protecting their privacy and fostering a trusting environment for participants to share their insights. This commitment not only adheres to ethical research standards but also enhances the credibility and reliability of the findings generated from the study.

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CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND PRESENTATION

4.0 Introduction

This study chapter contains presentation of data collected in diagrammatic format such as tables and figures with attached explanations. The achieved response rate of 100% from a sample of 382 participants improves credibility to the results, enables a thorough examination of demographics, and trends. By utilizing diagrammatic formats for data presentation, the findings were transformed from complex data into clear and informative insights.

4.1 Research Presentation, Interpretation and Discussions

The collected data underwent a thorough coding and analysis phase utilizing both SPSS (Statistical Package for the Social Sciences) and Microsoft Excel. Initially, the raw data, which encompassed various variables relevant to the study objectives, were coded to ensure consistency and accuracy. The findings that derived from this analysis are presented in detailed figures and tables.

4.1.1 Demographic Profiles of the respondents

The demographic data sourced were Gender, Age, Level of Education and Economic activity.

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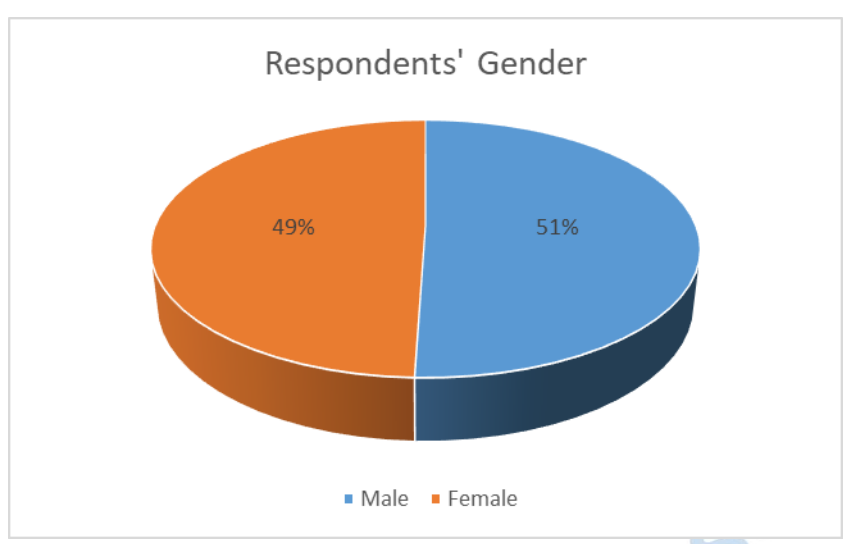

Figure 2: Respondent's Gender.

From Figure 2 above, it is evident that the sample of participants demonstrated a balanced gender representation, with 51% identified as male and 49% as female. This near-equal distribution underscores a significant finding: health issues are approached with equal seriousness by both genders.

Such a balance not only enriches the study's validity but also highlights that concerns regarding health are universally relevant, transcending gender lines. When both males and females engage in health-related discussions and initiatives, it indicates a collective acknowledgment of the importance of wellness, suggesting that health is a priority for all individuals, regardless of gender. This balanced perspective is essential in developing inclusive health policies and programs that resonate with diverse populations, ensuring that the needs and preferences of both men and women are adequately addressed.

Overall, the parity in participant gender reinforces the notion that health challenges and solutions are crucial for everyone, fostering a more collaborative approach to public health.

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Table 4: Response to Age of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
18-25 years	68	17.8	17.8	17.8
26-33 years	77	20.2	20.2	38.0
34-41 years	73	19.1	19.1	57.1
42-49 years	92	24.1	24.1	81.2
50 years above	72	18.8	18.8	100.0
Total	382	100.0	100.0	

Source: Researchers findings

Table 4 above shows that the respondents are predominantly concentrated between the ages of 42 and 49 years, with 24.1% (92 respondents) falling into this category. This demographic likely possesses different health needs and financial responsibilities compared to younger groups. They might be more inclined to recognize the importance of health insurance, particularly as they may face increasing health challenges associated with aging, thereby potentially fostering a greater commitment to maintaining their insurance coverage. Following closely are the respondents aged 26 to 33 years, who constitute 20.2% (77 respondents) of the sample. This age group often represents a transition phase where individuals may be starting families or encountering significant life changes that could impact their health insurance decisions. Their health concerns may not be as pronounced as those in the older age brackets, which may influence their perception of the necessity of retaining insurance coverage.

In contrast, the youngest group, aged 18 to 25 years, comprise only 17.8% (68 respondents) of the total population. This age group typically experiences lower healthcare needs, thus potentially making them less likely to prioritize health insurance, leading to higher turnover

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rates in membership retention. The relative youthfulness of this group may also correlate with economic instability, as many are likely to be students or entry-level workers, affecting their ability to pay premiums consistently. The remaining age groups show fairly even distributions, with 19.1% (73 respondents) aged 34 to 41 years, and 18.8% (72 respondents) aged 50 years and above. The variations between these age groups indicate a multigenerational impact on health insurance decisions, which may reflect differing income levels, family responsibilities, and perceptions of health risks.

Table 5: Response to Education Level of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Primary	73	19.1	19.1	19.1
High School	76	19.9	19.9	39.0
Diploma	91	23.8	23.8	62.8
Degree	80	20.9	20.9	83.8
Masters	62	16.2	16.2	100.0
Total	382	100.0	100.0	

Source: Researchers Findings

From this data, we see that a significant portion of the respondents has completed secondary education or higher, with those holding diplomas making up the largest group at 23.8%. Nearly 39% of the population has only a primary or high school education. This demographic is often associated with lower income levels and limited understanding of health insurance benefits. Individuals in this group may not prioritize health insurance due to financial constraints or a lack of awareness regarding the advantages of coverage.

