

**DETERMINANTS OF VOLUNTARY NATIONAL HOSPITAL INSURANCE FUND
(NHIF) UPTAKE IN THE PUBLIC TRANSPORT INDUSTRY: A CASE OF
MATATU SACCOS IN NAIROBI, KENYA**

BY

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DECLARATION

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

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This research project report has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This project is dedicated to my husband Honorable Francis Mwangangi Kilonzo and our two children Victor Kilonzo and Precious Esther Ndanu.

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LIST OF ABBREVIATIONS AND ACRONYMS

ASEAN	-	Association of Southeast Asian Nations
GDP	-	Gross Domestic Product
GOK	-	Government of Kenya
ILO	-	International Labour Organization
MOHRI	-	Minimum Obligatory Human Resource Information
NHIF	-	National Health Insurance Fund
NHS	-	National Health Service
NSHIF	-	National Social Health Insurance Fund
OOP	-	Out of pocket payment
SACCO	-	Saving and Credit Cooperative Society
SPPS	-	Statistical Package for Social Sciences
TLB	-	Transport Licensing Board
UHC	-	Universal Health Care
UNDP	-	United Nation Development Program
VHI	-	Voluntary Health Insurance
WHO	-	World Health Organization

ABSTRACT

The health sector in Kenya has gone through a lot of changes since independence from the dominantly government provided healthcare to cost sharing regime. None of the previous studies have ever focused on factors affecting uptake of voluntary social health insurance among employees in public transport industry. The employees are frequently exposed to frequent exposure to harmful fumes and long working hours. This is coupled with high accident rate and psychological effects related to the nature of their job. The purpose of the study was to establish the determinants of voluntary social health insurance uptake in the public transport industry with reference to Matatu Saccos in Nairobi. This study adopted a descriptive research design. The target population comprised of 11,053 drivers and conductors in Nairobi, and the senior management officers of the Matatu Saccos in Nairobi. A sample population of 384 drivers and conductors was used in this study. Primary data was collected using questionnaires and interview guides. Data collected was edited and coded using descriptive analysis methods in order to get meaningful results from the questionnaires, interview guides checklist and desktop findings. The qualitative data took an exploratory or conceptual content analysis process which is more ideal as the information gathered from the interview guides was large and could be time consuming if not well planned. A factor analysis was used to pick the factors with the highest weight. In addition the study used Karl Pearson's product moment correlation analysis to assess the relationship between the variables. This study found that most of the drivers and conductors working in the public transport industry are not registered with NHIF. The study concluded that the level of income has the highest effect on voluntary social health insurance uptake in the public transport industry, followed by premiums payable, then corporate image while level of awareness had the lowest effect on the voluntary social health insurance uptake in the public transport industry. The study recommends that to ensure that all the drivers and conductors are registered with NHIF, the government should carry out an advocacy campaign aimed at educating them of the need of social health insurance and how they can contribute, the amount of premium should be reduced, officials of the NHIF should go for a recruitment mission in the community and the corrupt management at the NHIF should be removed to enhance transparency.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Out of pocket payment (OOP) is the predominant means of health care financing in the majority developing countries including Kenya. This is a regressive form of financing, due to its alignment with the level of health care use, rather than the socioeconomic status of an individual. The consequence is a disproportionately high cost burden on the poor (Mahal *et al.* 2010). It has been estimated that a high proportion of the world's 1.3 billion poor have no access to health services simply because they cannot afford to pay at the time they need them (Dror and Preker 2002). Many of those who do use services suffer financial hardship, or are even impoverished, because they have to pay (WHO 2010). To decrease the negative impact of OOP costs, many developing countries have embarked on formal and informal risk pooling mechanisms that decouple the relationship between financial contributions and level of service use. One such mechanism is Voluntary Health Insurance (VHI), which provides formal means of risk pooling for countries with chiefly informal economies (Witter and Witter, 2009).

Health care has always been a problem area for many nations, including Kenya, with a large population and a substantial portion living below the poverty line. Consequently, health care access and equity become important issues, and health insurance has not been developed to its immense potential in the economy. Yet most policymakers have assumed until recently that poor families in developing countries whose survival is precarious would not pay health insurance premiums even to forestall the costs of hospitalization (International Conference on Social Health Insurance in Developing Countries, 2005).

A number of authors have documented the roots of the trend and expansion of the concept of insurance at certain parts of the world, as well as the challenges that lie ahead for the growth of insurance industry (Barrientos and Lloyd-Sherlock, 2003). Others have focused on new markets where the phenomenon effects on growth is discussed for a long time; while elsewhere evidence is provided that there are significant cross-selling opportunities that mostly arise from consumer

unawareness regarding insurance offerings and their willingness to buy these new products (Campbell et al, 2005).

Historically, social health insurance originated in developed countries as work related insurance programs and the coverage has been gradually expanded to the non-working parts of the population (Arrow, 1963). In recent years, social health insurance is being introduced in parts of the developing world as an alternative to tax financing and out-of pocket payments (Tuohy, 2004).

In pre-colonial Africa, there existed a traditional system of medical care that was based on traditional beliefs and medical practices which were readily available, affordable and accessible to whomever needed it (Aregbeyen, 1983). On the onset of colonial administration, government and church owned hospitals that were funded by taxes and donations were introduced. On the advent of independence, there was a reduction in the number of patients and donors compelling hospitals to finance their budgets primarily by charging for their services (Gakombe, 2002). In Kenya, a co-payment of Kshs.1.50 per user was in force in all public health facilities between 1963 and 1965 (Sessional Paper on National Social Health Insurance in Kenya, 2003). Kenya's immediate post independence economic development blue print, the "Sessional paper No.10 of 1965 (African Socialism and its Applications to Planning in Kenya)", laid down development policies aimed at eradicating poverty, ignorance and disease. Between 1965 and 1989 the government used revenue from general taxation to finance health services in line with its policy of free medical care as stated in Sessional paper No.10 of 1965 (Sessional Paper on National Social Health Insurance in Kenya 2003). The Government of Kenya (GOK) then was providing free out patient health services and hospitalization for all children and the unemployed in public health facilities (Owino and Were, 1998).

On 12th July 1966, a law that introduced social health insurance in Kenya, the National Health Insurance Fund Act was enacted creating the National Health Insurance Fund (Daily Nation, 2006, Nov. 29). Efforts by GOK to attain UHC through NHS were rocked by the social economic crises of the late 1970s. Meanwhile corruption and poor leadership rendered National Health Insurance Fund (NHIF) ineffective (Sessional Paper on National Social Health Insurance

in Kenya, 2003). Due to severe budgetary constraints and declining support from donors the government was forced to introduce user charges for health services in 1989 leading to cost-sharing programs in the 1984 / 1988 development plans which were implemented in December 1989 (Owino and Were, 1998).

The health financing system of cost sharing currently being practiced in Kenya is not affordable as over 50% of the Kenyan population living below poverty line. Other factors that render cost sharing untenable is the fact that 7.7% of poor households are faced with catastrophic health expenditure i.e. out of pocket payment exceeding 40% of disposable household income (Mathauer, 2008).

In 2004 the government attempted to replace the current social health insurance scheme of National Health Insurance Fund (NHIF) by introducing the National Social Health Insurance Fund (NSHIF) whose plan was to achieve UHC within 12 years. The government's intention was that Kenyans, through the community spirit of solidarity, would pay small regular contributions to the NSHIF as cover for illness thus enhancing risk sharing among income groups (Sessional Paper on National Social Health Insurance in Kenya, 2003). The NSHIF, however, never materialized. However, in 2006 the NHIF introduced comprehensive medical cover and rolled out to enroll members from outside the formal sector in large numbers but the impact of these changes are yet to be documented (Siringi and Nzioka, 2006).

1.1.1 Health Insurance

Health insurance is a form of collectivism by means of which people collectively pool their risk, in this case the risk of incurring medical expenses. It is a contract between an insurance company and an individual or his sponsor (e.g. an employer). The contract can be renewable annually or monthly. The type and amount of health care costs that will be covered by the health insurance company are specified in advance, in the member contract or "Evidence of Coverage" booklet. The collective is usually publicly owned or else is organized on a non-profit basis for the members of the pool, though in some countries health insurance pools may also be managed by for-profit companies. It is sometimes used more broadly to include insurance covering disability or long-term nursing or custodial care needs. It may be provided through a government-

sponsored social insurance program, or from private insurance companies (Gnawali et al, 2009). It may be purchased on a group basis or purchased by an individual. In each case, the covered groups or individuals pay premiums or taxes to help protect themselves from unexpected healthcare expenses. Similar benefits paying for medical expenses may also be provided through social welfare programs funded by the government.

By estimating the overall risk of healthcare expenses, a routine finance structure (such as a monthly premium or annual tax) can be developed, ensuring that money is available to pay for the healthcare benefits specified in the insurance agreement. The benefit is administered by a central organization such as a government agency, private business, or not-for-profit entity (Vladescu et al, 2000).

The importance of health insurance cannot be underestimated in any economy. As observed by Wasow and Hill (1986) who argued that health insurance is an important channel for financial capital accumulation. Health insurance companies' policies offer policies, which are purchased exclusively to protect the customer against risk. They often involve substantial savings. This is because the assurance fund must accumulate reserves against anticipated future claims. Such savings provide for large sums of money, which can be lend to individuals, the government, commerce and industry.

One of the major objectives of the government is the provision of effective healthcare to the whole population. Since independence in 1963, the Kenya government has developed comprehensive health policies to guide its activities to meeting the health needs of the population. Consistence with these policies, network of health facilities have been established in all parts of the country, and a sizeable private health sector has taken root. However, access to quality health care has remained a dream for most Kenyans (Sessional Paper on National Social Health Insurance in Kenya, 2003).

At independence, the Kenya government committed itself to providing free health services as part of its development strategy to alleviate poverty and improve the welfare and productivity of the nation. To address problems in the health sector, and make healthcare accessible and affordable, the government, in the early years after independence, instituted and implemented

various health reforms, among them being the setting up of health insurance through the National Hospital Insurance Fund (NHIF) (Health policy paper, 1994).

The primary concerns of the government are provision of social amenities to its citizen. Health is one of those social amenities the government provides as a basic necessity to the public. Health care can be seen as a means towards some further objective such as economic competitiveness or decreased public expenditure, or as an end in itself. Commitments by the governments to the notion of health as an end in itself are likely to refer to human rights, of which good health and access to health care service is one World health Organization (WHO, 2010). It is the mandate of the government of Kenya to promote and improve the health status of the nation by making health services accessible, effective and affordable to its citizen.

According to Mbatia (1996), the health sector in Kenya has gone through a lot of changes since independence from the dominantly government provided healthcare to cost sharing regime. The Government expenditure on health has continually declined against increasing population and rising cases of costly diseases such as HIV/AIDS, Tuberculosis and Malaria (World Bank, 2007; UNDP, 2001). The effect of this trend has been poor health care provision in strained facilities where congestion and drugs shortages have been the norm. The introduction of cost sharing in public hospitals did not help the situation as it only made people to pay more for deteriorating health services (UNDP, 2001). The alternative private sector has been described as very expensive for the poor. These have proved inadequate and often leave the person with the burden of medical bills to pay (UNDP, 2001). The insurance firms on the other hand have been financing health care based on pay first and claim reimbursement after treatment. This presents the clients with the problem of raising deposits for treatment as required by most of the private hospitals. It is against this background that health management organizations have joined the health service provision sectors.

1.1.2 The National Health Insurance Fund (NHIF)

The National Hospital Insurance Fund was established under the act of parliament Cap 255, GOK in 1966. It replaced the then existing Europeans, Asian and Arabs Hospital Fund, which only catered for the three communities. Its original objective was to ensure that as many Kenyan

as possible do occupy the largest number of available Hospital beds, at subsidized rates. The NHIF continues to facilitate provision of affordable, accessible and sustainable health financing to all eligible Kenyan residents (NHIF Act No. 9 of 1998).

