Factors Determining Consumer Fraud Reporting in Kenya

Rodgers Anyanga Musamali
Private Sector Development Division
Kenya Institute for Public Policy
Research and Analysis

KIPPRA in Brief

The Kenya Institute for Public Policy Research and Analysis (KIPPRA) is an autonomous institute whose primary mission is to conduct public policy research leading to policy advice. KIPPRA's mission is to produce consistently high-quality analysis of key issues of public policy and to contribute to the achievement of national long-term development objectives by positively influencing the decision-making process. These goals are met through effective dissemination of recommendations resulting from analysis and by training policy analysts in the public sector. KIPPRA therefore produces a body of well-researched and documented information on public policy, and in the process assists in formulating long-term strategic perspectives. KIPPRA serves as a centralized source from which the Government and the private sector may obtain information and advice on public policy issues.

The Discussion Paper Series disseminates results and reflections from ongoing research activities of the Institute's programmes. The papers are internally refereed and are disseminated to inform and invoke debate on policy issues. Opinions expressed in the papers are entirely those of the authors and do not necessarily reflect the views of the Institute.

This paper is produced under the KIPPRA Young Professionals (YPs) programme. The programme targets young scholars from the public and private sector, who undertake an intensive one-year course on public policy research and analysis, and during which they write a research paper on a selected public policy issue, with supervision from senior researchers at the Institute.

THE AFRICAN CAPACITY BUILDING FOUNDATION

ThinkTank Initiative
Initiative Thinktank

Abstract

This study examines the factors determining consumer fraud reporting in Kenya. It presents cross-sectional evidence from data collected by the United Nations Office on Drugs and Crime and KIPPRA in 2009/2010. Descriptive results show that the most prevalent consumer fraud in Kenya is the proliferation of counterfeit goods. Using the logit model, the study finds that consumer fraud reporting is affected by the type of fraud, where proliferation of counterfeit goods is important, but negatively associated to reporting. This connotes that the more people are victimized, the more they fail to report to the police or other relevant authorities. This finding puts the fight against counterfeits into perspective, perhaps underpinning the important attention it needs to continue receiving from the government and other relevant institutions. More awareness by the Anti Counterfeit Agency (ACA) and other relevant stakeholders, improved ACA capacity, and better collaboration would enhance reporting and aid in curbing trade in counterfeits.

In addition, perception of victims towards the police' ability to control crime positively impacts the reporting behaviour of consumer fraud. Poor perception towards the police impacts consumer fraud reporting more significantly, hence improving how citizens perceive the police is important in fighting consumer fraud. An improved perception would create more confidence in the security systems and people would be willing to file reports on economic crimes such as consumer fraud. Initiatives of reforming the police to improve service delivery should be encouraged, while embracing their capacity building on consumer crimes to enhance reporting and response.
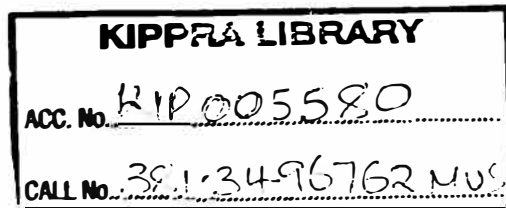
Abbreviations and Acronyms

|	
ACA	Anti-Counterfeit Agency
CAK	Competition Authority of Kenya
CCK	Communications Commission of Kenya
CMA	Capital Markets Authority
COFEK	Consumer Federation of Kenya
CUTS	Consumer Unity and Trust Society
ERC	Energy Regulatory Commission
ICVS	International Criminal Victimization Survey
IRA	Insurance Regulatory Authority
KAM	Kenya Association of Manufacturers
KEBS	Kenya Bureau of Standards
KCAA	Kenya Civil Aviation Authority
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KPMG	Klynveld Peat Marwick Goerdeler
KRA	Kenya Revenue Authority
UNICRI	United Nations Inter-regional Crime and Justice Research Institute
UNODC	United Nations Office on Drugs and Crime
WASREB	Water Services Regulatory Authority

Table of Contents

1.   Introduction

Fraud is knowing misrepresentation of the truth or concealment of material facts to induce the victim to act to their detriment (Holtfreter, Reisig and Blomberg, 2005). In general, a fraud is an act of dishonesty that leads to deceit of the victim with an intention of benefitting at the expense of the deceived. Fraud occurs in various forms such as bank fraud, which comprises forged documents (cheques, letters of credit, and letters of instruction); theft of cash and goods; procurement fraud that involves over invoicing and fabricated invoices; bribery; inaccuracy and non-declaration in customs and excise duty; tax evasion; forged cheque signatures; false insurance claims; tender and contract fraud; electronic funds transfer fraud; and identity fraud. The effects of any form of fraud are detrimental and result into revenue loss both to government and in form of taxes, while individuals and corporations lose income.

Consumer fraud is a form of economic crime that involves deception of the victim with the promise of goods, services or other benefits that are non-existent or are grossly misrepresented (Holtfreter, Reisig and Blomberg, 2005). There are various aspects of consumer fraud. According to the KPMG fraud survey of 2003, they include: ATM theft, check and credit card fraud, fraudulent classification of merchandise for customers, fraudulent merchandise returns, and identity fraud. The Kenya Crime Victimization Survey of 2010 categorizes consumer fraud into stolen or forged cheques, also referred to as financial fraud; fraudulent schemes such as pyramid schemes; payment for non-existent goods or services; and proliferation of counterfeit goods or provision of poor services. Consumer fraud may occur in construction or repair work (mainly through sub-standard work); in hotels or restaurants (through poor services); in supermarkets, shops and chemists (through counterfeit goods); and over the internet or e-commerce (through fraudulent transactions such as cyber crime). Other avenues may be through poor services in the medical, financial, and learning institutions. Issuance or obtaining of academic certificates through fraudulent means amounts to academic fraud, which is also a form of consumer fraud. In general, consumer fraud comprises a wide range of issues that affect and influence a consumer's daily operations.

According to the International Criminal Victimization Survey (ICVS) conducted in 2000 as per Figure 1.1, consumer fraud, though hoped to be less prevalent in Africa appears to be more common in the continent than any other place besides Eastern Europe (Figure 1.1). Nearly 30 per cent of Africans surveyed responded that they had been defrauded in the previous year. The higher levels in Europe could hypothetically be because most people are educated, therefore they tend

Figure 1.1: Survey respondents who suffered fraud in the previous year
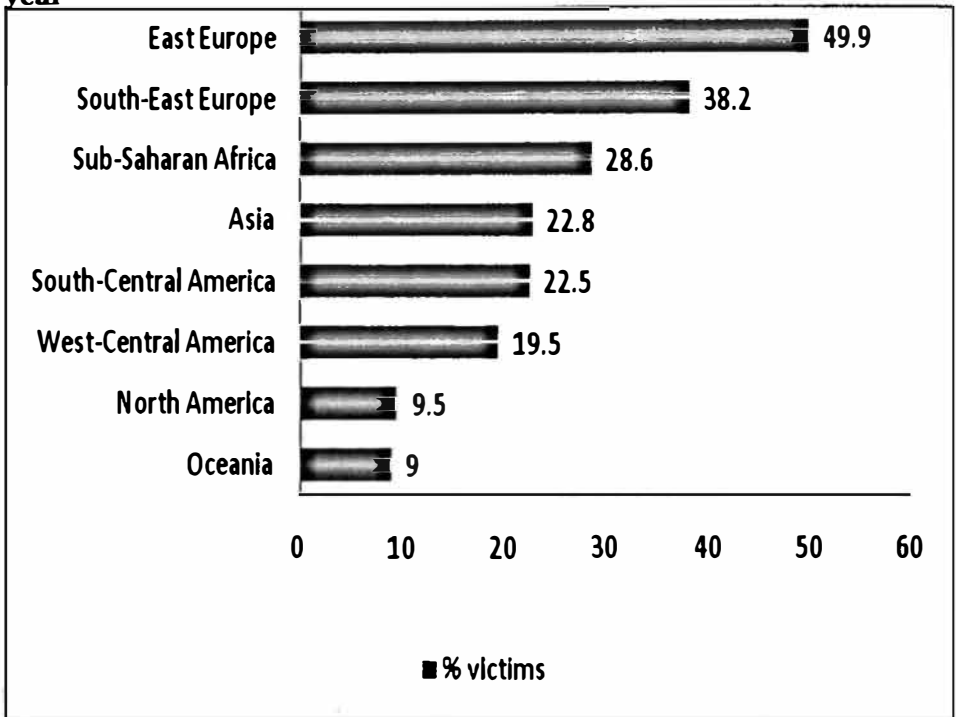
Source: *United Nations Interregional Crime and Justice Research Institute, 2000*

to be open and report[1] more consumer fraud to the authorities. The situation in Africa could imply that it is a dumping ground that is also characterized by low levels of education. The effects of consumer fraud are diverse, depending on the type of fraud, and may range from loss of income, road accidents, deaths, and ill health.