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Collectively, diploma and degree holders account for approximately 44.7% of the respondents. Education typically equips individuals with better employment opportunities and potentially higher incomes, making them more likely to afford health insurance. Furthermore, individuals with higher educational attainment are generally more informed about health matters, increasing the likelihood of them valuing health insurance. At 16.2%, those with master's degrees represent a smaller yet significant segment of the population. This group is likely to have the highest income levels and understand the need for comprehensive health coverage, thus enhancing membership retention in national health

insurance schemes.

Table 6: Response to Economic Activity of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Fishing	99	25.9	25.9	25.9
Agriculture	85	22.3	22.3	48.2
Construction	101	26.4	26.4	74.6
Others	97	25.4	25.4	100.0
Total	382	100.0	100.0	

Source: Researchers Findings

The data from Table 6 highlights that the four primary economic activities are fishing (25.9%), agriculture (22.3%), construction (26.4%), and other activities (25.4%), representing a diverse economic landscape. The largest segment of the population engages in construction work. This may indicate a more stable source of income, potentially leading to a greater ability to pay for health insurance premiums. Following closely is the fishing industry, which is a significant source of livelihood in Homabay County. The volatile nature of this sector, due to factors like weather and market prices, may impact individuals' financial stability and, subsequently, their

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capacity to maintain health insurance. Although a vital economic activity, it accounts for the smallest segment within this data set. Agricultural income can be seasonal and dependent on numerous climatic conditions, likely influencing individuals' ability to invest in consistent health insurances like the NHIF.

The findings of each study objective were presented and discussed as follows:

4.1.2 Income status and National Health Insurance membership retention

The first objective consisted of questions related to the income status of members on whether they are regular and if they save and how it affected their membership status with the NHIF scheme.

Table 7: Response on income status and membership retention.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	107	28.0	28.0	28.0
Agree	210	55.0	55.0	83.0
Neutral	24	6.3	6.3	89.3
Disagree	28	7.3	7.3	96.6
Strongly Disagree	13	3.4	3.4	100.0
Total	382	100.0	100.0	

Source: Researchers Findings

The results in table 7 reveal that the majority of the respondents, a combined total of 83% (28% strongly agree and 55% agree), perceive themselves to have a regular income. This finding is particularly significant as it underscores the economic stability experienced by a

majority of self-insured members in Homa Bay County. Regular income, as reported by these members, likely enhances their capacity to commit to regular NHIF contributions, thereby fostering a conducive environment for membership retention. Conversely, the data indicates that a smaller proportion of respondents (around 11% in total) either disagreed or strongly disagreed with the notion of having a regular income. This sentiment may reflect underlying economic vulnerabilities faced by certain members of the informal sector and their potential struggle to maintain health insurance coverage adequately. Such challenges could arise from job instability, income fluctuations, or lack of access to better-paying opportunities. The presence of neutral responses (6.3%) also suggests some uncertainty among members, indicating that while they may not completely disagree with the statement, they may not confidently assert that their income is regular. This uncertainty could reflect a transitional economic landscape where individuals experience varying income patterns, thus complicating their ability to consistently engage with NHIF membership.

4.1.3 Educational attainment and Retention of National Health Insurance Coverage

The second objective was on education attainment of members based on the highest level of education a member has reached and how it affected their membership status with the NHIF scheme.

Table 8: Response to Education attainment and member retention

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	179	46.9	46.9	46.9
Agree	13	3.4	3.4	50.3
Disagree	190	49.7	49.7	100.0

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Total	382	100.0	100.0	

Source: Researchers Findings

The responses in table 8 above show a significant division between those who believe that educational attainment correlates positively with being self-insured (49.7% disagree) and those who hold the contrary view (50.3% agree/strongly agree). This split may indicate a lack of consensus or variations in the educational backgrounds among members in the informal economy. Educational attainment often correlates with an individual's ability to navigate insurance systems, understand the value of health insurance, and advocate for their health needs. If about half of the respondents disagree with the assertion that self-insured members of NHIF have high education, this could suggest that many members in the informal sector may not fully grasp the benefits of maintaining insurance coverage. This lack of understanding may negatively impact their retention rates.

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4.1.4 Employment status and Retention of National Health Insurance Coverage

The third objective was to establish the employment status of members on whether they were employed or self-employed and how it affected their membership status with the NHIF scheme.

Table 9: Response to Employment status and member retention

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	104	27.2	27.2	27.2
Agree	263	68.8	68.8	96.1
Neutral	1	.3	.3	96.3
Disagree	13	3.4	3.4	99.7

Strongly Disagree	1	.3	.3	100.0
Total	382	100.0	100.0	

Source: Researchers Findings

Based on table.9, a substantial portion of respondents (104 individuals) expressed strong agreement with the statement, suggesting they believe a direct link exists between selfinsurance and self-employment. This perspective aligns with the understanding that many self-employed individuals lack access to employer-sponsored health insurance and thus turn to NHIF as a viable alternative for health coverage. When combining those who 'strongly agree' with those who merely 'agree,' a compelling 96% of respondents affirm the connection between self-insurance and self-employment. This overwhelming majority points to a strong sentiment that NHIF serves as a crucial resource for health coverage within the informal sector, where employment is often unstable and lacks institutional benefits. Only one respondent remained neutral, indicating that the vast majority hold an opinion regarding the employment-insurance relationship. The minimal disagreement (14 respondents combined) reinforces the notion that self-employment is viewed as a predominant factor influencing NHIF membership. The low dissent can be interpreted as an indication of a widespread recognition of the precarious health insurance landscape faced by self-employed individuals.

