

**THE PERCEPTION OF CERTIFIED FRAUD EXAMINERS TOWARDS BEHAVIOUR
AND LIFESTYLE CHANGE AS FRAUD INDICATORS**

BY

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**A Research Project submitted in partial fulfillment of the requirements for
the degree of Masters of Arts (Criminology and Social Order) of the
University of Nairobi.**



September 2011.

DECLARATION:

I, the undersigned, declare that this research project is my original work and that it has not been presented to any other university or institution for any academic credit:


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DEDICATION:

I dedicate this research project first to the almighty God for His grace and sufficiency. Special appreciation to my late dad Mr Micheal Gichobi for his dedication and desire for excellence in academics. To my able mum Mrs JemimmahRose Gichobi for her moral support and unparalleled loving care. Lastly, to my family members, Terry Wanjiku, Purity Njeri, Alex Kinyua and Eva Wanja who have encouraged and inspired me all through.

ACKNOWLEDGEMENTS.

God has been merciful to me throughout my studies and so to Him be the Glory. This work would not have been a success without the patronage of my capable supervisor, Dr Agnes Zani. Her support, guidance and desire for excellence gave me special ability for independent thinking and judgment for the completion of the project. I also recognize the department of Sociology Staff for their continued support and timely provision of required resources.

I acknowledge the ACFF Kenya chapter and the respondents, certified fraud examiners for allowing me to work with them and offering their time and dedication to contribute to the research.

Special thanks to my mum, Jemimma Rose Gichohi, for her encouragement in pursuing higher education and my family members for continued support, prayers, financial and moral support which made a difference in my entire study duration.

Finally, to all my friends (Linda, Njoki, Jo-anna, Duncan, Nick, Inanga, Henry, Larry, Ngari, Kairu) and course mates whom we labored; doing course work, project proposal, data collection, analysis, compilation, and presentation. I highly treasure and appreciate them.

ACRONYMS.

- A.C.F.E:** Association of Certified Fraud Examiners
- B.B.C:** British Broadcasting Corporation
- C.F.E:** Certified Fraud Examiners
- C.M.A:** Capital Market Authority.
- C.P.I:** Corruption Perception Index
- F.E.M 2010:** Fraud Examiners Manual 2010
- G.C.B:** Global Corruption Barometer
- ICPAK:** Institute of Certified Public Accountants Kenya
- K.A.C.C:** Kenya Anti Corruption Commission
- KENAO:** Kenya National Audit Office.
- N.A.C.P:** National Anti- Corruption Plan
- N.E.S.C:** National Enterprise Survey on Corruption
- R.T.T.N 2010:** Report To The Nations 2010
- T.I:** Transparency International

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ABSTRACT.

The research was designed to cover the area of fraud detection and deterrence, mainly focusing on behaviour and lifestyle changes as fraud indicators. The study was sought to investigate the perception of certified fraud examiners specifically focusing on these indicators of fraud, how they compare with other indicators and how effective they are when used in fraud detection.

The problem necessitating the study was the continued prevalence and increase in reported cases of fraud despite the established mechanism of fraud detection and deterrence. Moreover, behavioural red flags have only been cited in the media as a possible initial detection indicator however insufficient studies have not been done to categorically state and show how these indicators can be identified and used effectively in fraud detection. Thus the study sought to establish which indicators of lifestyle and behaviour changes can be used in initial detection of occupational fraud.

The study is exploratory and descriptive in design, seeking to explore the new area of fraud identification using behavioral red flags. The study was carried out with the ACFE Kenya chapter members. The body was purposively selected to shed light on their view of the indicator mainly because they were directly involved in fraud detection and awareness. Since main objective of the study was to capture the perception of the CFEs on the use of this fraud indicator only the trained and certified members were sampled for the study.

The study findings revealed that CFEs had an optimistic and positive perception towards the use of behavioral red flags as indicators of fraud. The study showed that the CFEs believed that the indicators of lifestyle and behavior change can be used successfully for fraud identification in all the industries and occupations involved in the study. The CFEs also agreed that the use of behaviour and lifestyle change can be used effectively. However, the study revealed some shortfalls of usage of behavioral red flags such as lack of proper evidencing, tone at the top, and prosecution procedures as possible hindrances for successful closure of cases.

The study recommended further study on indicators of behavioural red flags to establish emerging trends of behavioural and lifestyle changes related to fraud commission. Also, CFEs should be proactive in monitoring and surveillance of suspect employees for tip off of existing fraud. Further the study recommended that sensitization workshops and sharing of intelligent information is necessary to keep update of the current trends of fraudster behaviors across all industries and occupations. Lastly, the study recommended introduction of policies requiring wealth declarations, and assets acquisition for new and existing employees.

CHAPTER ONE: INTRODUCTION.

1.1 BACKGROUND OF THE STUDY.

Occupational fraud commonly referred to as corruption in the government or public offices context, has greatly affected many countries' development. Occupational fraud is the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization resources or assets (ACFE 2004). It is also linked to the causes of political instability with many powerful leaders jostling for offices where they can have access and authority over the public coffers. Corruption can be referred to as a misuse of public office for private gain (Daniel 1997). Whereas this predicament has extended from the public sector to the private sector, the phenomenon has crippled many developing countries as well as stagnating growth in some developed countries. Corruption has been blamed for the failures of certain developments and recent empirical research has confirmed a link between high perceived corruption and lower investment and growth (World Bank 1997).