The Act establishing the NHIF also provided for the enrolment for all Kenyan residents of between age 18 and 65 and mandated employers to deduct premium from wages and salaries of employees at a graduated scale. As a way of facilitating affordability, sustainability and accessibility to inpatient health services for majority Kenyans, voluntary membership to NHIF scheme was introduced in 1972 with a view to bringing on board the informal sector and those earning less than Kshs. 1000.00 (NHIF Act No. 9 of 1998).

The NHIF contribution premium rates were reviewed in 1990 to take care of inflation and rising healthcare costs and to raise more revenue for healthcare financing. The contributions had stagnated at Kshs. 20.00 since the inception of NHIF. The Health policy paper (1994) recommended the review of NHIF activities in response to challenges and in efficiencies experienced. Following this, (NHIF Act No. 9 of 1998) became operational. The Act gives the Fund legal protection by making the scheme mandatory for all those engaged in formal income generating occupation. However it is open to those in the informal sector who can raise the contributions. The fund has a membership of about 1.5million of whom 93 % are drawn from the formal sector. The formal working population is estimated to be 1.9million, while those in informal sector are 7.8 million (NHIF strategic plan, 2005-2010).

The introduction of cost- sharing mechanisms at all levels of health care system have resulted in a growing burden on patients. There is evidence that an increase number of poor are excluded. On the other hand cost sharing has become an important source of financing for health care providers in the public and private sector. Health care providers find it increasing difficult to provide adequate service that includes treatment, diagnostics and drugs with the available financial resources. The reason is that children under 5 are excepted and that approximately 20 % of cost sharing contribution have to be waved for poor patients who cannot afford them (National Social Insurance Strategy, 2003)

The general view of informal sector is that it comprises of activities primarily of petty traders involved in such activities as selling of second-hand clothes, shoes shinning, food selling and repair and construction; operating mainly from the streets of the main Urban centres. Is an activity generating income and provide, though on a small scale, uses simple skills, is dynamic and not tied to regulation of the activities. Such activity include: Vegetable selling, Street vendors, Masonry, Carpentry, and so forth (Barrientos, 2000).

NHIF had managed to cover formal sector successfully. The bigger uncovered population is in informal sector and needs to be brought on board. This sector is characterized with the existence of various potential customer groups including: just to mention a few, Matatu SACCO, Jua Kali, taxi drivers self help, microfinance groups, faith based associations and open air market. Further, the majority in informal sector is characterized by high poverty incidence levels and cannot raise premiums to enable them take cover from health insurance providers, hence NHIF has the responsibility of coming in to fill this gap. From the foregoing, it can be noted that that NHIF has been successful in bringing on board the formal sector of the Kenyan population. It has been a big challenge to the organization in terms of uptake of voluntary social health insurance to enable its members access affordable health care (NHIF strategic plan, 2005-2010). It is to this end that the study aims at finding practical solution to uptake of voluntary social health insurance. On the contrary, it has been a big challenge to the organization to grow its informal sector membership. On this light, the study aims at finding practical solutions so that the informal sector is brought on board.

1.1.3 Public Sector Transport

The transport and communications sector is critical in catalyzing and driving the social and economic transformation required for the attainment of Kenya's vision (Republic of Kenya, 2009). The sector is one of the most resilient and largest contributors to the country's GDP and employment. It accounted for about 10% of the GDP, and provided 5.5 per cent and 3.1 per cent of the total formal and informal sector jobs in 2010, respectively (Republic of Kenya, 2011c).

Road transport constitutes an important component of the transport and communications sector. Road transport accounts for more than 50 per cent of the value of output in the transport and

communications sector. Among the vehicles used in road transport are Matatus and mini buses (Republic of Kenya, 2011c). The significance of these modes of transport is manifested in the phenomenal increase in the number of Public Service Vehicle (PSV) licenses issued by the Transport Licensing Board (TLB) in respect of these categories of vehicles (Republic of Kenya, 2011c).

Data available at the TLB show that the number of PSVs licensed in 2011 was 27,162 (ILO, 2012). Of these, 20,910 (77%) were in the category of Matatus, while 4,396 (16.2%) were in the group of mini buses. Institutional vehicles accounted for only 6.8 per cent of the total number of PSVs licensed by the TLB in 2011. The Matatu sector in Kenya is a dynamic sector with peculiar characteristics. Some of the characteristics are: dominant presence in both rural and urban areas, dominant age of those employed in the sector is 24-40 years, education of employees in the sector varies with majority being primary and secondary school leavers and shows that casual and temporary contracts of service are the dominant forms of engagement in the Matatu industry.

According to Republic of Kenya (2011c), the Matatu sector employs about 350,000 workers. The sector has the potential to contribute to decent jobs the moment the workers and employers jointly embrace social dialogue mechanisms, law enforcers create awareness on the labour laws and accruing benefits. Kenya's policy makers strongly advocate for the transformation of the Matatu sector to enable the sector to grow and create decent jobs. Efforts should be on promoting self control in the sector in as far as Labour Laws are concerned.

The current labour issues in the sector include the fact that the employment contracts in the Matatu sector are often not formalized, wages are unilaterally negotiated between the entrepreneur and the workers, most jobs are sub-contracted and out-sourced, and wage payments are often done on a daily basis or on account of tasks (ILO, 2012). The working hours average over 15 hours a day drivers/conductors are given fixed targets if they have to keep their job hence lack of job security. High accident rate due to working conditions and psychological effects. Owners and workers in the sector are not adequately covered under the NSSF and NHIF schemes. This study will therefore seek to establish the influence of corporate image, level of

income, awareness by employees and premiums payable on the uptake of voluntary membership into NHIF by employees in the matatu industry.

1.2 Statement of the Problem

With 56% of Kenyans living below the poverty line i.e. their levels of income are below the income deemed necessary to achieve an adequate standard of living in Kenya and 40% of them living in absolute poverty, financing of healthcare for a majority of Kenyans is a real challenge. On the other hand, the existing healthcare system is designed on the basis of citizens who are capable of paying for medical care at the time and point of treatment (Sessional Paper on National Social Health Insurance in Kenya, 2003). It is the core mandate of National Hospital Insurance Fund as a social health insurance to enroll as many Kenyan workers as possible both in formal and informal sector. The organization has brought on board workers in formal sector successfully since is statutory requirement. Voluntary membership into NHIF was introduced in 1972 according to statistics in its strategic plan (2005 – 2010). NHIF has managed to bring on board only 1.03m members against an estimated informal sector population of 9.8 million (NHIF, 2012). The coverage is even lower among the Matatu operators with only 441 drivers and conductors covered nationwide and only 75 covered in Nairobi from a population of 11,053 (NHIF, 2012). Meanwhile, Government efforts to offer health insurance through the NHIF have not catered for the economically deprived Kenyans as, despite its inadequacies, it caters for the less than 10% of Kenyans who are formally employed.

Locally, Arasa (2002) did a survey of environmental development and firm's responses in the health insurance sector in Kenya while Alumila (2004) surveyed distribution strategies used by health maintenance organizations in Kenya. None of these local and international studies have ever focused on factors affecting uptake of voluntary social health insurance among employees in public transport industry. While research in the demand for insurance has attracted much attention since the 1960s, most studies have focused on international cases or well-established markets in developed countries. As a result of cross-national variations in health insurance uptake, it has been argued that factors shaping the uptake of health insurance are varied from one country to another. It is in this light that the researcher aims to fill the existing research gap by carrying out a study on factors affecting uptake of voluntary social health insurance with a

special focus on the National Hospital Insurance Fund uptake among drivers and touts operating in Nairobi based matatu Saccos.

The matatu industry has been criticized for wretched practices and indiscipline (Republic of Kenya, 2011c). The employees are frequently exposed to frequent exposure to harmful fumes and long working hours. This is coupled with high accident rate and psychological effects related to the nature of their job. However, given that most of their jobs are sub-contracted and out-sourced and wage payments are often done on a daily basis or on account of tasks, there is no formal way to adequately cover the drivers and conductors under NHIF schemes. Further, most are not aware of the benefits they can accrue from the voluntary social health insurance.

1.3 Purpose of the Study

The purpose of the study was to establish the determinants of voluntary social health insurance uptake in the public transport industry with reference to Matatu Saccos in Nairobi

1.4 Specific Objectives

This study was guided by the following specific objectives:

1. To establish how NHIF corporate image determines uptake of voluntary membership into NHIF by employees in the Matatu industry
2. To assess how level of income by Matatu industry employees determines uptake of voluntary membership into NHIF
3. To establish how awareness by employees in the Matatu industry determines uptake of membership into NHIF
4. To assess how premiums payable determines uptake of voluntary membership into NHIF by employees in the Matatu industry

1.5 Research Questions

1. How does NHIF corporate image determine uptake of voluntary membership into NHIF by employees in the Matatu industry?
2. How does level of income among employees in the Matatu industry determine uptake of voluntary membership into NHIF?
3. To what extent does consumer awareness determine uptake of membership into NHIF by employees in the Matatu industry?
4. How do premiums payable determine uptake of voluntary membership into NHIF by employees in the Matatu industry?

1.6 Significance of the study

The study findings would be of importance to top management in identifying the extent to which various factors affect informal sector uptake and hence facilitate the way forward. To the operation department at NHIF, the study would provide guidance to the managers on their role in addressing growth of membership in the informal sector. To the government especially ministry of health, the study shall help in addressing social health needs by those who require assistance due to poverty.

The information in this study would help reshape existing programmes, and assess the need for expanding and introducing VHI programmes for the poor and those in the informal sector. The study findings would help policy makers to learn what lessons the implementation of such insurance suggests in terms of welfare enhancement to those who currently undertake out-of-pocket health expenditure, which often exacerbates their already meagre material living conditions. This study would also provide crucial information to policy makers as they make decisions on matters affecting health insurance in Kenya. To the policy makers, the study would provide crucial information to them as they make decisions on matters pertaining to health insurance. This study would also become a source of secondary data to future researchers on voluntary health insurance.

The study findings would become useful to scholars in future research basis. This empirical study would make a major contribution in adding to the limited body of empirical knowledge on factors affecting uptake of voluntary social health insurance among small scale.

1.7 Scope/Delimitation of the Study

The study covered factors affecting uptake of voluntary social health insurance in the public transport industry in Kenya. The scope of this study was the drivers and conductors working with matatu SACCOS in Nairobi. The choice of this group for this study was because most of them are young, working in a very informal setting in a very unfavourable working condition.

1.8 Limitations of the study

Some respondents refused to fill in the questionnaires. The researcher had to made proper arrangements with the respondents to avail themselves for the study as they wait for the Matatu to get passengers as well as motivating them on the value of the study. The researcher also had to exercise utmost patience and care and in view of this the researcher had to make every effort possible so as to acquire sufficient data from respondents. However, conclusions were made with the response rate achieved. The choice made to use one single county to analyze the problem of determinants of voluntary social health insurance uptake in the public transport industry was limited in making generalization of the national picture in regard to the aspects of the study, given regional differences in Matatu sector operators in different counties although it was aimed at avoiding costs of studying more than one county and the short time available.

1.9 Assumptions of the study

The researcher made the assumption that the respondents were literate and cooperative enough to give the required information of the study. The researcher also assumed that external factors like Matatu strikes which are rampant in the sector would not arise as this would affect the process of data collection and hence the completion of the project.

1.10 Definition of Significant Terms

Voluntary uptake: refers to those activities that fall outside the formal economy.

Premium: refers to specified amount of payment required by an insurer to provide coverage.

Health insurance can be defined as a way to distribute the financial risk associated with the variation of individuals' health care expenditures by pooling costs over time through pre-payment and over people by risk pooling (OECD, 2004).

