2024

Assessing the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector.

Wangari, Stanley Karanja
Strathmore Business School
Strathmore University

ASSESSING THE EFFECTIVENESS OF THE LEGAL SYSTEM IN CURBING POLICYHOLDER FRAUD IN KENYA'S MOTOR INSURANCE SECTOR

STANLEY KARANJA WANGARI

Admission no. 94604

Dissertation Submitted to the Strathmore University Business School in Partial Fulfilment for the Degree of Masters of Business Administration at Strathmore University

Strathmore University Business School

Strathmore University

Nairobi, Kenya

March, 2024

DECLARATION

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

Name: **Stanley Karanja Wangari**

Signature

7th March 2024

Approval

The thesis of **Stanley Karanja Wangari** was reviewed and approved by the following:

18th March 2024

Name of Supervisor: **Dr. David Mathuva**

Faculty: **Strathmore Business School**

Institution: **Strathmore University**

ABSTRACT

The objective of this research was to examine the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector. The Insurance Act CAP 487, claims management guidelines, and the Penal Code CAP 63 represented the legal system, the independent variable, with policyholder fraud being the dependent variable. Deterrence theory and fraud triangle theory formed theoretical framework for the study. The study followed the positivist research paradigm and adopted an explanatory research design. The target population for the study constituted employees of the 34 registered motor insurance companies in Kenya, from which a sample of 102 respondents was selected using a stratified sampling technique. Primary data was collected using structured questionnaires. The survey was conducted in March 2024. Descriptive, correlation, and regression analysis constituted the statistical techniques for analyzing collected data via Microsoft Excel and Statistical Package for Social Sciences (SPSS) and findings presented using tables and figures. According to the findings, the effectiveness of the Insurance Act and the Penal Code in curbing policyholder fraud is weak and non-significant. However, the effectiveness of claims management guidelines is significant. Therefore, out of the three, this advises insurance firms to specially focus on guidelines for claims management in preventing policyholder fraud. This research also proposes policy changes aimed at strengthening the Insurance Act and Penal Code to improve their effectiveness in fighting insurance fraud. Also, since the three legal instruments covered in this study explains a small margin of policyholder fraud, this study suggests studying the effectiveness of other components of the legal system in curbing policyholder fraud in Kenya’s motor insurance sector.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ABI	Association of British Insurers
AKI	Association of Kenyan Insurers
CBK	Central Bank of Kenya
IRA	Insurance regulatory Authority
PCA	Principal Factor Analysis
PWC	Price Waterhouse Coopers
PHCF	Policyholders Compensation Fund
IFIU	Insurance Fraud Investigation Unit
NACOSTI	National Commission for Science, Technology and Innovation

DEFINITION OF TERMS

Legal system: It is a framework of rules, procedures, and institutions that a society uses to interpret and enforce its laws.

Insurance fraud: it is a deliberate deception perpetrated against or by an insurance company or agent for the purpose of financial gain

Policyholder fraud: occurs when an insured or policyholder is deceitful or falsifies information to benefit from an insurance policy.

DEDICATION

This research is dedicated to my family: my wife, Emmaculate Ludie, my sons Migwi and Nangah, and my daughter Wangari, who endured my absence when I was focusing on this MBA program. Your love and support kept me going. To my mum Teresa Wangari, my late grandparents, the late Zachary Karanja and Elizabeth Wanjiru, and the entire Karanja Family who saw the fire in me and had faith to invest in my education. Your love, faith, prayers, and support has seen me through many seasons and, most importantly, through my education life.

ACKNOWLEDGEMENTS

I am grateful to God for his divine favor enabling me to pursue this degree. To my supervisor, Dr. David Mathuva, for his guidance and support throughout this dissertation and to my friends and colleagues who have supported and encouraged me to complete the project.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Fraud is a growing problem, particularly in the fields of motor insurance, fire, public liability, and health insurance. Unmitigated fraud has the capacity to lead to huge losses for insurance companies, causing loss of shareholder capital, liquidity risks and subsequently resulting in the collapse of insurance companies (Association of Kenya Insurers, 2020). Fraud is an intricate and dynamic matter that ultimately affects all players in the insurance industry; it results in huge loss of revenues as well as increased cost of operations, the result being an increase in premiums (Makove, 2015).

Fraud is a growing problem worldwide. In Europe, for instance, the Federation of European Re-insurers estimates that all cases of detected and undetected fraud amount to over 10% of all claims paid. In the United Kingdom, it is estimated that 1.2 billion pounds was the value of insurance fraud during the year 2020; insurers identified one hundred and seventeen thousand cases that year alone. It further establishes that a new case of fraud is uncovered every five minutes in the United Kingdom (Association of British Insurers, 2020).

In the United States, it is estimated that up to 18% of all claims involved an element of fraud and that, in general, 10% of claims lodged are fraudulent. According to the Federal Bureau of Investigation, fraudulent claims paid annually amount to 40 billion dollars. This is about 4% of premiums collected in the US annually (Federal Bureau of Investigations, 2020). Nadarajah's (2018) publication on the Insurance Institute of Canada points out that 5-15% of premiums drivers pay for auto insurance go toward covering undetected fraudulent claims. The report further suggests that auto insurance fraud costs Canadian taxpayers an estimated $1.6 billion every year.

Insurance fraud is not just a problem in developed countries; it is also rampant in developing nations across Africa. For instance, according to Kenyon (2018), the cost of insurance in South Africa is estimated at $600 million per annum, whereby 10% of property and casualty insurance claims contain fraudulent elements. In Ghana, Akomea-Frimpong et al. (2016) suggest that

insurers lose 5-30% of their annual revenues to fraud. In Kenya, it is estimated that 35% of all insurance claims paid in a year are fraudulent. This raises the fear that unmitigated fraud has the ability to affect a company's liquidity position as well as the stability of insurance companies. Fraud has the ability to destroy customer confidence in the industry as well as ruin a company's reputation (Makove, 2015).

According to Coalition Against Fraud (2015), "10% of insurance losses and loss adjustment expenses each year are because of fraud. The same report indicates that fraudsters steal $80 billion each year in all lines of insurance." It, therefore, follows that efficiency, productivity, and innovation are significantly affected by fraud as companies dedicate resources to avert fraud, those resources can be considered unproductive as opposed to investment in other productive activities; this has the ability to slow down the growth of insurance companies and the industry.

The presence of "insurance fraud risk leads to higher insurance premiums, puts pressure on the financial stability of insurance companies, and adversely influences the accessibility of insurance" (Asthana, 2013). This has a major impact on the stability of insurance companies and the industry. The collapse of insurance companies damages customer confidence in the industry, whilst higher premiums slow down the uptake of insurance products.

Insurance business by its nature is susceptible to fraud, this is why regulation are important. As far as insurance fraud is concerned, regulatory frameworks exist to ensure fraudulent activities are detected, investigated, and prosecuted. The conventional wisdom is that regulations and other legal measures play crucial role in mitigating policyholder fraud in the insurance sector. However, the effectiveness of these frameworks remains debatable as research proves. For instance, In their research, Al-Shattarat and Al-Shattarat (2021) produce evidence suggesting that the regulatory environment is effective in fighting financial fraud. It achieves this in a variety of ways, including encouraging firms to maintain high standards of integrity and transparency, protect personal rights, facilitate the implementation of anti-fraud systems, and remove or reduce the opportunity for fraud among others.

Deviating the narrative from the conventional wisdom, other researchers argue otherwise. For example, Mwanyale (2014) observed that the Kenya's regulatory environment was ineffective in combating fraud, citing that noncompliance was high and that individuals who violated anti-fraud

laws faced no penalties. Similar sentiments were shared by Mahmud (2023) whose research focused on the effectiveness of legal sanctions of perpetrators of fraud in deterring and reducing re-offending. He observed that despite court decisions to imprison perpetrators, criminal activities persisted.

Another body of empirical research suggests that legal measures are effective in preventing crime but only to a moderate extent. According to Njuguna (2019) and Okwachi (2009), the state of regulation in Kenya has succeeded in regulating insurance fraud but only by a small margin. Njuguna (2019) explained that despite efforts to strengthen existing regulations, offences were not well defined and the penalty for fraudulent activities were not enough to enhance deterrence. Therefore, while regulations succeed in reducing insurance fraud, there is still plenty of room for mischief. The likes of Ismail (2019) and Wan et al. (2012) are of similar opinion on the subject matter.

The current status of the legal system, particularly in Kenya and its ability to combat policyholder fraud remains a debatable subject in the empirical research community. There is lack of consensus among researchers on the effectiveness of legal measure in curbing policyholder fraud as demonstrated above. In addition, Button Lewis (2017) contends that "there are many worldwide studies on various forms of fraud committed by individuals and many studies on organized crimes in different industries, but minimal on auto insurance fraud. As a result, the area suffers from a scarcity of literature and is in need of more studies."

1.1.1 Legal System in Kenya

Insurance is generally a creation of law, meaning a robust regulatory framework is a necessary tool for the motor vehicle insurance sector. The framework influences the creation, interpretation, and enforcement of insurance contracts, policies, and claims. In Kenya, the role of regulations, as Njuguna (2019) explains, is to promote fair trade, ensure price stability, promote fair access to the markets, and ensure the fulfillment of social objectives. The author offers a brief overview of the context of insurance legislation in Kenya, citing that the origin of the insurance business in the country can be traced back to the colonial period. At the time, there were no insurance-specific laws; the United Companies Act of 1948, therefore, regulated insurance businesses.

1.1.1.1 The Insurance Act CAP 487

The first law, the Insurance Act Cap 487, was formulated after independence in 1987 (Njuguna, 2019; Chepkoech & Rotich, 2017). The legislation "established the office of the Commissioner of Insurance; it also sets standards for insurance companies in terms of capital, licensing, and policy requirements" (Njuguna, 2019). The Act has since evolved with time, subject to amendments to address emerging issues and trends in the insurance sector. For instance, "the Act was amended in 2006, resulting in the enactment of the Insurance Regulatory Authority (IRA), a statutory government agency mandated to ensure the enforcement of the Insurance Act; in 2011, the IRA established the Insurance Fraud Investigation Unit (IFIU), a criminal department within the agency responsible for countering insurance fraud" (Njuguna, 2019; Chepkoech & Rotich, 2017).

The institutional framework of insurance regulation in Kenya, particularly in the context of insurance fraud, consists of the IRA, IFUI, The Judiciary, and the Policyholders Compensation Fund (PHCF) (Chepkoech & Rotich, 2017; Njuguna, 2019; Kiptoo et al., 2021). The IRA is a "government body that monitors and controls the activities of the key players in the insurance sector. The agency works closely with other local and international agencies such as CBK, Sacco Societies Regulatory Authority (SASRA), African Insurance Organization (AIO), and the International Association of Insurance Supervisors (IAIS) to exchange ideas and nurture the industry" (Chepkoech & Rotich, 2017).

The IFIU was established with one goal: combat fraudulent activities in the insurance sector. The unit accomplishes this role by collecting cases on insurance fraud, investigating reports on fraudulent activities, compiling reports on findings, and submitting these reports for arrest and prosecution (Njuguna, 2019). In 2015, 106 cases involving individuals and companies were reported to the unit, an increase of 21.8% from the previous year (Kiptoo et al., 2021). The increment accounted for Kshs. 366.9 million worth of insurance fraud (Kiptoo et al., 2021). 4% of the cases were prosecuted and completed in court, and IFIU played a critical role in collecting and presenting useful evidence for the prosecution.

1.1.1.2 Claims Management Guidelines

The Guidelines on Claims Management are issued by IRA pursuant to Section 3A of the Insurance Act for observance by insurance firms, reinsurance firms, intermediaries, and insurance service providers. The purpose of these guidelines is to improve the efficiency, transparency, and disclosure of information to policyholders during claims processing. Yusuf et al. (2017) and Mwangi (2017) explain that claims management guidelines are essential, especially for an insurance industry experiencing a poor reputation, challenges with claim management, low penetration of insurance services, claims related to claims management, and the need for regulator intervention.

The guidelines cover pre-loss information, loss notification, and acknowledgment, receipts of claims by the insurer, claims handling, fraud detection and prevention, and issues specific to motor claims (Mwangi, 2017; Yusuf et al., 2017; Angima & Jebiwott, 2022). They mandate insurers to inform policyholders on what to do when issuing a policy. Under the pre-loss information guidelines, policyholders should minimize losses, cooperate with their insurers during investigations by providing material facts and information, preserve evidence, report claims in a timely manner, and allow the insurance company to handle inspections and damage assessments before settlements. Policyholders should also use fast means of communication in reporting loss, such as direct reporting, telephone, text message, e-mail, etc.

The most important principle in this study is Fraud Detection and Prevention. Angima and Jebiwott (2022) point out that in order to curb the growth of fraud; every insurance company must establish systems and controls for identifying and detecting fraud. Companies must also discourage fraud by informing policyholders of the consequences of reporting false statements in claims and by establishing a database where claims suspected of fraud are recorded. The companies must also invest in training staff responsible for handling and scrutinizing claim documents to detect fraud.

1.1.1.4 The Penal Code CAP 63

A penal code is a code of laws concerning crimes and offenses and their punishments. It defines crimes as conduct that are harmful, threatening, or otherwise endangering to property, health, safety, and welfare of people in society (Glueck, 2011; Hall, 2010). It also prescribes punishments

and rehabilitation for such misconduct. Penal code is often established in statutes, meaning they are enacted by the legislature Glueck, 2011. This also means that penal codes vary from one jurisdiction to another. It also should not be confused with civil law, which emphasizes dispute resolution and victim compensation rather than punishment for crime and rehabilitation of offenders.

In Kenya, crimes and their appropriate punishments are prescribed in the Penal Code CAP 63. The enforcement of the code seeks to achieve five objectives: retribution, deterrence, incapacitation, rehabilitation, and restoration (Glueck, 2011). Retribution is the widely seen goal, as offenders who take improper advantage or inflict unfair detriment upon others should be punished in some way. Prescribing proportionate punishment to the crime is a way of balancing scales. The Penal Code aims to discourage offenders from engaging in criminal behavior by imposing sufficient penalties. Incapacitation is designed specifically to seclude criminals from society so that the public is safe from their misconduct. The rehabilitation role aims to transform offenders into valuable members of society. Lastly, the restoration approach adopts a victim-oriented model to repair any injury inflicted on a victim by an offender.

The relevance of the Penal Code CAP 63 in the study is realized in its definition of fraud as a crime and prescribing appropriate punishment for the offense. Policyholder fraud generally falls under *Division V* of the Code, "Offences Relating to Property" (National Council for Law Reporting, n.d.). In this sense, policyholder fraud can be a theft offense, an offense allied to stealing, extortion, false pretenses, and fraud by trustees, or handling stolen property. It can also fall in the *Division VII* category: "forgery, coining, counterfeiting, and similar offenses" (National Council for Law Reporting, n.d.). The punishment for fraud depends on the type of offense, number of victims, and damages caused, which can range from fines, order of restitution, and prison sentence.

1.1.2 Policyholder Fraud

Fraud may be committed at different points in the transaction by applicants, policyholders, third-party claimants, or professionals who provide services to claimants. Insurance agents and company employees may also commit insurance fraud" (Insurance Information Institute, 2021). "Common frauds include "padding," or inflating claims; misrepresenting facts on an insurance application; submitting claims for injuries or damage that never occurred; and staging accidents" (Insurance

Information Institute, 2021). Seifert (2016) cited three broad categories of fraud: policyholder fraud (Customer Fraud), intermediary fraud, and internal fraud. Policyholder fraud is fraud committed by the insured; intermediary is fraud committed by intermediaries (Brokers and Agents) against insurance companies or clients; internal fraud is fraud committed by employees independently or in collusion with others.