4.1.5 Health status and National Health Insurance membership retention

The fourth and final objective was to establish how members' health status as measured by medical history and access affects their membership with the NHIF scheme.

Table 10: Response to Health status and member retention

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	319	83.5	83.5	83.5

Agree	24	6.3	6.3	89.8
Disagree	39	10.2	10.2	100.0
Total	382	100.0	100.0	

Source: Researchers Findings

From table 10, a significant majority of respondents (319 individuals) firmly agreed that their medical history affected their need for retention in their health insurance. This strong agreement suggests that individuals recognize the importance of their health status in maintaining coverage. It points to the understanding that those with complex medical histories may feel more vulnerable and thus more inclined to value continuous health insurance support. An additional 24 respondents agreed with the statement but perhaps not as much as those who strongly agreed. This could indicate a recognition of the medical history's influence but might also suggest certain factors—such as financial considerations or alternative coverage options—where health status might not be the sole determinant. A total of 39 respondents disagreed, indicating that some members do not perceive their medical history as a significant factor in their insurance retention. This group might either have a stable health history, or they may prioritize other factors, such as premium costs or the perceived value of the coverage provided.

4.1.6 Correlation and Regression Results

The Pearsons correlation was used to measure the strength of relation between the study variables.

Regression analysis was also employed to develop a mathematical relationship between NHIF member retention and the socio-economic determinants. The results of the two analysis were presented as follows.

Table 11: Correlations Analysis results

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		Member retention	Income status	Education level	Employment	Health status
Pearson Correlation	Member retention	1.000	.293	.822	.639	.393
	Income status	.293	1.000	.364	.257	.058
	Education level	.822	.364	1.000	.528	.201
	Employment	.639	.257	.528	1.000	.521
	Health status	.393	.058	.201	.521	1.000
Sig. (1-tailed)	Member retention	.	.000	.000	.000	.000
	Income status	.000	.	.000	.000	.129
	Education level	.000	.000	.	.000	.000
	Employment	.000	.000	.000	.	.000
	Health status	.000	.129	.000	.000	.
N	Member retention	382	382	382	382	382
	Income status	382	382	382	382	382
	Education level	382	382	382	382	382
	Employment	382	382	382	382	382
	Health status	382	382	382	382	382

Source: Researchers findings

From table 11, the strongest correlation observed is between member retention mean and education level (r = 0.822). This indicates a robust positive relationship; higher educational attainment significantly contributes to the likelihood of retaining health insurance membership. There is also a significant correlation between member retention mean and employment mean (r = 0.639). This suggests that those who are employed are more likely to retain their health insurance compared to those who are unemployed. The correlation between member retention mean and income status mean is moderate (r = 0.293). While income does influence retention rates, it is comparatively weaker than the impacts of education and employment. The relationship between member retention mean and health status mean (r = 0.393) is also noteworthy, indicating that individuals with better health status have a higher tendency to maintain their insurance coverage. All correlations with member retention mean

(income status, education level, employment, and health status) are statistically significant (p < 0.001), suggesting that these socio-economic factors indeed play a crucial role in retention. In contrast, the correlation between income status mean and health status mean has a p-value of 0.129, indicating a lack of significant correlation. This might suggest that income levels do not necessarily reflect health status in this population.

Table 12: Regression Analysis Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zeroorder	Partial	Part
1	(Constant)	.522	.099		5.255	.000	.326	.717			
	Income status	-.029	.041	-.020	-.709	.478	-.110	.052	.293	-.037	-.018
	Education level	.425	.019	.694	21.909	.000	.386	.463	.822	.748	.564
	Employment	.293	.052	.198	5.629	.000	.191	.395	.639	.278	.145
	Health status	.220	.044	.151	4.973	.000	.133	.307	.393	.248	.128

a. Dependent Variable: Member retention

Source: Researchers Findings

Based on the results presented in table 12 above, the constant coefficient (B = 0.522, p < 0.001) indicates a baseline level of member retention when all socio-economic factors are held constant. This value suggests that there is a foundational level of retention that is not influenced by the other variables in the model. The coefficient for income status mean is 0.029 (p = 0.478), suggesting a negative, yet statistically insignificant impact on health insurance retention.

The wide confidence interval (-0.110 to 0.052) further implies that changes in income status do not have a reliable effect on the likelihood of retaining health insurance membership,

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indicating that income alone may not be a critical determinant in this context. In contrast, education level shows a highly significant positive relationship with retention (B = 0.425, $p < 0.001$). With a standardized coefficient (Beta) of 0.694 and a confidence interval of 0.386 to 0.463, this suggests that higher educational attainment correlates strongly with increased retention rates. This could be due to better awareness of health benefits and more stable economic situations among better-educated members. The employment mean coefficient (B = 0.293, $p < 0.001$) also indicates a positive and significant effect on retention, with a Beta value of 0.198. The confidence interval (0.191 to 0.395) suggests that stable employment contributes to higher retention rates, likely due to improved financial security enabling members to sustain their health insurance coverage. Lastly, health status demonstrates a significant positive impact on retention (B = 0.220, $p < 0.001$) with a Beta of 0.151. The confidence interval (0.133 to 0.307) suggests that those who perceive their health positively are more likely to maintain their health insurance. This may be indicative of a proactive health management approach among healthier individuals.