Minibus: Section 2 of the Traffic Act (Cap. 403), Laws of Kenya defines a as a public service vehicle with a seating accommodation for more than 25 passengers, excluding the driver.

Matatu: Section 2 of the Traffic Act (Cap. 403), Laws of Kenya defines a as a public service vehicle with a seating capacity for not more than 25 passengers, excluding the driver. In this study, the Matatu industry is taken to mean an industry where Matatus and mini buses operate.

1.11 Organization of the study

The study will be organized into three chapters, each of which contains specific information. Chapter One contains the introduction to the study. It gives background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the Study, delimitations of the study, limitations of the Study and the definition of significant terms. Chapter Two reviews the literature based on the objectives of the study. It further looked at the conceptual framework and finally the summary. Chapter Three covers the research methodology of the study. The chapter describes the research design, target population, sampling procedure, tools and techniques of data collection, pre-testing, data analysis, ethical considerations and finally the operational definition of variables. Chapter four presents analysis and findings of the study as set out in the research methodology. The study closes with chapter five which presents the discussion, conclusion, and recommendations for action and further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this second chapter, relevant literature information that is related and consistent with the objectives of the study is reviewed which include corporate image, level of income, level of awareness and premiums payable. Important issues and practical problems are brought out and critically examined so as to determine the current facts. This section is vital as it determines the information that link the current study with past studies and what future studies will still need to explore so as to improve knowledge.

2.2 Theoretical Review

This section accounts for the demand for social health insurance in order to establish the theoretical framework for the analyses undertaken in the empirical chapters of the thesis. In reality, the decision to take out social health insurance as well as the use of health care services are most likely based on dynamic optimization by individuals. The theories of risk aversion and consumer rationality have been applied to explain why households will decide to purchase health insurance on the basis of expected utility gain (disutility minimization). Because of risk averseness, consumers will generally choose to buy health insurance to minimize their risk of suffering out-of-pocket, and on condition of rationality, will choose a health insurance regime (in terms of the amount purchase) that maximize their utility gain.

2.2.1 Agency Theory

In the Agency Theory a contractual relationship is entered by two persons that are the principal and the agent so as to perform some service. This involves delegating some decision making authority to the agent by the principal (Jensen and Meckling, 1976). At the same time an agent is a person employed for the purpose of bringing his principal into a contractual relationship with a third party and does not make a contract on his own behalf. The legal doctrine which applied was 'qui facit per alium facit per se (he who does something through another does it himself) (Wright and Oakes 2002).

Agency Theory was directed at the person presenting the agency relationship. This is where one party delegated work to another party who performed the duty on behalf of the principal: (Eisenhardt, 1989). This person was authorized to perform legal acts within his competence and not on his own behalf but for the principal. A growing view in the modern literature recognized however that the two were strange bed fellows. An Insurance Brokers is an agent employed to buy and sell on behalf of another. However, in performing his role, he owes a duty to his principal. The level of care expected is varied; a higher level of care will be expected from a professional broker than from a part-time insurance agent (Wright and Oakes, 2002).

According to the English and American law the liability of a principle for his agent torts in the ordinary course of his employment depended upon the existence of a master- servant relationship. The master was vicariously liable for his servant tortuous conduct committed within the course of employment (Yin, 1989). There were cases where an agency relationship arose when an individual group called principal hired someone called an agent to perform some service, where the principal delegated decision- making power to the agent. This kind of relation included those between stock holders and managers and between stockholders and debt holder. According to Investopedia, Agency Theory is a theory concerning the relationship between a principal (customer) and an agent of the principal (insurance company). It further said that Agency Theory is a very academic term which essentially involves the costs of resolving conflicts between the principals and agents and aligning interests of the two groups.

2.2.2 Empirical Framework

The individual demand for health care is highly variable and unpredictable given that illness strikes at random, which necessitates some sort of insurance mechanism in the financing of health care services (Arrow, 1963). This section lays out various models of the individual demand for SHI. The models accounted for in this section are all based on expected utility theory, which is the framework most frequently used to model choice under uncertainty in the literature (Machina, 2008).

The classical one-period model of SHI demand with symmetric information between the insurer and the insurance taker was developed by Friedman and Savage (1948). Subsequently, some

variation of the model has been included in popular health economics textbooks (Zeckhauser, 2000).

Nyman (2003) suggested an alternative approach to modeling the demand for SHI. Following this approach, the decision to purchase SHI is made by comparing the expected utility gain from the income transfer in the ill state to the expected utility loss from paying the insurance premium in the healthy state rather than comparing the expected utility with and without SHI, respectively. Given that uncertainty occurs both with and without insurance, risk aversion is only expected to play a minor role in the demand for SHI according to the approach. The essence of SHI thus becomes a redistribution of risk rather than elimination of risk (Nyman, 2003). A central part of this alternative theory concerns a decomposition of increased use of health care services induced by SHI into inefficient ex post moral hazard and use that is due to an efficient transfer of income from the healthy to the ill.

The assumption that individuals without SHI have sufficient income to pay for health care at the point of demand when ill implies that the income elasticity of the demand for health care is zero. This is a rather strong assumption, which is at best questionable. De Meza (1983) has developed an alternative model based on the assumption that health care is a normal good, which implies that more of it will be demanded when SHI is available.

This model takes into account that individuals without SHI are not always able to pay for health care at the point of use when ill, and that some health care costs may in fact not occur without insurance. The implications of individuals with and without SHI not necessarily using the same amount of health care when ill for the demand for SHI were further developed by (Nyman, 2003). More specifically, Nyman (2003) argued that in addition to providing protection against financial risk, SHI is then also valued for giving access to health care that would otherwise be unaffordable, i.e. it has 'access value'. The access value is greater for individuals with limited financial resources, since for these individuals, the alternative to purchasing SHI may well be to go without treatment in the ill state, which implies that the financial loss associated with illness is limited. In addition, SHI that covers expensive procedures may reasonably be expected to have greater access value than SHI covering smaller losses.

2.3 Factors Affecting Uptake of Voluntary Social Health Insurance

The type of risks faced by the poor such as that of death, illness, injury and accident, are no different from those faced by others, but they are indeed more exposed to such risks that can severely affect their livelihoods due to their economic status, income and earning abilities (Holzmann and Joergensen, 2000). In a developed country context, there is evidence that individuals without life insurance are significantly less risk averse than their counterparts with life insurance, whereas the risk aversion increases with the income and wealth up to a mean of the respective distribution, and then decreases (Barsky et al. 1997). This indicates a life-cycle effect of the degree of an individual's risk aversion.

It is plausible to propose that better off households have a higher ability and willingness to bear a given amount of risk compared to relatively poor households. For developing countries, there is evidence that risk averse households are less likely to purchase insurance (Giné et al. 2008) and that households who feel themselves more exposed to risk are less likely to use financial services and to use life insurance (Bendig et al. 2009). In respect to this, it may be the fact that risky households, i.e. the households who feel themselves more exposed to risk, have a lower access to insurance.

The empirical literature from Africa has consistently set up socio-economic and demographic characteristics of the household such as income level, education of household members, employment, health status, presence of children and aged, marital status, and sex of household head as significant determinants of demand for Voluntary social health insurance. Households income level for instance has been found in both recent and past studies and in developing and developed countries to have a positive association with the probability of buying Voluntary social health insurance (Osei-Akoto, 2004; Bhat and Jain, 2006; Osei-Akoto and Adamba, 2011). Income has also been found to significantly determine the number of household members covered or the amount of Voluntary social health insurance purchased (Osei-Akoto and Adamba, 2011).

The other perspective which considers the entire health care system looks at the distribution of health facilities and personnel, the quality of these facilities, and the cost of health care services. Higher health expenditures arising out of low health status also gives rise to higher chances of purchasing Voluntary social health insurance (Kronick and Gilmer, 1999; Bhatt and Jain, 2006). When cost of health care is paid with a household's resource it can lead to a reduction in socioeconomic welfare. So that as the price of health care increases due to medical advancement the risk of net worth depletion also increases.

Feldstein (1973) notes that this increases in cost of health care should increase demand for Voluntary social health insurance. The theories of risk aversion and consumer rationality have been applied to explain why households will decide to purchase Voluntary social health insurance on the basis of expected utility gain (disutility minimization). Because of risk averseness, consumers will generally choose to buy Voluntary social health insurance to minimize their risk of suffering out-of-pocket, and on condition of rationality, will choose a health insurance regime (in terms of the amount purchase) that maximize their utility gain.

Another perspective is the design or key characteristics of the Voluntary social health insurance policy itself. One of the key characteristics of a Voluntary social health insurance policy that is often subjected to empirical analysis is the domain of services and illness that a policy covers (quality of the basket), the price of the policy (premium) and the transaction cost. Whilst the cost of the insurance policy and the quality of services covered by the policy are not mutually exclusive, Bhat and Jain (2006) notes that if a Voluntary social health insurance policy is well designed to cover services mostly demanded by people or illnesses mostly suffered by people, the chances of buying such a policy is high (Holley et al, 2004).

According to Bhatt and Jain (2006), the uptake of voluntary social health insurance in most developing countries is affected by the Socio-Economic factors such as trust in insurance scheme provider/scheme management; barriers to enrolment; and aspects relevant for setting up a local, self-run health insurance plan (insurance education and technical assistance in insurance domain knowledge). Osei-Akoto and Adamba, 2011 on the other hand pointed on factors such as the age

of a person, Disability, Sexual orientation, previous exposure to insurance, having followed insurance education campaigns, and financial literacy in general.

2.3.1 NHIF Corporate Image and Uptake of Voluntary Insurance

Organization that have good image will attract clients. To achieve that fate, the targeted clientele must have a good perception of the organization concerned. Corporate image is formed in a customer mind through a procedure whereby information is processed and organized into meaning in basis of categories (Sekhri and Savedoff, 2005). It is described as the overall impression made on the mind of customers. It is related to traditional, ideology, and business name, and reputation, Variety of services and to the impression of quality communicated by each person. Reputation is closely tied to image in that it affects customer expectations with regard to quality of service offering (Söderlund and Hansl, 2000).

An image has two components: functional and emotional. Functional component is related to tangible characteristics that can easily be measured, while emotional component is associated with psychological dimensions that are manifested in feelings and attitudes towards a company. Corporate image is therefore the result of an aggregate process by which customers will compare and contrast various attributes of the companies (Höfter, 2006). The measurements of corporate image in service industries is challenging mainly because of the distinctive features that distinguish services from goods. Intangibility are four well documented features acknowledged in the service marketing literature (Vladescu et al, 2000)

With services consumers are constrained with lack of objective attributed to base their evaluation of image, and in such situation must resort to tangible extrinsic cues from there judgments. To that end the contact personnel along with the tangible cues associated with the physical environment where the service is produced and consumed become silent. Similarly the relationships formed during the services encounter are also central in the customers evaluation of the quality of services received and can affect customer's perception of the image. Zweifel (2005) observes that reputation is considered by growing number of management practitioners and scholars to be an intangible asset that enables the enactment of relationships among the corporation and the public (Vladescu et al, 2000).

According to Holley et al (2004), a company's reputation is a variable asset yet many companies are relatively unaware of how they are perceived. He further observed that some corporations suffer from serious image problems. In the eyes of many they are seen as exploiters, having cat bosses. Reputation does not originate from corporate communications (office or the marketing plan or individual behavior). Reputation comes from experience, thought process and values of people who see themselves as stakeholders. Reputation according to him leads to liking and disliking and a sense of comfort or concern with what is perceived (Jack, 2000).