Policyholder fraud is a major concern in the motor insurance sector. This type of fraud is common and can occur in four critical ways (Kouach et al., 2022; Lv et al., 2022; Nian et al., 2016). Firstly, a policyholder can intentionally conceal or misrepresent material information to receive a lower premium or benefit from an undeserved claim. Secondly, a policyholder can submit a false or inflated claim by illegally fabricating records or staging collisions. It can also involve the misrepresentation of the condition of the vehicle, personal information, and more to receive higher benefits. Thirdly, policyholders may submit claims for a loss that never occurred. Fourthly, though not common, a policyholder can use another person's identity in order to obtain insurance coverage or benefit from an insurance company.

A publication by Wang and Xu (2018) suggests that some motor industries are forced to contend with fraud rings and syndicates that often stage collisions or fake traffic deaths to make false claims or exaggerate claims from insurance companies. For instance, in the "United Kingdom, the Association of British Insurers uncovered at least 130,000 fraudulent claims worth £1.32 billion in 2017" (Benedek et al., 2022). A tactic commonly used was driving into a busy junction or roundabout and braking sharply, causing a motorist to drive into them. In some instances, following a staged collision, a doctor is recruited to provide false diagnoses or soft-tissue injuries that are impossible to dispute (Wang & Xu, 2018; Benedek et al., 2022). Benedek et al. (2022) further point out that "a real accident may occur, but a dishonest driver may take advantage of the incident to incorporate a range of previous minor damage to the vehicle when submitting an insurance claim."

Multiple researchers have also adequately explored the drivers of fraud risk. In their study, Popoola et al. (2014) grouped these factors into macroeconomic, individual, and institutional factors. Fraud motivated by macroeconomic factors can take many forms, including misrepresentation of facts, withholding material information, backdating covers, staging accidents, rip-offs, and exaggerating

damage (Popoola et al., 2014). All these behaviors are primarily conducted by policyholders and driven by a wide range of macroeconomic factors, including the cost of living, high interest rates, high inflation, or just greed.

Besides the perceived economic or financial gain, Popoola et al. (2014) further explain that fraud can be driven by individual factors, i.e., some engage in insurance fraud for mere excitement, personal pleasure and sense of self-importance or to exert revenge. Many perpetrators driven by individual factors often view insurance fraud as a victimless crime, with some engaging in fraudulent activities out of the widespread perception of corruption as an acceptable societal norm. Institutional factors include weaknesses within the insurance company that enable fraudulent activities. These weaknesses may include a lack of or weak HR policies, faulty claim filing systems, and poor IT structures.

1.1.3 Kenya's Motor Insurance Sector

The Kenyan insurance industry "comprises 56 Insurers, 5 Re-insurers, 220 Insurance Brokers, 10,471 insurance agents (including 26 banc assurance agents), 35 medical health insurance providers, 138 motor assessors, 144 insurance investigators, 33 insurance surveyors, 31 loss adjusters and eight claims settling agents" (Association of Kenya Insurers, 2020). "There are two types of insurance business, namely long-term and general insurance (short-term Insurance); the general insurance business accounts for 63% of the total insurance premiums, while long-term insurance accounts for 37% of the business" (Central Bank of Kenya, 2021). The Insurance Act 2015 defines insurance as a business that involves liability undertaking through insurance in case of loss or damage to property, loss of life, or injury, including liability to compensate the damage contingent upon the occurrence of a specified event (Makove, 2015). In the same report, Makove (2015) further observes that insurance allows organizations and economies to enjoy financial stability and promote trade and commerce activities, thereby enabling countries to enjoy sustainable economic growth and development.

Motor insurance is a key sector in insurance, constituting about 33.5% of the total premiums collected in the General Insurance business in Kenya in the year 2020. The motor industry is divided into motor private insurance, constituting about 17%, and motor commercial insurance, which accounts for 16.5% of the total premiums collected in the General Insurance 2020

(Association of Kenya Insurers, 2020). The same report observes that despite this significant contribution to the industry, motor insurance claims constitute 52% of the total claims paid by the industry. As a result of this high claims ratio, motor insurance has consistently returned losses over the years; in 2020, the sector returned a combined ratio of 114%. This means for every hundred shillings collected as premiums for motor insurance, the industry lost fourteen shillings (Association of Kenya Insurers, 2020).

In a very dynamic operating environment, businesses are faced with diverse risks; some of the risks facing business include regulatory, political, liquidity, and fraud risks, among others (KPMG, 2016). The insurance industry also faces these challenges, among many others. "The level of risk that a company faces has a direct relationship with the level of return that it earns; a company is successful only when it is capable of managing the portfolio of risks it faces and the associated rewards" (Nasir, 2018). "Fraud has become the most salient threat to the global economy, and it requires the maximum attention of internal control managers, traditional auditors, forensic accountants, and anti-graft bodies globally" (Abdullahi, 2018). Insurance fraud is a big threat to the industry and the Kenyan economy.

1.2 Statement of the Problem

Over the last few years, the industry has seen the collapse of several General Insurance companies. These include Lake Star Insurance, Blue Shield Insurance, and United Insurance, among others; the most recent one is Resolution Insurance, which was placed under receivership in 2022 (Association of Kenyan Insurers, 2023). Several other companies continue to struggle to meet minimum adequate capital requirements according to the industry regulator. One thing common about these companies is that they all underwrite general businesses and have motor insurance businesses contributing a larger proportion of their portfolio. All these companies have gone down due to the inability to meet claims obligations.

In addition, the Motor insurance business class has been making losses over the last ten years; a combined ratio of 114% in 2020 meant that the industry lost 14% of the total premium underwritten as Motor insurance premiums; this amounted to 3.27 billion shillings as underwriting loss (Association of Kenya Insurers, 2020). The problems experienced in the insurance industry, as described above, can be attributed to insurance fraud as the primary challenge. A number of

researchers, including Akomea-Frimpong et al. (2016), Mwashi (2017), Otiso (2021), Goswami et al. (2022), and Ajemunigbohun et al. (2019), confirms this.

Kenya has a robust legal system consisting of rules, procedures, and institutions to combat insurance fraud. However, there is insufficient evidence of its effectiveness in curbing insurance fraud. While Machogu (2012), Tajudeen & Abdur (2009), Kihara (2014), Thirima (2010), Gee et al. (2012), Webel (2009), Akomea-Frimpong et al. (2016), and Singh (2015) provide useful insights into the regulation of the insurance sector and the tackling of fraud in the sector, these studies are not without contextual, conceptual, scope, and methodological limitations.

Besides, Available literature does not focus on the effectiveness of the legal system. The current body of empirical studies fails to adequately demonstrate specific components of Kenya's legal system, such as the Insurance Act, claims management guidelines, and the penal code system, and their effectiveness in addressing policyholder fraud, particularly in the motor insurance sector. Therefore, this research study aimed to fill the gap by examining the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector.

1.3 Objectives of the Study

This study was guided by one general objective and three specific objectives, as outlined below.

1.3.1 General Objective

To examine the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector.

1.3.2 Specific Objectives

i. To determine the effectiveness of the Insurance Act CAP 487 in curbing policyholder fraud in Kenya's motor insurance sector
ii. To determine the effectiveness of the Claims Management Guidelines in curbing policyholder fraud in Kenya's motor insurance sector
iii. To determine the effectiveness of the Penal Code in curbing policyholder fraud in Kenya's motor insurance sector

1.4 Research Questions

i. How effective is the Insurance Act CAP 487 in curbing policyholder fraud in Kenya's motor insurance sector?
ii. How effective are the Claims Management Guidelines in curbing policyholder fraud in Kenya's motor insurance sector?
iii. How effective is the Penal Code in curbing policyholder fraud in Kenya's motor insurance sector?

1.5 Scope of the Study

The study sought to determine the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector. The Insurance Act, the Claims Management Guidelines, and the penal code constituted the independent variables, while policyholder fraud served as the dependent variable. This research focused on 34 Motor Insurance companies in Kenya (Appendix 1). Combined, these companies comprise 34% of the total written Gross premium in Kenya, amounting to 55 billion shillings (Association of Kenya Insurers, 2022). Motor vehicle insurance is segregated into two categories: motor private, commanding Kshs. 28.5 billion in premiums, and motor commercial, commanding Kshs 26.7 billion in premiums. The target population of the study was employees in the underwriting department of the 34 identified motor insurance companies across the country. Respondents for the study were recruited from these companies using stratified sampling. The study was carried out between June 2023 and February 2024.

1.6 Significance of the Study

The findings of the study are important to various stakeholders:

1.6.1 Insurance Companies

The study benefits practitioners of insurance underwriters in having a better understanding of the effectiveness of the legal system in curbing policyholder fraud. This is critical because well-managed policyholder fraud will likely lead to more revenues, more stability for the companies as well as better returns to shareholders. The study will reveal the most effective tool of legal system

in curbing fraud and should lead to companies enhancing their efforts in that area to reduce and mitigate fraud risk.

1.6.2 Association of Kenya Insurers

The industry lobby group will appreciate the findings, as it would inform a unified approach by the industry in reviewing processes and guidelines as well as a legal framework; this will lead to more efforts to reduce policyholder fraud through a review of processes and guidelines as well as strengthening the legal framework to reduce policyholder fraud. Reduced policyholder fraud could lead to better-priced products, more products for customers, and more returns to shareholders.

1.6.3 Insurance Regulatory Authority

Policymakers in the regulation sector will also find the study useful as this will lead to more action to stem the vice and protect innocent customers who may be paying more for problems not of their making. The study brings to light how effective existing regulatory guidelines as well as legal frameworks are in curbing policyholder fraud.

1.6.4 The Public

The public will appreciate the effectiveness of the existing framework in curbing policyholder fraud; this will lead to more push for efficient processes, framework, and justice to reduce policyholder fraud and fraud in general. This will lead to an aggressive push for vigilance and cooperation between all players to stem and mitigate fraud.

1.6.5 Researchers

The study will also benefit researchers and scholars by expanding their knowledge of the effectiveness of legal frameworks in curbing policyholder fraud. This study adds to the body of knowledge on policyholder fraud, legal framework, and fraud in general.

1.6.6 Theory

The outcome of this research also has significant theoretical implications regarding legal system and its effectiveness in fighting policyholder fraud. The information this research produces is

valuable addition to existing theories on the subject matter under investigation. It demonstrates the status of the legal framework in combating fraud in the motor insurance sector.

1.7 Chapter Summary

The chapter introduces and provides an overview of the background of the topic. As demonstrated, the effectiveness of the legal system in combating policyholder fraud in Kenya's motor insurance industry is not a well explored phenomenon. Even the studies that attempt to explore the topic fail to sufficiently cover the extent to which the Insurance Act, IRA's Guidelines on Claims Management, and the Penal Code counters policyholder fraud, particularly in the motor insurance industry. Therefore, the study aimed to fill these gaps by focusing on the effectiveness of the Insurance Act 487, the claims management guidelines, and the Penal Code in curbing policyholder fraud in Kenya's motor insurance sector.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The chapter offers an in-depth review of the literature on the effectiveness of the legal system in curbing policyholder fraud in the motor insurance sector as well as review, analysis, and critique of previous empirical studies conducted on the topic.

2.2 Theoretical Framework

The theoretical framework "aims to introduce and describe the theories that explain the phenomenon under investigation, draw conclusions, and make predictions, demonstrating that a research topic is grounded in established ideas" (Varpio et al., 2020). That said; the study was established on the principles of the deterrence theory as the anchoring theory and fraud triangle theory as the support theory. These theoretical models are discussed below.

2.2.1 Deterrence Theory

The "deterrence theory is a theoretical model of criminology that was proposed by Cesare Beccaria in the 18th Century; it postulates that individuals commit crimes based on rational calculations about perceived personal benefits and that the threat of legal sanctions will deter people from engaging in criminal activities for fear of punishment" (Tajudeen & Abdur, 2009; Quackenbush, 2011). In other words, people obey the law due to the fear of punishment if they are caught breaking it. According to Quackenbush (2011), "the classical theory of deterrence developed from the works of Hobbes (1651), Beccaria (1872), and Bentham (1789)." Burke et al. (2019) note that laws are created not only to provide punishment but also to minimize reoffending (recidivism) and discourage members of the public from committing offenses through the threat of legal sanctions.

Burke et al. (2019) identify certainty, celerity, and severity as the key elements of the deterrence theory. Firstly, making the public think their criminal activities will not go unpunished is a powerful deterrent factor. Tomlinson (2016) further points out that the certainty of being caught for offenses is a more effective deterrent than the punishment, making certainty the most important

of the three elements of deterrent theory. Celerity refers to the swiftness of the punishment, so if individuals know how swift the punishment will be, they will not break the law (Quackenbush, 2011; Burke et al., 2019). Lastly, severity refers to how much punishment an individual faces for an offense. Tomlinson (2016) advises that for punishment to attain its goal, the evil it inflicts must exceed the advantage derived from the crime.

In relation to insurance fraud, literature has long demonstrated that the principles of deterrence theory have been a success in controlling insurance fraud. For instance, Tajudeen and Abdur (2009) note that contract design and auditing are two approaches that have proven to be effective in confronting fraud in the insurance sector. Other control mechanisms include the centralization of fraud investigation, engaging law enforcement, and maximizing the possibility of conviction, which can go a long way in reducing fraud and related practices (Tajudeen & Abdur, 2009). In another study, Abramovaite et al. (2022) found that increased detection by police (certainty), variation in celerity, and increased average prison sentences (severity) significantly reduced theft in England and Wales.

The main criticism of the theory is that it assumes that people are always rational and weigh the costs and benefits of their actions (Tomlinson, 2016). This is not always the case since many people who engage in crime are irrational. The theory also ignores other factors associated with crime such as social norms and moral values. Nonetheless, the model was useful in examining the effectiveness of the legal system in deterring policyholder fraud in Kenya's motor insurance sector.

2.2.2 Fraud Triangle Theory

The fraud triangle theory was proposed by Donald R. Cressey, an American criminologist, in 1953, according to Sánchez-Aguayo et al. (2021). The theory identifies three conditions that lead to instances of occupational fraud: motivation, opportunity, and rationalization (Sánchez-Aguayo et al., 2021). In other words, people commit fraud when there is some kind of pressure or motivation, a perceived opportunity, and justification for fraud. As Donald Cressey explained, pressure is "the incentive that could motivate an individual to commit fraud" and it can range from personal financial issues to work environment (Sujeewa et al., 2018). On the other hand, opportunity "constitutes two components: general information and technical skill" (Sujeewa et al., 2018).

Rationalization, as Sánchez-Aguayo et al. (2021) explain, "the majority of people will not choose to engage in fraud unless they can justify why the illegal behavior is intelligible."

The fraud triangle theory is a common theoretical model in fraud literature and discussions. It forms the basis for discussions of occupational fraud related to white-collar crimes. In practice, the fraud triangle theory plays a crucial role in mapping out "possible perpetrators of fraud, why they commit fraud, and how to prevent fraud" (Sujeewa et al., 2018). For instance, Rahman and Jie (2024) found the fraud triangle model useful in analyzing financial fraud in China. A major setback of this theory is that it reduces the "complex nature of fraud to just three factors: pressure, opportunity, and rationalization ignoring the diversity of criminogenic influences" inherent in fraudulent activities (Lokanan, 2015). Nonetheless, since the focus area for this research was policyholder fraud, the theory was relevant to the study.

2.3 Empirical Review

2.3.1 The Effectiveness of the Insurance Act in Curbing Policyholder Fraud

The Insurance Act outlines standards for the administration, supervision, regulation and control of the insurance market. It features provisions for insurance fraud prevention and management. Ensuring a safe, fair, and fraud-free insurance industry is one of the fundamental goals that the legislation seeks to achieve. However, the persistence of fraudulent practices has drawn the attention of many scholars whose primary interest has been to measure the success of the regulation, and the broader regulatory framework, in mitigating fraud. A classic example is Njuguna (2019) whose research aimed to determine "the effectiveness of the existing legal and institutional framework in curbing motor insurance fraud in Kenya."