Table 13: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.866[a]	.750	.748	.45456	.180

Source: Researchers Findings

a. Predictors: (Constant), Health status, Income status, Education level, Employment

b. Dependent Variable: Member retention

The findings presented in Table 13 highlight a robust relationship between various socioeconomic predictors and member retention in national health insurance programs. With a Correlation Coefficient (R = 0.866), the analysis indicates a strong positive correlation among income, education, employment, and health status in relation to retention rates. This

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suggests that improvements in these socio-economic conditions are likely to foster higher retention rates among members. Essentially, as individuals experience better income levels, enhanced educational opportunities, more stable employment, and improved health outcomes, their likelihood of remaining enrolled in health insurance programs increases. The R Square value of 0.750 further substantiates this relationship, demonstrating that approximately 75% of the variance in member retention can be attributed to the four identified socio-economic factors. This high degree of explained variance emphasizes the critical role these elements play in influencing retention dynamics within national health insurance schemes. The results indicate that stakeholders and policymakers should prioritize these socio-economic dimensions when formulating strategies aimed at bolstering member retention. By addressing the underlying socio-economic determinants, it is possible to enhance the stability and effectiveness of health insurance programs, ensuring that they serve their intended purpose in promoting health security for all members.

Table 14: ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	233.967	4	58.492	283.077	.000[b]
1	Residual	77.899	377	.207		
	Total	311.866	381			

Source: Researchers Findings

a. Dependent Variable: Member retention

b. Predictors: (Constant), Health status, Income status, Education level, Employment The analysis of Table 14 reveals a F Value of 283.077, which underscores the statistical significance of the regression model employed in the study. This high F Value indicates that the predictors included in the model collectively account for a substantial amount of the variance observed in member retention. Such a strong relationship between the independent

variables, which may encompass socio-economic factors and demographic characteristics, and the dependent variable of health insurance membership retention highlights the importance of these predictors in understanding membership dynamics. Moreover, the associated p-value of 0.000 further solidifies the model's validity, confirming that the findings are significant at any conventional significance level, including $\alpha = 0.05$. This result not only validates the effectiveness of the regression analysis but also establishes a robust linkage between socio-economic factors and health insurance membership retention. The implications of this finding are substantial, suggesting that interventions aimed at addressing socio-economic disparities could enhance member retention rates, thereby improving overall health outcomes and financial sustainability for health insurance providers. In summary, the strong statistical evidence indicates that socio-economic influences play a critical role in shaping health insurance membership behaviors, warranting further exploration and strategic initiatives in this domain.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The first section of this chapter presents a detailed summary of the findings, systematically addressing each of the study objectives. This allows for a clear understanding of how the results align with and contribute to the field of study. Subsequently, the chapter progresses to the conclusion, which captures the overall implications of the study's findings. Finally, the chapter presents recommendations that are directly informed by the study objectives and findings.

5.1 Summary of the Result Findings

The goal of this study was to investigate the consequences of socio-economic factors on the retention of national health insurance coverage in the unorganised sector in Homabay County, Kenya. The results in table 7 reveal that majority of the respondents, a combined total of 83% (28% strongly agree and 55% agree), perceive themselves to have a regular income. This finding is particularly significant as it underscores the economic stability experienced by a majority of self-insured members in Homa Bay County. The responses in table 8 above show a significant division between those who believe that educational attainment correlates positively with being self-insured (49.7% disagree) and those who hold the contrary view (50.3% agree/strongly agree). This split may indicate a lack of consensus or variations in the educational backgrounds among members in the informal economy. Correlation Coefficient results (R = 0.866) revealed a strong positive correlation between the predictors (income, education, employment, health status) and the dependent variable (member retention). This suggests that as socio-economic conditions improve, retention rates may also increase. Based on table 9, substantial portion of respondents (104 individuals) expressed strong agreement with the statement, suggesting they believe a direct link exists between self-insurance and self-

employment. From table 4.1.5.10, a significant majority of respondents (319 individuals) firmly agreed that their medical history affected their need for retention in their health insurance. This strong agreement suggests that individuals recognize the importance of their health status in maintaining coverage. The R Square (0.750) indicated that approximately 75% of the variance in national health insurance membership retention can be explained by the four socio-economic factors. The findings drawn from specific objectives of the study were summarized below.

5.1.1 To ascertain the impact of income status on NHIF membership retention in the informal sector in Homa Bay County, Kenya.

The finding that regular income positively influences NHIF membership retention in the informal sector aligns with the socioeconomic literature emphasizing financial stability as a core driver for sustained health insurance participation. Bourne and Kerr-Campbell's (2010) study similarly identified income stability as a pivotal factor in enabling individuals to commit to ongoing health insurance contributions. This trend supports the Expected Utility Theory, which posits that individuals make decisions, such as maintaining health insurance, based on perceived long-term benefits and security—both of which are bolstered by a reliable income.

Further, this finding is consistent with Weber's Model of Social Stratification, which highlights income as a key determinant of individuals' access to resources. In the context of NHIF membership retention, higher or more stable income levels increase members' access to continued health coverage, thereby reducing financial vulnerability during health crises. This pattern reveals a clear connection between income stability and retention, suggesting that income level plays a central role in members' decisions to maintain health insurance as a form of social and economic protection.

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The consistency between this study's findings and past research reinforces the importance of income as a critical socioeconomic determinant for health insurance retention, particularly within Kenya's informal sector.

5.1.2 To establish the impact of educational attainment on the retention of NHIF insurance coverage in the unorganised sector in Homa Bay County, Kenya.

The study's findings indicate a weak positive correlation (r = 0.425) between educational attainment and NHIF membership retention in the informal sector, suggesting that higher education levels may slightly enhance retention but are not a decisive factor among this population. The fact that 190 respondents disagreed with the statement that NHIF selfinsured members have high education levels implies that, in this context, educational attainment may not directly translate to understanding or valuing the benefits of sustained health insurance coverage. This aligns with Barasa's (2017) findings, which also identified educational gaps as a barrier to optimal health insurance uptake and retention in low-income settings.