Financial fraud, for instance, affects both the consumers of financial services and the financial service providers. According to Deloitte (2013), close to Ksh 2.55 billion was lost in the region to fraud by banks and insurance companies in 2013. Experts from Deloitte estimate this figure to be much bigger than reported, since most institutions underreport to protect their reputation. Pyramid schemes victims in Kenya lost money, property, and developed chronic diseases resulting from depression. In some instances, people committed suicide because of the associated losses. The report by the taskforce on pyramid schemes in 2010 indicates that close to Ksh 8.2 billion was lost by victims in Kenya. These were, however,

---

[1] To lay a formal complaint to the authorities with intent to recover lost property, punish the offender, and prevent.

the estimated amounts in principle, without factoring in expected returns. The taskforce in its report admits that these were initial figures and that the loss could be much more, since all victims might not have come forth for registration by the time the report was released.

Additionally, proliferation of counterfeit products affects many sectors of the economy, mostly in motor vehicle assembly and its components sector; energy, electrical and electronic sector; food, beverages and tobacco sector; chemicals and allied sector; and pharmaceuticals and medical equipment sector (Kenya Association of Manufacturers - KAM, 2012). The implications of counterfeit goods in the market are insurmountable and range from loss of revenue for manufacturers; loss of revenue to the government from taxes; adverse health effects caused by counterfeit foodstuff; drugs and medical-related equipment; increased insecurity resulting from counterfeit locks; and increased road accidents caused by counterfeit motor vehicle parts such as tyres and brake pads. KAM estimated that in 2012, the East African region lost about US$ 500 million on counterfeit products. In addition, KAM estimates that more than 30 per cent of the medicine sold in the Kenyan market is counterfeit. Kenyan manufacturers lost over Ksh 30 billion per year, while the government loses Ksh 6 billion per year in revenue due to counterfeits.[2]

A lot of attention with respect to reporting, and enforcement and policy has focused on violence and property crimes victimizations (Mustaine and Tewskbury, 2000; Tseloni, 2000), while economic crimes against consumers have received little attention despite their adverse socio-economic effects. This could be explained by the unavailable (scanty) data on consumer-related crimes (Kusic, 1989; Moore and Mills 1990; Titus, Heinzelmann and Boyle, 1995). Another cause could be failure to report such cases by the affected people. While consumer fraud is clearly a public policy issue that requires attention from researchers and policy makers, the focus of legislation and victim assistance programmes has been on victims of violent and property crimes. The need to address issues of consumer fraud by policy makers is therefore paramount. To this front, the Kenyan situation has not been different; which validates the attempt of this research to profile a comprehensive understanding of consumer fraud victimization, and likely factors affecting reporting of these crimes in Kenya.

---

[2] Keynote address by Hon. Amos Wako, former Attorney General of Kenya, during the Third Global Conference on Combating Counterfeiting and Piracy at the International Conference Centre in Geneva, Switzerland on 30 January 2007. Available at http://www. ccapcongress.net/archives/Geneva/Files/Wako.pdf

1.1 Situational Analysis of Consumer Fraud in Kenya

Consumer fraud tends to represent acts of omission or commission against consumer protection attempts. Article 46 of the Constitution of Kenya provides an elaborate understanding of consumer rights under which consumer fraud activities undermine. Some of the rights articulated in the Constitution that enhance consumer protection include: right to goods and services of reasonable quality; right to information which aids the consumers to gain full benefits from goods and services, protection of health, safety and economic interests; and right to compensation for loss or injury arising from defects in goods and services. Apart from the Constitution, issues of consumer protection are also elaborated in the Competition Act of Kenya Cap. 504, which provides for consumer representation and protection with well outlined redress mechanisms in case of violations. Another regulatory milestone on issues of consumer protection in Kenya is the enactment of the Consumer Protection Act No. 46 of 2012 by the National Assembly. The Act guarantees the consumers fundamental rights protecting them from false and misleading practices. Other pieces of legislation that advocate for issues of consumer protection are Fertilizers and Animal Foodstuffs Act Cap. 345 that guarantees consumer safety by prohibiting the use of fertilizers and foodstuff that have either bone or other animal matter containing disease causing organisms in the production of fertilizers.

In addition, the Weights and Measures Act Cap. 513 safeguards consumers against sale of goods with inaccurate quantities; the Food, Drugs and Chemical Substances Act Cap. 254 guards against the sale of unwholesome, poisonous or adulterated food to consumers; the Trade Descriptions Act Cap. 505 enhances honesty in business deals and deters false or misleading statements regarding various aspects of goods that involve their identity, quantity, size and gauge; and method of production, among others. The Standards Act Cap. 496 aims to guard against substandard and unsafe products and is enforceable by the Kenya Bureau of Standards (KEBS); the Sale of Goods Act Cap. 31 outlines the provisions for a sales contract between consumers and sellers of goods and services; the Medical Practitioners and Dentists Act Cap. 253 ensures that those who engage in the medical practice are qualified and can be relied upon by the consumers; and the Economic Crimes Act of 2003 prohibits intentional falsification or manipulation of information in order to confer benefits to oneself or other person(s) through dishonesty, deceit or trickery. The Trademark Act Cap. 506 prohibits importation, making, selling or trading in goods that have been forged, replicated; or use a registered trademark that is likely to deceive or cause confusion to the consumers. Additional pieces of legislation include: the Customs and Excise Act Cap. 472, which prohibits misrepresentation of trademarks, business names or addresses;

the Pharmacy and Poisons Act Cap. 244, which ensures that drugs have correct ingredients and are not falsely advertised or mislabeled; while the Alcoholic Drinks Act No. 4 of 2010 prohibits sale of adulterated alcohol, and protects the consumers from deceptive inducements.

Under the financial sector, the Capital Markets Authority (CMA) through the Capital Markets Act Cap. 485A is mandated to undertake protection of investor interests to avoid financial losses arising from the failure of a licensed broker or dealer to meet their contractual obligations. On the other hand, the Insurance Act Cap. 487 mandates the Insurance Regulatory Authority to protect the interests of insurance policy holders and beneficiaries in any insurance contract. The Banking Act Cap. 488 establishes the Deposit Protection Fund Board whose principal objective is to provide a deposit insurance scheme for customers of member institutions. This is aimed at protecting the customers incase a member of the financial institution becomes insolvent and is liquidated. Consumer protection also takes place in the telecommunications sector with the Kenya Information and Communications Act Cap. 411A mandating the Communications Authority of Kenya (CA) to protect interests of all telecommunication users in terms of prices, quality and variety of services offered. The commission also maintains and promotes effective competition in the sector to ensure efficiency in service provision.

In the energy sector, the Energy Regulatory Commission (ERC) is established under the Energy Act Cap. 314 and is mandated to protect the interests of consumers, investors and other stakeholders, among other functions. The water Act Cap. 372 establishes the Water Services Regulatory Board (WASREB), which determines standards of water services and ensures efficient, affordable, and sustainable services to consumers, among other duties. A review of the Anti-Counterfeit Act Cap. 130A shows that the Anti-Counterfeit Agency (ACA) engages largely in consumer welfare and protection activities from combating counterfeits to creating awareness on matters of counterfeiting in Kenya, among others. The mandate of the agency is inclined to the intellectual property right holders. An investigation about a violation can only be instituted by the agency if an intellectual property holder reports it. The agency can also institute investigations into a violation, if it is necessary to do so. Generally, there is no incentive for the intellectual property holder to report a violation to the agency.

While the Anti-Counterfeit Act has a provision on consumer protection, it does not provide information on avenues of reporting or redressal for consumers affected by counterfeits. This is inconsistent with the Consumer Protection Act No. 46 of 2012, which identifies reporting as an important ingredient in enabling consumers get redress incase of any violation. ACA also lacks a national presence,

with offices located only in Nairobi and Mombasa; furthermore, the officers are incapacitated, with the Nairobi and Mombasa offices having six and two enforcement officers, respectively. This hinders reporting for the victims who might want to physically file a complaint. Lack of a national presence and adequate staffing are probable indicators that the agency lacks enough financial capacity to run its activities in the fight against the vice.