The primary focus of Njuguna's research was the Insurance Act CAP 487 and the IRA for which he found that they both had moderate effectiveness in curbing insurance fraud. The rationale for this observation, according to Njuguna (2019) was that the Insurance Act CAP 487 and the IRA did not sufficiently define fraud as an offence and penalties for committing insurance fraud did not do enough to deter the offense. A similar investigation was completed by Mwanyale (2014) who looked into the effect of "the regulatory framework on combating mobile money fraud in Kenya,

with a special focus on mobile money companies." The research adopted a similar research methodology as Njuguna and used primary data.

The findings of Mwanyale's (2014) research furthers a different narrative from that of Njuguna (2019). According to Mwanyale (2014), regulatory framework was ineffective in combating mobile money fraud in Kenya. He further noted that noncompliance was a major a challenge among mobile money companies. Also, respondents indicated there were no penalties for individuals who violated the law. Mwanyale (2014) is alluding to the notion that even though regulatory measures exist to deter employees of mobile money companies from engaging in fraudulent transactions, those employees disregard those laws any way because of the financial gain derived from financial fraud. According to the researcher, whereas the regulatory framework has succeeded significantly in in addressing supervisory intervention, addressing disciplinary action, market surveillance, public trust, investor confidence, compliance costs, business ethics, conflict of interest and anticompetitive behavior still needs plenty of work.

Research by Al-Shattarat and Al-Shattarat (2021) who sought to investigate the effect of "the regulatory environment in preventing and detecting financial fraud, as applied to commercial banks listed on the Amman Stock Exchange" took a different direction from other studies covered so far. The research found strong positive correlation between elements of the regulatory framework and the prevention and detection of fraud. On the other hand, Olalekan Yusuf and Rasheed Babalola (2009) share contradicting findings in their research. They are of the opinion that regulatory frameworks are ineffective in fighting fraud. They support this claim by stating that "there is no serious attitude on the part of the regulatory authority and insurance companies in appreciating the enormity of insurance fraud in the sector".

Based on the reviewed literature on the effectiveness of insurance regulation and fraud, this study arrived at the following hypothesis.

Hypothesis 1: The Insurance Act CAP 487 has a negative effective on policyholder fraud in Kenya's motor insurance sector.

2.3.2 The Effectiveness of Claims Management Guidelines in Curbing Policyholder Fraud

The systematic process of handling and resolving insurance claims is essential on fighting policyholder fraud. Therefore, claims management is among the best practices for detecting, mitigating, and preventing fraud associated with insurance claims. The ability for claim management guidelines to achieve this goal is a topic that has been studied by a number of researchers worldwide. For instance, Ogunnubi (2018) sought to determine "the impact of claims management on the profitability of non-life insurance companies in the Nigerian insurance industry". He found that there is no significant relationship between the two. The researcher argues that an increase in claims handling and processing practice has a direct effect on operational costs which in turn, can offset the benefits enjoyed from money saved from fraud.

The sentiments of Ogunnubi (2018) are shared by Rahmayani and Widjaja (2021) who sought to examine the impact the management of COVID-19 claims has in handling and preventing fraud in Indonesia's insurance sector. According to the researcher, the management of claims at the time led to potential fraud. In other words, the COVID-19 claims management approaches were ineffective in anticipating and preventing fraud. On the contrary, they promoted fraud. Rahmayani and Widjaja (2021) point out that the legal and regulatory policies were not flexible enough to cope with unique, unprecedented challenges of COVID-19 pandemic, resulting in fraud from patient dishonesty, double claims, government assistance not accounted for, manipulation of patient diagnosis, repeat billing, extended patient stay, etc.

Yusuf et al.'s (2017) research offers a difference of opinion from that of Ogunnubi (2018) and Rahmayani and Widjaja (2021). While investigating "insurance claims management among selected companies in Nigeria," Yusuf et al. (2017) discovered that good claims processing is good for insurance companies' profitability and long-term sustainability using one sample T-test. This research contradicts that of Ogunnubi (2018) which, interestingly, was also based on Nigeria's insurance market. Yusuf et al. (2017) argues that proper claims management process delivers excellence in insurance claims handling, resulting in the reduction of fraud-related losses.

The argument for the effectiveness of claims management guidelines is also provided by Mwangi (2017) who studied the "effects of underwriting and claims management practices on the performance of insurance firms in East Africa" using descriptive research design. The

comprehensive research targeted 82 P&C firms in Kenya, Uganda, and Tanzania. This is important because claims management practices in the East African region may not be the same as those in other parts of the world. Still, Mwangi (2017) found a positive but insignificant relationship between the variables. This suggests that improving the practice of claims management guidelines enhances the performance of insurance firms, a finding in support of Yusuf et al.'s (2017) research. The findings can also be interpreted as underwriting and claims management being effective in identifying, anticipating, and curbing fraud related to insurance claims.

Based on the findings on the subject matter, the following was established as the operational hypothesis for the study:

Hypothesis 2: The claims management guidelines have a negative effect on policyholder fraud in Kenya's motor insurance sector.

2.3.3 The Effectiveness of the Penal Code CAP 63 in Curbing Policyholder Fraud

Penal or criminal code serves a wide range of functions in society, including protecting against criminal encroachment, ensuring citizens' rights are upheld, and ensuring public order. A penal code defines what constitutes a crime and outlines punitive actions against those crimes. Therefore, its main function is to prevent any conduct that may cause harm to people or society as a whole. Policyholder fraud is recognized as an offense in the criminal code, as either a misdemeanor or a felony. Criminal sanctions as stipulated in the penal code, such as jail time are intended to deter insurance fraud. Its success in accomplishing this objective was a topic of interest for this research. Therefore, previous empirical evidence on the subject matter was reviewed.

A research study that offers valuable insights into the topic is Tait's (2001) survey that sought to examine the effectiveness of criminal sanctions in reducing re-offending. In particular, the researcher examined the impact of criminal sentencing using the best available methods at the time. He found that sentencing decisions can impact re-offending. However, the patterns were context-specific. This is to mean that supervisory orders were better at reducing re-offending that detention; minimal sanctions were more effective than low-level fines, the impact of longer prison sentences was short-term than short prison sentences. Tait's (2001) research provides evidence on the types of criminal sanctions that produce the most success in combatting re-offending.

Mahmud's (2023) research takes a different direction from Tait's (2001) and thus adopts a different tune on the topic. His research sought to examine the application of imprisonment for perpetrators and its effectiveness in deterring environmental crimes in West Java province. It was observed that criminal sanctions for the perpetrators of environmental crime did not yield the desired results in contributing to reducing environmental crime. In other words, the penal code was ineffective in preventing or reducing environmental crime. The rationale behind this observation, according to Mahmud (2023) is that "criminal law instruments in the settlement of environmental cases in judicial practice, the use of these criminal law instruments in addition to having obstacles in presenting evidence, also requires thinking about other issues that are not regulated in the law, especially the formulation of environmental offenses."

Elsewhere, Ismail (2019) explored the impact of the criminal justice system on crime prevention in Mogadishu, Somalia. The study found that the impact of the criminal justice system on crime prevention was moderate. The justification for the underwhelming effectiveness of the criminal justice system differs from that of Mahmud (2023). He points out that, "clumsy legislative processes and procedure, inadequate experience in technical areas such as policy reform, appropriation procedures and processes, corruption, political and social differences all combine to impede legislature in Somalia in creating criminal policies that work expeditiously." In other words, the justice system is not producing the desired results because of a myriad of factors.

Wan et al. (2012) who sought to examine "the extent to which the probability of arrest, probability of imprisonment, and imprisonment duration impact property and violent crimes in New South Wales, Australia", also support the notion that the effect of criminal sanctions is negligible in deterring crime. They found that a 1% increase in arrests produced a 0.1% and 0.19% reduction in property and violent crimes, respectively; a 1% increase in arrests is sustained in the long run, and property and violent crimes reduced by 0.14% and 0.3% respectively. The short-run and long run variations for imprisonment were (-0.09 and -0.11) and (-0.12 and -0.17) respectively.

The findings above led to the following being established as the operational hypothesis of this research study:

Hypothesis 3: The Penal Code has a negative effect on policyholder fraud in Kenya's motor insurance sector.

2.4 Summary of Literature and Gaps

Table 2.1 provides a summary of the reviewed empirical literature accompanied by knowledge gaps identified from the analyzed studies. Also provided is a brief description of how this study focused on filling these knowledge gaps.

Table 2. 1: Summary of Literature and Gaps

Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
Njuguna (2019)	To analyze the effectiveness of the existing legal and institutional framework in curbing motor insurance fraud in Kenya	The effectiveness of the Insurance Act CAP 487 and IRA in curbing motor insurance fraud is moderate.	Updated changes to the legal framework not captured. The effectiveness of the Judiciary is not highlighted. Policyholder fraud is not particularly explored.	Conceptual, contextual	This study aimed to provide updated knowledge on the extent to which legal systems curb policyholder fraud in the motor insurance sector.	Deterrence theory
Mwanyale (2014)	To examine the effect of regulatory framework on combating fraud of mobile money in Kenya	Noncompliance was a challenge as respondents indicated there are no penalties for individuals who violated the law.	The study was not contextualized to the motor insurance sector. Findings cannot be used to generalize the effectiveness of	Contextual	The study addresses the gap by exploring the effectiveness of IRA in combating policyholder fraud	Deterrence theory

Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
			IRA in curbing policyholder fraud.		in the motor insurance sector.	
Al-Shattarat & Al-Shattarat (2021)	To investigate the effect of the regulatory environment in preventing and detecting financial fraud, as applied to commercial banks listed on the Amman Stock Exchange	A positive correlation between elements of environment framework and the prevention and detection of fraud	Focused on the banking sector. Failed to highlight the effectiveness of regulatory authorities (IRA) in curbing insurance fraud.	Scope, contextual	The study focuses on the insurance sector and explore the extent to which IRA counters policyholder fraud.	Deterrence theory
Okwachi (2009)	An evaluation of the effectiveness of state regulation of the insurance industry in Kenya	The study found that the state had succeeded in regulating the insurance industry	This study is limited in contextual and conceptual aspects. The effectiveness	Conceptual, contextual, scope	The present study focuses on the effectiveness of legal systems in	Deterrence theory

Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
		to a moderate extent.	of the regulations in curbing policyholder fraud is not highlighted.		curbing policyholder fraud.	
Olalekan Yusuf & Rasheed Babalola (2009)	Control of insurance fraud in Nigeria: an exploratory study (case study)	The findings suggest that there is no serious attitude on the part of the regulatory authority and insurance companies in appreciating the enormity of insurance fraud in the sector	The study has conceptual, scope, and methodological limitations. It was based in Nigeria and failed to quantify the effectiveness of the regulatory framework on policyholder fraud	Conceptual, scope, methodological	The present study used quantitative data to examine the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector.	Fraud triangle Theory

Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
Yusuf et al. (2017)	To investigate insurance claims management among selected companies in Nigeria	Processes of claims handling are significant in the claims management of insurance companies in Nigeria.	The study fails to highlight the effectiveness of claims management in curbing insurance policyholder fraud.	Conceptual, contextual	The study fills the knowledge gap by exploring the extent to which claims management curbs policyholder fraud in the motor insurance sector.	Fraud Triangle theory
Mwangi (2017)	Effects of underwriting and claims management on the performance of property and casualty insurance companies in East Africa	A positive but insignificant relationship between underwriting claims management, and financial	The study did not focus on policyholder fraud in the motor insurance sector as the outcome variable.	Contextual, conceptual	The present study focused on policyholder fraud in the motor insurance sector.	Fraud triangle Theory

Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
		performance was reported.				
Tait (2001)	The Effectiveness of Criminal Sanctions: A Natural Experiment, Report 33/96-7 to the Criminology Research Council	The study found that sentencing decisions can impact re-offending. However, the patterns are context-specific	The limitation of the study is that it fails to highlight the relationship between penal code procedures and fraud using quantitative data.	Scope, conceptual, contextual	The current study used quantitative data to determine the relationship between the variables.	Deterrence theory
Mahmud (2023)	To question the effectiveness of criminal sanctions in environmental crimes in West Java Province.	Criminal sanctions did not yield the expected results in deterring environmental crimes.	Focused on environmental crimes rather than insurance fraud crimes.	Scope, conceptual, contextual	The study focused on the effectiveness of the court system in curbing insurance fraud.	Deterrence theory

Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
Ismail (2019)	To examine the impact of the criminal justice system on crime prevention in Mogadishu, Somalia.	The impact of the criminal justice system on crime prevention is moderate.	The study does not contextualize findings to policyholder fraud in the motor insurance sector.	Contextual, scope, conceptual	The proposed focused on the effectiveness of the criminal justice system in combating policyholder fraud in the motor insurance sector.	Deterrence theory
Wan et al. (2012)	to examine the extent to which the probability of arrest, probability of imprisonment, and imprisonment duration impact property and violent crimes in New	An increase in arrest and imprisonment rates decreased property and violent crimes. There is no evidence that the increase in length	The study focused on property and violent crimes only in Australia	Contextual, scope	The gap was addressed by the proposed study by focusing on policyholder fraud in Kenya.	Deterrence theory

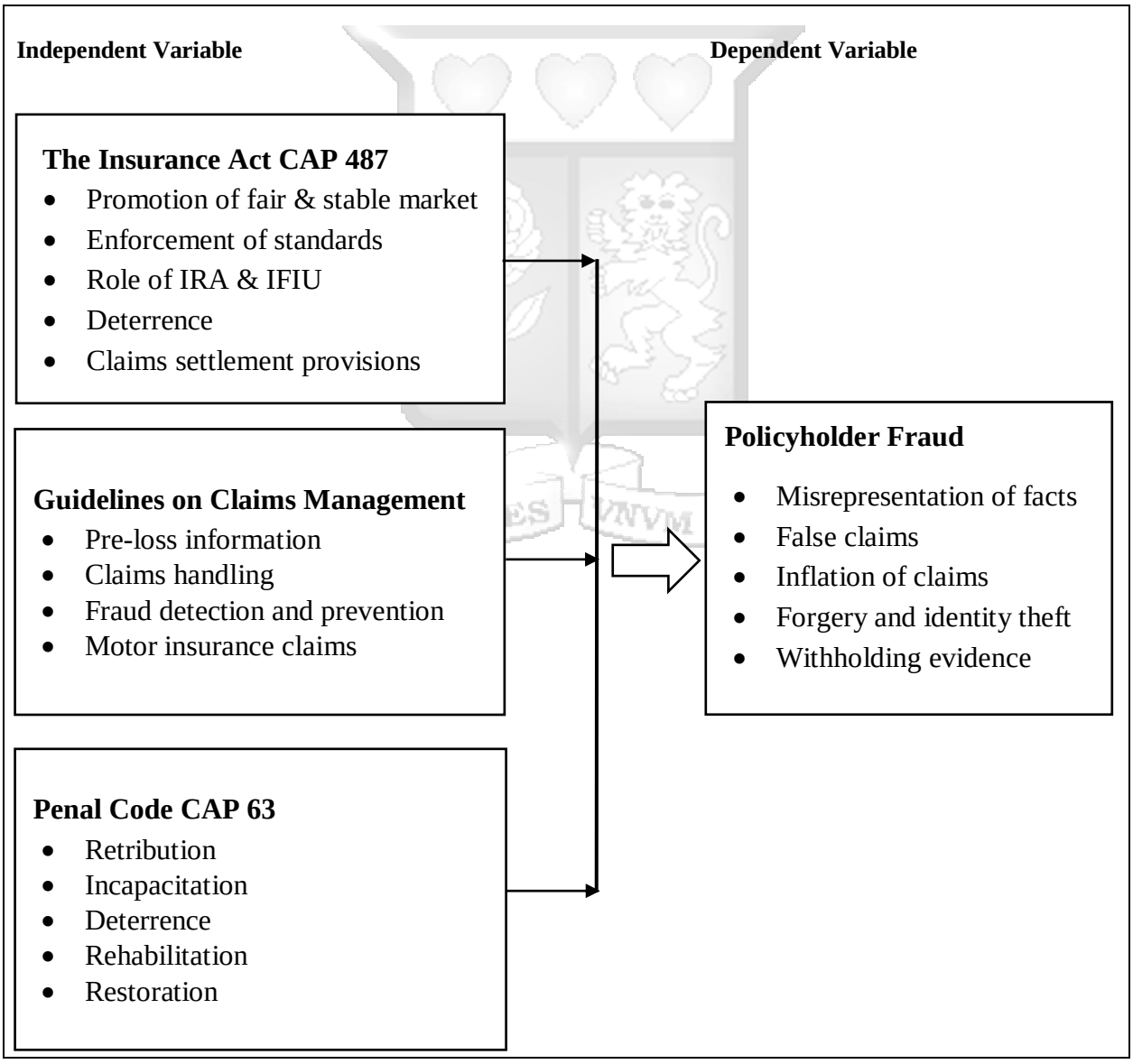
Author	Area of Study	Findings	Gaps Identified	Type of Gap	Contribution of this study	Supporting theory
	South Wales, Australia	of imprisonment affected the rates of crime.				