This pattern can be analyzed within the Rational Choice Theory, which assumes that individuals make decisions based on informed assessments of their options. However, in cases where education is limited, the capacity to make informed choices about health insurance may be compromised, resulting in lower retention rates. A limited educational background may restrict individuals' ability to comprehend the long-term benefits of insurance, potentially leading to a perception that health insurance is not a priority or that it yields limited value relative to other immediate financial needs.

This finding also reflects Weber's Model of Social Stratification, which identifies education as a form of social capital that enhances an individual's access to various resources, including health services. In Homa Bay's informal sector, limited educational attainment could contribute to a lack of awareness or skepticism regarding health insurance, ultimately affecting

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NHIF membership retention. This underscores the need for targeted educational programs within the informal sector to bridge knowledge gaps and reinforce the advantages of sustained health insurance coverage for economic and health security.

5.1.3 To ascertain how employment status affects the retention of national health insurance coverage in the unorganised sector in Homa Bay County, Kenya.

The study found a strong positive correlation (r = 0.639) between self-employment and reliance on self-insurance options like NHIF, indicating that self-employed individuals in the informal sector are more likely to retain NHIF coverage as it serves as a substitute for employer-sponsored health insurance. This outcome is consistent with Hossain's (2021) findings, which also identified self-employment as a significant driver for enrollment in national health insurance schemes due to limited access to alternative health coverage options. In light of Expected Utility Theory, this finding suggests that self-employed individuals in the informal sector view NHIF membership as a rational choice to mitigate the risks of medical costs. Lacking employer-sponsored insurance, these individuals may assess NHIF as an essential investment, ensuring they have coverage in the event of health-related expenses. This decision-making process is especially relevant for those facing income instability, as NHIF provides a safety net that minimizes out-of-pocket health expenses, thereby offering financial relief in times of need.

Additionally, Weber’s Model of Social Stratification reinforces the notion that employment status—particularly self-employment—positions individuals uniquely regarding access to social benefits like health insurance. Without access to traditional employer-based insurance schemes, self-employed individuals in Homa Bay's informal sector may rely more heavily on NHIF, perceiving it as an accessible and affordable means to secure health coverage. This finding underscores the importance of tailoring NHIF policies and promotional efforts to

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address the unique needs of self-employed individuals, who represent a substantial portion of the informal sector.

5.1.4 To investigate how the health status of members on national health insurance membership retention in the informal sector in Homa Bay County, Kenya.

The study's finding that health status significantly influences NHIF membership retention in the informal sector, with a positive correlation (r = 0.393), suggests that individuals with a history of medical issues have a greater perceived need for consistent health insurance. This aligns with the literature, where studies have found that those with existing health concerns or complex medical histories often prioritize retaining health insurance coverage due to their heightened vulnerability (e.g., Smith et al., 2019). Such individuals likely recognize NHIF as a protective mechanism that offers financial support and access to healthcare services, which is critical given their ongoing health needs.

From a Rational Choice Theory perspective, this behavior reflects a calculated decisionmaking process where individuals weigh their health risks against the costs and benefits of insurance. Those with more significant health concerns are likely to see NHIF membership as a rational investment to mitigate potential medical expenses. This supports the idea that perceived health vulnerability increases the likelihood of membership retention, as individuals aim to avoid the financial hardship that could arise from unanticipated medical costs.

Furthermore, Expected Utility Theory reinforces this outcome, suggesting that individuals with a history of health issues derive a higher perceived utility from maintaining insurance coverage. NHIF provides them with a sense of security, reducing the potential for catastrophic financial losses related to healthcare. This utility-driven motivation is especially pertinent for those in the informal sector, where income variability may exacerbate concerns over affording healthcare. These insights highlight the importance of targeted communication efforts by

NHIF to underscore the benefits of continuous coverage, especially for members with ongoing health needs.

5.2 Conclusion

As per the findings the study concluded that households with regular income exhibit a greater capacity and commitment to making consistent NHIF contributions. This finding highlights a critical link between financial stability and health insurance participation; members who can rely on steady income are more inclined to view NHIF as an essential safety net. Consequently, policies aimed at enhancing income-generating opportunities for individuals in the informal sector may lead to increased NHIF retention rates. The findings regarding educational attainment reveal a concerning gap in understanding the benefits of health insurance. The fact that a substantial portion of respondents believes that higher education correlates with self-insurance capabilities suggests a disparity in health literacy within the informal sector. This lack of awareness may contribute negatively to retention rates, as individuals who do not fully understand the importance of maintaining health insurance are less likely to prioritize it. To combat this, community-led educational programs focusing on health insurance benefits can play a crucial role in bolstering membership retention among less-educated populations. A significant connection is observed between self-employment and self-insurance, indicating that individuals in the informal sector often turn to NHIF as a primary source of health coverage due to the absence of employer-sponsored plans. This reliance signifies the need for tailored outreach strategies by NHIF, aimed at self-employed individuals, to facilitate the understanding and practicalities of maintaining their health insurance coverage. Finally, the study underscores the importance of health status in influencing NHIF membership retention. Respondents with complex medical histories demonstrate heightened awareness regarding the significance of consistent health insurance. This suggests that individuals who face chronic health issues or anticipate medical needs are more likely to value their health coverage and

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commit to retaining it. Thus, NHIF should consider implementing tailored programs that address the specific needs of members with various health conditions, thereby enhancing their sense of security and commitment to maintaining their coverage.