1.1.1 Statistics on consumer fraud in Kenya

While information about consumer fraud in Kenya is limited, data collected by the Kenya National Bureau of Statistics (KNBS) shows that economic crimes are on the rise. Figure 1.2 shows that economic crimes[3] under which consumer fraud falls have been on the increase from 1,400 cases reported to the authorities in 2005 to 3,400 in 2012. This represents a 142 per cent increment, which signals a worrying trend despite many cases going unreported.

Various regulatory institutions such as the Competition Authority of Kenya (CAK); the Communications Authority of Kenya (CA); the Kenya Bureau of Standards (KEBS); the Department of Weights and Measures; the Energy Regulatory Commission (ERC); the Capital Markets Authority (CMA); the

Figure 1.2: Consumer fraud in Kenya
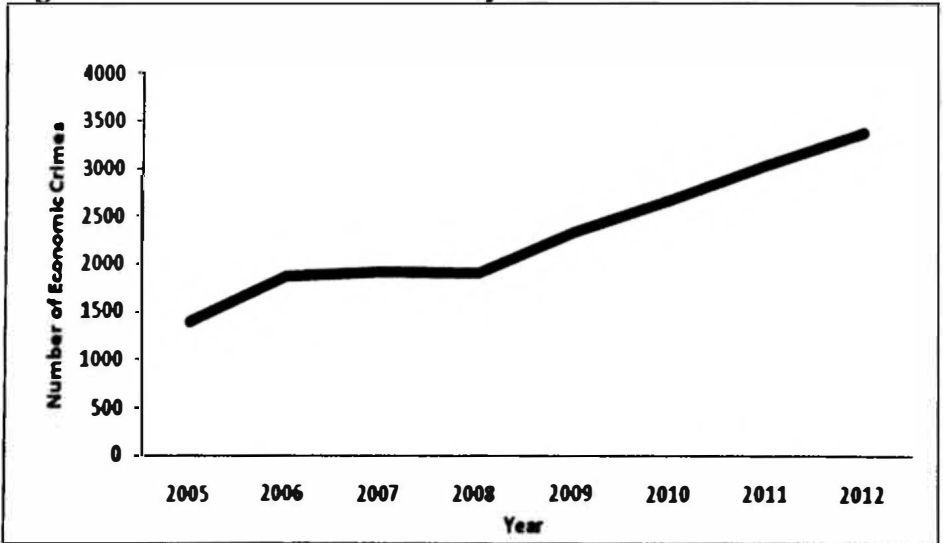
Source: KNBS (Various)

---

[3] Involves obtaining by false pretence, currency forgery, other fraud/forgery offenses and false accounting.

Insurance Regulatory Authority (IRA); the Water Services Regulatory Board (WASREB); and the Anti-Counterfeit Agency (ACA) engage themselves in consumer protection in their distinct fields despite consumer fraud trend being on the increase. The CAK is, however, mandated to promote and safeguard competition in the whole economy in order to protect consumers from unfair and misleading market conduct. It therefore provides a supervisory and coordination role to the other regulatory institutions. The regulatory agencies are also expected to liaise with CAK in advancing consumer protection issues and coordination amongst them.

Consumers' agenda is also driven by advocacy institutions such as the Consumer Information Network, Consumer Unity and Trust Society (CUTS), but largely through Consumer Federation of Kenya (COFEK). COFEK is a non-profit federation mainly committed to issues of consumer protection, education, research and anti-counterfeit campaigns. CUTS is an international non-governmental organization which supports issues of consumer protection and governance, trade and training development.

Despite the existence of a regulatory framework for articulating consumer protection issues, the levels of consumer fraud reporting are low in Kenya. According to CUTS (2012), there is lack of awareness on redressal mechanisms by the Kenyan consumers. In addition, the consumers lack confidence in seeking redress through the existing mechanisms on account of lack of information about how and whom to approach in lodging complaints.

1.2 Problem Statement

According to the victimization survey in Kenya of 2010, consumer fraud contributed 21.9 per cent of the total crimes committed, which represents the highest individual category. Out of this, only 2.8 per cent and 1.8 per cent of the cases were reported to the police and other authorities, respectively. The low level of reporting by victims is a cause of concern despite the social and economic adverse effects associated with consumer fraud. From the survey, the consumer frauds that were experienced include financial fraud, fraudulent schemes, provision of poor services, proliferation of counterfeit products in the market ,and other forms of consumer crimes. These crimes adversely affect the consumers through financial losses, social sufferings, health risks and road accidents.

According to UNODC (2005), all forms of crime do not only impose human suffering, but also negatively affect economic development through low investments. For instance, consumer fraud, through proliferation of counterfeit goods and services in the market. reduces investor and consumer confidence,

leads to loss of revenue and affects investments in business. Manufacturers experience reduced sales volumes, higher costs of production and depressed earnings since counterfeit products spoil the good name of genuine products (KAM, 2012). This will affect income generation and employment, which slows down economic growth and development of the economy. They also have negative effects on consumers' health and safety through treatment failures and deaths. Increased road accidents are also closely associated to counterfeited motor vehicle and motor cycle spares.

Consumers also feel deprived economically when they fail to get value for their money as a result of consumer fraud. In addition, people who have been victims of any form of crime tend to be vulnerable future targets of the same. Understanding the demographics of victims of consumer fraud, both at household and individual levels, and the factors that determine reporting of such crimes will provide policy recommendations to assist in dealing with the problem. The study also seeks to contribute towards consumer fraud literature in Kenya. There is little documented evidence on consumer fraud in Kenya and the East African region, with the few studies done by KPMG, Deloitte and Touche, and Price Waterhouse and Coopers (PWC) delving more on financial fraud (which is a component of consumer fraud) and organizational fraud, especially for financial institutions.

1.3   Objectives

The general objective of the study is to explain the factors determining reporting of consumer fraud victimization in Kenya. Specifically, the study seeks to:

(i)   Identify the most prevalent forms of consumer fraud and reporting behaviour in Kenya; and

(ii)   Determine the factors that affect reporting of consumer fraud victimization in Kenya.

1.4   Research Questions

The study seeks to answer the following questions:

(i)   What are the most prevalent forms of consumer fraud and reporting behaviour in Kenya?; and

ii)   What are the factors that determine reporting of consumer fraud victimization in Kenya?

1.5   Justification

The Constitution of Kenya, Article 46, under the Bill of Rights guarantees consumers fundamental rights and privileges that relate to reasonable quality of goods and services; information that relates to benefiting from goods and services; protection of health; safety and economic interests; and compensation for loss or injury that arises from defective goods and services. Subsequently, the consumer rights are enshrined in the Consumer Protection Act, No. 46 of 2012. Issues of fraud are also anchored in the Anti-Corruption and Economic Crimes Act of 2003, Cap. 65, which involves intentional falsification or manipulation of information in order to confer benefits to oneself or other person(s) through dishonesty, deceit or trickery. This study will therefore seek to provide information on consumer fraud victimization and the factors determining reporting of these crimes, which is generally not available in the official reported data on crime.

2.   Literature Review

2.1   Theoretical Literature

Reporting any form of crime to the police or any other authorities has evolved because of its importance in the criminal justice system. Studies suggest that those who report crime to the police are interested in safeguarding the criminal justice system (Black, 1971; Hindelang, 1976). This study will be based on the three correlates that influence crime reporting as postulated in Zhang, Messner and Liu (2007), which comprise the victim-specific variables that consist of individual or household attributes; incident-specific variables; and environment-specific variables. The victim-specific variables encompass demographic characteristics attributed to personal victimization, which include gender, race, age, and education (Hindelang and Gottfredson, 1976; Skogan, 1984). On the other hand, household characteristics include number of members in the household, and the income of the household. The incident-specific variables address the features of the criminal event, which may include injury, monetary loss and the victim-offender relationship (Hindelang and Gottfredson, 1976; Skogan, 1984). The environment-specific variables investigate majorly the effects of neighbourhood characteristics such as neighbourhood disadvantage and social cohesion (Baumer, 2002). Two theories that have been developed on issues of crime reporting are advanced in Zhang, Messner and Liu (2007). These theories, though at their infancy stages, have been tested empirically on property and personal-related crimes. The field of consumer fraud is grey as far as theoretical frameworks are concerned and, as a result, this study will use the theories developed in the areas of property and personal-related crimes in its attempt to establish the reasons behind the low levels of reporting of consumer fraud related crimes in Kenya.