The plague of corruption has spread out to the private sector, with its name varying with the dynamics of its insidious and covert operations. Mati and Githongo (2001) trace corruption from the era of Kenya's first president Mzee Jomo Kenyatta in late 60s and early 70s, where it was referred to as *magendo*. At this stage, overt corruptions in Kenya were centered on opportunities presented by interventionist policies through which the state sought to manage the economy. The era of former president Daniel A. Moi which started in 1978 and lasted for over two decades, was characterized by numerous breach of power, land grabbing and excessive use of power to gain wealth. The phenomenon interchangeably changed the name from corruption to theft, the trend has since then continued to change its form to suit its perpetrators and has overlapped to the current government. Duffield and Grabosky (2001) state that, fraud is a product of both personalities, environmental and situational variables, which summarizes why fraud was rampant.

Presently, large scale corruption has emerged in revenue collection, property transfer and access to state funds through state tendering and procurement processes. It's dominated by poor institution governance, an atmosphere of impunity to prosecution, low morale and inefficiency contributed immensely to an environment to reach to the current level. These kinds of fraud

schemes have recurred in the present institutions regardless of the efforts put in place to fight corruption.

Kenya's fight against corruption has been enhanced, Kenya stands a chance to implement reforms that could help not only capture but subsequently prosecute the implicated government and private officials that is with the promulgation of the new constitution. The introduction of the Kenya Anti Corruption Authority in 1997, through a Prevention of Corruption Act, cap 65 (GOK 1956). Currently, its name has changed to the Ethics and Anti Corruption Commission (GOK 2011). Transparency International (1993) had its major objective as creation of awareness of presence of corruption. Its annual Corruption Perception Index (CPI) was used to help raise the profile of corruption as major impediment to sustained development around the world (Mati and Githongo 2001).

During the course of history, a number of incidents have occurred which have emphasized the role and need of fraud examination and auditing of the private sector and government from the infamous Goldenberg scandal of 1990s, to Anglo leasing scandals 2005, more recent Grand Regency in 2009, and the Kenya murky City Council Offices which led to the auditing by the well renowned PriceWater House Coupers in early 2011. The list is almost endless and the dire need to audit and examine the occupational fraud situation in Kenya is inevitable. Several organizations and commissions have been formed in a bid to investigate and curb the now threatening phenomenon, from formation of watchdog institutions such as Capital Market Authority formed in 1989 through a parliamentary act, cap 485A(GOK 1989). The rebirth of Kenya Anti- Corruption Authority on 25th March 1999, after its first inception in 1997 showing the necessity for its presence (Mati and Githongo 2001). Recently, amendments bills (2001) by the former Attorney General was introduced in parliament with the main objective to make provision in the constitution for the establishment of the Kenya Anti Corruption Authority and to vest powers upon the commission to investigate and prosecute offences of corruption, economic crime, misuse of public offices for personal gain etc. Moreover, international bodies such as Transparency International (T.I), Association of Certified Fraud Examiners (ACFE), and Institute of Certified Public Accountants (ICPAK), KENAO (Kenya National Audit Office) are

present in Kenya in a bid to help equip the already knowledgeable auditors and fraud examiners on ways and means of fighting fraud

Irrespective of this effort, Kenya still suffers a great deal in the fight against corruption and fraud Transparency International Kenya report (2008) rated Kenya with other countries that participated in the survey as doing poorly Kenya was listed at position 32 among 47 African countries and 147 among 180 participating countries worldwide

National Enterprise Survey on Corruption (2009) shows that the level of corruption has increased to a high figure of about 76.5% from previous years of 67.2%. National Corruption Perception Survey (2009) had various studies done and responses varied on how Kenyans rate themselves as either very corrupt or not corrupt 76.5% rated Kenya corruption as very high, 19.7% rated corruption as high, and a small 1.8% optimistic group rated Kenya corruption as low This shows the extent of spread of fraud and corruption in Kenyan situation regardless of the detection and deterrence measures put forth by the corruption watchdog institutions such as K A C.C, C.M A and KENAO amongst others

Globally, Association of Certified Fraud Examiner report to the nations (2010) indicated that, *“a typical organization loses 5% of its annual revenue to the occupational fraud and abuse.”* Further, the ACFE report (2010) projects this kind of loss incurred in relation to the Gross World Products to be estimated at about \$ 2.9 trillion Such estimates give only a perception of the extent of the losses the world suffers from occupational fraud Occupational fraud or rather corruption is known to be heinous and covert hence its accurate reporting cannot be achieved

In light of such knowledge, and with such huge figures being quoted, Kenyan institutions need to dig deeper in their policy formulation agencies and do extensive research to fill the knowledge gaps The agencies need to establish why there is so much investment to fight fraud but, still a high prevalence and huge losses are reported Globally, efforts have been made to establish bodies such as ACFE which is highly committed to equipping anti-fraud professionals with skills and knowledge they need to fight fraud more effectively. Thus this study will attempt to find out

how ACFE Kenya chapter members, view behavior change as a fraud indicator and how they can utilize it for efficient and easier detection of fraudulent individuals.