Source: Author (2023)

2.5 Conceptual Framework

A "conceptual framework is a visual illustration of the relationship between variables in a research study" (Turner et al., 2015). The conceptual framework for the study is shown in Figure 2.1. The study sought to analyze the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor insurance sector. The Insurance Act, the guidelines on claims management, and the Penal Code represented the legal system, as the independent variable, whereas policyholder fraud was the dependent variable.

Figure 2. 1: Conceptual Framework



Source: Author (2023)

2.6 Operationalization of Variables

The "operationalization moves the researcher from the abstract level to the empirical realm, where concepts are replaced by variables and specific research procedures are developed that will result in empirical observations and the collection and interpretation of data to answer the original research problem" (Rao & Reddy, 2013). Here, abstracts are transformed into statistically measurable observations that can be replicated in a similar research study. As such, the variables, indicators, and scale of measurements are illustrated in Table 2.2.

Table 2. 2: Operationalization of Variables

Variables	Indicators	Measurement (scale)	Source
Policyholder fraud	• Misrepresentation of facts • False claims • Inflation of claims • Forgery and identity theft • Withholding evidence	5-Point Likert Scale	(Kouach et al., 2022; Lv et al., 2022; Nian et al., 2016)
The Insurance Act CAP 487	• Promotion of a fair and stable market • Enforcement of standards • Role of IRA & IFIU • Deterrence • Claims settlement provisions	5-Point Likert Scale	(Glueck, 2011; Hall, 2010)
Claims management guidelines	• Pre-loss information • Claims handling • Fraud detection and prevention • Motor insurance claims	5-Point Likert Scale	(Mwangi, 2017; Yusuf et al. 2017; Angima & Jebiwott, 2022)
Penal Code CAP 63	• Retribution • Incapacitation • Deterrence • Rehabilitation • Restoration	5-Point Likert Scale	(Welsh & Farrington, 2014)

Source: Author (2023)

2.7 Chapter Summary

The chapter identified, evaluated, and reviewed empirical literature on the effectiveness of legal systems in curbing policyholder fraud. The review narrowed down to the specific variables: legal systems, the independent variable (represented by the Insurance Act, claims management guidelines, and the penal code), and policyholder fraud (dependent variable). These studies were analyzed through the principles of the deterrence theory and Fraud Triangle Theory, which made for the theoretical framework for the study. Most of the reviewed studies demonstrate a moderate effectiveness of the legal system in curbing policyholder fraud. However, contextual, conceptual, and methodological gaps were evident in those studies.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the techniques to be employed to achieve study objectives and to guide the research. The study aimed to review the effectiveness of legal systems in curbing policyholder fraud in Kenya's motor insurance sector.

3.2 Research Philosophy

This research employed a Positivist philosophy. Positivism "entails working with an observable social reality to produce law-like generalizations; it promises unambiguous and accurate knowledge" (Saunders & Philip Lewis, 2019). This philosophy was chosen because the study attempted to establish the effectiveness of legal systems in curbing policyholder fraud in Kenya's motor insurance sector. The variables in the study were observable realities that can be assessed and studied objectively, enabling the study to generate accurate and unambiguous conclusions that lead to general conclusions about the industry. One more reason for the positivist research approach is that the reality was treated as independent and objective from the researched elements and the researcher.

3.3 Research Design

This research employed an explanatory research design. An explanatory design aims to gain a deeper understanding of the underlying reasons for, cause, and relationship behind a particular phenomenon that lacks an in-depth explanation. It is a "suitable design for a causal study that seeks to examine the extent of a cause-and-effect relationship between two variables" (Ridder, 2017). So, the explanatory design was suitable for gaining a more in-depth understanding of the effectiveness of the legal system on policyholder fraud in Kenya's insurance sector. Therefore, it enabled the researcher to provide a detailed and comprehensive understanding of the correlation between the variables.

3.4 Population and Sampling

3.4.1 Population

A population is the overall number of units on which a study concentrates. It is affected by the factors being investigated and is better placed to provide the required data for the purpose of the study. There are 55 insurance companies registered in Kenya, with 34 of them underwriting Motor insurance (Association of Kenya Insurers, 2020). Motor insurance comprises comprehensive insurance, third-party insurance, motor commercial insurance, third-party fire and theft, and the Motor Private Insurance Association of Kenya insurers (2020). Therefore, employees at the identified 34 motor insurance companies in Kenya constituted the population for the study.

3.4.2 Sampling

3.4.2.1 Sampling Frame

A "sampling frame is the source material specifying the population of interest for a research study. It is a subset of the target population from which a sample is drawn" (Asiamah et al., 2017). In this case, the precise group that constituted participants for the study were employees working in the underwriting and claims department of the targeted motor insurance companies in Kenya.

3.4.2.2 Sampling Technique

Given the size of the population, participants for the study were recruited using a stratified random sampling method whereby the units of analysis were divided and grouped into 34 strata, meaning that each motor insurance company represented a stratum. The rationale for using random strata sampling was to ensure that targeted employees of the 34 insurance firms had an equal chance to participate in the study, which helped minimize the sample bias. Three respondents were randomly selected from stratum (motor insurance firm), translating to a sample size of 102 employees.

3.5 Data Collection

The research collected primary data on the variables. A structured online questionnaire was used for the study. The questionnaire featured five-point Likert Scale responses that participants choose from. The five points were "(1) Strongly disagree; (2) Disagree; (3) Neutral; (4) Agree; (5)

Strongly agree" (Appendix 4). The questionnaires were constructed and included a set of questions derived from the formulated research questions to enhance the validity and reliability of the findings. The advantage of questionnaires is that they are easy to make and administer, and they are cost-effective. An online survey method was adopted for data collection; the questionnaires were sent out to the target sample and the participants completed them via Google Forms.

3.6 Data Analysis

The completed questionnaires were collected, sorted, and checked for accuracy and consistency. They were also cleaned for errors and omissions to ensure the eligibility of data for analysis. The data was then coded, categorized, and input into computer software, Statistical Package for Social Sciences (SPSS), for analysis. Descriptive, correlational, and multiple regression statistics was used for analysis.

3.6.1 Descriptive Statistics

Descriptive statistics aims to summarize, organize, and present data in a logical, meaningful, and efficient manner. Therefore, it was used to provide a summary of the attributes of the data set. The measures of central tendency, frequency, and distribution came in handy in describing the demographic profile of the respondents. In addition, statistical techniques such as frequency, mean, and standard deviation were used to summarize the characteristics of the responses from the research participants.

3.6.2 Correlation Analysis

Correlation analysis aims to test for the presence of a relationship between variables and the magnitude of the relationship. The objective of the study was to assess the effectiveness of legal systems in curbing policyholder fraud in Kenya's motor insurance sector. Pearson correlation analysis was used for objectives 1, 2, and 3, where the relationship between each independent variable and the dependent variable will be determined. The correlation between variables is denoted by correlation coefficient values, which fall between -1 and +1. A negative coefficient denotes a negative correlation, a positive correlation denotes a positive correlation, and 0 means no correlation is detected between variables.

Diagnostic tests were performed before multiple regression. These tests include the test for heteroscedasticity, test for normality, test for autocorrelation, and multi-collinearity. These tests helped improve the quality of the findings. The normality assumption assumes that errors are normally distributed; this test will be done using a histogram of the residuals as well as probability plots.

3.6.3 Regression Analysis

Regression "analysis is used to analyze the relationship between a single dependent variable and multiple independent variables" (Keith, 2014). "Its objective is to use independent variables whose values are known to predict the value of the dependent variable" (Keith, 2014). In this case, regression analysis was used to determine the relationship between independent variables (the Insurance Act, claims management guidelines, and the Penal Code) and policyholder fraud as the dependent variable. The regression equation that was used includes:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where;

Y = Policyholder fraud

α = Constant

β= Beta coefficients

X_1= the Insurance Act CAP 487

X_2= Claims management guidelines

X_3= The Penal Code CAP 63

ε = error term

3.7 Research Quality

3.7.1 Objectivity

The research, data analysis, findings, and conclusions were objective and free from bias. The researcher strived to ensure that the research was free from any ethical/moral values held by the self.

3.7.2 Generalizability

The research focused on collecting data from all companies underwriting motor insurance in Kenya. The researcher adhered to the best standards in data collection; as such, the findings of the study can be used to understand the Motor Insurance Industry in general.

3.7.3 Validity

Research quality is highly dependent on the validity and reliability of its research instruments. Through Literature review, the researcher identified and used the most appropriate tools to collect, capture, and measure data relating to the variables of our study. The techniques applied gave empirical evidence, ensuring that the findings were valid.

3.7.4 Reliability

The reliability of the study was also enhanced. This was achieved by conducting a pilot study to determine the internal consistency of the research instrument. The pilot study involved a sample of 10 respondents from Madison Insurance. Results were subjected to the Cronbach's Alpha test to determine if the minimum threshold of 0.7 was achieved.

3.7.4 Ethical Issues in Research

The researcher ensured that the respondents' privacy was protected, that the methods of data collection ensured only relevant data was collected, and that the data collected could only be used for the purpose of this study. All relevant approvals from the university, ethics committee, and NACOSTI were sought before the researcher embarks on data collection. The researcher strived to ensure that the research was free from any moral and ethical values held by the researcher.

3.8 Chapter Summary

In the chapter, the research philosophy and research design the study adopted have been highlighted. They include positivist research philosophy and explanatory research design, respectively. The population for the study shall constitute employees at the identified 34 motor insurance companies, from whom a sample of 102 practitioners was selected using stratified sampling. Questionnaires were used as a data collection instrument, and data gathered was analyzed using descriptive, correlation, and regression analysis via SPSS. The established quality and ethical standards for a scientific inquiry were observed in completing the study.

CHAPTER FOUR
PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the findings of the research. The aim of the study was to determine the effectiveness of legal systems in curbing policyholder fraud in Kenya's motor insurance sector. Primary data was collected using structured questionnaires, and descriptive and inferential statistics were adopted for data analysis. Findings are presented in this chapter in the form of tables and figures. The chapter consists of the results of the response rate, demographic profile of the respondents, reliability and validity tests, descriptive statistics, and inferential statistics.

4.2 Response Rate

The study targeted a sample size of 102 practitioners of motor vehicle insurance companies in Kenya. 102 questionnaires were distributed to the respondents, but 100 of them completed the questionnaires and returned them on time for the analysis. This translated to a 98.04% response rate, which is sufficient for scientific research. The collected questionnaires were then inspected for completeness and checked for eligibility for analysis. All the questionnaires were eligible for analysis.

Table 4. 1: Response Rate

Category	Frequency	Percentage
Responded	100	98.04
Non-response	2	1.96
Total	**102**	**100**

4.3 Demographic Profile of the Respondents

This section offers an overview of the demographic information of the participants, including their insurance companies, gender, age, organizational position, and experience. As shown in Table 4.2, 54% of the respondents disclosed their insurance companies and the rest choosing not to disclose.

The majority of the respondents were male (61%); most of the respondents were aged 31-40 years (58%), implying that the bulk of underwriters are in their 30s. Most respondents were middle-level managers (36%) followed by senior managers (26%) and supervisors (23%). Only 5% of the participants were executives. Most of the respondents (45%) had worked for less than five years in their companies, 39% of them had an experience ranging from 6-10 years, and 14% had experience worth 11-20 years. This implies that a significant number of the respondents had sufficient professional experience in their respective insurance firms to participate in the survey.

Table 4. 2: Demographic Profile of the Respondents

Characteristic	**Frequency**	**Percentage**
Name of the insurance company (optional)		
AIG Kenya Insurance Company Ltd.	1	1.0
APA Insurance	3	3.0
Britam Kenya	2	2.0
Cannon General Insurance	3	3.0
CIC General Insurance	3	3.0
Corporate Insurance Company	2	2.0
Directline Assurance	1	1.0
Fidelity Shield Insurance	3	3.0
First Assurance	2	2.0
GA Insurance	3	3.0
Geminia Insurance	1	1.0
Heritage Insurance Company Ltd.	2	2.0
ICEA LION General Insurance	3	3.0
Intra Africa	1	1.0
Jubilee General Insurance	3	3.0
Kenindia Assurance Company	2	2.0
Kenya Orient General Insurance	3	3.0
Kenya Alliance Insurance	3	3.0
Madison General Insurance	3	3.0
Mayfair Insurance	1	1.0

MUA Insurance Company	1	1.0
Pioneer Insurance	3	3.0
Sanlam General Insurance	2	2.0
Tausi Assurance Company	1	1.0
The Monarch Insurance Company	1	1.0
Trident Insurance Company	1	1.0
Not disclosed	46	46.0
Total	**100**	**100**
Please state your gender.	**Frequency**	**Percentage**
Male	61	61.0
Female	39	39.0
Total	**100**	**100**
What age range do you fall into?	**Frequency**	**Percentage**
Under 30 years	12	12.0
31 – 40 years	58	58.0
41 – 50 years	23	23.0
Above 50 years	7	7.0
Total	**100**	**100**
Position in the company?	**Frequency**	**Percentage**
Executive	5	5.0
Senior management	26	26.0
Middle management	36	36.0
Supervisory	23	23.0
Entry level	10	10.0
Total	**100**	**100**
How many years have you worked in the company?	**Frequency**	**Percentage**
Less than 5 years	45	45.0
6 – 10 years	39	39.0
11 – 20 years	14	14.0
More than 20 years	2	2.0

Total	**100**	**100**

4.4 Reliability and Validity Tests

The data collection instrument was tested for internal consistency using Cronbach's Alpha scale. On a range of 0 to 1, it is recommended that the Cronbach Alpha value meet the minimum 0.7 for internal consistency. A value that falls out of 0.7-0.9 denotes reliability issues in the data collection instrument. Table 4.3 illustrates the results of the Cronbach's Alpha test. All the variables attained the minimum requirement for internal consistency, signifying the reliability of the questionnaire.

Table 4. 3: Reliability Tests

Constructs	Cronbach's Alpha	N of Items
Policyholder fraud	.831	5
The Insurance Act	.859	5
Guidelines for Claims Management	.748	5
The Penal Code	.913	5

4.5 Descriptive Statistics

4.5.1 Policyholder Fraud

The study sought to collect data on policyholder fraud using various indicators, including misrepresentation of facts, false claims, inflation of claims, withholding of evidence, and forgery and identity theft. Respondents were asked to indicate the extent to which they agreed with the statement of these indicators on a five-point Likert scale where 1= strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree. Table 4.4 is a summary of how the participants responded.