Kenya has previously been a fertile ground for multinational companies selling their drugs at prices not affordable by the middle and lower income groups. With the liberalization of the economy, there has been a huge penetration in Kenya of companies which produce generic pharmaceutical products. This has resulted in a very stiff competition with companies rejuvenating their marketing activities like never seen before. The marketing of patented and generic products is very different and observes that influencing the pharmacist choice between generic marketers. The Kenyan multinational companies, mostly dealing with patented products have targeted the market segment of higher income earners through the channels of private hospitals (WHO, 2010).

Up to 1995 NHIF has been dogged by image problem arising from fraudulent claim payment to hospitals. In 1995, the ministry of Health commissioned an investigation into those allegations. The findings led to a major crackdown on the concerned Hospitals and NHIF officials. This action by the government attracted wide negative publicity among the general public. However, the government has since then put into place measures that have since changed the whole scenario including computerizing its entire operations and putting financial controls in place as well (NHIF, 2012).

This sector is characterized by small-scale, mostly family –operated or individual activities. This is a common phenomenon in cities of the developing countries. In Africa Rondinelli and Kasarda (1993), documented that this sector provide jobs for about 63 per cent of total work force in urban Africa. ILO (2000) estimates that in the 1990s about 93 per cent of Africa urban labour force will be in the info sector. Also this sector appears as survivalist and enterprises types. The

survivalists are in form of people unable to secure regular wage employment or access to economic sector of their choice.

The enterprises group appears as small businesses employing between one to four paid employees, they are predominantly in the trade related activities. Despite the gloomy nature of the benefit derivable from globalization by cities in developing countries it is important to note that these cities with Lagos as an example has benefited enormously from this process. Among the notable gains of the city are: Emergence of new employment opportunities, inflow of capital, improve telecommunications, improved city-scape, improved transport infrastructure, rapid changes in economic structure, cultural integration generation of revenue to government and improved local capacity (ILO, 2000).

2.3.2 Level of Income and Uptake of Voluntary Insurance

Financial constraint is one of the major barriers of access to healthcare for marginalized sections of society in many countries (Garg and Karan 2009). In a simple setting Giné *et al.* (2008) considered a model of insurance participation with symmetric information, which predicts that a household's willingness to pay for an insurance contract: increases if the household is more risk averse; increases with the expected insurance payout; increases with the size of the insured risks; and decreases with basis risk. However, it is obvious that many households remain uninsured against significant income risks due to various reasons.

Deviating from the above described full-information simple model, adverse selection and moral hazard are largely considered as potential explanations for barriers to insurance participation. Providing insurance has all the incentive problems related to the provision of credit (Rothschild and Stiglitz, 2006; Pauly, 2004). Private health insurance is also considered to be a luxury good in countries with national health insurance schemes and therefore sensitive to fiscal incentives.

Models of adverse selection and moral hazard are applicable to the life and health insurance contracts. In the case of micro life insurances, the insurance providing institution cannot fully observe if an individual is at high or low risk of death. Though, the national life expectancy and health status is public information, but to observe these individually required a high and not

efficient effort of time, costs and human resources. Therefore, adverse selection may be a problem in the insurance market. It is evident that this leads to problems in the insurance participation practice (Armendáriz and Murdoch, 2005).

Moral hazard may exist as well in a setting of insurance markets, if the household can live with less caution and risk more after contracting insurance, which is a major problem especially for health, but also for life insurances. In the case of micro health insurance, there is evidence for the existence of adverse selection, as households having a higher ratio of sick members are more likely to purchase micro health insurance (Ito and Kono, 2010). Adverse selection seems one reason in combination with mistrust in the providers and unfamiliarity with insurance for low take-up rates, high claim rates and low renewal rates, so the providers are faced by difficult challenges to control for the incentive problems and simultaneously to educate the poor. Incentive structures such as solidarity enhancing rules seem to keep individual interests restrained by the group interests, whereas co-payment rules may be a strong deterrent to very poor households (Hamid, et al, 2010).

2.3.3 Consumer Awareness and Uptake of Voluntary Insurance

The organizational efforts of the informal sector's operators themselves are the principal means whereby informal sector workers will be able to bring about changes in their working and living conditions. While protective approaches cannot significantly change the social situation, they can dramatically reduce its pernicious effects on informal sector workers allowing them to perform safer tasks under healthy and protected conditions innovative means to prevent occupational accidents and diseases and environmental hazards need to be developed through cost-effective and sustainable measures at the work-site level (Jütting, 2004).

There have been limited attempts to deal with the informal sector in the area of health promotion and protection, although, never with a comprehensive strategy. However, evidence suggests, that with the appropriate support, informal sector workers can move from a situation of mere survival to a stronger economic position enhancing their contribution to economic growth and social integration, as well as participating in the improvement of their own working and living conditions (Francis, 2005).

In order to raise the productivity of informal sector workers it is necessary to develop measures which effectively coming services to enable micro enterprises to increase their income and service to assist them in protecting their health and improving their working conditions. Identification of problems and needs the informal sector employs a considerable part of the urban labour force in many developing countries, its employment share being estimated to fluctuate between 30 and 80 per cent. For example in Asial the informal sector is estimated to absorb between 40 and 50 per cent of the urban labour force. Although significant variation can be found between the newly industrializing countries (less than 10 per cent) and countries where the sector's employment share reaches 65 percent (Gaál, 2004).

The level of a person's education may determine his/her ability to understand the benefits of risk management and savings. A higher level of education might therefore increase an individual's level of risk aversion. Education may also increase the demand for pure death protection by lengthening the period of dependency, as well as increasing the human capital of, and so the value to be protected in, the primary wage earned (Halawani et al, 2000) find a positive relationship between life insurance penetration and the level of education.

Health insurance penetration should rise with the level of income, for several reasons. First, an individual's consumption and human capital typically increase along with income. This can create a greater demand for insurance (mortality coverage) to safeguard the income potential of the insured and the expected consumption of his/her dependents. Second, life insurance may be a superior good, inasmuch as increasing income may explain an increasing ability to direct a higher share of income towards retirement and investment-related life insurance products.

Finally, the overhead costs associated with administrating and marketing insurance make larger size policies less expensive per Shilling of insurance in force, which lowers the price of life insurance policies. Höfter (2006), Holley et al (2004) and ILO (2000) have all shown that the demand for life insurance is positively related to income, using both aggregate national account data and individual household data. Vladescu et al, (2000) study revealed that the marketing of assurance policies revolved around the company activities. It also revealed that most of the life assurance products were made for family members in regards to spouses and children.

Normand and Busse (2000) cite pricing problems, adverse selection, and moral hazard to explain slow growth of the life insurance market in the USA. In Kenya, observed insurer behaviour also suggests that this market may be characterized by pricing problems. For example, consumers offer evidence that similar life insurance policies are sold at significantly different prices across insurers.

Statistical analysis revealed that income and age had significant influences on the sum assured. The higher an individual's income the greater the amount of insurance he can afford. Age is considered in premium determination hence has a bearing on the size of policy that can be afforded. Most policyholders (63.5%) were of the view that the cover on their lives was just enough while 33.3% felt it was inadequate. On the other hand, most insurance companies (75%) were of the view that most of their clients were inadequately covered with 25% of them being of the opinion that they were covered adequately. No case of over insurance was noted (IRA Report, 2008).

Maina (2003) conducted a research on factors that determine perceived quality of service in the Insurance Industry in Kenya. In this study the data was collected by use of questionnaires, which were dropped and picked later. A sample of 150 policyholders was selected for the study and stratified random sampling was used. The study established that the factors that customers consider important when judging quality of service in the insurance industry were efficiency, fast action on complaints and prompt service. On the other hand, the factors considered unimportant are confidentiality, communicating at least once a year and employee discretion in solving customer problems.

The IRA Report (2008) acknowledges that the insurance industry suffers from poor image which can be reversed through public education and campaigns on insurance and insurance products. While as the study found that customers have very good knowledge about insurance and the type of insurance covers, it found that the same customers were not well informed on features of insurance covers: i.e. Bonus, premiums, maturity date and benefits.

In 2002, the ministry of health with the support of donor partners initiated a number of countrywide programs to compact priority problem in preventive health care and promote

awareness in health issues. Since then a modest increase in the number of institutions and facilities in Kenya has been witnessed. This is illustrated by the growth of the number of private health facilities now standing at 7.1 per cent of the entire health care sector, compared to 2.5 percent in the previous year. There were 481 hospitals, 601 health centres and 3273 dispensaries in the country (IRA Report, 2008).

A health work environment facilitates optimal physical and mental health in relation to work and adaptation of work to the capabilities of workers in light of their state of physical and mental health. Educators, managers, employers, learners, parents and stakeholders have a duty of ensuring that the rights and dignity of all affected or infected persons are respected (Jack, 2000).

Learning institutions and work places are therefore encouraged to facilitate access to information on health as well as when and where employees and learners seek treatment promptly for treatment (WHO, 2010). There may be situations where workers wish at their own initiative to be tested including as part of voluntary testing programs. Voluntary testing is normally carried out by community health services and not at workplace. Where adequate medical services exist, voluntary testing may be undertaken at the request and with written informed consent of the worker, with advice from the workers representative if so requested. It is performed by suitably qualified personnel with adherence to strict confidentiality and disclosure.

Gender sensitive pre-and post-test counseling, which facilitates an understanding on the nature and purpose of the disease tests, the advantages and disadvantages of the tests and the effect of the result upon the worker, should form part of an essential part of any testing procedure (Jütting, 2004). After setting the promotional objectives, an organization must decide on how much to spend. Determining the ideal amount for the budget is difficult because there is no precise method to measure the exact results of spending promotional dollars (Barrientos, 2000). With promotional pricing, companies will temporarily price their product below list price and sometimes even below cost to create buying excitement and urgency.

Promotional activities form part of marketing which will become handy in finding out the factors influencing poor uptake of health insurance in the informal sector into NHIF. In Uganda most policy holders did not know how much they were paying, what was covered or how to

make claims. The insurance agent MFI staff pension also knew little and therefore would be of no much help according to Höfter (2006).

There are a number of marketing tools that can be used to reach potential members. These would include a few traditional methods like brochures, Newsletters, the occasional exhibition and aggressive public relations effort. Witter and Witter (2009) goes on to say that the techniques available have largely been ignored by public organizations because of their distaste for marketing. These organizations that have taken marketing enthusiastically provide excellent examples of just what marketing can achieve by the sensitive tools available. NHIF has engaged in promotion activities according to their marketing department. These activities include show stands in agricultural shows in Kenya, they also distributes brochures and magazines on their products through local radio stations.

2.3.4 Premiums Payable and Uptake of Voluntary Insurance

The low income class in Kenya has continuously increased with 56% of Kenyan earning less than 1 dollar per day. Seventy percent of the health care seekers in Kenya go to the alternative health care providers like herbalists, traditional healers and wish doctors due to inability to afford or access main stream health facilities (RA, 2008). The low and the middle income patients are in dire need of medical health facilities. The Nairobi city council clinics offer medical services at government subsidized rates and serve these lower income earners, who may not afford the medical fees in private hospitals (WHO, 2010)

Forty percent of the poor in the unplanned settlement in Kenya do not access to medical care due to poverty (cost versus income level) and absence of health care facilities. According to the second report on poverty 2002, 26.4% do not seek medical care because the illness was minor, 22.2 % purchased drugs over the counter, while 11.4 percent failed to seek medical care due to long distance between themselves and the facilities. In fact, there are few doctors in attendance and drugs are in short supply and thus making health care to the poor a precarious business, (Wiesmann and Jütting, 2000)

In the narrowest sense, pricing is amount of money charged for a product or service. More broadly, price is the sum of all the values that customers give up in order to gain the benefits of

having or using a product or service. Historically, price has been the major factor affecting buyers' choice. In recent decades, non price factors have gained increasing importance. However pricing will remain one of the most important elements determining a firm's market share and profitability (Witter and Witter, 2009).