1.2 PROBLEM STATEMENT.

The problem of detection and mitigation needs to be urgently addressed if the prevalence of occupational fraud is to be put under control bearing in mind that fraud is concealed ACFE report (2010) has listed initial fraud indicators such as tip, accident, management review, internal and external audit, document examination, notified by police, confession, IT controls as the major indicators of initial fraud detection However, occupational fraud detection and deterrence has not been made any easier An improvement on initial fraud detection through various studies related to fraud indicators like lifestyle change and behavior change would help increase the available procedures and indicators for investigation

Occupational fraud detection and deterrence has been cited as a difficult undertaking to carry out by investigators due to its hidden form. Unlike theft which is overt, occupational fraud thrives on perpetrators ability to conceal their motives and bad deeds It's due to this complexity that the need for systematic studies to highlight and enlighten fraud fighters on ways of detecting occupational fraud so as to prevent further loss and misappropriation of funds ACFE report (2010) recommended that further study needs to be done to help identify consistent behaviour would help institutions with initial detection of fraud

The research seeks to highlight the perception and maximum utilization of these indicators by the fraud examiners and how they would improve on fraud detection and deterrence by making it easier for their identification and formulation of the fraud hypothesis while doing investigation Cottrell and Alhrecht (1994) indicated that lifestyle change can only be used as circumstantial evidence However, circumstantial evidence cannot be used solely to indict or prosecute a perpetrator. Further study would thus help establish how this circumstantial evidence can be used to link the perpetrators and frauds committed, and how fraud investigators can utilize the behavior and lifestyle change as fraud indicators

Nonetheless, with all these lifestyle changes and behavior indicators only being discussed in the media, studies have not been done to clearly list the attributes that would be looked for while doing investigations nor, an outline of which social indicators can be utilized by the fraud examiners and auditors as they carry out their fraud examinations. Hence, the study seeks to seal the gap on how these indicators can be useful tools for investigations and useful evidence for prosecution and move away from the media mythology.

Moreover, occupational fraud as a crime in Kenya has not been fully analyzed in relation to life style change and its effect to the society. Whereas Kenya has a very big margin gap between the rich and the poor especially in the 80s and 90s, further study and research needs to be done to shed light on the unscrupulous acquisition of wealth as well as identifying how these funds are laundered back into the society. This will help in formulation of policies and measures that will help in regulation of equal and even distribution of resources in the society. However, if such inequalities go unattended the growth and development of the country is compromised in terms of equal distribution of resources. The extent of occupational fraud and corruption prevalence has dragged Kenya behind since independence in terms of social economic development by hindering growth of the already existing institutions as well as scaring away potential investors.

The study will thus seek to narrow the gap created by lack of sufficient studies on fraud identification using behavioral change as fraud indicators by highlighting some of the social behaviors and lifestyle changes that indicate fraud commission, from the perception of certified fraud examiners.

1.3 PURPOSE AND OBJECTIVES OF RESEARCH.

The study will be guided by research questions in identifying how certified fraud examiners perceive behavioral change and lifestyle change as fraud indicators and establish how they can best be utilized in fraud detection.

The research will seek to answer three questions.

1. Which lifestyle and behavior change indicators are identifiable as fraud indicators by CFEs?

2. How does lifestyle and behavioral change indicator compare to other individual qualities used in fraud detection such as age, prior criminal records, and level of education?
3. How effective can these fraud indicators be useful in fraud investigation?

The questions will be geared at giving a clearer understanding of how the lifestyle and behavioral change red flags can be used in identification of fraudulent activities. Further, the study will seek to establish the kind of relationship that behavioral change has with other red flags, hence give a better understanding of CFEs perception of the red flag.

1.3.1. Broad objectives.

1. To establish the perception of CFEs towards behavior and lifestyle changes as a fraud indicator during detection and investigation

1.3.2. Specific objectives.

- To find out the various categories of lifestyle and behavioral change indicator used for fraud investigation
- To establish the comparison of behavior change with other personal qualities use in fraud detection.
- To establish how effective the behavioral and lifestyle change indicators can be used by investigators to identify fraudulent employees

1.4 JUSTIFICATION OF THE STUDY.

The study seeks to illuminate on the various occupational fraud indicators exhibited by the occupational fraud perpetrators, in relation to their behavior and subsequent lifestyle changes. These changes can then be used as fraud indicators by fraud examiners. Moreover, to help in understanding the social behavior changes in our society and how that change can be used to explain the some traits of deviance.

The study will focus on occupational fraud due to its expansive nature and its direct influence on society. This will be done by scrutinizing perpetrators' lifestyle change in light of the certified fraud examiners. Individual and group behavior influence and affect to the world around have

been greatly linked to the modulation of the society. Homas (1974) ascertains that, individual beings and behaviour are relevant to understand society. Further, the study endeavored to contribute to the study of modern crime in Kenya in the vibrant study of evolution of crime from pick pocketing, theft, burglary, to white collar crime and now to the emerging organized crime (*mungiki, sungu sungu, jeshi la mzee e.t.c*) that will have positive contributions to the creation of a better society.

The study is timely, as it's done at a time when Kenya is implementing its constitution and formulating new model of governance with emphasis on integrity and transparency. The insight of the study would be helpful in assessing the individuals' level of transparency before and after being given new roles and mandates in the public institutions, with policies such as wealth declaration before taking up roles in public office and public vetting for public offices such as Judicial Service Commission's vetting for the current Chief Justice, Deputy Chief Justice and Judges.

The study sought to help in formulation of resource guide that can be used while formulating fraud policy for institutions in Kenya. Therefore, the study findings can be availed to the Association of Certified Fraud Examiners Kenya chapter, the investigators and stakeholders in the fight against corruption and occupational fraud. Lastly, the data collected and findings will help shape fraud investigations by giving insights which point towards easier detection and deterrence, as well as providing basis for future research on investigation and modern crime analysis in Kenya.

The study established means in which individuals, who are fraudulent, portray themselves in the society and how their behavior and lifestyle changes can be used by the fraud investigators in curbing further spread of such deviant behavior in the society.