2.1.1   General rational choice theory

This theory was advanced by Skogan (1984); Gottfredson and Gottfredson (1987) and Felson *et al.* (2002). According to this approach, the victims weigh the potential benefits and costs to be incurred when considering whether to file a complaint about a criminal incident with the police. In most cases, the benefits of filing a complaint include the victims drive to have the offenders brought to justice through punishment, protection of the victims, and potential victims of future victimization (Felson *et al.*, 2002). In the instances of property crimes, the benefits of reporting crimes are also based on the anticipation of recovery of stolen goods. People may, however, fear to report crimes because of fear of reprisal from the offenders, embarrassment at having been victimized, and fear of reprisal from others in groups where cooperation with governmental officials is looked

down upon (Zhang, Messner and Liu, 2007). Another challenge may be the long adjudication process that may discourage victims from reporting serious crimes (Felson *et al.*, 2002).

2.1.2 Sociological theory of the behaviour of law

This theory was advanced by Donald Black in 1976. According to this approach, law is defined as government social control which is interpreted to mean a call or visit to the police, regulatory agency or a law suit. The quantity of law varies across time and space (societies, regions, communities, neighbourhoods, families and relationships). Black's theory carries implications for each of the three types of correlates of reporting: victim-specific, incident-specific, and neighbourhood-specific. The theory brings forth various hypotheses that provide basis for the three correlates of reporting. The first hypothesis in the theory is that crime reporting is related to the socio-economic status of the victim. Under this hypothesis, lower ranks observe the law less than higher ranks, meaning that people of higher socio-economic status are likely to report crimes than those of low status.

The second hypothesis advanced by the theory is based on the relational distance on the quantity of law. Relational distance is said to be negatively related to law, whereby the closer the relationship between the victim and the offender, the less likely that the crime incident will be reported. On the other hand, the third hypothesis is about the 'radial location' concept where the level of social integration is positively related to law. This implies that people who are more integrated to mainstream society are more likely to report crimes than those who are less integrated. According to this hypothesis, employed people are more integrated in society than the unemployed people; married people are more integrated than the single people; hence employed people and married people are more likely to report crimes to the authorities than otherwise.

To be able to study the effects of neighbourhood disadvantage, Black (1976) brings forth two theories: social stratification and social control, which provide some rationale for this. Under social stratification, the author postulates that law varies with the proportion of the population that is more or less wealthy. This implies an effect of community socio-economic conditions on crime reporting. In this case, people of higher socio-economic standing are expected to report crimes more often than those of low wealth status. On the other hand, law varies inversely with social control, which is the normative aspect of social life. Law is said to be less important as a mechanism of social control since people are permitted to react to each other's conduct in a social context. The level of neighbourhood's social cohesion and informal control is, therefore, expected to be negatively related to crime reporting.

2.2   Empirical Literature

Empirical literature on factors determining consumer fraud reporting is limited, just as the theoretical literature, with a majority of the available information dwelling much on personal and property crimes. According to Goldberg and Nold (1980) from whose work this study borrows, the analytical framework advances that the probability of reporting burglary depends on the loss involved, property damaged and the cost of reporting. The study uses the logit model and establishes that reporting, which is a victim-specific self protection mechanism, deters burglary victimization. MacDonald (1998) follows the same analytical framework, while addressing under-reporting of property crime in Britain using the probit model and establishes that unemployment reduces the probability of reporting burglary. While these may not be directly related to this study, they provide a good analytical framework for consumer fraud crime reporting, hence are worth being reviewed.

Most of the studies on consumer fraud have focused on the factors determining victimization. Anderson (2006), while looking at the effect of demographics on identity theft in the United States of America using a multivariate probit regression, concludes that the risk of identity fraud generally appears to be related to demographics. Those with higher incomes are more likely to be victims of identity fraud. Older people, on the other hand, face a reduced risk of identity fraud victimization than younger people. A household with one adult and more children leads to increased identity fraud victimization. In addition, women are more likely to be victimized than men.

Ippolito and Mathios (1989), while studying health claims in advertising and labeling of the cereal market in the United States of America, using both probit and tobit regression methodologies, suggest that more education of the consumers amounts to increased awareness. Educated people have a lower risk of identity theft crime victimization. This is also supported by McGhee (1983); and Jinkook and Horacio (1997). McGhee (1983) establishes that higher educational attainment improves the coping abilities of the elderly people to fraud, while Jinkook and Horacio (1997), using ordered logit regression in the USA, determine that less educated consumers are more vulnerable to consumer fraud. A contrasting finding is advanced by Titus, Heinzelmann and Boyle (1995) who establishe that younger as well as educated people are victimized more often by personal fraud in the USA. This is surprising since education seems not to provide a protective cover expected from this type of crime, generally characterized as being a battle of the mind. Jinkook and Horacio (1997) also establish that age, marital status and income also influence consumer vulnerability.

Macdonald (1998) and Zhang, Messner and Liu (2007) establish that offense seriousness is a significant predictor of reporting for both property and personal crimes. The former uses the probit regression method from the British Crime Victimization survey data for the years 1994 and 1996, while the latter uses a logistic regression method from the criminal victimization data for Tanjin, China in 2004. Zhang, Messner and Liu (2007) also note that victimization experience, which is an individual-specific variable, has a negative effect on reporting robbery/ assault, when other factors are controlled. The negative effect could imply that the victims are less hesitant to turn to the police as victimization increases. On the other hand, according to Macdonald (1998), the probability of reporting decreases if the victim is currently unemployed.

Both regionally and locally, there is little documented evidence on consumer fraud, let alone on consumer-related crimes. According to Deloitte (2013), the most prevalent financial crimes in the East African region are cash theft, cheque fraud, and asset misappropriation. Most of these crimes[4] are committed as a result of weak internal control systems, which are incident-specific factors. On reporting, financial organizations prefer to understate figures on losses, and majorly deal with those crimes experienced internally without raising eyebrows to prevent negative effects of reduced investor confidence on their performance in the market.

---

[4] It is a form of consumer fraud.

3. Methodology

The main aim of this study is to determine the factors that inform reporting of consumer fraud victimization in Kenya. From literature, several methods have been used to analyze data on issues of consumer fraud-related crimes, which mainly include the probit and logit methodologies. This study utilizes a logit model to carry out the analysis because of the binary nature of the dependent variable based on the decision to report or not consumer fraud to the police or any other agency.

3.1 Conceptual Framework

The general rational choice theory as well as the sociological theory of the behaviour of law is advanced in this study. As a result, the individual-specific variables, the incident-specific variables, and the neighbourhood-specific variables are used in the conceptualization of consumer fraud reporting. The study therefore seeks to establish if these variables influence consumer fraud reporting in Kenya. According to the two theories, the drivers of reporting consumer fraud are the individual-specific variables, including gender, marital status, location, income, age, occupation and employment status. For instance, it is expected that males, people who are married, people living in urban areas, people who have a higher

Figure 3.1: Conceptual framework for consumer fraud reporting in Kenya
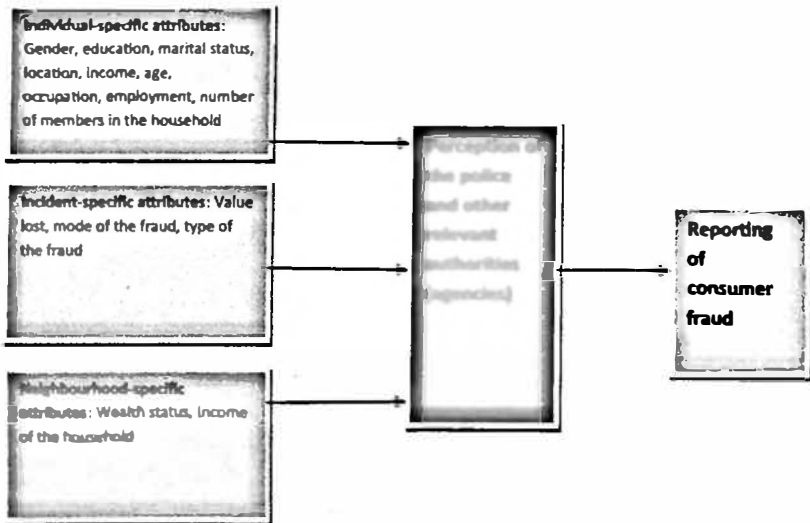
Source: Author's construct

income, older people, and employed people are expected to report consumer fraud.