Membership will be categorized and analyzed into formal or informal sectors. The contribution per member per month was fixed at Kshs. 20.00 (payable only by formal sector employees) until 1990 when this was changed to graduated scale from Kshs. 20.00 to 320.00 per month per member depending on monthly salary. The self employed persons in informal sector contribution (voluntary contribution) per month was fixed at Kshs. 60.00 and has since been between reviewed to Kshs. 160.00 per month NHIF (2003)

The role of the informal sector is not only the source of employment, it is also a device against poverty and its goods and services cater for some of the basic needs of low come consumers Billet of (1989). This sector is getting attention because of its perceived potential in reducing inequality, in absorbing a growing and rural labor force, in reducing rural-urban migration and contributing to national growth (Vladescu et al, 2000).

Due to the heterogeneous and diverse nature of the informal sector, there is a varied interpretation of what the definition of the informal sector is. The most commonly used criteria in trying to provide a workable definition of this sector revolves around the amount of capital invested, the social economic characteristics of the labor force involved and the working conditions in these enterprises (WHO, 2004).

The informal sector is commonly known in Kenya as Jua Kali, which literally means hot sun in Kiswahili referring to enterprises, which carry out their business under the hot sun; this is, without adequate shelter or workshop space. The operators generally lack legal recognition and free access to markets resources and they operate in a hostile regulatory and policy environment, hence their enterprises are termed informal (Mahal *et al.* 2010). Infact, even fully formalized small-scale firms, with substantial employment, refer to themselves as Jua Kali Riley and Steel. This is a result of the enterprises tending to enjoy some conditions associated with informality, for example unregulated and competitive markets (Gnawali et al, 2009).

The impact on global economic activity should also be limited. First, the depreciation of the dollar has softened the impact of the oil price surge on other consuming countries. Second, the price rise has been driven by sustained strong demand growth rather than supply shortfalls. Third, compared with the oil price surge in the late 1970s, economies today are much less energy intensive. Fourth, in the case of the United States, the low season of gasoline consumption during September –October has so far kept retail gasoline prices comfortably below the highs set in May 2006 (Mahal *et al.* 2010).

That said, a supply-driven spike to oil prices caused by a serious deterioration of security conditions in the Middle East could have a significant impact on global growth. The April 2007 World Economic Outlook simulated the impact of a supply –induced oil price hike using the IMF’s Global Economy Model (Mathauer, 2008).

Sharp supply-induced rise in oil prices could result in a global slowdown, as income is redistributed to oil- exporting economies, which have a lower propensity to spend than oil-importing economies. Higher oil prices would also raise the cost of production and put upward pressure on the aggregate price level (Siringi and Nzioka, 2006). This would cause central banks to increase interest rates. Together with the direct impact on production costs, higher interest rates would then further dent economic activity in the short run.

2.4 Conceptual Framework

The conceptual framework portrays a picture of the proposed relationships between the variables of the study. Independent variables, also known as predictor variables, are the force that is presumed to be the causes of the changes in the dependent variables. The dependent variable, also called the criterion variable, indicate total influence arising from the effects of the independent variable. In this study, the independent variable will include those factors that influence the uptake of voluntary social health. The dependent variables are defined as those variables affected by the independent variables. In this case the rise in uptake of voluntary social will be a function of corporate image, level of income, level of awareness, premiums payable and government policy.

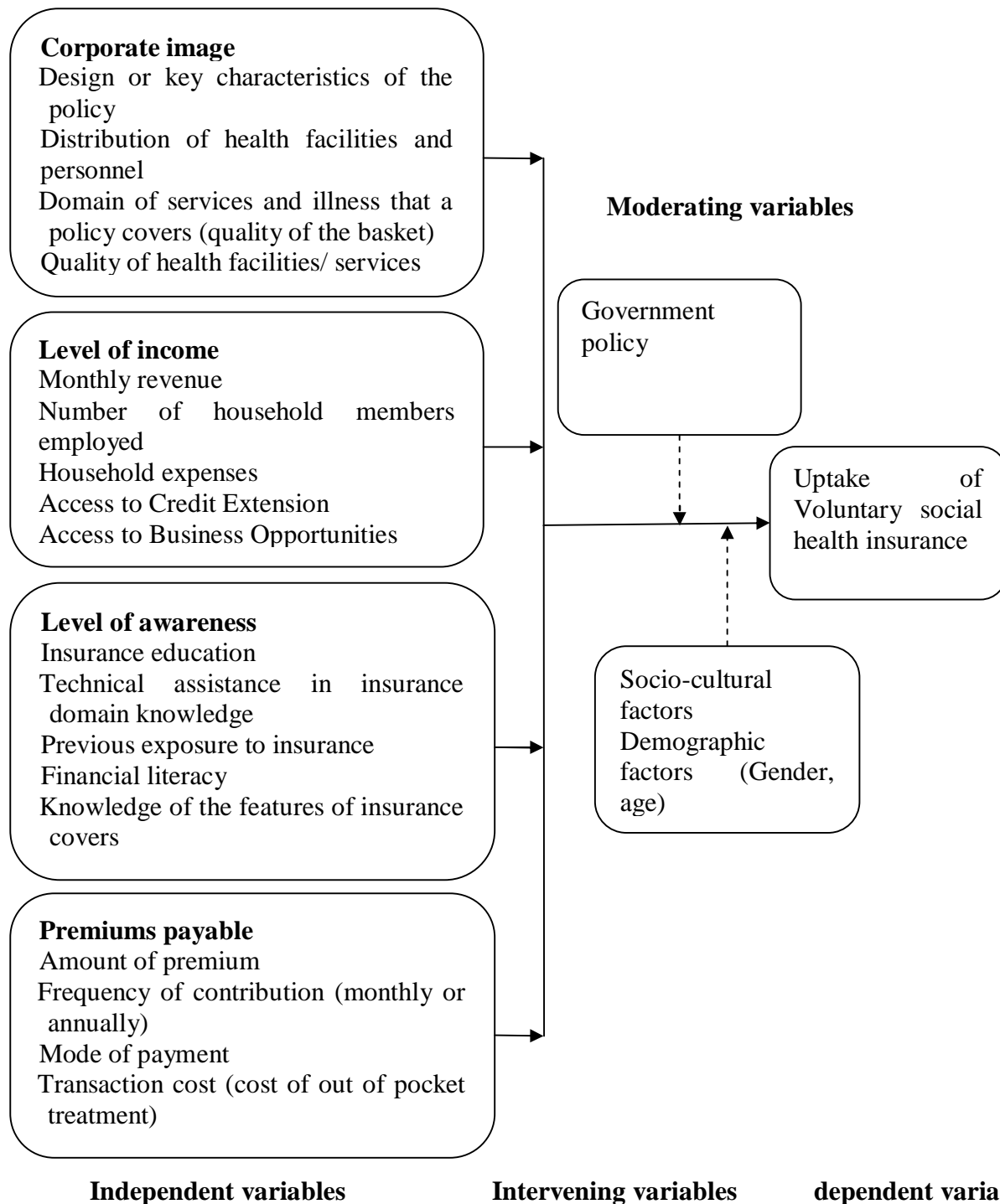


Figure 1: Conceptual Framework

The corporate image of the NHIF is one of the major determinants of the uptake of voluntary social health insurance. Corporate image is formed in a customer mind through a procedure whereby information is processed and organized into meaning in basis of categories. It covers

the design or key characteristics of the Voluntary social health insurance policy itself, traditional, ideology, and business name, and reputation, Variety of services and to the impression of quality communicated by each person. Reputation is closely tied to image in that it affects customer expectations with regard to quality of service offering

Financial constraint is another barrier of access to healthcare for marginalized sections of society in many countries. Households' income levels have a positive association with the probability of buying Voluntary social health insurance. Income significantly determine the number of household members covered or the amount of Voluntary social health insurance purchased

Further, the level of awareness is a major determinant. This relates to the previous exposure to insurance, having followed insurance education campaigns, financial literacy in general, aspects relevant for setting up a local, self-run health insurance plan (insurance education and technical assistance in insurance domain knowledge).

The premiums payable also affect the uptake with the low income class in Kenya has continuously increased With most of the health care seekers in Kenya going to the alternative health care providers like herbalists, traditional healers and wish doctors due to inability to afford or access main stream health facilities

A government policy protects individuals against unexpected risks associated with illness and if well formulated can lead to high level of uptake of voluntary social health insurance. Lack of formal protection mechanisms, people rely more on out-of pocket payment from personal assets, and help from relatives or informal risk-sharing arrangements available in the community to cover health care costs more than any other source of revenues

2.5 Research Gap

Findings from studies done earlier on health insurance reveals that the sector faces numerous problems and constrains that influence the uptake. While much research has been done on the private health insurance (Murray, 2007, O'Hare 1997), few studies if any to the best of the researcher's knowledge have been done on factors influencing the uptake of social health insurance among employees in the informal sector. This study therefore seeks to fill this research

gap by establishing the factors influencing the uptake of voluntary social health insurance among Matatu drivers and conductors. This is a unique group in that most of the members have a low level of education, employment contracts in the Matatu sector are often not formalized, long working hours, exposure to high accident rate due to working conditions. Further, workers in the sector are not adequately covered under the NSSF and NHIF schemes.

2.6 Summary

This chapter reviews the relevant literature in relation to the research questions presented in the study. The discussion tackles all the research objectives posed and provides a firm theoretical background for the study. The chapter discusses the problem of NHIF adoption in the public transport industry using a theoretical and empirical review. The next chapter; research methodology, presents the research design, data collection methods, and how results was analyzed in the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is a blueprint of the methodology that was used by the researcher to find answers to the research questions. In this chapter the research methodology was presented in the following order; research design, target population, sampling procedure, data collection methods, instruments of data collection and the pilot study. The section also explains how data was analyzed to produce the required information necessary for the study.

3.2 Research Design

This study adopted a descriptive research design. Kothari (2006) asserts that descriptive research includes survey and fact finding enquiries of different kinds. This research design was considered appropriate because variables involved do not involve any manipulation and will establish the current status of the phenomena (Borg and Gail, 1983). The design enabled the researcher to determine the current status of factors affecting uptake of voluntary social health insurance in the public transport industry.

This study used a mixed research approach as it was consist of both the qualitative and quantitative techniques. Kombo and Tromp (2006) affirmed that research can be regarded as an arrangement of conditions which combine relevance with research purpose. Consequently, qualitative approach was used to gather information which cannot be quantified numerically but connected to the theme. Mugenda and Mugenda (2003) suggested that unlike the quantitative approach, the qualitative approach recognizes methods through which the disadvantaged or minority groups can disclose information with authority in a given field of study. The quantitative techniques were used because the expected information from the field involved factual elements which was analysed using descriptive statistics.

3.3 Target Population

A population is the group that the research focuses on in accordance to Cooper and Schindler (2003). Target population is the specific population from which information is obtained. According to Ngechu, (2004), a population is a well defined or set of people, services, elements,

events, group of things or households which are being investigated. The target population comprised of 11,053 drivers and conductors in Nairobi, and the senior management officers of the matatu Saccos in Nairobi (Transport Licensing Board (TLB), 2012).

3.4 Sampling Procedure and Sample Size

Cooper and Schindler (2003) define sampling as selecting a given number of subjects from a defined population as representative of that population. Sampling is a deliberate choice of a number of people who will provide the data from which conclusions will be drawn on larger group which these people represent (Jankowicz, 2002).