1.5 SCOPE OF THE STUDY.

The study focused on the area of fraud detection specifically narrowing to the identifiable behavioural and lifestyle fraud indicators. The behavioural red flags cuts across behavior and lifestyle changes in individuals perpetrating fraud. The study centrally worked with certified

fraud examiners only, who are certified members of Kenya chapter, as the main respondents. This is because they are well trained and qualified fraud examiners in addition to their principal profession.

CFEs are professional's investigators with formal training in other fields such as auditing, accounting, law, investigation, security management, law enforcement and risk management amongst other professions. Their responses and perception were used and relied upon for data analysis and conclusion. The CFEs deal directly with these fraud perpetrators thus the study worked solely with them to give the study a threshold for acceptability and reliance.

Thus, the study covered behavioural red flags fraud indicators only, although there are other fraud detection procedures. The study focused specifically on finding out which indicators are there, how they compare to other individual qualities such as age, level of education, etc and finally how effective they are when used in an occupational fraud investigation. This study would have been more informative in light of the actual offenders but it focused on the CFEs who are charged with investigating the offenders.

1.6. LIMITATION OF THE STUDY.

Although many people can respond to the research questions, the study limited itself to the trained and registered certified fraud examiners of the ACFE Kenya chapter for comprehensive and professional responses.

Due to its limited resources of time and funds the study will focus on the certified fraud examiners registered with the Kenya chapter due to its accessibility and convenience. Thus sidelined other certified fraud examiners although they were eligible for study.

Additionally, the study only focused on social behavior and lifestyle changes related to fraud commission. This does not mean that there are no other plausible fraud indicators present in dishonest employees; other fraud indicators are present which can successfully lead an investigator to fraud detection. Additionally, not all behaviour changes in an individual were analyzed, since not all behaviour changes point towards fraud commission.

The study was sensitive in nature as it deals with personal and confidential information handled by the fraud examiners and therefore, the interview did not request the perpetrators to give testimonies of their wealth acquisition but, the responses from the fraud examiners were used for the study despite feasibility of study with perpetrators

Finally, due to sensitivity of the cases involved, actual names and real exemplification were withdrawn or used in proxy to avoid breach of oath of confidentiality, in the CFEs code of ethics, by the examiners

1.7. LIST OF KEY TERMS AND CONCEPTS.

Corruption Misuse of public office for private gain. Also corruption is seen as abuse of power for private gains. (Abigail 2001) defines corruption as misuse of public power, office or authority for private benefit.

Magendo: A Swahili term to mean favoritism or prejudice.

Fraud A false representation of matter of fact, whether by words or conduct, by false or misleading allegations, or concealment of that which should have been disclosed (Black laws dictionary.)

Occupational fraud: The use of one's occupational for personal enrichment through the deliberate misuse or misapplication of the employing organizations resources or assets. (ACFE report 1999)

Indicators: Signals that something is out of the ordinary and may be investigated

Red flags A set of circumstances that are unusual in nature or vary from the normal trends. (Hancox and Di Napoli 2011)

Internal control: A guideline enforced by an entity's board of directors, management, and other personnel designed to provide reasonable assurance regarding the achievement of objectives in the institutions

Behavioral red flags: As a guide to the study, behavioral red flag attempt to explain reasonable believe that there are alterations in an individual's normal behaviour patterns (behaviour and lifestyle changes), only in relation to fraud commission

CHAPTER TWO: LITERATURE REVIEW.

2.1 Introduction.

This chapter seeks to introduce the concept of occupational fraud, by providing insights on various scholars understanding of occupational fraud, its different forms, causes and extent of prevalence in our society. To fully understand the concept of occupational fraud detection and mitigation which the research seeks to address, it's essential to highlight the relationship of occupational fraud as a form of crime in our society. The chapter will then encompass the dynamics and dimensions of fraud and seek to further review the indicators of lifestyle and behavioral changes

2.2 The Concept of Occupational Fraud in the Society.

Fraud has varying definitions in relation to its occurrence in the various institutions, fraud is an intentional deception made for personal gain to damage another individual. Black (1990) states that, "fraud is false representation of matter of fact, whether by words or conduct, by false or misleading allegations, or by concealment of that which should have been disclosed." Thus the identification of occupational fraud in our institutions is dependent on various issues surrounding the crime itself. According to Green fraud is a form of occupational misconduct, he expounded by looking at occupational crime, as "any act punishable by law which is committed through opportunity created in the course of an occupation which is legal" (F.E.M 2010)

Occupational fraud can be sub divided into three major categories, asset misappropriation, corruption and financial statement. Asset misappropriations are frauds in which the perpetrator steals or misuses organizations resources. They include skimming and cash larceny, frauds involving fraudulent disbursement of cash like billing, check tampering, expense reimbursement, payroll, cash register and lastly frauds involving other assets misappropriation like cash on hand misappropriation, non-cash misappropriation (F.E.M 2010). Corruption refers to schemes in which fraudsters use their influence in business transactions in a way that violates their duty to their employers in order to benefit for themselves or some else. Examples include bribes, extortions, and conflict of interest (F.E.M 2010)

Abigail (2001) defines corruption as misuse of public power, office or authority for private benefit. Financial statement fraud involves the misstatement or omission of material information

from the organization's financial reports, commonly known as 'cooking books'. Examples of some of these frauds involve reporting of fictitious revenues or the concealment of expenses or liabilities in order to make an organization appear profitable than it really is. It's an example of organization occupational crime. (F.E M 2010)