In addition, incident-specific variables (mode of fraud, type of fraud, and the value lost) affect reporting behaviour of consumer fraud. For instance, the higher the value lost, the higher the probability consumer fraud will be reported to the authorities. Neighbourhood-specific status comprises of the wealth status of the victim; the wealthier the person, the higher the likelihood that a consumer fraud will be reported to the authorities and vice versa.

Perception towards the police and other relevant agencies affects reporting behaviour of consumer fraud. It is expected that both the incident-specific, individual-specific, and neighbourhood-specific correlates influence the perception towards the police and other relevant agencies, which influence whether to report consumer fraud or not. A negative perception leads to lack of confidence in the police and other relevant agencies, which hinders consumer fraud reporting.

3.2   Model Specification

Goldberg and Nold (1980) model is on the household's probability of reporting a crime as a function of the loss involved, property damage, and the cost of reporting. Crime reporting may vary depending on individual attributes, experiences and personal circumstances specific to the incident. According to MacDonald (1998), the model can be represented as follows:

Pr(reporting)=f(incident involves loss, socio-economic factors, incident specific factors, attitudes to the police)...(1)

This can be expressed as:

$$Pr(reporting\ CF)=\beta_o+\beta_1 GEN_i+\beta_2 LOC_i+\beta_3 EDU_i+\beta_4 MAR_i+\beta_5 TYP_i+\beta_6 VAL_i+\beta_7 PER_i$$
$$+\beta_8 NOH_i+\beta_9 INC_i+\beta_{10} OCC_i+\beta_{11} AGG_i+\varepsilon_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(2)$$

where ε_i represents the error term and CF is consumer fraud.

3.3   Estimation Technique

An individual's tendency to report a crime is not observable; rather the reporting outcome for each specific incident, which is a binary outcome is observed: either reported or not. These can be estimated through logit, probit or linear probability model (LPM). This study adopts a logit model in identifying the factors that determine reporting of consumer fraud victimization in Kenya. While the study takes cognizance of the fact that either LPM or probit models could be used in the

analysis, there are certain weaknesses associated with the two. For instance, LPM, which is similar to ordinary least squares regression though applied to a binary dependent variable, has several weaknesses. It has a heteroskedastic error term that leads to biased estimates, and its fitted probabilities may lie outside the 0-1 range. The preference for the logit model follows the assumption of the distribution of the error term, which follows a logistic distribution. The distribution of the error term for a probit model follows a normal distribution. Both distributions of the error term are similar in shape, though the logistic distribution has a heavier tail (higher kurtosis) than the normal distribution, which increases the robustness of the analysis. Since the dependant variable is binary in nature, the probability of reporting a consumer fraud crime to either the police or any other agents is coded as 1 or 0 otherwise. It is convenient to use and express the cumulative density function (cdf) and probability density function (pdf), respectively, of a logit distribution. The pdf is expressed as:

$$\lambda(l) = \frac{e^{-l}}{(1+e^{-l})^{2}} - \infty < l < \infty \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots(3)$$

The cdf as:

$$p = p(l \le x_i'\beta) = \frac{1}{1+e^{-(x_i'\beta)}} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots(4)$$

then $\Pr[y_i=1/x_i]$ and $\Pr[y_i=0/x_i]$, which represent whether a consumer fraud is reported to the police or other authorities and otherwise, respectively, can be expressed as:

$$p = [\Pr(y_i = 1/x_i] = \Lambda x'\beta_i) = \frac{\exp(x_i'\beta)}{1+e(x_i'\beta)} \quad \text{and} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots(5)$$

$$1 - p = \Pr[y_i = 0/x_i] = 1 - \Lambda(x'\beta_i) = 1 - \frac{\exp(x_i'\beta)}{1+\exp(x_i'\beta)} = \frac{1}{1+\exp(x_i'\beta)} \quad \dots\dots\dots\dots\dots(6)$$

Equation (5) represents the probability of reporting a consumer fraud to the police or other authorities by a victim, while equation (6) represents the probability of not reporting.

The marginal effects are derived from equation (5), where interpretation for both sign and significance is important. Equation (5) is differentiated to give the marginal effects as:

$$\frac{\partial p\left[\frac{y_i}{x_i}\right]}{\partial x_i} = \{\Lambda(x'\beta_i)[1-\Lambda(x'\beta_i)]\}\beta_i \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots(7)$$

The odds ratio is given by , $\frac{p_i}{1-p_i} = \exp(x_i'\beta)$ while the log odds ratio or logit is given by:

$$\ln\frac{p_i}{1-p_i} = \exp(x_i'\beta) \quad\text{...(8)}$$

Equation (8) can also be expressed as

$$\ln\frac{p_i}{1-p_i} = \beta_1 + \beta_2 x_i' \quad\text{...(9)}$$

where β_1, β_2 represent parametre vectors, while x_i' represents explanatory variables that are individual-specific, incident-specific and neighbourhood-specific. Equation (9) can be transformed into the following using the explanatory variables in equation (2):

$$\ln\left[\frac{\Pr(reportCF = 1)}{\Pr(reportCF = 0)}\right]$$

$$=\beta_o+\beta_1 GEN_i+\beta_2 LOC_i+\beta_3 EDU_i+\beta_4 MAR_i+\beta_5 TYP_i+\beta_6 VAL_i+\beta_7 PER_i+\beta_8 NOH_i+\beta_9 INC_i$$
$$+\beta_{10}OCC_i+\beta_{11}AGG_i \quad\text{..(10)}$$

The logit model is a fully linear function of the explanatory variables, x, and uses the maximum likelihood estimation technique, which maximizes the likelihood of an event occurring.

3.4 Data and Variables Specification

The study uses cross-sectional data obtained from the Crime Victimization Survey conducted by KIPPRA in collaboration with the United Nations Office on Drugs and Crime in 2010. This was a national survey targeting a sample of 3,000 households. The individuals were accessed and interviewed. The sampling process was carried out by the Kenya National Bureau of Statistics (KNBS) using the National Sample Survey and Evaluation Programme (NASSEP IV). An initial sample of 162 rural and 138 urban clusters spread in all the 67 districts in Kenya was drawn. The households were sampled systematically, with a random start. No replacement was to be allowed for 'away' or relocated households. This was because the specific households were drawn using the name and number of household as in the frame.

However, due to cost implications, the districts were narrowed down to 30, with 10 households from each cluster. Consumer fraud contributes to about 21.9 per cent of the total crimes, making it the largest individual category of crimes committed against persons.

Table 3.1: Definition and measurement of variables

Variable	Description of variable	Measurement of variable	Apriori expectation
Report	Reporting of consumer fraud to the police or any other agency	Dichotomized variable representing whether a consumer fraud victim reports to either the police or any other agency (1) or otherwise (0)	-
GEN	Gender of the respondent	Dummy variable (1 if male, 0 otherwise)	Indeterminate
LOC	Location of the respondent	Categorical variable (1 if rural, 2 if urban)	Indeterminate
EDU	Education level of the respondent	Categorical	Positive relationship: higher education means likelihood to report
MAR	Marital status of the respondent	Categorical	Indeterminate
TYP	Type of consumer fraud that the respondent experienced	Categorical	Positive
VAL	Value lost by the respondent in Kenya shillings	Continuous	Positive
PER	Perception of the victims about the police' ability to control crime	Categorical	Positive
NOH	Number of members in the household	Continuous	Indeterminate
INC	Income of the victim	Continuous	Positive
OCC	Employment status of the victim	Categorical	Positive
AGG	Age group of the victim	Continuous	Indeterminate

4. Results and Discussions

4.1 Descriptive Statistics

The population distribution in the sample set for people who experienced consumer fraud is almost uniform as far as gender is concerned, with 57 per cent females and 43 per cent males. For the people who experienced consumer fraud, 29 per cent have no education or have not completed primary education, hence do not have a primary school certificate; 24 per cent have primary school level of education; 32 per cent have secondary school education; while 15 per cent have college or university education. Fifty one (51) per cent of the people in the sample who experienced consumer fraud live in urban areas, while 49 per cent are in rural areas.