The major criterion used when deciding on the sample size is the extent to which the sample size represents the population. Simple random sampling was used to select the drivers and conductors participating in the study using simple random numbers from the main terminals in the city. A sample population of 384 drivers and conductors was arrived at by calculating the target population of drivers and conductors which is more than 10,000 with a 95% confidence level and an error of 0.05 using the following formula from Mugenda (2008):

From Normal distribution the population proportion could be estimated to be

$$n = \frac{Z^2 PQ}{\alpha^2}$$

Where:

n = the desired sample size; if the target population is greater than 10,000

Z is the Z – value = 1.96

P = Population proportion 0.50

Q = 1-P

α = *level of significance* = 5%

$$n = \frac{1.96 \times 1.96 \times 0.5 \times 0.5}{0.05 \times 0.05}$$

$$n = 384$$

3.5 Data Collection Instruments

The study collected both primary and secondary data. Primary data was collected using questionnaires and interview guides. On the other hand secondary data was collected from computer internet database browsing, newspapers, published books, journals and magazines as well as other sources such as the sector annual reports.

There was two instruments which were used in the data collection exercises. These include questionnaires and interview guides.

3.5.1 Questionnaires

Semi-structured questionnaires were used to collect primary data from the drivers and conductors. In order to ensure uniformity in responses and to encourage participation, the questionnaires were kept short and structured to cover multiple-choice selections in a likert scale. The questionnaires are preferred in this study because respondents included in the study are literate and able to answer questions asked adequately. According to Mugenda and Mugenda (2003), questionnaires are used commonly to obtain detailed information about a population under study.

3.5.2 Interview Guide

Interviews are often used to collect primary data for qualitative research as they capture the respondent's actions, attitudes, intentions and motivations in a flexible manner, (Stevens et al, 2006). A major advantage of using interviews for research is that the interviews provide both verbal and non-verbal communication to the researcher, (Wilson, 2010). These interviews were done in order to get information from the senior management Officers in the Saccos using a face to face discussion.

3.6 Validity of Research Instruments

According to Somekh, and Cathy (2005) validity is the degree by which the sample of test items represents the content the test is designed to measure. Expert opinion was requested to comment on the representativeness and suitability of questions and give suggestions of corrections to be made to the structure of the research tools. To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the lecturers. This

helped to improve the content validity of the data that was. It facilitated the necessary revision and modification of the research instrument thereby enhancing validity.

3.7 Reliability of Research Instruments

Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. The researcher selected a pilot group of 38 individuals from the target population to test the reliability of the research instruments. In order to test the reliability of the instruments, internal consistency techniques were applied using Cronbach's Alpha. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Coefficient of 0.6 is a commonly accepted rule of thumb that indicates acceptable reliability (Mugenda, 2008). The pilot data was not included in the actual study.

3.8 Data Collection Procedure

This study collected quantitative data using a self-administered questionnaire and qualitative data from the interviews. The researcher read and if necessary interpreted the questions and details in the checklist for clarity. The researcher informed the respondents that the instruments being administered were for research purpose only and the responses from the respondents would be kept secret and confidential. The researcher obtained an introductory letter from the University of Nairobi in order to collect data from the field and then personally deliver the questionnaires to the respondents so that they could be filled in and then collect the questionnaires later. The drop and pick later method was used in the study. The interview guides were administered through face to face interviews.

3.9 Data Analysis

Data analysis was done after data has been collected and is a process used to make sense of the data. The type of data analysis tool that would be used is dependent on the type of data, depending if the data qualitative or quantitative (Walsh and Wiggins, 2003). Data collected was edited and coded using descriptive analysis methods in order to get meaningful results from the questionnaires, interview guides checklist and desktop findings. Logical analysis was done using various scientific methods. The quantitative data in this research was analyzed by descriptive

statistics using statistical package for social sciences SPSS (V. 17.0) as it is more users friendly and most appropriate for analysis of management related attitudinal responses (Newton and Jeonghun, 2010). The qualitative data took an exploratory/conceptual content analysis process which is more ideal as the information gathered from the interview guides was large and could be time consuming if not well planned (Wilson, 2010). The data was then presented using tables and figures. In addition, the study used Karl Pearson's product moment correlation analysis to assess the relationship between the variables. This is because correlation analysis illustrates both the direction and strength of the relationship between two variables (Malhotra and Peterson, 2006).

3.10 Ethical Considerations

Ethical considerations in research can be defined as ensuring that the researcher conforms to the standards of conduct of the authorities in the area of research. Examples of ethical issues that may arise are voluntary participation of respondents, deception to participants, anonymity and confidentiality of information given, analysis and reporting, harm or danger to participants and any other professional code of ethics expected (Babbie, 2011). To ensure that the research is done in an ethical manner according to the expectations of all authorities, a letter from the University was obtained. The researcher also pursued a permit from the relevant authorities in the district office, permitting the research. Also, due to sensitivity of some information collected, the researcher held a moral obligation to treat the information with utmost propriety. Further, since the respondents were reluctant to disclose some information, the researcher reassured them of use and confidentiality of the information given.

3.11 Operationalization of Variables

The operationalization of variables is shown in Table 3.1

Table 3.1: Operationalization of variables

Objective	Variable	Indicator	Measuring of Indicators	Measurement scale	Tools of analysis	Type of data analysis
To establish how NHIF corporate image influence uptake of voluntary membership into NHIF by employees in the matatu industry	Independent	Corporate image	-Design or key characteristics of the policy -Distribution of health facilities and personnel -Domain of services and illness that a policy covers (quality of the basket) -Quality of health facilities/ services -Trust in insurance scheme provider/scheme management -Reputation/Corruption/ fraudulent claim payment to hospitals -Impression of quality communicated by each person	Ordinal Ratio Nominal	Mean Percentage Correlation coefficient	Descriptive Factor analysis Karl Pearson's product moment correlation
To assess the influence of level of income by matatu industry	Independent	Level of income	-Monthly revenue -Number of household members employed -Household expenses -Access to Credit	Interval Ordinal Ratio	Mean Percentage Correlation	Descriptive Factor analysis Karl Pearson's

employees on uptake of voluntary membership into NHIF			Extension to Business Opportunities		coefficient	product moment correlation
To establish how awareness by employees in the matatu industry influences uptake of membership into NHIF	Independent	Level of awareness	-Insurance education -Technical assistance in insurance domain knowledge -Previous exposure to insurance -Financial literacy -Knowledge of the features of insurance covers -Risk averseness	Ordinal Ratio Nominal	Mean Percentage Correlation coefficient	Descriptive Factor analysis Karl Pearson's product moment correlation
To assess how premiums payable influences uptake of voluntary membership into NHIF by employees in the Matatu industry	Independent	Premiums payable	-Amount of premium -Frequency of contribution (monthly or annually) -Mode of payment -Transaction cost (cost of out of pocket treatment)	Interval Ordinal Ratio	Mean Percentage Correlation coefficient	Descriptive Factor analysis Karl Pearson's product moment correlation
	Dependent	Uptake of Voluntary social health insurance	-The volume of the premium paid -Number of new members -No of people they have referred to adopt	Ratio Ordinal	Mean Percentage Correlation coefficient	Descriptive Karl Pearson's product moment correlation

3.12 Chapter Summary

This chapter presents the research methodology that was used for this study. The chapter covers research design, population and sampling design, data collection methods, research procedures, data analysis methods. The next chapter presents the results and findings of the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. This chapter presents analysis of the data on the determinants of voluntary social health insurance uptake in the public transport industry: a case of matatu Saccos in Nairobi, Kenya. The chapter also provides the major findings and results of the study.

4.1.1 Response Rate

The study targeted a sample size of 384 respondents from which 273 filled in and returned the questionnaires making a response rate of 71.1%. This response rate was good and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.1.2 Reliability Analysis

A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved the sample respondents from the Matatu Saccos. Reliability analysis was subsequently done using Cronbach's Alpha which measures the internal consistency by establishing if certain item within a scale measures the same construct. Rousson, Gasser and Seifer (2002) established the Alpha value threshold at 0.6 thus forming the study's benchmarked. Cronbach Alpha was established for every objective which formed a scale. The table shows that all the four variables were reliable as their reliability values exceeded the prescribed threshold of 0.6 with a mean score of 0.844.

Table 4. 1: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Corporate image	0.854	7
Level of income	0.833	5
Level of awareness	0.876	6
Premiums payable	0.813	4
Average	0.844	6

4.2 Background Information

The study sought to establish the background information of the respondents including respondents' gender, age bracket, highest level of education and duration that the respondents have been in the Matatu Industry.

Table 4. 2: Gender of the respondents

	Frequency	Percentage
Male	250	91.6
Female	23	8.4
Total	273	100.0

On the gender of the respondents, the study found that majority (91.6%) were male while only a measly 8.4% of the respondents were female.

Table 4. 3: Age bracket of the respondents

	Frequency	Percentage
21 - 30 years	155	56.8
31-40 years	56	20.4
41-50 years	34	12.5
51-60 years	28	10.3
Total	273	100.0

The study also inquired on the age bracket of the respondents. From the findings, 56.8% of the respondents were aged between 21 - 30 years, 20.4% of the respondents were aged between 31-40 years, 12.5% of the respondents were aged between 41-50 years while 10.3% of the respondents were aged between 51-60 years.

Table 4. 4: Highest level of education of the respondents

	Frequency	Percentage
Primary	54	19.8
Secondary	81	29.6
College	122	44.7
University	16	5.9
Total	273	100.0

The study also sought to establish the respondents' highest level of education. According to the findings, the majority of the respondents (44.7%) had a collage certificate, 29.6% had a secondary certificate, 19.8% had a primary level of education while only a paltry 5.9% of the respondents had attained a university degree.

Table 4. 5: Duration that the respondents had been in Matatu business

	Frequency	Percentage
Less than 2 years	113	41.3
Between 2 and 5 years	69	25.3
Between 5 and 10 years	72	26.4
Over 10 years	19	7.0
Total	273	100.0

On the years of working period in the Matatu business, the findings in table 4.5 show that 41.3% of the respondents had worked for Less than 2 years, 26.4% had worked for between 5 and 10 years, 25.3% had worked for between 2 and 5 years while 7% had worked for over 10 years.

Table 4. 6: Whether the respondents are registered with NHIF

	Frequency	Percentage
Yes	14	5.1
No	259	94.9
Total	273	100.0

The study also sought to determine whether the respondents are registered with NHIF. From the findings, an overwhelming majority (94.9%) of the respondents indicated that they are not registered with NHIF and only a measly 5.1% of the respondents were registered with NHIF.

4.3 Corporate Image

The study sought to explore how NHIF corporate image determines uptake of voluntary membership into NHIF by employees in the Matatu industry.

Table 4. 7: Extent that the image of NHIF affects the respondents intention to join it

	Frequency	Percentage
No extent	21	7.7
Little extent	1	.4
Moderate extent	7	2.6
Great extent	65	23.7
Very great extent	179	65.6
Total	273	100.0

The respondents were requested to indicate the extent that the image of NHIF affects the respondents' intention to join it. Majority of the respondents (65.6%) indicated that the image of NHIF affects their intention to join it to a very great extent, 23.7% said to a great extent, 7.7% said to no extent, 2.6% said to a moderate extent while 0.4% said to a little extent.

Table 4. 8: Extent that factors related to image of NHIF determine respondents joining it

	Mean	Std. Deviation
Design or key characteristics of the policy	4.4908	.86225
Distribution of health facilities and personnel	3.8718	1.09898
Domain of services and illness that a policy covers (quality of the basket)	4.1941	.96770
Quality of health facilities/ services	3.3363	.96827
Trust in insurance scheme provider/scheme management	4.1722	.96427
Reputation/Corruption/ fraudulent claim payment to hospitals	4.1685	1.01505
Impression of quality communicated by each person	4.2198	.84195

On the extent that various factors related to image of NHIF determine respondents joining it, majority of the respondents indicated that the factors related to image of NHIF that determine their joining it to a great extent include the design or key characteristics of the policy as shown by a mean score of 4.4908, impression of quality communicated by each person as shown by a mean score of 4.2198, domain of services and illness that a policy covers (quality of the basket)

as shown by a mean score of 4.1941, trust in insurance scheme provider/scheme management as shown by a mean score of 4.1722, reputation/corruption/ fraudulent claim payment to hospitals as shown by a mean score of 4.1685 and distribution of health facilities and personnel as shown by a mean score of 3.8718 while quality of health facilities/ services had a moderate effect as shown by a mean score of 3.3363. They added that the recent scandal and corruption allegation on the fund made them lose confidence with the fund hence they could not trust the management with their money.