5.3 Recommendations for Practice

In Homa Bay County, Kenya, the National Health Insurance Fund (NHIF) plays a critical role in delivering health coverage to individuals in the informal sector. The recent findings from the study on various factors affecting membership retention within this demographic provide important insights. Based on these findings, the following recommendations are proposed for different stakeholders involved in the implementation and sustainability of NHIF initiatives

5.2.1 Recommendations for Authorities for Implementation

Study recommends that authorities should consider revising the NHIF contribution structure to introduce a tiered system that accounts for varying income levels, particularly in the informal sector. This would encourage consistent contributions and improve membership retention among those with regular income streams. Authorities should develop targeted educational programs to raise awareness about the benefits of NHIF among informal sector workers. Simplifying the information and using community-based platforms can ensure that individuals understand the value of maintaining their coverage, especially focusing on the relationship between educational attainment and health insurance literacy. They should further establish support services tailored for self-employed individuals, emphasizing the significance of NHIF as a safety net. This could include workshops on personal finance management and the importance of health insurance, facilitating better understanding of

NHIF contributions as an investment in health security

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5.2.2 Recommendations for Service Users/Beneficiaries

NHIF members should engage in community forums to discuss their experiences and challenges related to health insurance. Sharing personal stories can foster a supportive environment where individuals learn from each other about the value and necessity of consistent contributions to NHIF. Members are encouraged to leverage the health services provided under NHIF more actively. Regular visits to health facilities not only improve individual health outcomes but also reinforce the real-life benefits of being covered, thus enhancing retention motivation.

5.2.3 Recommendation for Other Stakeholders

NGOs and community-based organizations should partner with NHIF to create localized programs that build awareness and educate informal sector workers about the importance of health insurance. These organizations can help bridge the gap between NHIF and potential members by providing resources in accessible formats and languages. Stakeholders such as academic institutions, policy researchers, and healthcare providers should focus on continuous research and data collection about the informal sector's unique challenges regarding health insurance. Insights from this ongoing research can inform better policy decisions and program designs tailored to this population.

5.4 Recommendations for further research in this field of study

Given the study's indication that regular income enhances commitment to NHIF contributions, subsequent research should investigate how fluctuations in income over time affect membership retention. Longitudinal studies could explore patterns in NHIF enrollment and retention in response to income changes, such as seasonal employment variability or economic downturns. This would provide a nuanced understanding of how different income dynamics correlate with health insurance stability.

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Since half of respondents expressed a lack of understanding regarding the benefits of NHIF coverage, further research is needed to assess the impact of educational interventions on insurance retention. Studies could evaluate the effectiveness of targeted awareness campaigns focused on the advantages of NHIF membership, particularly for low-education populations. Implementing and subsequently studying structured educational programs could inform best practices in increasing awareness and retention rates.

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APPENDICES

APPENDIX 1: QUESTIONAIRE

The Focus group discussion introduces the respondents and gives the background of the research and seeks the time and permission for the interview.

Introduction by the interviewer:

"I am researching NHIF membership retention in Homabay County. The study targets selfinsured members. The research seeks to understand the influence of social economic factors affecting membership retention in the scheme. You have been selected to assist in providing the required information. I kindly request you to spare 20 minutes of your time for this interview. The information obtained from you is for academic purposes and I guarantee a high level of confidentiality and your honest and accurate response will be highly appreciated."

(interviewer can translate for clarity) **Ask**

the following questions:

Section 1: Demographic information

"To start, I'd like to gather some basic information about you."

Question1: could you please tell me your age and highest education background?

*(*The response will be weighted based on frequency for members in a group.*)*

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Age 18-25 ☐ 26 - ☐ 33 34-41 ☐

42-49 ☐ 50-above ☐

Highest level of education

Primary ☐ High School ☐ Diploma ☐

Degree ☐ Masters ☐

Others…………………………………

Question2: Now, let us discuss your main economic activity, what is your main source of livelihood?

Fishing ☐ Agriculture ☐ Construction ☐

Others…………………………………

"Moving on, I'd like to explore some socio-economic factors and their relation to your NHIF membership retention."

1.INCOME STATUS

Let's start with income status, on a Likert scale of 1- 5 how would you rate the following questions with (1=Strongly Agree-SA, 2=Agree- A, 3=Neutral- N, 4= Disagree - DA, 5=Strongly Disagree –SD)

The response will be weighted based on frequency for members in a group for the entire section.

	STATEMENTS	SA	A	N	DA	SD

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1	Self-insured members of the NHIF have regular income					
2	Self-insured members of the NHIF have a saving culture					

Let us move to the second item.

2.EDUCATION LEVEL

About socio-economic factors, is this assumption true according to you?

	STATEMENTS	SA	A	N	DA	SD
1	Self-insured members of the NHIF have high education					

3.EMPLOYMENT

Third on employment please tell me, about socio-economic conditions to what extent would you agree or disagree with the following statements?

	STATEMENTS	SA	A	N	DA	SD
1	Self-insured members of the NHIF are self-employed					
2	Self-insured members of the NHIF are employed					

4.HEALTH STATUS

About socio-economic conditions please tell me, to what extent would you agree or disagree with the following statements?

	STATEMENTS	SA	A	N	DA	SD
1	Self-insured members of the NHIF have access to health services					
2	Member medical history affects the need for membership retention					

5.MEMBERSHIP RETENTION

On NHIF membership retention, please tell me the extent to which you agree or disagree with the following statements.

	STATEMENTS	SA	A	N	DA	SD

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1	NHIF premium paid is fair					
2	NHIF default rate is within the member's control					
3	Government policy on membership retention is working					

CONCLUSION

“Is there anything else you wish to add?”