Table 4. 4: Policyholder fraud

	Median	Mean	SD

From my perspective, our organization experiences many incidents of motor insurance policyholders misrepresenting facts and information when reporting claims.	4	3.35	1.123
I believe that our organization experiences numerous cases of policyholders withholding, hiding, and/or tampering with evidence during investigations.	3	3.19	1.125
In my personal opinion, our organization experiences increased cases of policyholders reporting false motor insurance claims.	3	3.08	1.079
I am under the impression that the majority of the motor insurance claims our organization receives are exaggerated by policyholders.	3	2.79	1.057
I suppose that forgery and identity theft cases when applying for motor insurance coverage or reporting claims are rampant in our organization.	2.5	2.66	1.130
Overall Mean		**3.014**	**1.103**

The overall mean for policyholder fraud was 3.014 at a 1.103 standard deviation. This finding indicates that, in general, the respondents remained neutral on the status of policyholder fraud at their respective insurance companies. The "misrepresentation of factors" indicator had the highest mean of 3.35 and median of 4 at 1.123 standard deviation. This suggests neutrality among the respondents but 50% of the responses indicating that they agreed with the statement, "From my perspective, our organization experiences many incidents of motor insurance policyholders misrepresenting facts and information when reporting claims." Descriptive statistics of the "withholding evidence" ($\bar{x} = 3.19$, $x\sim = 3$, $\sigma = 1.125$) and "false claims" ($\bar{x} = 3.08$, $x\sim = 3$, $\sigma = 1.079$) indicators suggest a notion of neutrality among the respondents. However, respondents disagreed with the idea that policyholders exaggerated claims but 50% of the responses indicated neutrality ($\bar{x} = 2.79$, $x\sim = 3$, $\sigma = 1.057$). A similar sentiment was shared on the forgery and identity theft indicator ($\bar{x} = 2.66$, $x\sim = 3$, $\sigma = 1.130$).

4.5.2 The Insurance Act

Data on the Insurance Act CAP 487 was collected using various parameters, including the promotion of a fair and stable market, enforcement of standards, the role of IRA and IFIU, deterrence, and claims settlement. Respondents were asked to indicate the extent to which they agreed with the statement of these indicators on a five-point Likert scale where 1= strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree. Table 4.5 is a summary of how the participants responded.

Table 4. 5: The Insurance Act

	Median	**Mean**	**SD**
The Act is effective in administering, supervising, regulating, and controlling the insurance and reinsurance business in Kenya.	4	3.37	.9914
From my perspective, the regulation is effective in promoting and ensuring a fair, safe, and stable insurance market in Kenya.	4	3.33	1.119
The mechanisms provided for in the Act for claims settlement are sufficient in curbing policyholder fraud.	3	2.76	1.102
The institutions established under the Act, such as the Insurance Regulatory Authority (IRA) and Insurance Fraud Investigation Unit (IFIU), effectively prevent policyholder fraud in the motor insurance industry.	3	2.73	1.145
The enforcement of the provisions provided for in the Act deter policyholders from committing fraud and other insurance malpractices.	2	2.62	1.170
Overall Mean		**2.962**	**1.106**

The overall mean for the Insurance Act was 2.962 at 1.106 standard deviation, suggesting that the respondents were barely neutral on the effectiveness of the regulation. The indicator, "enforcement of standards" had the highest mean ($\bar{x}$ = 3.37, $x\sim$ = 4, σ = .9914) indicating that respondents remained neutral on the statement, "The Act is effective in administering, supervising, regulating,

and controlling the insurance and reinsurance business in Kenya." However, at least half of the responses suggest agreement with the statement. A similar trend was observed with the "promotion of a fair and stable market" ($\bar{x} = 3.33$, $x\sim = 4$, $\sigma = 1.119$).

As the findings further suggest, respondents disagreed with the statements, "The mechanisms provided for in the Act for claims settlement are sufficient in curbing policyholder fraud" ($\bar{x} = 2.76$, $x\sim = 3$, $\sigma = 1.145$) and "The institutions established under the Act, such as the Insurance Regulatory Authority (IRA) and Insurance Fraud Investigation Unit (IFIU), effectively prevent policyholder fraud in the motor insurance industry" ($\bar{x} = 2.62$, $x\sim = 3$, $\sigma = 1.170$) with an inclination towards neutrality as suggested by the median and standard deviation values. However, they disagreed with the statement "The enforcement of the provisions provided for in the Act deter policyholders from committing fraud and other insurance malpractices" ($\bar{x} = 2.62$, $x\sim = 3$, $\sigma = 1.170$).

4.5.3 Claims Management Guidelines

The study also sought to gather data on the guidelines for claims management in the motor insurance sector using various indicators, including pre-loss information claims handling, fraud detection and prevention, and motor insurance claims. Respondents were asked to indicate the extent to which they agreed with the statement of these indicators on a five-point Likert scale where 1= strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree. Table 4.6 is a summary of how the participants responded.

Table 4. 6: Claims Management Guidelines

	Median	Mean	SD
In my view, our organization adheres to the IRA's guidelines for motor vehicle claims, including vehicle repair, accidents, write-offs, and disposal.	5	4.28	1.045
I suppose our policyholders allow the organization to conduct inspections and assessments adequately before making settlements.	4	3.92	1.061

From my perspective, in our organization, motor insurance policyholders report claims on time as provided for in the IRA's claims management guidelines.	4	3.69	.9713
I believe our organization has the IRA-recommended systems and controls in place to detect and prevent motor insurance fraud.	4	3.86	1.146
Our policyholders cooperate sufficiently in the car insurance claims investigation processes, as I see it. They preserve and provide all facts and information, in particular official documents, regarding the loss.	3	3.34	.8671
Overall Mean		**3.818**	**1.018**

According to the findings, the overall mean for claims management guidelines was 3.818 at a 1.018 standard deviation. This implies that although the respondents generally remained neutral, they leaned towards agreeing on the effectiveness of claims management guidelines. The claims handling indicator had the highest mean ($\bar{x}$ = 4.28, $x\sim$ = 5, σ = 1.045). This means that most respondents (85%) agreed or strongly agreed with the statement, "In my view, our organization adheres to the IRA's guidelines for motor vehicle claims, including vehicle repair, accidents, write-offs, and disposal."

However, they remained neutral on the rest of the indicators. For instance, the indicators, "assessment of claims" ($\bar{x}$ = 3.92, $x\sim$ = 4, σ = 1.061), "reporting of claims" ($\bar{x}$ = 3.69, $x\sim$ = 4, σ = .9713 and "IRA recommended systems and controls" ($\bar{x}$ = 3.86, $x\sim$ = 4, σ = 1.046). However, judging by the median and standard deviation values, responses inclined more towards a notion of agreement. A similar trend was observed on the "policyholder cooperation" indicator ($\bar{x}$ = 3.34, $x\sim$ = 3, σ = .8671 but as the median value and standard deviation show, most of the responses revolved around neutrality.

4.5.4 The Penal Code

The study sought to collect data on the effectiveness of the Penal Code CAP 63 using the following indicators: incapacitation, rehabilitation, deterrence, community restraints, and structure and discipline programs. Respondents were asked to indicate the extent to which they agreed with the

statement of these indicators on a five-point Likert scale where 1= strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree. Table 4.7 is a summary of how the participants responded.

Table 4. 7: The Penal Code

	Median	Mean	SD
I am under the impression that the penal code prescribes severe punishments to deter/discourage policyholders from committing fraudulent activities.	3	2.84	1.143
The way I see it, the penal code's provisions for reparations are designed to ensure recovery from losses caused by fraudulent activities of policyholders.	3	2.76	1.156
I am of the strong opinion that the penal code is effective in retributing/punishing insurance fraudsters proportionately for the offense committed.	3	2.66	1.233
In my personal opinion, the penal code is successful in incapacitating/depriving offenders of the capacity to recommit insurance fraud.	2.5	2.59	1.074
In my view, the penal code ensures policyholders found guilty of fraud are effectively rehabilitated and transformed to prevent future criminal behavior.	2.5	2.48	1.150
Overall Mean		**2.667**	**1.151**

According to the findings, the overall mean for the Penal Code Act CAP 63 was 2.667 at 1.151 standard deviation, suggesting disagreement among the respondents on the effectiveness of the Act. The "deterrence" indicator had the highest mean ($\bar{x}$ = 2.84, $x\sim$ = 3, σ = 1.143) but as the median and standard deviation values suggest, responses leaned more towards neutrality. The "reparations" ($\bar{x}$ = 2.76, $x\sim$ = 3, σ = 1.156) and "retribution" ($\bar{x}$ = 2.66, $x\sim$ = 3, σ = 1.233) indicators also showed a similar trend. However, both the media and mean values for the "incapacitation" ($\bar{x}$

= 2.59, x~ = 2.5, σ = 1.074) and "rehabilitation" ($\bar{x}$ = 2.48, x~ = 2.5, σ = 1.150) suggest a strong disagreement among respondents.

4.6 Exploratory Factor Analysis

The study performed an exploratory factor analysis (EFA) to uncover the underlying the underlying structures or factors of each of the constructs. This research performed EFA for three main reasons, to identify the underlying structure/dimensionality of the constructs, data reduction for easier interpretation, and to determine the relationships between observed data and factors. However, before then, the appropriateness of the data set for factor analysis was examined using Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity. As shown in Table 4.8, the KMO value for each of the construct exceeded the recommended minimum of 0.5 and Bartlett's test reached statistical significance ($p<0.05$). Therefore, the tests declared constructs suitable for factorability.

Table 4. 8: KMO and Bartlett's Test

Constructs	KMO	Approx. Chi-Square	df	Sig.
Policyholder fraud	.799	180.493	10	.000
The Insurance Act	.775	235.072	10	.000
Claims management guidelines	.760	110.826	10	.000
The Penal Code	.861	368.829	10	.000

4.6.1 Policyholder Fraud

The principal component analysis (PCA) was performed to examine the interrelations among the variables in the policyholder fraud construct. PCA was applied since the primary focus was to determine the minimum number of factors that attribute maximum variance in the data set. Table 4.9 illustrates the factors that accounted for more variability in the policyholder fraud construct.

Table 4. 9: Total Variance Explained

Component	Initial Eigenvalues	Extraction Sums of Squared Loadings

	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.987	59.747	59.747	2.987	59.747	59.747
2	.729	14.578	74.325			
3	.590	11.797	86.122			
4	.367	7.350	93.475			
5	.326	6.528	100.000			

Extraction Method: Principal Component Analysis.

Findings from PCA shows that one main component or factor can be extracted from the policyholder fraud construct. It is the only factor that had an eigenvalue greater than one. The one-component solution explained 59.75% of the variance.

In addition to the above, a varimax rotation was performed to assist in the interpretation of the one-component solution. The rotated solution is performed to produce a simpler structure illustrating the degree to which the variables loaded onto the one-component solution. The results, as shown in Table 4.10 shows that all the variables had a strong loading on the component extracted.

Table 4. 10: Rotated Component Matrix[a]

	Component
	1
From my perspective, our organization experiences many incidents of motor insurance policyholders misrepresenting facts and information when reporting claims.	.803
I believe that our organization experiences numerous cases of policyholders withholding, hiding, and/or tampering with evidence during investigations.	.785
In my personal opinion, our organization experiences increased cases of policyholders reporting false motor insurance claims.	.739

I am under the impression that policyholders exaggerate the majority of the motor insurance claims our organization receives.	.815
I suppose that forgery and identity theft cases when applying for motor insurance coverage or reporting claims are rampant in our organization.	.719

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

4.6.2 The Insurance Act

A PCA was performed on the Insurance Act construct to examine the interrelations among the variables. The findings, as shown in Table 4.11 shows that one component, with an eigenvalue of above 1, can be extracted and that this component explained 64.04% of the variability.

Table 4. 11: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.202	64.036	64.036	3.202	64.036	64.036
2	.774	15.484	79.520			
3	.441	8.826	88.346			
4	.361	7.224	95.571			
5	.221	4.429	100.000			

Extraction Method: Principal Component Analysis.

A varimax rotation was performed to aid in the interpretation of the one-component solution. The results, as shown in Table 4.12 shows that all the variables had a strong loading on the component extracted.

Table 4. 12: Rotated Component Matrix[a]

	Component

	1
The Act is effective in administering, supervising, regulating, and controlling the insurance and reinsurance business in Kenya.	.814
From my perspective, the regulation is effective in promoting and ensuring a fair, safe, and stable insurance market in Kenya.	.793
The mechanisms provided for in the Act for claims settlement are sufficient in curbing policyholder fraud.	.804
The institutions established under the Act, such as the Insurance Regulatory Authority (IRA) and Insurance Fraud Investigation Unit (IFIU), effectively prevent policyholder fraud in the motor insurance industry.	.819
The enforcement of the provisions provided for in the Act deter policyholders from committing fraud and other insurance malpractices.	.771

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

4.6.3 Claims Management Guidelines

A PCA was performed on the claims management guidelines construct to examine the interrelations among the variables. The findings, as shown in Table 4.13 shows that one component can be extracted from the construct. The total variance explained by this factor is 50.05%.

Table 4. 13: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.502	50.047	50.047	2.502	50.047	50.047
2	.948	18.953	69.000			
3	.588	11.766	80.766			
4	.543	10.867	91.632			

5	.418	8.368	100.000

Extraction Method: Principal Component Analysis.

A varimax rotation was performed to aid in the interpretation of the one-component solution. The results, as shown in Table 4.14 shows that variables 1, 3, and 4 loaded strongly on the component extracted with variables 2 and 5 having a moderate loading.

Table 4. 14: Rotated Component Matrix[a]

	Component
	1
In my view, our organization adheres to the IRA's guidelines for motor vehicle claims, including vehicle repair, accidents, write-offs, and disposal.	.713
I suppose our policyholders allow the organization to conduct inspections and assessments adequately before making settlements.	.550
From my perspective, in our organization, motor insurance policyholders report claims on time as provided for in the IRA's claims management guidelines.	.819
I believe our organization has the IRA-recommended systems and controls in place to detect and prevent motor insurance fraud.	.755
Our policyholders cooperate sufficiently in the car insurance claims investigation processes, as I see it. They preserve and provide all facts and information, in particular official documents, regarding the loss.	.672

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

4.6.4 The Penal Code

A PCA was performed on the Penal Code construct to examine the interrelations among the variables. The findings, as shown in Table 4.15 shows that one component can be extracted from the construct. The total variance explained by this factor was 74.87%

Table 4. 15: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.743	74.866	74.866	3.743	74.866	74.866
2	.581	11.628	86.494			
3	.307	6.147	92.640			
4	.218	4.354	96.995			
5	.150	3.005	100.000			

Extraction Method: Principal Component Analysis.

A varimax rotation was performed to aid in the interpretation of the one-component solution. The results, as shown in Table 4.16 shows that all the variables had a strong loading on the component extracted.

Table 4. 16: Rotated Component Matrix[a]

	Component
	1
I am under the impression that the penal code prescribes severe punishments to deter/discourage policyholders from committing fraudulent activities.	.839
The way I see it, the penal code's provisions for reparations are designed to ensure recovery from losses caused by fraudulent activities of policyholders.	.871
I am of the strong opinion that the penal code is effective in retributing/punishing insurance fraudsters proportionately for the offense committed.	.916
In my personal opinion, the penal code is successful in incapacitating/depriving offenders of the capacity to recommit insurance fraud.	.924
In my view, the penal code ensures policyholders found guilty of fraud are effectively rehabilitated and transformed to prevent future criminal behavior.	.767

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

4.7 Inferential Statistics

The study performed inferential statistics to draw conclusions and make inferences or generalizations about the population based on the sample data. A variety of inferential statistical tools, including correlational statistics, diagnostic tests, and ordinal regression. However, a normality test was first performed.