The most common consumer fraud in Kenya is the proliferation of counterfeit[5] goods or provision of poor services, which mainly occurs in shops. This accounts for 65.2 per cent of the total consumer fraud. Fraudulent schemes and other fraud account for 19.9 per cent, while payment for non-existent goods or services and stolen financial instruments or forged cheques accounts for 14.9 per cent of the total consumer fraud. From the sample of victims, 69 per cent lost between Ksh 0-1,000, 26 per cent between Ksh 1,001-10,000, 3.4 per cent Ksh 10,001-100,000 and 0.9 per cent Ksh 100,001-1,500,000. Out of those people who experienced consumer fraud, 13.7 per cent perceive the police to be doing a very good job, 41.9 per cent believe they are doing a fairly good job, 24.8 per cent believe it is a fairly poor job, and 19.6 believe they are doing a very poor job.

From the sample of consumer fraud victims, 94.4 per cent had incomes of between Ksh 0-<50,000; 2.5 per cent Ksh 50,000-<100,000; and 3.1 per cent Ksh>100,000. On marital status, 67.2 per cent represented the married people or people living as couples, 23.3 per cent were single, while 9.5 per cent were widowed, divorced or separated. Of the victims, 32.9 per cent had small families of between 1-3 family members, 49.7 per cent had medium family of 4-6 members, while 17.4 per cent had large families of 7-10 members.

From the data, proliferation of counterfeit goods or provision of poor services are mostly reported to the authorities compared to other types of consumer fraud, accounting for 38.5 per cent of the reported consumer crimes. This could be due to the fact that most consumer fraud occurring in Kenya mainly involves counterfeit products and services. Reporting of fraudulent schemes accounts for 26.92 per cent; this might have been influenced by pyramid schemes that existed in the country in 2006-2007. A lot of focus was placed on how to address the problem,

---

[5] Referred to as fake goods in the data source.

especially from the National Assembly by establishing a taskforce on pyramid schemes to collect views from the victims across the country. This might have influenced the reporting of this form of consumer fraud. Payment for non-existent goods or services accounts for 23.08 per cent of the reported consumer crimes, while reporting of stolen financial instruments and forged cheques accounts for 11.54 per cent.

The sample data on consumer fraud also shows that 43.8 per cent of the victims were employed; 10.9 per cent were unemployed or looking for work; 23.4 per cent were homekeepers, retirees or disabled; and 21.9 per cent were either going to school or college. Additionally, 23.8 per cent of the sampled population that experienced consumer fraud was below 25 years in age; 32.9 per cent were in the 26-35 years age group; 31.8 per cent were in the 36-55 years age group; and 11.5 per cent were above 55 years.

4.2   Diagnostic Tests

Reporting of consumer fraud to either the police or other agencies was modeled against eleven (11) explanatory variables that influence reporting of consumer fraud. The underlying hypothesis is that level of education, the value lost, perception of police about controlling crime, and victim's income influence the decision to report a consumer fraud. The logistic regression model was evaluated

Table 4.1: Test for multicollinearity

Model		Collinearity statistics	
	Variable	VIF	1/VIF (Tolerance)
	EDU	1.28	0.781
	LOC	1.21	0.828
	VAL	1.14	0.874
	INC	1.12	0.894
	TYP	1.04	0.959
	GEN	1.17	0.856
	NOH	1.07	0.935
	MAR	1.46	0.686
	PER	1.06	0.94
	OCC	1.09	0.918
	AGG	1.42	0.703

for muliticollinearity using the variance inflation factor (VIF)[6] as reported in Table 4.1, and heteroskedasticity using the White test[7] (Table 4.2). The variance inflation factor indicated that collinearity among the analyzed variables was not high. The null hypothesis for homoskedasticity as per Table 4.2 was rejected, meaning the model contained the problem of heteroskedasticity. This was addressed by use of robust standard errors.

4.3   Estimation Results

From Table 4.3, the level of education of the consumer does not seem to influence reporting consumer fraud. This, even though surprising, is consistent with the findings of Titus, Heinzelmann and Boyle (1995) on issues of personal fraud. This means that both educated and non-educated people stand a chance of failing to report consumer fraud once they become victims. Income levels of the victims do not influence reporting of consumer fraud, which is not consistent with the social stratification strand in Black's theory of the behaviour of law. The victims who are well of as far as income levels are concerned do not seem to report consumer fraud more often than their counterparts who are of lesser income levels. Marital status, which is postulated in the third hypothesis of Black's sociological theory of law under the radial location concept as a determining factor of crime reporting, fails to be important. Other independent variables that are not important include:

Table 4.2: White heteroskedasticity test

White's test for H_o: homoskedasticity

Against H_a: unrestricted heteroskedasticity

Chi2(75) = 106.62

Prob > chi^2 = 0.0096

Cameron & Trivedi's decomposition of IM-test

Source	Chi^2	df	P
Heteroskedasticity	106.6	75	0.01
Skewness	61.91	11	0
Kurtosis	31.51	1	0
Total	200.1	87	0

---

[6] The variance inflation factor measures the impact of collinearity among independent variables in a regression model on the precision of estimation. It shows how the variance of an estimator is inflated by the presence of multicollinearity. A variance inflation factor will be 1, if there is no collinearity between any two independent variables, while it will rise as the extent of collinearity increases, with a value of 10 being considered high. A tolerance value of less than 0.1 is comparable to a VIF of 10.

[7] Since p=0.0024 and < than 0.05, the null hypothesis of homoskedasticity is rejected.

Table 4.3: Estimation results

Variables	Marginal effects	z-values	Odds ratio	z-values
GEN (reference group is female)				
Male	-0.0056059	-0.64	0.7168431	-0.65
LOC (reference group is urban)				
Rural	0.011874	1.28	1.973972	1.24
EDU (reference group is no education/incomplete primary)				
Primary	-0.0075588	-0.84	0.611303	-0.76
Secondary	-0.0063293	-0.65	0.6755076	-0.61
University	-0.0046019	-0.45	0.7434659	-0.42
TYP (reference group is paid for non-existent services/goods or stolen forged/forged cheque				
Given fake goods/poor services	-0.0351567**	-2	0.218075***	-2.69
Fraudulent schemes and others	-0.0084102	-0.98	0.5659001	-0.96
VAL (reference group is 0-1000)				
1,001-10,000	0.0232905*	1.73	2.805716**	1.98
10,001-100,000	0.1231821	1.49	9.732772***	2.95
100,001-1,500,000	0.6655339 ***	3.21	126.3791***	4.92
PER (reference group is very good job)				
Fairly good job	0.0225064	0.78	3.127203	0.94
Fairly poor job	0.0433323	0.85	4.910864	1.35
Very poor job	0.1099935	1.11	12.84388**	2.19
INC (reference group is 0-<50000)				
50,000-<100,000	-0.0108165	-1.49	0.3915682	-1.07
>=100,000				
MAR (reference group is single)				
Married/living as a couple	-0.0022492	-0.19	0.8798812	-0.2
Divorced/separated or widow/widowed	-0.0144881	-1.54	0.2627063	-1.04
NOH (reference group is 1 to 3)				
4 to 6 (medium)	0.0101909	0.98	1.794272	1.11
7 to 10 (large)	-0.0025396	0.17	1.151704	0.18
OCC (reference group is working)				
Looking for work (unemployed)	0.0091705	0.52	1.5656	0.62
Keeping home/retired/disabled	-0.0127575	-1.44	0.4044933	-1.49
Going to school /college or other	-0.0106147	-1.52	0.4781848	-1.22
AGG (reference group is <=25yrs)				
26-35yrs	0.0136711	0.9	2.007201	0.95
36-55yrs	0.0033536	0.22	1.207642	0.22
>55yrs	0.0421268	1.12	3.99645*	1.77
Number of Observations (N)	624		624	
Pseudo R^2	0.2419		0.2419	

*Significant level at 10%; ** Significant level at 5%; *** Significant level at 1%

location, gender, employment status and the size of the family in terms of the number of household members.

The type of consumer fraud appears to influence the reporting behaviour, specifically fraud that occurs with respect to counterfeit products or provision of poor services. From the results, the direction of the relationship between reporting and the type of consumer fraud is negative, implying a marginal change in type of crime as far as counterfeits or poor services are concerned. This will lead to a decrease in the rate of consumer fraud reporting to the authorities. The result is statistically significant at 5 per cent, with the marginal effects showing that an increase in the proliferation of fake goods in the market by one unit reduces the probability of reporting consumer fraud to the authorities by 3.5 per cent from the mean (0.6458). This finding, apart from being consistent with the incident-specific correlate of reporting crime, also lends insightful information to combat counterfeits in the country, with results showing that the more the people become victims, the less they are likely to report such crimes to the authorities.