Finally, other irregular activities that employees engage in for their own benefit include, acceptance of kickbacks and bribes, diversion to an employee/ outside of potential profitable transactions that would normally generate profits for the organization, embezzlement, intentional concealment or misrepresentation of events transactions or data, claims submitted for services or goods not actually provided to the organization, intentional failure to act in circumstances when action is required by the company or by the law, unauthorized or illegal use of confidential, proprietary information, and unauthorized or illegal manipulation of information technology networks or operating system (F E M 2010)

A comprehensive understanding of occupational fraud will help in identification of various dynamics and dimensions of occupational fraud in the present world; different people perceive fraud differently; Gray and Kaufmann (1998) see corruption as 'oil or sand' to mean that it can either speed up the bureaucratic processes or long term corrupt transactions raises unnecessary transactions costs and leads to inefficient economic outcomes respectively. This gives a mixed feeling of the concept and further studies to prove either side are justified.

However, Sub Saharan African countries list corruption as one of the many hindrances towards their growth and development and this sentiment was grounded by Hugutte (2008) by stating that, "Corruption is a regressive tax, this injustice must be addressed. The marginalized and poor remain the most vulnerable to extortion. Government should do more to identify corruption risks in basic services and protect their citizens."

2.3 Prevalence of Occupational Fraud in the Society.

Occupational fraud and abuse has showed a consistent rise globally and locally as well. Whereas our government is putting imaginable efforts to fight the vice, more still need to be done. Ironically, Alam (1989), an economist, thinks that corruption is investable and unavoidable

consequence of development and modernization. He has a logical and rationale way of thinking, but data from many institutions globally show the extent to which corrupt countries have been affected by fraud and corruption.

Global Corruption Barometer report (2010) ranked Denmark, New-Zealand, Singapore with an index of 9.3 followed by Finland, and Sweden at 9.2 and trailing at the end of the table is Somalia at 1.1 indexes. The rankings can easily be corresponded to the variants in economic strengths as well, countries rated highly are also performing very well in terms of development and sustainability whereas countries which are prone and ranked lowest in terms of fraud prevalence also show poor developmental indicators.

ACFE report (2009) indicate that fraud is highly prevalent during the economic recession, it stated that there was increase in fraud due to the pressure faced by many individuals, actually 50% believed pressure due to economic downtime resulted to amplified level of fraud. Fraud can be said to thrive well in times of hard economic times and which greatly affects developing countries. Aitan (2002) indicates that fraud and corruption increases with hard economic times hence affecting the prevalence of occupational fraud. Apart from deficiency in institutional internal controls and individual pressures, other social facts like economic recession seem to affect prevalence of occupational fraud.

ACFE report (2010) findings indicate that organizations are losing billions of money with actual figures of 5% of the organizations' annual revenue lost to fraud. Where, if, the figure is applied to the estimate of 2009 Gross World Product, it translates to potential total fraud loss of more than \$ 2.9 trillion. The figures show extent of expansive prevalence of occupational fraud even in the developed countries as it was done with about 46% states from America. Monies lost in occupational fraud can be channeled into different avenues if only studies and awareness is created on prevalence of fraud. Further, exemplification on the table below from the (RTTN 2010) shows each category of occupational fraud and its frequency of occurrence with Asset misappropriation recoding highest occurrence of 86.3%. The table also enumerates the median loss caused by each fraud type on the same year. The figures of occurrence vary as they are a representation of other frauds with multiple responses.

Table 2.1: Types of Occupational Fraud, the Occurrence in Percentage and the Median Loss.

Type of occupational fraud.	Occurrence.	Median loss (US dollars).
Asset Misappropriation	86.30%	\$ 135,000
Corruption	32.80%	\$250,000
Financial Statement	4.80%	\$ 4,100,000

Source RTTN 2010

It's estimated that the sub Saharan Africa countries paid most bribes, actually more than one out of the two people paid bribe. GCB report (2010) stated that more than 20 countries reported significant increase in petty bribe (*kitu kidogo*) than in 2006. The biggest petty bribe nations were Chile, Cambodia ... Kenya ... Nigeria and finally Thailand among the top 20. It was estimated that 50% paid bribe with the number having doubled since the 2006, whereas more people reported having paid bribe to the judiciary, and registry services than did so 5 years ago

Locally, Kenya reports denote no difference on the extent of prevalence and spread of occupational fraud. I.I Kenya (2008), states that "bribery, private payment, to public and private officials to influence decision making, is the most prevalent manifestation of corruption" Majority of bribes are small amounts paid routinely 75% of transactions involve bribes below \$15 on daily basis (Njuguna 2003). Such figures speak of the prevalence and an indication that something needs to be done in our institutions especially public offices This has led to the rankings by Corruption Perception Index 2010, ranking poorly at Kenya 154 out 178 countries in the survey and only number 32 out 47 in the 2008 T I survey

Nationals Enterprise Survey on Corruption (2010) release shows that the level of corruption in Kenya has increased from a previous figure of 62.5% to a present 76.5%. Below is a table

showing the various reasons and how they were rated by respondents as the main reasons corruption has been on the increase in their enterprises. The table is an extract of the whole table totals figures with figures representing percentages representing more than one occurrence.

Table 2: Comparison of Reason for Corruption Prevalence.

Reason for prevalence	Percentage.
Greed	50%
Poverty	40.2%
Poor remuneration	19.7%
Unemployment	14.9%
Bad governance	10.3%
Cultural reasons	10%

Source: NESC 2010.