“Thank you very much for your time and for participating in this interview.”

APPENDIX II: ERC

Mount Kenya University

REF: **MKU/ISERC/4237**

Date: 14 August 2024

TO: **FRANK OCHIENG OTIENO**

REG: **MPAM/2022/54135**

Dear Sir/Madam,

RE: INFLUENCE OF SOCIO-ECONOMIC DETERMINANTS ON NATIONAL HEALTH INSURANCE MEMBERSHIP RETENTION IN THE INFORMAL SECTOR IN HOMABAY COUNTY, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **3017.** The approval period is **14/08/2024 - 13/08/2025.**

This approval is subject to compliance with the following requirements;

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

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

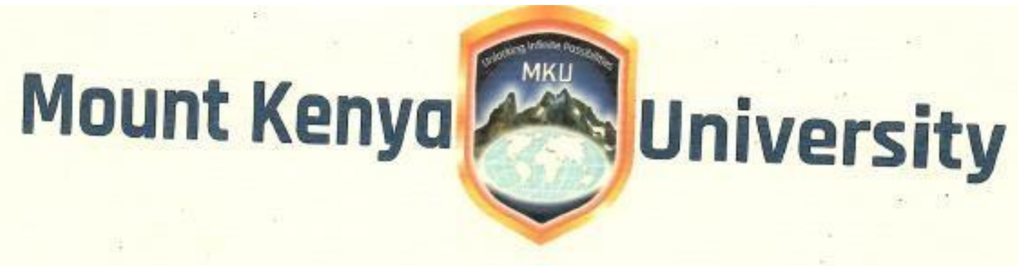
Yours sincerely,

MOUNT KENYA UNIVERSITY
ETHICS REVIEW COMMITTEE
P. O. Box 342 - 01000,
THIKA

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC

Main Campus, General Kago Road, P.O. Box 342-01000 Thika.
Cell: +254 709 153 000 | +254 709 153 200

APPENDIX III: Introduction letter from MKU



DIRECTORATE OF GRADUATE STUDIES

MPAM/2022/54135

20th August, 2024

National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA

Dear Sir/Madam,

RE: FRANK OCHIENG OTIENO – REGISTRATION NO. MPAM/2022/54135

The purpose of this letter is to introduce the above named student who is pursuing Master of Arts in **Public Administration and Management** in the department of Management in the school of **Business and Economics**

The title of the research is **"Influence of Socio – Economic Determinants on National Health Insurance Membership Retention in the Informal Sector in Homa Bay County, Kenya."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **August, 2024** and **October, 2024.**

Any assistance accorded to the student will be highly appreciated.

Thank you.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies

Dr. Samuel M. Karenga, PhD
Director, Graduate Studies
Enc.

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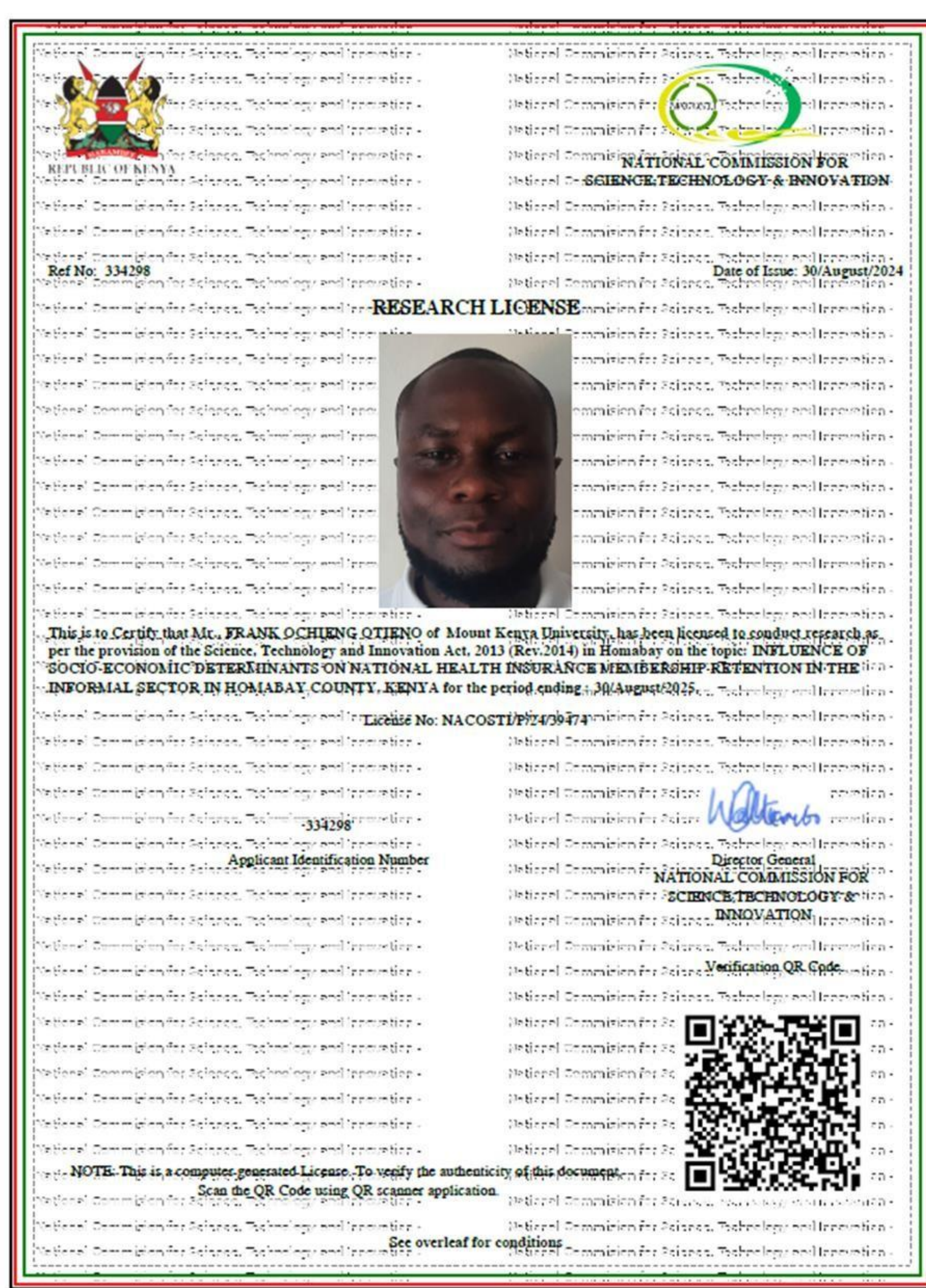
Email: info@mku.ac.ke, Web: www.mku.ac.ke
Chartered and ISO 9001 : 2015 Certified Institution.
Unlocking Infinite Possibilities