4.4 Level of Income

The study further sought to establish how the level of income by Matatu industry employees determines uptake of voluntary membership into NHIF.

Table 4. 9: Respondents level of Income per month

	Frequency	Percentage
Less than 2,000	2	0.7
5,001 – 10,000	11	4.0
10,000 – 15,000	84	30.8
15,000 – 20,000	123	45.1
Above 20,000	53	19.4
Total	273	100.0

The study also required the respondents to indicate their level of Income per month. From the findings, majority of the respondents (45.1%) indicated that they earned between 15,000 – 20,000 per month, 30.8% said they earned between 10,000 – 15,000 per month, 19.4% said they earned above 20,000, 4% said they earned between 5,001 – 10,000 while 0.7% said they earned less than 2,000 per month.

Table 4. 10: Whether respondents' income levels determine their joining NHIF

	Frequency	Percentage
Yes	198	72.5
No	75	27.5
Total	273	100.0

On whether respondents' income levels determine their joining NHIF, 72.5% of the respondents indicated that their income levels determine their joining NHIF while 27.5% said it did not.

Table 4. 11: Extent that factors related to level of income determine respondents joining the NHIF

	Mean	Std. Deviation
Monthly revenue	4.0110	.94123
Number of household members employed	3.9253	.67627
Household expenses	4.2454	.79213
Access to Credit Extension	3.2850	.54540
Access to Business Opportunities	3.8601	.76084

On the extent that that factors related to level of income determine respondents joining the NHIF, the respondents indicated that household expenses, monthly revenue, number of household members employed and access to business opportunities influence their joining NHIF to a great extent as illustrated by a mean score of 4.2454, 4.0110, 3.9253 and 3.8601 respectively while access to credit extension determine their joining the NHIF to a moderate extent as illustrated by a mean score of 3.2850.

4.5 Level of Awareness

The study further sought to establish how awareness by employees in the Matatu industry determines uptake of membership into NHIF.

Table 4. 12: Whether the respondents have ever heard of NHIF

	Frequency	Percentage
Yes	264	96.7
No	9	3.3
Total	273	100.0

From the findings as shown by table 4.12, 96.7% of the respondents indicated that they had heard of NHIF while only a measly 3.3% of the respondents indicated that they had never heard about it.

Table 4. 13: Extent that factors related to level of awareness determine respondents joining the NHIF

	Mean	Std. Deviation
Insurance education	3.4652	.74735
Technical assistance in insurance domain knowledge	3.2234	1.22979
Previous exposure to insurance	3.5055	.65373
Financial literacy	3.9890	1.22319
Knowledge of the features of insurance covers	4.0491	1.35454
Risk averseness	3.7747	1.12524

The study found that the factors related to level of awareness determine respondents joining the NHIF to a great extent include the knowledge of the features of insurance covers as illustrated by a mean score of 4.0491, financial literacy as illustrated by a mean score of 3.9890, risk averseness as illustrated by a mean score of 3.7747 and previous exposure to insurance as illustrated by a mean score of 3.5055. However, insurance education and technical assistance in insurance domain knowledge had a moderate influence on the respondents joining NHIF as shown by a mean score of 3.4652 and 3.2234 respectively

4.6 Premiums Payable

The study further sought to find out how premiums payable determines uptake of voluntary membership into NHIF by employees in the Matatu industry.

Table 4. 14: Extent that factors related to premiums payable determine respondents joining the NHIF

	Mean	Std. Deviation
Amount of premium	4.4238	.76239
Frequency of contribution (monthly or annually)	4.0626	.98499
Mode of payment	4.1923	.73662
Transaction cost (cost of out of pocket treatment)	3.1659	.99042

The study also sought to establish the extent that factors related to premiums payable determine respondents joining the NHIF. According to the findings, majority of the respondents indicated that factors related to premiums payable determine respondents joining the NHIF to a great extent include amount of premium, frequency of contribution (monthly or annually) and mode of payment as shown by a mean score of 4.5238, 4.0626 and 4.1923 respectively while transaction cost (cost of out of pocket treatment) had a moderate effect in determining respondents joining the NHIF as shown by a mean score of 3.1659.

4.7 Other Factors

Table 4. 15: Extent that moderating factors determine respondents joining the NHIF

	Mean	Std. Deviation
Education of household members	4.2564	1.10821
Health status/ ratio of sick members	4.0623	.98880
Socio-cultural factors	3.4872	1.03648
Presence of children and aged	3.9231	.93420
Marital status	4.4725	1.23676
Gender of household head	3.5714	.88463

From the study findings portrayed in table 4.15, the respondents indicated other factors determining their joining the NHIF to a great extent as the marital status , education of household members, health status/ ratio of sick members, presence of children and aged and gender of household head as illustrated by a mean score of 4.4725, 4.2564, 4.0623, 3.9231 and 3.5714 respectively while socio-cultural factors had a moderate effect as shown by a mean score of 3.4872. The respondents also suggested that to ensure that all the drivers and conductors are registered with NHIF, the government should carry out an advocacy campaign aimed at educating them of the need of social health insurance and how they can contribute, the amount of premium should be reduced, officials of the NHIF should go for a recruitment mission in the community and the corrupt management at the NHIF should be removed to enhance transparency.

4.8 Correlation Analysis

In order to establish the relationship between the various factors and uptake of Voluntary social health insurance by drivers and conductors, Pearson product moment correlation analysis was used. A correlation is a number between -1 and +1 that measures the degree of association between two variables. The correlation coefficient value (r) ranging from 0.10 to 0.29 is considered to be weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong. A positive value for the correlation implies a positive. A negative value for the correlation implies a negative or inverse association.

Table 4. 16: Correlation Matrix

		Uptake of Voluntary social health insurance	Corporate image	Level of income	Level of awareness	Premiums payable
Uptake of Voluntary social health insurance	Pearson Correlation	1				
	Sig. (2-tailed)	.				
Corporate image	Pearson Correlation	.638	1			
	Sig. (2-tailed)	.031	.			
Level of income	Pearson Correlation	.764	.523	1		
	Sig. (2-tailed)	.017	.016	.		
Level of awareness	Pearson Correlation	.532	.743	.597	1	
	Sig. (2-tailed)	.037	.012	.028	.	
Premiums payable	Pearson Correlation	.659	.533	.720	.531	1
	Sig. (2-tailed)	.029	.009	.002	.014	.

The data presented before on corporate image, level of income, level of awareness and premiums payable were computed into single variables per factor by obtaining the averages of each factor. Pearson’s correlations analysis was then conducted at 95% confidence interval and

5% confidence level 2-tailed. The table above indicates the correlation matrix between the factors (corporate image, level of income, level of awareness and premiums payable) and voluntary social health insurance uptake in the public transport industry.

According to the correlation matrix, there is a positive and significant relationship between voluntary social health insurance uptake in the public transport industry and corporate image, level of income, level of awareness and premiums payable of magnitude 0.638, 0.764, 0.532 and 0.659 respectively. The positive relationship indicates that there is a correlation between the factors and the voluntary social health insurance uptake in the public transport industry.

According to the correlation matrix, there is a positive and significant relationship between voluntary social health insurance uptake in the public transport industry and corporate image of magnitude 0.638 and a P-value of 0.031 at 5% level of significance and 95% level of confidence. The positive relationship indicates that there is a correlation between corporate image and the voluntary social health insurance uptake in the public transport industry.

According to the correlation matrix, there is a positive and significant relationship between voluntary social health insurance uptake in the public transport industry and level of income of magnitude 0.764 and a P-value of 0.017 at 5% level of significance and 95% level of confidence. The positive relationship indicates that there is a correlation between level of income and the voluntary social health insurance uptake in the public transport industry.

According to the correlation matrix, there is a positive and significant relationship between voluntary social health insurance uptake in the public transport industry and level of awareness of magnitude 0.532 and a P-value of 0.037 at 5% level of significance and 95% level of confidence. The positive relationship indicates that there is a correlation between level of awareness and the voluntary social health insurance uptake in the public transport industry.

According to the correlation matrix, there is a positive and significant relationship between voluntary social health insurance uptake in the public transport industry and premiums payable of magnitude 0.659 and a P-value of 0.029 at 5% level of significance and 95% level of

confidence. The positive relationship indicates that there is a correlation between premiums payable and the voluntary social health insurance uptake in the public transport industry.

The correlation findings infer that all the factors positively and significantly influenced voluntary social health insurance uptake in the public transport industry with level of income having the highest effect on voluntary social health insurance uptake in the public transport industry, followed by premiums payable, then corporate image while level of awareness had the lowest effect on the voluntary social health insurance uptake in the public transport industry. This notwithstanding, all the factors were significant (p-value <0.05) at 95% confidence level with the most significant factor being level of income.

4.9 Chapter Summary

This chapter presents the findings of this study. The chapter covers general information, corporate image, level of income, level of awareness and premiums payable. The next chapter presents the summary of findings, discussions, conclusion and recommendation of the study.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND
RECOMMENDATIONS

5.1 Introduction

This chapter presented the discussion of key data findings, conclusion drawn from the findings and recommendation made. The conclusions and recommendations drawn were focused on addressing the purpose of this study which was to establish the determinants of voluntary social health insurance uptake in the public transport industry with reference to Matatu Saccos in Nairobi.

5.2 Summary of key Findings

This study found that an overwhelming majority of the drivers and conductors working in Saccos in Nairobi are not registered with NHIF. The study also revealed that there is a positive and significant relationship between the NHIF corporate image and voluntary membership into NHIF by employees in the Matatu industry. The study deduced that the image of NHIF affects drivers and conductors intention to join it to a very great extent through factors such as the design or key characteristics of the policy, impression of quality communicated by each person, domain of services and illness that a policy covers (quality of the basket), trust in insurance scheme provider/scheme management, reputation/corruption/ fraudulent claim payment to hospitals and distribution of health facilities and personnel. However, quality of health facilities/ services had a moderate effect. The recent scandal and corruption allegation on the fund made the employees in the Matatu industry lose confidence with the fund hence they could not trust the management with their money.

The study established that there is a positive and significant relationship between level of income by Matatu industry employees and their uptake of voluntary membership into NHIF. The study established that they earned between 15,000 – 20,000 per month. The study also established that household expenses, monthly revenue, number of household members employed and access to

business opportunities influence their joining NHIF to a great extent while access to credit extension determine their joining the NHIF to a moderate extent.

The study revealed that there is a positive and significant relationship between levels of awareness by employees in the Matatu industry and uptake of membership into NHIF. The study deduced that factors related to level of awareness determine respondents joining the NHIF to a great extent include the knowledge of the features of insurance covers, financial literacy, risk averseness and previous exposure to insurance. However, insurance education and technical assistance in insurance domain knowledge had a moderate influence on the respondents joining NHIF.

The study revealed that a significant relationship exist between premiums payable and uptake of voluntary membership into NHIF by employees in the Matatu industry. The study established that factors related to premiums payable determine respondents joining the NHIF to a great extent include amount of premium, frequency of contribution (monthly or annually) and mode of payment while transaction cost (cost of out of pocket treatment) had a moderate effect in determining respondents joining the NHIF. Other factors determining their joining the NHIF to a great extent as the marital status, education of household members, health status/ ratio of sick members, presence of children and aged and gender of household head while socio-cultural factors had a moderate effect.