4.7.1 Normality Test

The data set was checked for normal distribution to determine whether to adopt parametric or non-parametric in the subsequent tests. The general rule of thumb is that parametric tests are used if the data set follows a normal distribution, and nonparametric tests it is normally distributed. Due to the sample size, the study performed a Kolmogorov–Smirnov test for normality distribution test. As shown in Table 4.17, no constructs followed normal distribution since they were not statistically significant (Sig. < .05). Therefore, the analysis proceeded with nonparametric tests.

Table 4. 17: One-Sample Kolmogorov–Smirnov

	N	Mean	Std. Deviation	Skewness	Kurtosis	K-S	Asmp. Sig.
Policyholder fraud	100	3.014	.0852	.241	.478	.105	.009
The Insurance Act	100	2.962	.0885	.241	.478	.094	.028
Claims management	100	3.818	.0721	.241	.114	.150	.000
The Penal Code	100	2.667	.0992	.149	.478	.069	.020

4.7.2 Correlational Analysis

The main objective of the study was to determine the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor vehicle insurance sector. The legal system was broken down into the Insurance Act CAP 487, claims management guidelines, and the Penal Code CAP 63 and their impact on policyholder fraud as the specific objectives. Spearman correlation analysis, a nonparametric test, was performed to determine the strength and direction of the correlation between each of the independent variables and the dependent variable.

4.7.2.1 The Insurance Act and Policyholder Fraud

Spearman's rank correlation was performed to determine the correlation between the Insurance Act CAP 487 and policyholder fraud. A null hypothesis suggests no correlation between the Insurance Act and policyholder fraud in Kenya's motor vehicle insurance sector.

Table 4. 18: The Insurance Act and Policyholder Fraud

			Policyholder fraud	Insurance Act
Spearman's rho	Policyholder fraud	Correlation Coefficient	1.000	-.137
		Sig. (2-tailed)	.	.173
		N	100	100
	Insurance Act	Correlation Coefficient	-.137	1.000
		Sig. (2-tailed)	.173	.
		N	100	100

As shown in Table 4.18, a negative, weak non-significant correlation (r=-.137, p>.05) was discovered between the Insurance Act CAP 487 and policyholder fraud in Kenya's motor vehicle insurance sector. This means that a unit improvement in the Insurance Act would reduce policyholder fraud by 13.7%. However, since the correlation is not significant, this research failed to reject the null hypothesis at a 95% level of confidence and a 5% level of significance.

4.7.2.2 Claims Management Guidelines

Spearman's rank correlation was also performed to determine the relationship between claims management guidelines and policyholder fraud. A null hypothesis states the absence of correlation between the variables. However, results from Spearman's correlation suggest a negative, moderate significant correlation (r=-.279, $p\leq$.05) between the variables, as shown in Table 4.19. The finding implies that a unit increase in claims management practice would reduce policyholder fraud by 27.9%. Therefore, since the correlation was significant, null hypothesis was rejected at 95% and 5% confidence and significance levels, respectively.

Table 4. 19: Claims Management Guidelines

			Policyholder fraud	Claims management
Spearman's rho	Policyholder fraud	Correlation Coefficient	1.000	-.279**
		Sig. (2-tailed)	.	.005
		N	100	100
	Claims management	Correlation Coefficient	-.279**	1.000
		Sig. (2-tailed)	.005	.
		N	100	100

**. Correlation is significant at the 0.05 level (2-tailed).

4.7.2.3 Penal Code and Policyholder Fraud

The study also sought to determine the correlation between the Penal Code CAP 63 and policyholder fraud in Kenya's motor insurance sector. The null hypothesis suggests a lack of correlation between the variables. However, results from Spearman's rank correlation indicate a negative, weak non-significant correlation (r=-.059, *p*>.05) between penal code and policyholder fraud, as shown in Table 4.20. This implies that a unit increase in the penal code would decrease policyholder fraud by only 5.9%. As such, this research failed to reject null hypothesis at 95% and 5% confidence and significance levels, respectively.

Table 4. 20: Penal Code and Policyholder Fraud

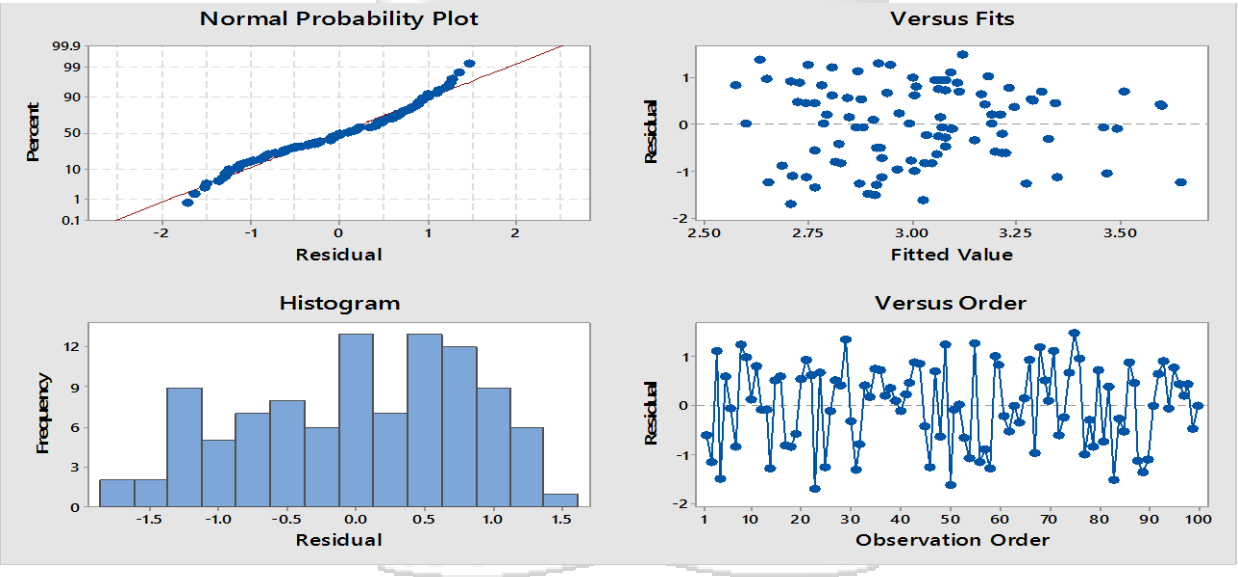
			Policyholder fraud	Penal Code
Spearman's rho	Policyholder fraud	Correlation Coefficient	1.000	-.059
		Sig. (2-tailed)	.	.563
		N	100	100
	Penal code	Correlation Coefficient	-.059	1.000
		Sig. (2-tailed)	.563	.
		N	100	100

4.7.3 Diagnostic Tests

4.7.3.1 Test for Heteroscedasticity

The test for heteroscedasticity was performed to ascertain the validity of the data set for the regression model. This is because the presence of heteroscedasticity invalidates the statistical tests of significance. The findings of this test are shown in Figure 45 and suggest the lack of relationship between residuals and the fitted values of the dependent variable. Therefore, it was determined that heteroscedasticity (LM stat = .05, $p > .05$) was not a concern for regression analysis.

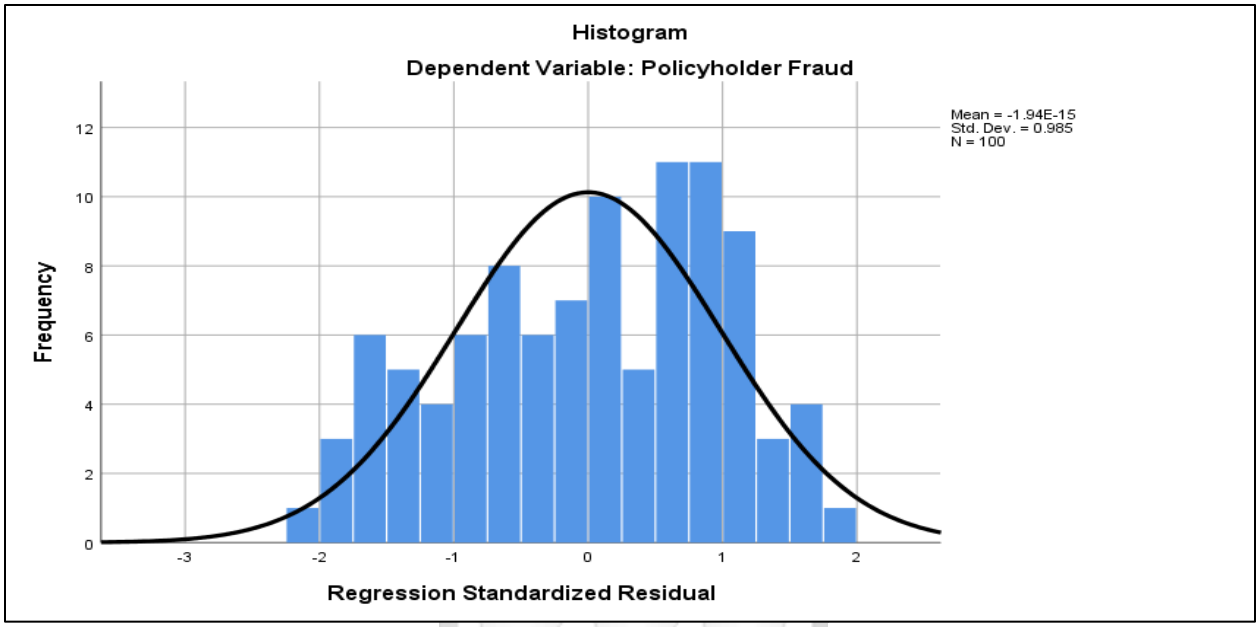
Figure 4. 1: Residual Plots for Policyholder Fraud



4.7.3.2 Test for Normality

The test for normality was performed to check for the distribution of the residuals. The significance of this test is to ensure the normality assumption is maintained for the purpose of obtaining the best linear unbiased estimator. A histogram was drawn to provide a visual representation of the normality curve. As Figure 4.6 illustrates, the histogram was covered by the normality curve, suggesting that the residuals followed a normal distribution.

Figure 4. 2: Test for Normality



4.7.3.3 Test for Autocorrelation

The study performed the Durbin-Watson test to check for autocorrelation. This is because the presence of autocorrelation invalidates the regression model. The existence of autocorrelation is denoted by a value ranging between 0 and 4. A Durbin-Watson value that ranges from 1.5 to 2.5 indicates no autocorrelation; below 1.5 shows a positive correlation; and above 2.5 indicates positive autocorrelation. As shown in Table 4.21, the Durbin-Watson statistic was obtained, suggesting autocorrelation was not detected.

Table 4. 21: Test for Autocorrelation

Alpha		.05
D-stat		2.02934
D-lower		1.6953
D-upper		2.183
Sig	**No autocorrelation**	

4.7.3.4 Test for Multicollinearity

The study also carried out the test for multicollinearity, in particular, the variance inflation factor (VIF), to check whether the independent variables were related, which should not be the case for

a regression model. The rule of thumb is that if the VIF value is less than 10, the presence of multicollinearity is not statistically significant. As shown in Table 4.22, VIF<10 confirms that the presence of multicollinearity is not statistically significant.

Table 4. 22: Test for Multicollinearity

Model		Collinearity Statistics	
		Tolerance	**VIF**
1	(Constant)		
	Insurance Act	.603	1.658
	Claims management guidelines	.843	1.186
	Penal Code	.693	1.443

a. Dependent Variable: Policyholder fraud

4.7.4 Regression Analysis

Having performed the correlation analysis and diagnostic tests, the study proceeded to carry out ordinal regression to determine the collective relationship between the independent variables (the Insurance Act, claims management guidelines, and the penal code) and the dependent variable (policyholder fraud).

Table 4. 23: Case Processing Summary

Valid Active Cases	100
Active Cases with Missing Values	0
Supplementary Cases	0
Total	100
Cases Used in Analysis	100

Table 4.24 shows the model summary of the regression analysis. As illustrated, a portion of the variance (R Square = .151) in policyholder fraud was attributed to the three aspects of Kenya's legal system. In other words, the Insurance Act CAP 487, Claims management guidelines, and the Penal Code CAP 63 explained 15.3% of policyholder fraud in Kenya.

Table 4. 24: Model Summary

Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
.381	.153	.098	.847

Dependent Variable: Policyholder Fraud
Predictors: The Insurance Act Claims management guidelines The Penal Code

Besides the model summary, the study also performed the analysis of variance (ANOVA) to model the relationship between the variables and demonstrate whether the impact of the independent variable was significant. The model shows that the collective relationship between the predictor variables and the outcome variable is statistically significant ($F(6,99) = 2.795$, $P<0.05$).

Table 4. 25: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	15.275	6	2.546	2.795	.015
Residual	84.725	93	.911		
Total	100.000	99			

Dependent Variable: Policyholder fraud
Predictors: The Insurance Act, Claims management guidelines, and The Penal Code

Finally, the regression coefficient of the regression model was determined to measure the functional relationship between the predictor variables and the dependent variable. The statistical test also involved determining whether this functional relationship is significant. The findings are shown in Table 4.25.

Table 4. 26: Coefficients

	Standardized Coefficients				
	Beta	Std. Error	df	F	Sig.
The Insurance Act	-.048	.228	2	.044	.957
Claims management guidelines	-.251	.107	2	5.550	.005
The Penal Code	-.249	.288	2	.750	.475

Dependent Variable: Policyholder fraud

The findings confirm that all the variables have negative effect on policyholder fraud in the motor vehicle insurance sector. However, the effect of the Insurance Act CAP 487 (β = -.048, F = -.044, p>0.05) and the Penal Code CAP 63 (β = -.249, t = .750, p>0.05) was not statistically significant. On the other hand, claims management has a negative significant effect on policyholder fraud as proven by (β = -.253, F = 2.038, p>0.05).

CHAPTER FIVE
SUMMARY, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter provides an in-depth discussion of the findings of the research study. The research outcomes will be interpreted, their significance described, and, where applicable, linked to literature. This discussion is preceded by a brief summary of the study, followed by conclusion, recommendations, limitations of the study, and areas for further research.

5.2 Summary of the Study

The goal of the study was to determine the effectiveness of the legal system in curbing policyholder fraud in Kenya's motor vehicle insurance sector. The Insurance Act CAP 487, guidelines for claims management, and the Penal Code CAP 63, which made for the predictor or independent variables, with policyholder fraud being the outcome variable, represented the legal system. The study was underpinned by the foundational principles of the deterrence theory and fraud tringle theory, which made for its theoretical framework.

The philosophical underpinning of the study was positivism, and explanatory research was adopted for the research design. The target population constituted employees of the 34 registered auto insurance companies in Kenya, from whom a sample of 102 respondents was selected using a strata-sampling technique. Primary data was collected from the sample via self-administered structured Google questionnaires as the research instrument. The filled questionnaires were collected, processed, and prepared for analysis, and descriptive statistics, correlational, and regression analysis were used for data analysis. The findings were presented using tables and figures.

The study targeted 102 participants, but 100 completed and returned the questionnaires on time for analysis, translating to a sufficient response rate. The bulk of the respondents were male, aged 31-40 years, middle-level managers, and had less than 5 years of experience working in their respective organizations. The following were the results of the overall mean for the variables according to descriptive statistics: policyholder fraud, the Insurance Act, claims management

guidelines, the Penal Code. Correlational and regression analyses revealed that all the independent variables had a negative impact on the dependent variable. However, out of the three variables, only the impact of claims management guidelines was statistically significant.

5.3 Discussion

5.3.1 The Insurance Act and Policyholder Fraud

The first objective of the study was to determine this study was to determine the effectiveness of the Insurance Act CAP 487 in curbing policyholder fraud in the motor insurance sector in Kenya. Descriptive statistics indicated neutrality among the participants on the following aspects of the Act: its role in the enforcement of standards and promotion of fair and stable markets. However, general disagreements were observed on the following: the effectiveness of the role of IRA and IFIU, claims settlement provisions, and its ability to deter fraud. The Spearman's rank correlation and regression analyses demonstrate that the Insurance Act has a negative non-significant effect on policyholder.