The sub-topic gives the extent of prevalence of occupational fraud and abuse, globally and locally. The reports give an indication that with such extent of prevalence, the governments need to be proactive in establishing ways of fighting the vice before the impact ripples across the country hence incapacitating new growth and development or even hindering the sustainability of existing institutions.

2.4 Factors Promoting Occupational Fraud and Abuse.

Duffield and Grabosky (2001) state that, fraud is a product of both personality and environmental or situational variables. More research and studies need to be carried out to conclusively define the main factors that cause fraud. Different individuals have been led to commit fraud due to various reasons such as economic reasons, weak internal controls or personal traits, hence crimes like occupational fraud could be based on various factors.

Albrecht (2003) on his study identified two major causes of fraud, perpetrator characteristics and organizational environment. The two major characteristics bracket finer indicators of individuals who are likely to commit fraud *personal characteristics*, living beyond their means,

an overwhelming desire for personal gain, high personal debt, a close association with customers, feeling pay was not commensurate with responsibility, a wheeler dealer attitude, strong challenge to beat the system, excessive gambling habits, undue family or peer pressure, and lastly no recognition for job performance

Secondly, *organizational environment*; placing too much trust in key employees, lack of proper procedure for authorities of transactions, inadequate disclosures of personal investment and incomes, no separation of authorization of transactions from the custody of related assets, lack of independent checks on performance, inadequate attention to details, lack of separation of custody of assets from the accounting for those assets, no separations of duties between accounting functions, lack of clear lines of authority and responsibility and lastly department that is not frequently reviewed by internal auditors. (F.E.M 2010)

He summarized his study by stating that, "...it appears that three elements must be present for fraud to be committed a situational pressure (non-shareable financial pressure), a perceived opportunity to commit, and some way to rationalize 'verbalize' the act as either being inconsistent with one's personal level of integrity or justifiable "(F.E.M 2010)

Different motivations lead individuals to committing fraud, however the environment in which the individuals are operating in could highly contribute to fraud commission, Cressey (1973) stated "trusted persons become violators when they conceive of themselves as having a financial problem which is non- shareable . . . and are able to apply their own conduct in that situation verbalizations which enable them to adjust their conceptions of themselves as trusted persons ..."
The proposition was later to be developed to the fraud triangle shown in the figure 1 below indicating the three major factors causing fraud. I.e. pressure, opportunity and rationalization
Cressey (1973) highlighted them as the reasons for violation of fiduciary relationship

Figure 2.1: Donald Cressey's Fraud Triangle



Source: ACFE manual 2010.

Perceived opportunity is the conviction that you can steal or is in a position of fiduciary duty, or that trustworthy position can be violated. When persons in authority can create opportunity to override existing controls because of subordinate or weak controls allowing them to navigate through the set rules, then the institution is at great fraud risk. Pressure also referred to as motive, incentive or non- sharable financial needs is the gratification for a desire, greed or an addiction that tends to generate a pressure from within or without and what result is as an immense drive to do anything at your capacity to achieve your goals (F E M 2010)

Rationalization is that aspect of convincing oneself that what you do is still good. Others tend to see it as general irresponsibility for which you are not accountable. According to Cressey (1973) the discussion of factors promoting fraud has to keep being reviewed from time to time due to the evolution of fraud tactics. However, studies done so far have only linked these three factors as the major categories of fraud causes.

Abigail (2011) noted that some of the factors causing corruption in Kenya are, political patronage, influence or patronage, and favoritism, bad governance, inefficient public sector, obsolete or weak laws/regulations/insufficient penalties and law enforcement, disregard or lack of institutional ethics and core values, disregard to professional ethics and integrity, impunity and non enforcement of the law regulation, erosion of cultural tradition values, and greed. This is

a new dimension to view fraud causatives which means that the studies done are not exhaustive on factors promoting fraud Braithwaite (1985 p 25) states that, "it has been suggested that white collar criminals are particularly influenced by punishment policies because they have much more to lose through publicity and imprisonment than common street offenders." The National Anti- Corruption Plan (2006) cited that corruption was born of an '*inversion*' of social values that governed our very traditional lives Further, the NACP cited the two major factors promoting or causing corruption are; erosion and distortion of values and existence of opportunities

The factors promoting occupational fraud seem to have been fully researched on but the causes keep changing as time lapses Moreover, the occurrence and prevalence of occupational fraud is still high and as a result deeper insights needs to be addressed as part of mitigating fraud apart from just looking at the causes and factors promoting occupational fraud.

2.5 The Impact of Occupational Fraud and Abuse.

The ramifications of occupational fraud and abuse has been discussed in various forums like the global organizations bodies (U.N, World Bank, IMF, etc) to specialized bodies such as ACFE, KACC, K B I, T.I. Their findings have directly or indirectly pointed at fraud and corruption as having a great hindrance towards development of either developed or under developed world.

ACFE report findings of 2008 and 2010 provides information of the kind of losses impacted on the institutions by occupational fraud the 2008 survey the organizations lose up to 7% of its annual revenue and that enumeration would mean that the projected GDP of US in 2008 was \$14.196 trillion, translating to loses of about \$994 billion to occupational fraud The 2010 report indicates a reduced figure of 5% of annual revenue estimated to a projected gross world product which translates to \$2.9 trillion Globally occupational fraud seems to have reduced from 7% to 5% but the impact is still quiet high and raises more questions as to what the bodies fighting the fraud seem not to be doing.

BBC (2002) while reporting on the African Union Report stated that corruption costs African economies in excess of 14.8 billion dollars a year They also noted that the resources diverted by

corruption acts and resources withheld or deterred due to the existence of corruption, is thought to represent 25% of Africa's Gross Domestic Product. The figures denote direct implication of corruption and fraud towards the already weak economy in the underdeveloped and developing countries.