It was clear that level of income has the highest effect on voluntary social health insurance uptake in the public transport industry, followed by premiums payable, then corporate image while level of awareness had the lowest effect on the voluntary social health insurance uptake in the public transport industry.

5.2 Discussions of Key Findings

This section focuses on a detailed discussion of the major findings of the study which also entails comparing the study findings to the literature in order to come up with comprehensive conclusion.

5.2.1 NHIF Corporate Image

With regard to the effect of NHIF corporate image, the study revealed that the image of NHIF affects drivers and conductors intention to join it to a very great extent. These findings agree with Söderlund and Hansl (2000) argument that corporate image is related to traditional, ideology, and business name, and reputation, Variety of services and to the impression of quality communicated by each person. The study revealed that image of NHIF affects drivers and conductors intention to join it through factors such as the design or key characteristics of the policy, impression of quality communicated by each person, domain of services and illness that a policy covers (quality of the basket), trust in insurance scheme provider/scheme management, reputation/corruption/ fraudulent claim payment to hospitals and distribution of health facilities and personnel. This is in line with Holley et al (2004) who observed that a company's reputation is a variable asset yet many companies are relatively an aware of how they are perceived. He further observed that some corporations suffer from serious image problems. In the eyes of many they are seen as exploiters, having cat bosses. However, quality of health facilities/ services had a moderate effect. The recent scandal and corruption allegation on the fund made the employees in the Matatu industry lose confidence with the fund hence they could not trust the management with their money. Reputation according to Jack (2000) leads to liking and disliking and a sense of comfort or concern with what is perceived.

5.2.2 Level of Income

Financial constraint is one of the major barriers of access to healthcare for marginalized sections of society in many countries (Garg and Karan, 2009). With regard to the effect of level of income, the study established that the level of income by Matatu industry employees affected their uptake of voluntary membership into NHIF as most earned between 15,000 – 20,000 per month. Holley et al (2004) and ILO (2000) have all shown that the demand for life insurance is positively related to income, using both aggregate national account data and individual household data.

The study established that household expenses, monthly revenue, number of household members employed and access to business opportunities influence their joining NHIF to a great extent while access to credit extension determine their joining the NHIF to a moderate extent. In line

with this, Giné *et al.* (2008) considered a model of insurance participation with symmetric information, which predicts that a household's willingness to pay for an insurance contract: increases if the household is more risk averse; increases with the expected insurance payout; increases with the size of the insured risks; and decreases with basis risk. However, it is obvious that many households remain uninsured against significant income risks due to various reasons.

5.2.3 Levels of Awareness

The study deduced that the levels of awareness by employees in the Matatu industry affected their uptake of membership into NHIF. These findings agree with Francis (2005) argument that there have been limited attempts to deal with the informal sector in the area of health promotion and protection, although, never with a comprehensive strategy. However, evidence suggests, that with the appropriate support, informal sector workers can move from a situation of mere survival to a stronger economic position enhancing their contribution to economic growth and social integration, as well as participating in the improvement of their own working and living conditions.

It also revealed that factors related to level of awareness determine respondents joining the NHIF to a great extent include the knowledge of the features of insurance covers, financial literacy, risk averseness and previous exposure to insurance. However, insurance education and technical assistance in insurance domain knowledge had a moderate influence on the respondents joining NHIF. This is consistent with Halawani *et al.* (2000) who observed that the level of a person's education may determine his/her ability to understand the benefits of risk management and savings. A higher level of education might therefore increase an individual's level of risk aversion.

5.2.4 Premiums Payable

The study established that premiums payable affect uptake of voluntary membership into NHIF by employees in the Matatu industry. These findings correlate with Wiesmann and Jütting, (2000) who observed that forty percent of the poor in the unplanned settlement in Kenya do not access to medical care due to poverty (cost versus income level) and absence of health care

facilities. From the study, it was established that factors related to premiums payable determine respondents joining the NHIF to a great extent include amount of premium, frequency of contribution (monthly or annually) and mode of payment while transaction cost (cost of out of pocket treatment) had a moderate effect in determining respondents joining the NHIF. . It was also revealed that other factors determining their joining the NHIF to a great extent as the marital status, education of household members, health status/ ratio of sick members, presence of children and aged and gender of household head while socio-cultural factors had a moderate effect. In line with this, Siringi and Nzioka (2006) observed that together with the direct impact on production costs, higher interest rates would then further dent economic activity in the short run.

5.3 Conclusion

This study concludes that most of the drivers and conductors working in the public transport industry are not registered with NHIF. The study deduced that there is a positive and significant relationship between the NHIF corporate image and voluntary membership into NHIF by employees in the Matatu industry. This is mainly through impression of quality communicated by each person, illness that a policy covers (quality of the basket) and trust in insurance scheme provider.

The study revealed that there is a positive and significant relationship between level of income by Matatu industry employees and their uptake of voluntary membership into NHIF as most have a monthly revenue of 15,000 – 20,000 and have to cater for household expenses given that majority of the household members are not employed.

The study also concludes that there is a positive and significant relationship between levels of awareness by employees in the Matatu industry and uptake of membership into NHIF as most of the conductors and drivers do not know the features of insurance covers and had no previous exposure to insurance although they had heard about NHIF.

The study further concludes that a significant relationship exists between premiums payable and uptake of voluntary membership into NHIF by employees in the Matatu industry. This is mainly

due to the amount of premium, frequency of contribution (monthly or annually) and mode of payment.

The study finally concludes that the level of income has the highest effect on voluntary social health insurance uptake in the public transport industry, followed by premiums payable, then corporate image while level of awareness had the lowest effect on the voluntary social health insurance uptake in the public transport industry.

5.4 Recommendations for Policy and Practice

From the findings and conclusion, the study recommends that to ensure that all the drivers and conductors are registered with NHIF;

- i. The government should carry out an advocacy campaign aimed at educating them of the need of social health insurance and how they can contribute
- ii. The amount of premium should be reduced
- iii. Officials of the NHIF should go for a recruitment mission in the community
- iv. The corrupt management at the NHIF should be removed to enhance transparency.
- v. The government and the development partners should have programmes and projects that are aimed at ensuring universal social health insurance that emphasizes a gradual scaling down of the premiums payable.

5.5 Recommendations for Further Studies

From the study and related conclusions, the researcher recommends further studies should be done on determinants of voluntary social health insurance uptake in other industries in the informal sector such as the Jua Kali industry to allow for comparison. Further research in the area of the influence of governance structures on voluntary social health insurance uptake. The study also recommends further studies in the area of the influence of community level of involvement on success of voluntary social health insurance uptake.

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APPENDICES

APPENDIX 1: INTRODUCTION LETTER

JOSEPHINE MULI,
P.O BOX 6223 00200,
NAIROBI.

Dear Respondent,

RE: ACADEMIC RESEARCH.

I am a student of the University of Nairobi Currently pursuing a Masters of Arts Degree in Project Planning and Management. As partial fulfillment for an Award of Masters of Arts Degree in the above Course, I am obliged to conduct an Academic Research. My Research Topic is: DETERMINANTS OF VOLUNTARY SOCIAL HEALTH INSURANCE UPTAKE IN THE PUBLIC TRANSPORT INDUSTRY: A CASE OF MATATU SACCOS IN NAIROBI, KENYA. You have been selected as one of the respondents in this Project. I am kindly requesting for your assistance in responding honestly to the interview questions. Your identity will be treated with utmost confidentiality. The information provided will be used for academic purposes only.

I look forward for your cooperation on the study.

Thank you.

Yours faithfully,

JOSEPHINE MULI

APPENDIX 2: QUESTIONNAIRE FOR DRIVERS AND CONDUCTORS

PART A: GENERAL INFORMATION

- 1) Please indicate your Gender. (a) Male (b) Female
- 2) Please tick the age bracket.
- (a) 21-30 years (b) 31-40 years
(c) 41-50 years (d) 51-60 years
(e) Above 60 years
- 3) What is your highest level of education?
- (a) Primary (b) Secondary
(c) College (d) University
(e) Others
- 4) How long have you been in Matatu business?
- (a) Less than 2 years (b) Between 2 and 5 years
(c) Between 5 and 10 years (d) Over 10 years

PART B: DETERMINANTS OF VOLUNTARY SOCIAL HEALTH INSURANCE UPTAKE IN THE PUBLIC TRANSPORT INDUSTRY

- 5) Are you registered with NHIF? Yes () No ()

CORPORATE IMAGE

- 6) To what extent does the image of NHIF affect your intention to join it?
- To a very great extent
To a great extent
To a moderate extent
To a little extent
To no extent

7) To what extent do the following factors determine your joining the National Hospital Insurance Fund (NHIF)?

	To no extent	To a little extent	To a moderate extent	To a great extent	To a very great extent
Design or key characteristics of the policy					
Distribution of health facilities and personnel					
Domain of services and illness that a policy covers (quality of the basket)					
Quality of health facilities/services					
Trust in insurance scheme provider/scheme management					
Reputation/Corruption/fraudulent claim payment to hospitals					
Impression of quality communicated by each person					

8) How does the image of NHIF determine your intention to join it?

.....

LEVEL OF INCOME

9) Level of Income per month

- Less than 2,000 [] 2,001 – 5,000 []
- 5,001 – 10,000 [] 10,000 – 15,000 []
- 15,000 – 20,000 [] Above 20,000 []

10) In your opinion, does income levels determine your joining NHIF?

Yes () No ()

11) To what extent do the following factors determine your joining the National Hospital Insurance Fund (NHIF)?

	To no extent	To a little extent	To a moderate extent	To a great extent	To a very great extent
Monthly revenue					
Number of household members employed					
Household expenses					
Access to Credit Extension					
Access to Business Opportunities					

LEVEL OF AWARENESS

12) Have you ever heard of NHIF?

Yes () No ()

13) To what extent do the following factors determine your joining the National Hospital Insurance Fund (NHIF)?

	To no extent	To a little extent	To a moderate extent	To a great extent	To a very great extent
Insurance education					
Technical assistance in insurance domain knowledge					
Previous exposure to insurance					
Financial literacy					
Knowledge of the features of insurance covers					

Risk averseness					
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PREMIUMS PAYABLE

14) To what extent do the following factors determine your joining the National Hospital Insurance Fund (NHIF)?

	To no extent	To a little extent	To a moderate extent	To a great extent	To a very great extent
Amount of premium					
Frequency of contribution (monthly or annually)					
Mode of payment					
Transaction cost (cost of out of pocket treatment)					

OTHER FACTORS

15) To what extent do the following factors determine your joining the National Hospital Insurance Fund (NHIF)?

	To no extent	To a little extent	To a moderate extent	To a great extent	To a very great extent
Education of household members					
Health status/ ratio of sick members					
Socio-cultural factors					
Presence of children and aged					

Marital status					
Gender of household head					

16) Any additional information on the determinants of voluntary social health insurance uptake in the public transport industry?

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.....
.....

17) What suggestions can you make to ensure that all the drivers and conductors are registered with NHIF?

.....
.....
.....

THANK YOU FOR YOUR TIME

APPENDIX 3: INTERVIEW SCHEDULE FOR OFFICERS IN THE SACCOS

- 1) How can you describe the corporate image of NHIF?
- 2) How does NHIF corporate image influence uptake of voluntary membership into NHIF?
- 3) How much are the conductors and drivers paid on average?
- 4) Is it paid daily or monthly?
- 5) How does level of income influence uptake of voluntary membership into NHIF?
- 6) Are the players in the transport industry aware of the benefits of NHIF?
- 7) To what extent does consumer awareness influence uptake of membership into NHIF?
- 8) Are the premiums payable affordable to the players in the transport industry?
- 9) How do premiums payable influence uptake of voluntary membership into NHIF?