APPENDIX IV: NACOSTI Research Liscense



REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 334298

Date of Issue: 30/August/2024

RESEARCH LICENSE

This is to Certify that Mr.. FRANK OCHIENG OTIENO of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Homabay on the topic: INFLUENCE OF SOCIO-ECONOMIC DETERMINANTS ON NATIONAL HEALTH INSURANCE MEMBERSHIP RETENTION IN THE INFORMAL SECTOR IN HOMABAY COUNTY, KENYA for the period ending : 30/August/2025.

License No: NACOSTI/P/24/39474

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Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

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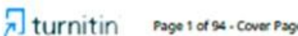
See overleaf for conditions

APPENDIX V: TURNITIN REPORT



FRANK OCHIENG

FRANK OCHIENG OTIENO.docx

Thesis

Master

Mount Kenya University

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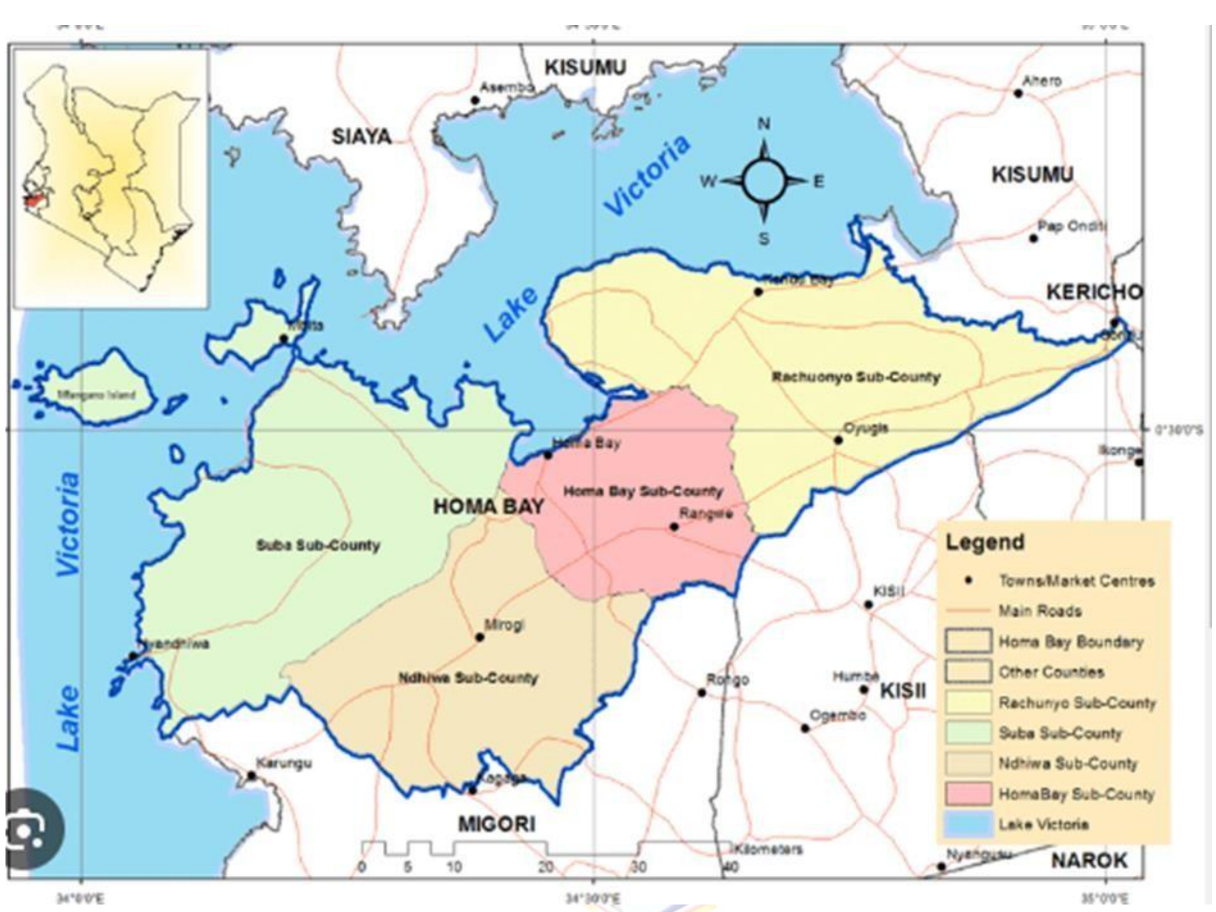
APPENDIX VI: MAP



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