Therefore, this research failed to rejects null hypothesis. This is because the findings suggest the effectiveness of Insurance Act CAP 487 in curbing policyholder fraud is not significant. In addition, this research failed to support the principles of the deterrence theory. The negligible effect of the regulation suggests that it does not do enough to deter policyholder fraud. However, the fraud triangle theory was supported by this research; this is in the sense that the weakness of the Insurance Act creates opportunity for policyholders to perpetrate insurance fraud. In this case, as the findings suggest, the Insurance Act is not yet a useful legal instrument in curbing policyholder fraud in Kenya's motor insurance sector.

The findings are also consistent with previous literature, including Njuguna (2019) and Mwanyale (2014) who noted either weak or ineffectiveness of Kenya's regulatory and institutional framework in combating fraud. Njuguna (2019) who points out that the Insurance Act CAP 487 provides a possible explanation for this outcome, the IRA did not sufficiently define fraud as an offence, and penalties for committing insurance fraud did not do enough to deter the offense. Also, Mwanyale (2014) alluding to the idea that noncompliance is a major issue in the insurance market. For instance, areas such as market surveillance, business ethics, conflict of interest, etc. still need to

be strengthened. Also, AKI (2021) attributes the underwhelming effectiveness of insurance laws and regulations to the rapidly changing fraud schemes that capitalize on the limitations of the regulatory framework.

5.3.2 Claims Management Guidelines and Policyholder Fraud

The second objective of the study was to determine the effectiveness of the guidelines for claims management in curbing policyholder fraud. According to descriptive statistics, respondents agreed that their respective organizations adhere to IRA's guidelines for claims management. However, they remained neutral on the following aspects of claims management: policyholders allowing the organization to conduct adequate inspections before settlement, policyholders reporting claims on time as directed by IRA, policyholders cooperating during investigations, and the availability of IRA-recommended systems for detecting and preventing insurance fraud. Correlation and regression analyses revealed that the claims management has a negative and significant effect on policyholder fraud.

Therefore, with the findings above, the study rejected the null hypothesis and accepted the alternate hypothesis that guidelines for claims management are effective in curbing policyholder fraud. The study is also in support of the deterrence theory based on these findings. Put simply, the implementation of claims management guidelines is instrumental in discouraging fraudulent practices in the motor insurance sector. The findings are also consistent with previous literature (Yusuf et al., 2017; Mwangi, 2017; Ogunnubi, 2018). These studies observed that incorporating claims-handling practices reduced fraudulent activities.

Implementing proper regulation-based claim controls and processes can go a long way in identifying and mitigating fraud in the insurance sector. For this reason, Kenya recognizes the prevalence of policyholder fraud and thus has a dedicated section in the Insurance Act that caters to claims handling. However, as AKI (2021) notes, "authenticity of every claim cannot be investigated thoroughly as the process will be costly and inefficient." In addition, with the proliferation of technologies, fraud is rapidly transitioning to the digital space, and the provisions of the Act have yet to be fully adapted.

5.3.3 The Penal Code and Policyholder Fraud

The third objective of the study was to determine the effectiveness of the Penal Code CAP in curbing policyholder fraud in Kenya's auto insurance sector. Descriptive statistics suggest a general view of disagreement on the effectiveness of various aspects of the Penal Code, including its role in deterrence, reparation, retribution, incapacitation of offenders, and rehabilitation. Nonetheless, Spearman's rank correlation and regression analyses performed showed that the Penal Code has a negative non-significant effect on policyholder fraud. This suggests that the effectiveness of the Penal Code in curbing policyholder fraud in Kenya's motor vehicle insurance sector is not significant.

The finding above implies that the study failed to reject null hypothesis. As such, the finding is in support of the fraud triangle theory, which postulates that three conditions are necessary for an individual to commit fraud: motivation, opportunity, and rationalization. In this case, the weaknesses of the penal code provide the opportunity for policyholders to commit fraudulent crimes. The outcome of the study is also consistent with previous empirical literature, including Mahmud (2023) and Ismail (2019) who noted the ineffectiveness in criminal sanctions in deterring criminal offences.

The ineffectiveness of the penal code can be attributed to a variety of reasons. According to Mahmud, "clumsy legislative processes and procedure, inadequate experience in technical areas such as policy reform, appropriation procedures and processes, corruption, political and social differences all combine to impede legislature in creating criminal policies that work expeditiously." In addition, according to Button et al. (2015), because of the changing insurance landscape, sophisticated fraudsters find ways to maneuver or build winning defense strategies to evade criminal sanctions.

5.4 Conclusion

The aim of the study was to assess the effectiveness of the legal system in curbing policyholder fraud in the motor insurance sector in Kenya. The findings indicate a negative non-significant effect of the Insurance Act and the Penal Code. However, the effect of claims management guidelines and are effective in curbing policyholder fraud is significant. In other words, the

effectiveness of the Insurance Act and the Penal Code were found to be weak and non-significant, thereby supporting the fraud triangle theory. On the other hand, the effectiveness of the guidelines for claims management was found to be significant, a result that was in support of the deterrence theory. However, on the specific regulatory instruments, this study concludes that the Insurance Act and the Penal Code are ineffective in fighting policyholder fraud in Kenya's motor insurance sector whereas claims management guidelines are effective.

5.5 Recommendations

Policyholder fraud is a common phenomenon in Kenya's insurance sector, especially the auto insurance sector. Cases involving policyholders inflating claims, staging auto collisions, misrepresenting facts, and withholding critical evidence during the assessment to defraud insurance companies are widespread. Coupled with the reality of the time and costs involved in determining the authenticity of the claims, most of the time, fraudsters get away with such crimes. This research finds that out of three regulatory instruments, only claims management is effective in curbing policyholder fraud; the effectiveness of the other two is not significant. As such, in-depth analysis is needed to understand the weaknesses of the Insurance Act and the Penal Code.

Necessary adjustments at the firm level are needed to improve the effectiveness of the legal system in curbing crime. At the firm level, out of the three variables, the effectiveness of claims management guidelines was the strongest. Therefore, insurance companies should take the necessary steps to ensure the guidelines and provisions for claims settlement are observed in fighting policyholder fraud. This is because claims handling procedures are effective in anticipating and mitigating fraud as the research confirms.

The effectiveness of the legal system, in particular the Insurance Act and the Penal Code, was found to be weak. This can be attributed to a variety of factors, chief among them being the rapid changes in the fraud scheme landscape. Because of the technological landscape, fraudsters are becoming more sophisticated and determining ways to outmaneuver the legal systems (AKI, 2021). They tend to employ innovative means that take advantage of the weak spots of the laws, regulations, and the criminal justice system to get away with crime. Therefore, at policy level, the

Insurance Act and the Penal Code should be amended to ensure adoptability to the changing fraud landscape.

5.6 Limitations of the Study

This study is a valuable contribution to the ongoing insurance fraud literature in Kenya and across the world. However, it was not without its shortcomings. Targeting the 34 registered motor insurance companies in Kenya made this a resource-intensive research study. The project demanded a significant amount of resources (finances, materials, time, and human resources) to complete due to its geographical scope. Resource constraints impacted the maximum number of participants that could be included in the study as well as the period of study.

5.7 Areas for Further Study

The contextual scope of this research was limited to policyholder fraud in Kenya's motor insurance sector. Therefore, its findings, although credible, cannot be generalized to other insurance sectors such as health insurance, home and commercial insurance, life insurance, business insurance, and travel insurance, among others. This is because of the fundamental differences between the sectors. Therefore, future studies should attempt to contextualize the effectiveness of the legal system on policyholder fraud in these sectors.

Furthermore, the conceptual scope of this research was limited to three elements of the legal system: the Insurance Act CAP 487, guidelines for claims management, and the Penal Code CAP 63. These three elements of the legal system explain only 7.7% of the variability of policyholder fraud in Kenya’s auto insurance sector. This means that the rest of the aspects of the legal system explain 92.3%. The legal system is broad and complex. As such, future researchers should identify the other aspects of Kenya’s legal system and test their effectiveness in curbing policyholder fraud.

REFERENCES

Abdullahi, R. (2018). Fraud prevention initiatives in the Nigerian public sector: understanding the relationship of fraud incidences and the elements of fraud triangle theory. *Journal of Financial Crime 24*, 527-544. DOI: https://doi.org/10.1108/JFC-02-2015-0008

Abramovaite, J., Bandyopadhyay, S., Bhattacharya, S., & Cowen, N. (2022). Classical deterrence theory revisited: An empirical analysis of Police Force Areas in England and Wales. *European Journal of Criminology*, *20*(5), 1663-1680. DOI: https://doi.org/10.1177/14773708211072415

Ajemunigbohun, S. S., Isimoya, O. A., & Ipigansi, P. M. (2019). Insurance claims fraud in homeowner's insurance: Empirical evidence from the Nigerian insurance industry. *Facta Universitatis, Series: Economics and Organization*, 103-116. DOI: http://dx.doi.org/10.22190/FUEO1901103A

Akomea-Frimpong, I., Andoh, C., & Ofosu-Hene, E. D. (2016). Causes, effects, and deterrence of insurance fraud: evidence from Ghana. *Journal of Financial Crime*, *23*(4), 678-699. DOI: https://doi.org/10.1108/JFC-11-2015-0062

Al-Shattarat, H., & Al-Shattarat, B. (2021). Effect of the regulatory environment in preventing and detecting financial fraud: evidence from Jordanian commercial banks. *J. Legal Ethical & Regul. Issues*, *24*, 1. Retrieved from https://heinonline.org/HOL/LandingPage?handle=hein.journals/jnlolletl24&div=27&id=&page=

Angima, C., & Jebiwott, J. (2022). Effect of claims digitalization on service delivery by insurance companies in Kenya. *African Journal of Emerging Issues*, *4*(13), 111-127. DOI: https://www.ajoeijournals.org/sys/index.php/ajoei/article/view/369

Asiamah, N., Mensah, H., & Oteng-Abayie, E. F. (2017). General, target, and accessible population: Demystifying the concepts for effective sampling. *The qualitative report*, *22*(6), 1607-1621. DOI: https://doi.org/10.46743/2160-3715/2017.2674

Association of British Insurers. (2020). *Detected Insurance Fraud.* London: Association of British Insurers.

Association of Kenya Insurers. (2020). *Industry report.* Nairobi: Association of Kenyan Insurers.

Association of Kenya Insurers. (2021). Information paper on insurance fraud. Retrieved March 5, 2024 from https://www.akinsure.com/content/uploads/documents/Information_Paper_on_Insurance_Fraud.pdf?t=1250

Association Of Kenyan Insurers. (2023). *Insurance Industry Annual Report.* Nairobi: AKI.

Asthana, C. J. (2013). Life Insurance Fraud- Risk Management and Fraud Prevention. *International Journal of Marketing, Financial Services & Management Research*, 2,5. DOI: https://ssrn.com/abstract=2900674

Benedek, B., Ciumas, C., & Nagy, B. Z. (2022). Automobile insurance fraud detection in the age of big data–a systematic and comprehensive literature review. *Journal of Financial Regulation and Compliance*, *30*(4), 503-523. DOI: https://doi.org/10.1108/JFRC-11-2021-0102

Burke, A. S., Carter, D. E., Fedorek, B., Morey, T. L., Rutz-Burri, L., & Sanchez, S. (2019). *Introduction to the American Criminal Justice System*\. Open Oregon Educational Resources.

Button Lewis, S. D. (2017). Fraud in overseas aid and the challenge of Measurement. *Journal of Financial Crime*, 22 (2), 184-198. DOI: https://doi.org/10.1108/JFC-02-2014-0006

Button, M., Wakefield, A., Brooks, G., Lewis, C., & Shepherd, D. (2015). Confronting the "fraud bottleneck": private sanctions for fraud and their implications for justice. *Journal of criminological research, policy and practice*, *1*(3), 159-174.

Central Bank of Kenya. (2021). *Financial Stability Report.* Nairobi: Central Bank of Kenya.

Chepkoech F & Rotich, G. (2017). Effect of Risk Management Process on Motor Insurance Fraud in Kenya. *International Journal of Social Sciences and Information Technology (3) 3*, 1934-1951. DOI: http://www.ijssit.com/

Coalition Against Fraud. (2015). *Fraud Statistics.* Washington DC: By the Numbers.

Federal Bureau of Investigations. (2020). *Insurance Fraud.* New York: FBI.

Gee, J., Button, M., & Brooks, G. (2012). The resilience to fraud of the UK insurance sector: research into how well UK insurance companies protect themselves. Retrieved from https://researchportal.port.ac.uk/en/publications/

Glueck, S. (2011). Principles of a rational penal code. *Why Punish? How Much?: A Reader on Punishment*, 71.

Goswami, Y., Asokan, K., & Arunasalam, K. (2022). Impact of Fraud on the Financial Performance of Insurance Companies in India. *International Journal of Early Childhood Special Education*, *14*(3), 7490-7499. Retrieved from https://imcra-az.org/uploads/public_files/2022-05/24-final-59-71.pdf

Hall, J. (2010). *General principles of criminal law.* The Lawbook Exchange, Ltd..

Ismail, A. (2019). The impact of the criminal justice system on crime prevention in Mogadishu, Somalia. Retrieved from https://www.academia.edu/

Keith, T. Z. (2014). *Multiple regression and beyond: An introduction to multiple regression and structural equation modeling*. Routledge.

Kenyon, D. L. (2018). *An intelligent method of predicting insurance claims fraud* (Doctoral dissertation, University of Pretoria). Retrieved from http://hdl.handle.net/2263/70994

Kihara, J. (2014). *Strategies adopted by the insurance regulatory authority in enhancing compliance in the insurance industry in Kenya* (Doctoral dissertation, University of Nairobi). Retrieved from http://erepository.uonbi.ac.ke/handle/11295/77892

Kiptoo, I. K., Kariuki, S. N., & Ocharo, K. N. (2021). Risk management and financial performance of insurance firms in Kenya. Cogent Business & Management, 8(1), 1997246. DOI: https://doi.org/10.1080/23311975.2021.1997246

Kouach, Y., El Attar, A., & El Hachloufi, M. (2022). Auto insurance fraud detection using unsupervised learning. *Alternatives Managériales Economiques*, *4*(4), 96-113. DOI: https://doi.org/10.48374/IMIST.PRSM/ame-v4i4.35537

KPMG. (2016). *Global Profile of Fraudstar: Technology enables, and weak controls fuel the fraud.* https://home.kpmg/xx/en/home/insights/2016/05/global-profiles-of-the-fraudster.html

Lokanan, M. E. (2015, September). Challenges to the fraud triangle: Questions on its usefulness. In Accounting Forum (Vol. 39, No. 3, pp. 201-224). No longer published by Elsevier.

Lv, H., Liu, X., Lin, S., Ruan, X., & Ding, N. (2022, May). Auto insurance fraud detection is based on the Logistic-SVM algorithm. In *International Conference on Electronic Information Engineering and Computer Communication (EIECC 2021)* (Vol. 12172, pp. 217-222). SPIE. DOI: https://doi.org/10.1117/12.2634651

Machogu, T. (2012). Regulating Insurance Fraud in Kenya: An appraisal of ongoing initiatives by the Insurance Regulatory Authority. Retrieved from http://erepository.uonbi.ac.ke/handle/11295/48406

Machui, W. M. (2015). Nature and challenges of claims management by reinsurance companies in Kenya. Retrieved from http://erepository.uonbi.ac.ke/handle/11295/94082

Mahmud, A. (2023). Questioning the effectiveness of criminal sanctions in environmental crimes in West Java Province. *Journal of Legal Dialectics*, *5*(1). DOI: http://dx.doi.org/10.15294/pandecta.v18i1.36877

Makove. (2015). *AKI REPORT.* Nairobi: Association of Kenyan Insurers.