GCB (2010) stated that, "the demographic of bribery continue to disadvantage the poor and the young, in the past surveys it showed that lower income earners report paying more bribes than higher income earners. Poorer people are twice as much likely to pay bribes for basic services such as utilities, medical services and education than wealthier people."

Amukowa (2010) stated that corruption has devastating effects on human beings and is increasingly being seen as a serious crime with consequences such as wasteful spending, bigger budgetary deficits, great economic inequalities, disinvestment as well as unorthodox trading practices. Moreover, the prevalence of occupational fraud can be linked with wide spread of poverty and hence impacting more on the poor in any society.

T.I (2003) enumerated how individuals are affected by corruption by calculating the percentage of gross pay they take home (*Bribery tax accounted for about 30% of the urban Kenyan monthly salary. This coupled with the already high income taxes of about 30% which leaves an average Kenyan with only 40% of gross pay*). This means that poor are likely to pay more for basic services like, health and education. Such data signify that if something is not done to mitigate fraud and corruption in the public sectors then the poor will continue becoming poorer at the expense of the rich for supposedly free services in the public and private institutions.

Various studies have shown impacts of corruption and fraud, either its direct or indirect approach, raising issues from diversion of resources which leads to poor infrastructure, increased cost of goods and services, increased poverty, shoddy work and stalled projects, poor medical services, reduced investment in our economy, unemployment, rise in crime rate and insecurity, delayed or denial and sale of justice in our public land, property and utilities, social unrest and moral decadence. Further research on the area of impact of fraud would help streamline and improve on the studies already done.

2.6 The Aspect of Red flags and Indicators in Occupational Fraud and Abuse Detection.

Red flags are the indicators or signals that something is out of ordinary and may be investigated further. Hancox and Di Napoli (2011) state that red flag is *a set of circumstances that are unusual in nature or vary from the normal activity*. The red flags are the pointers that show investigators or auditors that fraud is happening. They are the indicators the management should keep watch, over their employees to indentify fraudulent individuals. Individuals tend to display different symptoms anytime they are committing a dishonest act, or they tend to deviate from the norm.

Thornton (2010) says "fraud is very often a function of trust, or more specifically, of the levels of trust and corresponding controls that are assigned to an individual in organization's various roles." This means that unlike theft or physical breakage into a building which is easily identifiable and recognizable, Fraud is perpetrated by people in a fiduciary relationship with the organization hence detecting these individuals could be difficult, investigators tend to rely on red flags to map out insidious dealings.

ACFE (2004) cited some major red flags for fraud as, failure to take up vacations, denial of access to areas of responsibility, preference to be unsupervised by working after work hours and preferring take home work, financial records missing, unexplained debt and unexpected change in behavior. However, such citations may not be all to incriminate a suspect or to successfully accuse an employee of fraudulent activities.

Employees will always exhibit some detectable signs that they are involved in some malicious deeds, whereas ACFE report (2010) indicates that fraud perpetrators often display warning signs that they are engaging in illicit activity. There is tendency to exhibit behavioral warning signs of misdeeds. However, Wells (2007) cautions that perpetrators are hard to profile and fraud is hard to predict.

Hancox and Di Napoli (2011) cite some of the changes in behavior as absenteeism, regular ill health or shaky appearance, easily making and breaking promises and commitment, series of creative explanations, high levels of self absorption, inconsistent/illogical behavior, forgetful or

memory loss, family problem, evidence of deceit. He further expounds by saying that lifestyle problem fraud, deals with addiction, whereby if one suffers addiction he is likely going to experience a slow tightening noose of financial pressure. Behavioral change in an individual cannot be used to solely accuse an individual but numerous and noticeable behavior change leads to a new lifestyle which could raise alarm to fraud examiners to conduct surprise audits. Newly acquired lifestyles lead to commission of further fraud.

Wells (2007) cautions that the indicators should not receive undue attention: in absence of more compelling circumstances and prosecuting evidence. This implies that further studies should be sought to further clarify on the issue of fraud identification. According to Hancox and Di Napoli (2011) lifestyle change is committed by trusted employees whom the management knows well, so it's important to be on the lookout for employee lifestyle issues that maybe 'red flag' indicating a fraud risk. Some of the employee behavioral red flags as, employee life style change(expensive cars, jewelry homes, clothes), significant personal debt/ credit problem, behavioral changes like (drugs, alcohol, gambling, fear of losing job), high employee turnover, refusal to take vacation/ sick leave, lack of segregation of duties in the vulnerable areas. These indicators of lifestyle change could provoke thoughts of fraud examination.

F.E.M (2010) listed the occurrences of some of the behavioral warnings signs that are often displayed in most case. They include living beyond ones means 38.6%, financial difficulties 34.1%, wheeler-dealer attitude 20.3%, control issues, unwillingness to share duties 18.7%, divorce/ family problems 17.1%, unusually close association with vendor/customer 15.2%, irritability, suspiciousness, defensiveness 13.6%, addiction problems 13.3% past legal problems 8.7%, past employment-related problems 7.9% complaining about inadequate pay 7.3%, refusal to take vacations 6.8%, excessive pressure from within organization 6.5%, instability in life circumstances 4.9%, excessive family/peer pressure for success 4.2%, complaining about lack of authority 3.6%

Hancox and Di Napoli (2011), lists some of the red flags which involve visible behavior change, borrowing money from co-workers, creditor or collector appearing at the workplace, gambling beyond the ability to stand the loss, excessive drinking or other personal habits, easily annoyed at

reasonable response questions, providing unreasonable responses to questions, refusing vacations or promotions for fear of detection, bragging about significant new purchases, carrying unusually large sums of money, and rewriting records under the guise of neatness in presentation.