Value lost by the victims also positively impacts the reporting behaviour, especially with victims who lose large sums of money in consumer fraud likely to report more than those who lose less significant sums. The result is statistically significant at 1 per cent, with the marginal effects showing that an increase in the amount of money lost in consumer fraud by one unit will increase the probability of reporting the crime by 67 per cent from the mean (0.0096). This finding is in agreement with the incident-specific correlate, with the value lost in a consumer fraud being a determining factor as to whether the crime will be reported or not. It also agrees with the findings of Macdonald (1998) and Zhang. Messner and Liu (2007) who establish that offense seriousness is a significant predictor of reporting for both property and personal crimes.

The perception of the victims to the police and other authorities positively impacts the reporting behaviour of consumer fraud. However, the poor perception of the victims towards the police and other authorities seems to impact consumer fraud reporting more and at 5 per cent significance level. The marginal effects are, however, positive but insignificant. On examining the odds ratio, the conclusion is that for every change in perception about the police and other authorities' performance in combating any form of crime, the odds of reporting crime improves by 12.8 per cent, holding other factors constant. This finding is consistent with Goldberg and Nold (1980) modeling of crime reporting as a function of the attitudes to the police. The finding, therefore, lends a lot of credence to the government efforts of reforming security agencies to tackle crimes effectively. These reforms of the security agencies, specifically the police, will increase citizens' confidence in the systems and improve levels of consumer fraud reporting. The

age group of the victim is also important in explaining consumer fraud reporting on examining the odds ratio. People who are above 56 years have improved odds of reporting consumer fraud by 4 per cent, holding other factors constant. This could be attributed to the fact that older people are wiser and careful in decision making than younger ones. For instance, older people are careful not to engage in risky investment ventures in anticipation of higher returns compared to the younger generations who have a higher affinity for quick money and shortcuts, hence becoming victims of consumer fraud.

5. Conclusion and Policy Recommendations

5.1 Conclusion

There is limited research on consumer fraud in Kenya, despite the negative socio-economic costs associated with it. Victims are less interested in reporting these crimes to the authorities as per the findings of the crime victimization survey of 2010 in Kenya. This research is an attempt to put this subject into perspective and understand why victims do not report crimes to the authorities. Demographic, incident-specific and neighbourhood indicators are examined to determine their effects on low reporting of consumer fraud.

Descriptive results show that the most common consumer fraud in Kenya is the proliferation of counterfeit goods or provision of poor services, which mainly occur in shops. The influx of counterfeit goods is, therefore, a policy challenge and the war against them by the government must be sustained, if not improved, since they are most prevalent and poses serious dangers as relates to consumer fraud. In addition, the study establishes that proliferation of counterfeit goods is the crime that is most reported to the security agencies though, in total, reporting is low. This could be attributed to the fact that most of the consumer fraud experienced by victims in the survey comprised of proliferation of counterfeit goods. Other consumer fraud experienced as per the survey include fraudulent schemes; payment of non-existent goods or services; and stolen financial instruments and forged cheques.

Results from the study show that the type of consumer fraud (specifically, counterfeit products or provision of poor services) influences the reporting behaviour of victims. Victims who buy counterfeits repeatedly or receive poor services do not seem to be interested in reporting it to the authorities. This may imply lack of awareness on the rights and privileges of consumers when faced with counterfeits. The more they experience these crimes, the more they fail to report. This permissive attitude from the victims acts as a deterrence to the fight against counterfeits in the country. While levels of consumer awareness on what constitutes counterfeits may be a concern, the survey done in 2010 shows that most consumers were in a position to distinguish between counterfeits and non-counterfeits. More sensitization can be done to increase awareness amongst the consumers. High poverty levels may also be a probable indicator of low levels of reporting. Campaigns against counterfeits need to be stepped up both by government agencies such as ACA, KRA and KEBS; and private and non-governmental organizations involved in consumer protection and advocacy. The awareness campaigns should also place emphasis on the reporting avenues, where and how to report based on the type of offence.

Perception about police performance in controlling crime influences the reporting of consumer fraud by victims, with those who believe they are doing a poor job less likely to report consumer fraud to them. This implies that there is need to improve confidence in the police service to foster crime reporting. A negative perception about the police deters consumer fraud (crime) reporting and hinders the fight against the vice.

5.2   Policy Recommendations

The study findings suggest that the most prevalent consumer fraud in Kenya involves proliferation of counterfeit goods, and provision of poor service to clients. This brings into perspective the fact that the fight against counterfeits remains a major challenge in the country. This fight should therefore be sustained in momentum, if not improved, to deal with the growing trend of counterfeiting. To sustain this war, there is need to review the Anti- Counterfeit Agency (ACA) Act in order to address issues of consumer reporting. This will create consistency with the Consumer Protection Act No. 46 of 2012, which identifies reporting as an important ingredient in enabling consumers get redress incase of any violation. Second, the ACA should be strengthened in terms of capacity. More financial resources should be allocated to the agency to enable it hire more personnel and widen its presence across the country. A widened presence will ease consumer access to the ACA officers and enhance reporting.

Third, the agency needs to carry out awareness campaigns through the available communication channels such as the radio, television sets, newspapers, posters and bill boards, internet, and mobile phones. The campaigns should be directed at creating awareness on: ability for the consumer to differentiate counterfeits from original goods, the dangers exposed in consuming counterfeits, and the reporting mechanisms available in case of victimization. Herein, the agency should embrace a digital reporting platform through the mobile phones and the internet for consumers. The awareness should also emphasize how and where to report based on the type of offence; for instance, counterfeiting should be reported to the agency, while issues of false advertising should be reported to the CAK.

Fourthly, there is need for collaboration between various agencies engaged in the fight against counterfeits. These agencies include: the Kenya Bureau of Standards, the Kenya Revenue Authority, the Anti-Counterfeit Agency, and the Pharmacy and Poisons Board. These multiple agencies can be harmonized by establishing a common complaints platform. This can either be an internet or short message service platform that will enhance intelligence gathering, sharing and enforcement.

Similarly, the study finds that negative perception by the public towards the police influences the reporting behaviour of the victims of consumer fraud. Genuine attempts to improve service delivery by the police to the populace will improve public perception and confidence.The ongoing police reforms should, therefore, be sustained and fast-tracked to improve reporting of crime, which includes consumer fraud. There is also need to build the capacity of police on consumer crimes to facilitate response and enhance reporting.

5.3   Study Limitations

The questionnaire did not expressly contain questions on why consumer fraud was not reported to the police or any other agencies. In addition, the choice to report to the other agencies and not to the police, or to report to the police and not the other agencies needed to be interrogated further from the questionnaire. The aspects of consumer fraud that were considered in the study were limited to those highlighted in the survey. The study acknowledges that the subject matter is wide and more issues can be considered using comprehensive data.

5.4   Future Research

A deeper understanding of these issues will provide clear direction to policy implementers and future research encompassing the issues that should be undertaken. Future research should be carried out using new data capturing developments and evolution of consumer fraud, considering technological advancements in the digital space.

References

Anderson, B. A. (2006), "Who Are the Victims of Identity Theft? The Effects of Demographics," *Journal of Public Policy and Marketing*, 25(2), 160-171.

Baumer, E. (2002), "Neighborhood Disadvantage and Police Notification by Victims of Violence," *Criminology*, 40, 579–616.

Black, D. J. (1971), "The Social Organization of Arrest," *Stanford Law Review*, 23, 1087–111.

Black, D. J. (1976), *The Behaviour of Law*, New York: Academic Press.

Consumer Unity and Trust Society International (2012), *State of the Kenyan Consumer Report*, Nairobi.

Deloitte (2013), Financial Crimes Survey Report: Where is the Exposure? East Africa.

Felson, R. B., Messner, S. F., Hoskin, A. and Deane, G. (2002), "Reasons for Reporting and Not Reporting Violence to the Police," *Criminology*, 40, 617-648.

Goldberg, I. and Nold, F. C. (1980), "Does Reporting Deter Burglars? An Empirical Analysis of Risk and Return in Crime," *Review of Economics and Statistics*, 62, 424-431.

Gottfredson, M. R. and Gottfredson, D. M. (1987), *Decision Making in Criminal Justice: Towards the Rational Exercise of Discretion* (2nd ed.), New York: Plenum Press.