Mwangi, M. (2017). Effects of underwriting and claims management on the performance of property and casualty insurance companies in East Africa. DOI: http://dx.doi.org/10.19044/esj.2017.v13n13p358

Mwanyale, P. P. (2014). *The Effects Of Regulatory Framework On Combating Fraud Of Mobile Money In Kenya* (Doctoral dissertation, University Of Nairobi).

Mwashi, M. (2017). *Implication of Fraud on The Competitiveness of Insurance Companies in Kenya* (Doctoral dissertation, University of Nairobi). Retrieved from http://erepository.uonbi.ac.ke/handle/11295/94082

Nadarajah, I. (2018). Auto insurance fraud. Insurance *Institute of Canada.* Retrieved from https://www.insuranceinstitute.ca/en/cipsociety/information-services/advantage-monthly/0718-insurance-fraud

Nasir, N. (2018). *Effect of Enterprise Risk Management on Firm Value: Empirical Evidence from Non-Financial Firms in Pakistan.* Karachi: Capital University. Retrieved from https://thesis.cust.edu.pk/UploadedFiles/Nouman%20Nasir-MMS161005.pdf

National Council for Law Reporting. (n.d.). The Penal Code CAP 63. *Laws of Kenya.*

Nian, K., Zhang, H., Tayal, A., Coleman, T., & Li, Y. (2016). Auto insurance fraud detection using unsupervised spectral ranking for the anomaly. *The Journal of Finance and Data Science*, *2*(1), 58-75. DOI: https://doi.org/10.1016/j.jfds.2016.03.001

Njuguna, W. (2019). Motor Insurance Fraud in Kenya: An Analysis of the Effectiveness of the Legal and Institutional Framework in Curbing Insurance Fraud (Doctoral dissertation, University of Nairobi).

Odemba, J. (2013). *Factors affecting uptake of life insurance in Kenya* (Doctoral dissertation, University of Nairobi).

Ogunnubi, M. (2018). Impact of claims management on the profitability of Nigerian insurance company: An empirical study of the non-life insurance sector. *Available at SSRN 3126220*. DOI: http://dx.doi.org/10.2139/ssrn.3126220

Okwachi, E. (2009). An evaluation of the effectiveness of state regulation of the insurance industry in Kenya. *Unpublished MBA project, University of Nairobi*.

Olalekan Yusuf, T., & Rasheed Babalola, A. (2009). Control of insurance fraud in Nigeria: an exploratory study (case study). *Journal of Financial Crime, 16*(4), 418-435. DOI: https://doi.org/10.1108/13590790910993744

Otiso, H. N. (2021). The effects of fraud on the performance of insurance industry: A critical review of the literature. *Journal Homepage: http://ijmr. Net. in*, *9*(2). Retrieved from http://ijmr.net.in

Popoola, O. M. J., Che-Ahmad, A., & Samsudin, R. S. (2014). Impact of task performance fraud risk assessment on forensic skills and mindsets: Experience from Nigeria. International Journal of Business and Social Science, 5(9). DOI: https://ssrn.com/abstract=2655367

Rahman, M. J., & Jie, X. (2024). Fraud detection using fraud triangle theory: evidence from China. Journal of Financial Crime, 31(1), 101-118.

Rahmayani, A., & Widjaja, G. (2021). Fraud Prevention in the Management of COVID-19 Claims in Indonesia. *Psychology And Education*, *58*(5), 1553-6939. Retrieved from https://cloudfront.net/

Ridder, H. G. (2017). The theory contribution of case study research designs. *Business research*, *10*, 281-305.

Sánchez-Aguayo, M., Urquiza-Aguiar, L., & Estrada-Jiménez, J. (2021). Fraud detection using the fraud triangle theory and data mining techniques: A literature review. Computers, 10(10), 121.

Saunders, M. N., & Philip Lewis, A. T. (2019). *Research Methods For Business Students.* United Kingdom: Pearson.

Seifert, D. L. (2016). Microinsurance, Fraud, and Fraud Controls. *Journal of Forensic & Investigative Accounting volume 8*, 31-33. DOI: http://web.nacva.com/JFIA/Issues/JFIA-2016-3.pdf

Singh, R. (2015). Insurance sector regulation is a study of India's insurance regulatory and development authority. Retrieved from http://hdl.handle.net/10603/204874

Sujeewa, G. M. M., Yajid, M. S. A., Azam, S. M. F., & Dharmaratne, I. (2018). The new fraud triangle theory-integrating ethical values of employees. International Journal of Business, Economics and Law, 16(5), 52-57.

Tait, D. (2001). The Effectiveness of Criminal Sanctions: A Natural Experiment, Report 33/96-7 to the Criminology Research Council. *Division of Management and Technology, University of Canberra*.

Tajudeen, O. Y., & Abdur, R. B. (2009). Control of insurance fraud in Nigeria: an exploratory study (case study). *J. Financ. Crime*, *16*(4), 418-435. DOI: https://doi.org/10.1108/13590790910993744

Thirima, M. W. (2010). *Strategic responses to challenges of insurance regulation in Kenya by the Insurance Regulatory Authority* (Doctoral dissertation, University of Nairobi, Kenya).

Tomlinson, K. D. (2016). An examination of deterrence theory: Where do we stand. Fed. Probation, 80, 33.

Tomlinson, K. D. (2016). An examination of deterrence theory: Where do we stand? *Fed. Probation*, *80*, 33.

Turner, R. K., Schaafsma, M., Mee, L., Elliott, M., Burdon, D., Atkins, J. P., & Jickells, T. (2015). Conceptual framework. *Coastal zones ecosystem services: From science to values and decision making*, 11-40.

Varpio, L., Paradis, E., Uijtdehaage, S., & Young, M. (2020). The distinctions between theory, theoretical framework, and conceptual framework. *Academic Medicine*, *95*(7), 989-994. DOI: https://doi.org/10.1097/ACM.0000000000003075

Wan, W., Moffatt, S., Jones, C. & Weatherburn, D. (2012). The effect of arrest and imprisonment on crime. *Contemporary Issues in Crime and Justice, 158*. Retrieved from https://apo.org.au/node/28622

Wang, Y., & Xu, W. (2018). Leveraging deep learning with LDA-based text analytics to detect automobile insurance fraud. *Decision Support Systems*, *105*, 87-95. DOI: https://doi.org/10.1016/j.dss.2017.11.001

Wanjiru, J., & Wambua, L. (2016). An evaluation of the role played by the Insurance Regulatory Authority of Kenya in promoting governance of the Insurance Industry in Kenya. *Journal of Developing Country Studies*, *1*(1), 21-39. Retrieved from https://iprjb.org/journals/index.php/JDCS/article/view/22

Webel, B. (2009, August). Insurance Regulation: Issues, Background, and Legislation in the 111th Congress. Library of Congress, Congressional Research Service.

Wilcox, P. (2015). Routine activities, criminal opportunities, crime, and crime prevention. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (pp. 772-779). Elsevier Inc. DOI: 10.1016/B978-0-08-097086-8.45080-4

Williams, M. L. (2016). Guardians upon High: An application of routine Activities theory to online identity theft in Europe at the country and individual level. *British Journal of Criminology*, *56*(1), 21-48. DOI: https://doi.org/10.1093/bjc/azv011

Wood, D. (2002). Retribution, crime reduction, and the justification of punishment. *Oxford Journal of Legal Studies*, *22*(2), 301-321. DOI: https://doi.org/10.1093/ojls/22.2.301

Yuliandri; Handayani, Gusti Ayu Ketut Rachmi; Prasetyo, Teguh; Seregig, Ketut; Tegnan, Hilaire. (2018). Retributive Justice Theory and the Application of the Principle of Sentencing Proportionality in Indonesia. *J. Legal Ethical & Regul. Issues*, *21*, 1.

Yusuf, T. O., Ajemunigbohun, S. S., & Alli, G. N. (2017). A critical review of insurance claims management: A study of selected insurance companies in Nigeria. *SPOUDAI-Journal of Economics and Business*, *67*(2), 69-84. DOI: http://hdl.handle.net/10419/195195

APPENDICES

Appendix 1: List of Motor Insurance Companies

	List of Motor Vehicle Underwriters
1	AIG Kenya Insurance Company Ltd.
2	Allianz Insurance Company
3	Amaco
4	APA Insurance
5	Britam Kenya
6	Cannon General Insurance
7	CIC General Insurance
8	Corporate Insurance Company
9	Directline Assurance
10	Fidelity Shield Insurance
11	First Assurance
12	GA Insurance
13	Geminia Insurance
14	Heritage Insurance Company Ltd.
15	ICEA LION General Insurance
16	Intra Africa
17	Invesco Assurance Company Ltd.
18	Jubilee General Insurance
19	Kenindia Assurance Company
20	Kenya Orient General Insurance
21	Kenya Alliance Insurance
22	Madison General Insurance
23	Mayfair Insurance
24	Occidental Insurance Company
25	Pacis Insurance
26	MUA Insurance Company
27	Pioneer Insurance
28	Sanlam General Insurance
29	Takaful Insurance of Africa
30	Tausi Assurance Company
31	The Monarch Insurance Company
32	Trident Insurance Company
33	UAP Insurance Company
34	Xplico Insurance

(Association of Kenya Insurers, 2020)

Appendix 2. Introduction Letter

Ole Sangale Rd, Madaraka Estate,
P.O Box 59857 00200, Nairobi, Kenya.
Cell: +254 703 414/6/7, Twitter: @SBSKenya
Email: info@sbs.ac.ke or vist **www.sbs.strathmore.edu**

Strathmore UNIVERSITY
BUSINESS SCHOOL

12th September 2023

To Whom It May Concern.

Dear Sir/ Madam.

RE: FACILITATION OF RESEARCH – STANLEY KARANJA

This is to introduce Stanley Karanja who is a Master of Business Administration student at Strathmore University Business School, admission number MBA/94604/21. As part of our MBA Program, Stanley is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MBA course. To this effect, he would like to request for appropriate data from your organisation.

Stanley is undertaking a research paper on **"Establishing the Determinants and the Role of Fraud Risk Assessment and Regulatory Framework on Motor Insurance Product Pricing in Kenya"** The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

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

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

Yours sincerely,

Alois Njenga.
Manager – MBA Programs.
Strathmore University Business School.

Appendix 3. Questionnaire

The questionnaire aims to collect data on the determinants of the determinants of the legal system in curbing policyholder fraud in Kenya's motor insurance sector. This survey is being conducted as part of the fulfillment of the degree of Masters of Business Administration (MBA) at Strathmore University. Therefore, it is intended for educational purposes only. Your participation is voluntary, and the answers you provide shall remain private and confidential. No personally identifiable information will be collected, and the data you choose to provide in this study cannot be connected back to you.

Please read each question carefully and answer by ticking against the most appropriate answer.

SECTION A: BACKGROUND INFORMATION

1. Name of the insurance company (optional)……

2. Kindly indicate your gender

☐ Male ☐ Female

3. What age group do you belong to?

☐ Under 30 ☐ 31 – 40

☐ 41 – 50 ☐ 51 – 60

4. Position in the company

☐ Executive ☐ Senior management

☐ Middle management ☐ Supervisory

☐ Entry level

5. How many years have you worked for the company?

☐ Less than 5 years ☐ 6 – 10 years

☐ 11 – 15 years ☐ 16 – 20 years

SECTION B: POLICY HOLDER FRAUD

Please indicate the extent to which you agree/disagree with the following statements regarding policyholder fraud in the motor insurance sector, where 1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree.

	1	2	3	4	5
From my perspective, our organization experiences many incidents of motor insurance policyholders misrepresenting facts and information when reporting claims.					
In my personal opinion, our organization experiences increased cases of policyholders reporting false motor insurance claims.					
I am under the impression that the majority of the motor insurance claims our organization receives are exaggerated by policyholders.					
I believe that our organization experiences numerous cases of policyholders withholding, hiding, and/or tampering with evidence during investigations.					
I suppose that forgery and identity theft cases when applying for motor insurance coverage or reporting claims are rampant in our organization.					
Other_____					

SECTION C: THE INSURANCE ACT CAP 487

Please indicate the extent to which you agree/disagree with the following statements regarding the Insurance Act CAP 487 and its effectiveness in combating policyholder fraud, where 1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree.

	1	2	3	4	5
From my perspective, the regulation is effective in promoting and ensuring a fair, safe, and stable insurance market in Kenya.					
The Act is effective in administering, supervising, regulating, and controlling the insurance and reinsurance business in Kenya.					
The institutions established under the Act, such as the Insurance Regulatory Authority (IRA) and Insurance Fraud Investigation Unit (IFIU), effectively prevent policyholder fraud in the motor insurance industry.					
The enforcement of the provisions provided for in the Act deter policyholders from committing fraud and other insurance malpractices.					
The mechanisms provided for in the Act for claims settlement are sufficient in curbing policyholder fraud.					
Other_____					

SECTION D: GUIDELINES FOR CLAIMS MANAGEMENT

Please indicate the extent to which you agree/disagree with the following statements on the Guidelines on Claims Management as stipulated under the Insurance Act CAP 487 and their effectiveness in curbing policyholder fraud, where 1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree.

	1	2	3	4	5

From my perspective, in our organization, motor insurance policyholders report claims on time as provided for in the IRA's claims management guidelines.					
Our policyholders cooperate sufficiently in the car insurance claims investigation processes, as I see it. They preserve and provide all facts and information, in particular official documents, regarding the loss.					
I suppose our policyholders allow the organization to conduct inspections and assessments adequately before making settlements.					
I believe our organization has the IRA-recommended systems and controls in place to detect and prevent motor insurance fraud.					
In my view, our organization adheres to the IRA's guidelines for motor vehicle claims, including vehicle repair, accidents, write-offs, and disposal.					
Other_____					

SECTION E: THE PENAL CODE CAP 63

Please indicate the extent to which you agree/disagree with the following statements regarding the Penal Code CAP 63 in curbing and its effectiveness in curbing policyholder fraud, where 1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, and 5=Strongly Agree.

	1	2	3	4	5

I am of the strong opinion that the penal code is effective in retributing/punishing insurance fraudsters proportionately for the offence committed.					
I am under the impression that the penal code prescribes severe punishments to deter/discourage policyholders from committing fraudulent activities.					
In my personal opinion, the penal code is successful in incapacitating/depriving offenders of the capacity to recommit insurance fraud.					
In my view, the penal code ensures policyholders found guilty of fraud are effectively rehabilitated and transformed to prevent future criminal behaviour.					
The way I see it, the penal code's provisions for reparations are designed to ensure recovery from losses caused by fraudulent activities of policyholders.					
Other_____					

Thank you for taking your time to participate in this research.

Appendix 5. Ethical License

Strathmore UNIVERSITY

2nd February 2024

Mr Wangari Stanley,
stanley.karanja@strathmore.edu

Dear Mr Wangari,

RE: Assessing the Effectiveness of the Legal System in Curbing Policyholder Fraud in Kenya's Motor Insurance Sector

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC1946/23.** The approval period is from **2nd February 2024 to 1st February 2025.**
This approval is subject to compliance with the following requirements:

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

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

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

STRATHMORE UNIVERSITY INSTITUTIONAL SCIENTIFIC AND ETHICAL REVIEW COMMITTEE
(SU-ISERC)
02-Feb-2024
Email:ethicsreview@strathmore.edu
P.O BOX 59857-00200
NAIROBI-KENYA

Appendix 6. NACOSTI License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **739225**

Date of Issue: **13/February/2024**

RESEARCH LICENSE

This is to Certify that Mr.. Stanley Karanja Wangari of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: ASSESSING THE EFFECTIVENESS OF THE LEGAL SYSTEM IN CURBING POLICYHOLDER FRAUD IN KENYA'S MOTOR INSURANCE SECTOR for the period ending : 13/February/2025.

License No: **NACOSTI/P/24/33033**

739225

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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

See overleaf for conditions