Government of Kenya (Various), Laws of Kenya, Nairobi.

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

Greene, W. H. (2002), *Econometric Analysis* (5th ed.), New York: Macmillan.

Hindelang, M. J. (1976), Criminal Victimization in Eight American Cities: A Descriptive Analysis of Common Theft and Assault, Cambridge, MA: Balinger.

Hindelang, M. J. and Gottfredson, M. (1976), The Victim's Decision Not to Invoke the Criminal Justice Process, Criminal Justice and the Victim (William F. McDonald), Beverly Hills, CA: Sage.

Holtfreter, K., Reisig, M. D. and Blomberg, T. G. (2005), "Consumer Fraud Victimization: An Empirical Study," *Thomas L. Rev.*, 18, 791.

Ippolito, P. M. and Mathios, D. A. (1989), *Health Claims in Advertising and Labeling: A Study of the Cereal Market*, FTC: Bureau of Economics Staff Report.

Jinkook, L. and Horacio, S. B. (1997), "Consumer Vulnerability to Fraud: Influencing Factors," *Journal of Consumer Affairs*, 31(1), 70-89.

Kenya Association of Manufacturers (2012), The Study to Determine the Severity of the Counterfeit Problem in Kenya, Nairobi.

Kenya National Bureau of Statistics (Various), Statistical Abstract, Nairobi: Government Printer.

KIPPRA and UNODC (2010), Victimization Survey in Kenya, Nairobi: Kenya Institute for Public Policy Research and Analysis.

KPMG (2003), Fraud Survey (Forensic).

Kusic, J. (1989), *White Collar Crime Prevention Handbook*, Vienna, VA: White Collar Crime.

Macdonald, Z. (1998), "The Under Reporting of Property Crime: A Micro Econometric Analysis," *in Discussion Paper on Public Sector Economics*, Department of Economics, University of Leicester.

McGhee, J. L. (1983), "Vulnerability of Elderly Consumers," *International Journal of Aging and Human Development*, 17(3), 223-246.

Moore, E. and Mills, M. (1990), "The Neglected Victims and Unexamined Costs of White Collar Crime," *Crime and Deliquency*, 36, 408-418.

Mustaine, E. E. and Tewksbury, R. A. (2000), "Comparing the Lifestyles of Victims, Offenders, and Victim-Offenders: A Routine Activity Theory Assessment of Similarities and Differences for Criminal Incident Offenders," *Sociological Focus*, 33(3), 339–362.

PWC (2014), Economic Crime: A Threat to Business Processes (Global Economic Crime Survey: Kenya Report), Price Waterhouse Coopers.

Pyramid Schemes Commission (2010), Nyenze Taskforce Report on Pyramid Schemes, Nairobi.

Skogan, W. G. (1984), "Reporting Crime to the Police: The Status of World Research," *Journal of Research in Crime and Delinquency*, 21, 113-137.

Titus, R. M., Heinzelmann, F. and Boyle, J. M. (1995), "Victimization of Persons by Fraud," *Crime and Delinquency*, 41(1), 54-72.

Tseloni, A. (2000), "Personal Criminal Victimization in the US: Fixed and Random Effects of Individual and Household Characteristics," *Journal of Quantitative Criminology,* 16(4), 415-442.

United Nations Interregional Crime and Justice Research Institute - UNICRI (2000), International Criminal Victimization Survey, United Nations Interregional Crime and Justice Research Institute, Retrieved from http://www.unicri.it/services/library_documentation/publications/ icvs/data/

United Nations Office on Drugs and Crime - UNODC (2005), Report on Why Fighting Crime Can Assist Development in Africa.

Zhang, L., Messner, S. F. and Liu, J. (2007), "An Exploration of the Determinants of Reporting Crime to the Police in the City of Tianjin, China," *Criminology,* 45(4), 959-983.

Appendix

Appendix Table 1: Correlation of reporting of consumer fraud and explanatory variables

	gen	loc	edu	mar	typ	val	per	noh	inc
gen	1.0000								
loc	-0.0220	1.0000							
edu	0.1729	-0.2818	1.0000						
mar	-0.2034	0.1428	-0.2523	1.0000					
typ	-0.0783	-0.0404	-0.0630	-0.0123	1.0000				
val	0.2368	-0.0703	0.2393	-0.0607	-0.1354	1.0000			
per	0.0382	0.1316	0.0348	-0.0240	0.0550	0.0198	1.0000		
noh	-0.0739	0.2150	-0.1050	0.0250	-0.0001	-0.0150	0.0641	1.0000	
inc	0.0425	-0.1849	0.2156	-0.0465	-0.0195	0.1513	-0.1432	0.0399	1.0000
occ	-0.1579	0.0995	-0.1141	-0.0781	-0.0681	-0.0883	0.0665	0.0320	-0.1187
agg	0.0249	0.2015	-0.2078	0.4947	-0.0412	0.0434	0.0684	0.0306	-0.0577

	occ	agg
occ	1.0000	
agg	-0.0953	1.0000

Appendix Table 2: Descriptive statistics (N=644)

Variable	Proportion	Std. Error.	95% Conf.	Interval
GEN				
Female	0.5729814	0.0195069	0.5343136	0.6107773
Male	0.4270186	0.0195069	0.3892227	0.4656864
LOC				
Urban	0.5108696	0.0197134	0.4721713	0.549438
Rural	0.4891304	0.0197134	0.450562	0.5278287
EDUC				
No education/incomplete primary	0.2950311	0.0179851	0.2609812	0.3315304
Primary	0.2437888	0.0169326	0.2120897	0.2785508
Secondary	0.3167702	0.0183464	0.2818886	0.3538413
University/college	0.1444099	0.013862	0.1192614	0.1738149
TYP				
Paid for nonexistent services/ goods or stolen forged/forged cheque	0.1490683	0.0140454	0.1235366	0.1788004
Given fake goods/poor services	0.6521739	0.0187827	0.6144406	0.688089

Fraudulent schemes and others	0.1987578	0.0157376	0.1696474	0.2314708
VAL				
0-1000	0.6925466	0.0181974	0.6557092	0.727083
1001-10000	0.2639752	0.0173829	0.2312808	0.2994906
10001-100000	0.0341615	0.0071633	0.0225718	0.0513891
100001-1500000	0.0093168	0.0037887	0.0041826	0.0206226
PER				
Very good job	0.136646	0.0135453	0.1121575	0.1654847
Fairly good job	0.4192547	0.0194593	0.3815977	0.4578762
Fairly poor job	0.2484472	0.0170409	0.21651	0.2833915
Very poor job	0.1956522	0.0156444	0.1667413	0.228203
INC				
0-<50000	0.9440994	0.0090597	0.9234072	0.9594469
50000-<100000	0.0248447	0.0061383	0.0152551	0.0402163
>=100000	0.0310559	0.0068409	0.020098	0.0476976
MAR				
Single	0.2329193	0.0166693	0.2017963	0.2672353
Married/living as a couple	0.6723602	0.0185095	0.6350372	0.7076238
Divorced/separated or widow/ widowed	0.0947205	0.011548	0.0743463	0.1199545
NOH				
1 to 3 (small)	0.3291925	0.0185318	0.2938763	0.3665498
4 to 6 (medium)	0.4968944	0.0197177	0.4582713	0.5355546
7 to 10 (large)	0.173913	0.0149477	0.1464836	0.2052436
OCC				
Working	0.4378882	0.0195653	0.3999137	0.4766047
looking for work (unemployed)	0.1086957	0.0122748	0.0868332	0.1352472
keeping home or retired, disabled	0.234472	0.0167079	0.2032649	0.2688536
going to school / college or other	0.2189441	0.0163081	0.188606	0.2526428
AGG				
<25yrs	0.2375776	0.016784	0.2062041	0.2720884
26-35yrs	0.3291925	0.0185318	0.2938763	0.3665498
36-55yrs	0.318323	0.0183704	0.2833854	0.3554315
>55yrs	0.1149068	0.0125766	0.0924235	0.1420038

Appendix Table 3: Reporting of consumer fraud by type and mode

Type	% reported
A stolen or forged cheque	11.54
Paid for non-existent services/goods	23.08
Given fake products / poor services	38.46
A fraudulent scheme	26.92
Others	0.00
Mode	
Construction or repair work	7.69
Work done by a garage	0.00
A hotel, restaurant or pub	0.00
A shop of some sort	46.15
An internet transaction/ e-commerce	15.38
Others	30.77