The presence of these red flags is not a direct indicator to fraud, but they should never be ignored either by management and the fraud investigators. Changes in life style can be used efficiently amongst other red flags of fraud to point towards an institutions probable risk of losing money through fraud.

2.7 THEORETICAL FRAMEWORK

Theoretical framework will look at the various theories of crime that are relevant and will help in explaining the reasons people commit occupational fraud as a form of crime and then help explain and relate how some acquired behaviors and subsequent lifestyles changes ensuing from indulgence in criminal activity specifically occupational fraud can be used for fraud detections. The theories will give a better understanding of individual reasons for acquisition of the unique traits by fraudsters and the influence to the society

2.7.1 SOCIAL LEARNING THEORY

Sutherland (1938) stated that individuals are in constant relation with others in the society and tend to learn a lot from others, equally in relation to crime causation; individuals lean towards certain crime after they learn from people they interact with in their units of operation

Bandura (1977) concentrated his proposition that behaviour learning assumes that peoples' environment or surrounding cause's them to behave in a certain way. Parents teach their children good mannerism, just like employees are taught good ethical and professional behavior as they join a company. Moreover, Sutherland (1938) argument was that even bad behavior can be learnt by seeing, indulging and getting acquainted to criminal behavior as favorable and hence deviance. Social learning theory thus helps understand how people commit occupational fraud by learning from their colleagues. The lifestyle their colleagues lead becomes the learning point. Individuals earning little pay but are living and socializing with high spenders are influenced to

the kind of lavish lifestyle that they live and hence, are inclined to commit fraud to acquire the desired lifestyles

Akers and Burgess (1966) expounded on social learning theory with differential reinforcement, they said that individuals tended to reinforce what they learnt and found to be beneficial to them, and also tended to reject those stimuli that caused pain to them. Occupational fraudsters would have the tendency to justify what they saw and thought to be benefiting them, like misappropriating company's funds and assets to sustain the lavish lifestyles they had acquired. Social learning theorists believe that crime is learnt where the individuals commit crime and goes unpunished and others tend to follow or learn from them. To explain the research topic using the theory, the major cause for prevalence of fraud is learning and reinforcement of alternative behavior, fraud investigators would utilize the behavior and lifestyles acquired by individuals and relate that to possible fraudulent behavior.

2.7.3 CONTROL THEORY.

The theory of social control based its proposition on people's relationship, commitment, values, norms and beliefs which encourage them not to commit crime or break the law. This means that individuals, who have their moral codes internalized and tied into, have reduced level of deviance from the norm.

Hirschi (1969) focuses on why people conformed as opposed to why they did not conform. He centered at what restrains people from causing crime and what controls are there that hinder people from becoming criminals. Many institutions have well formalized internal controls and risk management division which facilitate the regulations and policies for employees to follow. Financial institutions need very good internal controls and mitigations measures to control levels of deviance and levels of mismanagement.

Hirschi (1969) proposed that while looking at crime causatives there is need to establish direct controls and how intimate groups help increase controls. He listed four components in his proposition, attachment (affectionate ties individuals have with other persons), commitment (cost factors involved in criminal activity), involvement (time dedicated on something) and belief (the

level of conviction towards general values.) La Grange and Silverman (1999) argued in support of self control theory that individual self control is in fact one of the strongest prediction of crime. Thus, people are likely to commit fraud due to the attachment they have to the benefits they are getting and in this case people are attached lavish lifestyles that's why they commit fraud

Gottfredson and Hirschi (1990) proposed in the general theory of crime that there is a connection between criminal behaviour and age. While individual self control is manifested in behaviour of an individual fraud analysts would relate the kind of attachment and involvement individuals have towards a certain lifestyle and hence form a basis for probing. The theory would also focus on enlightening individuals on the relations individuals have with the levels of control that are enforced by the management. Fraud is a crime of breach of trust which means that the kind of belief that a fraudster has in relation to the existing controls is doubtful in comparison with the fraudsters relation to the lifestyle desired after misappropriating company's funds or assets. Hence, a great correlation exists between fraud perpetrators behaviour and their commission of crime.

2.7.4 RATIONAL CHOICE THEORY.

Individuals tend to make rational decision for any action they undertake and all actions are geared towards a benefiting end. Browning and Halcli (2000) states that people tend to calculate the likely costs and benefits of any action before deciding what to take action. This theory will help explain some occupational fraudster behaviour trends while committing fraud, such the reason why individuals commit fraud for the sole reason of 'beating the system' e.g hackers. Hackers don't necessarily live a life of hacking to earn a living but rationalizing their deeds that they can hack any system

Browning and Halcli (2000) looked at how social exchange was embedded in the structure of reciprocity and social obligation in that, individuals would engage themselves in activities which are beneficial to them. Occupational fraudsters will indulge in fraudulent deals to achieve a calculated return in the long run. While individuals take on their daily routine they tend to rationalize their social activities depending on the gains they are getting from the indulgence.

Fraudsters will tend to involve themselves in dishonest activities with a calculated aim. This bargaining power varies with dependence of each participant on the exchange relationship, and this dependence varies in turn, on the extent to which there are alternatives available to them (Heath 1976). Fraudsters will involve in fraud and change their behavior in response to the available options to make a rational decision.

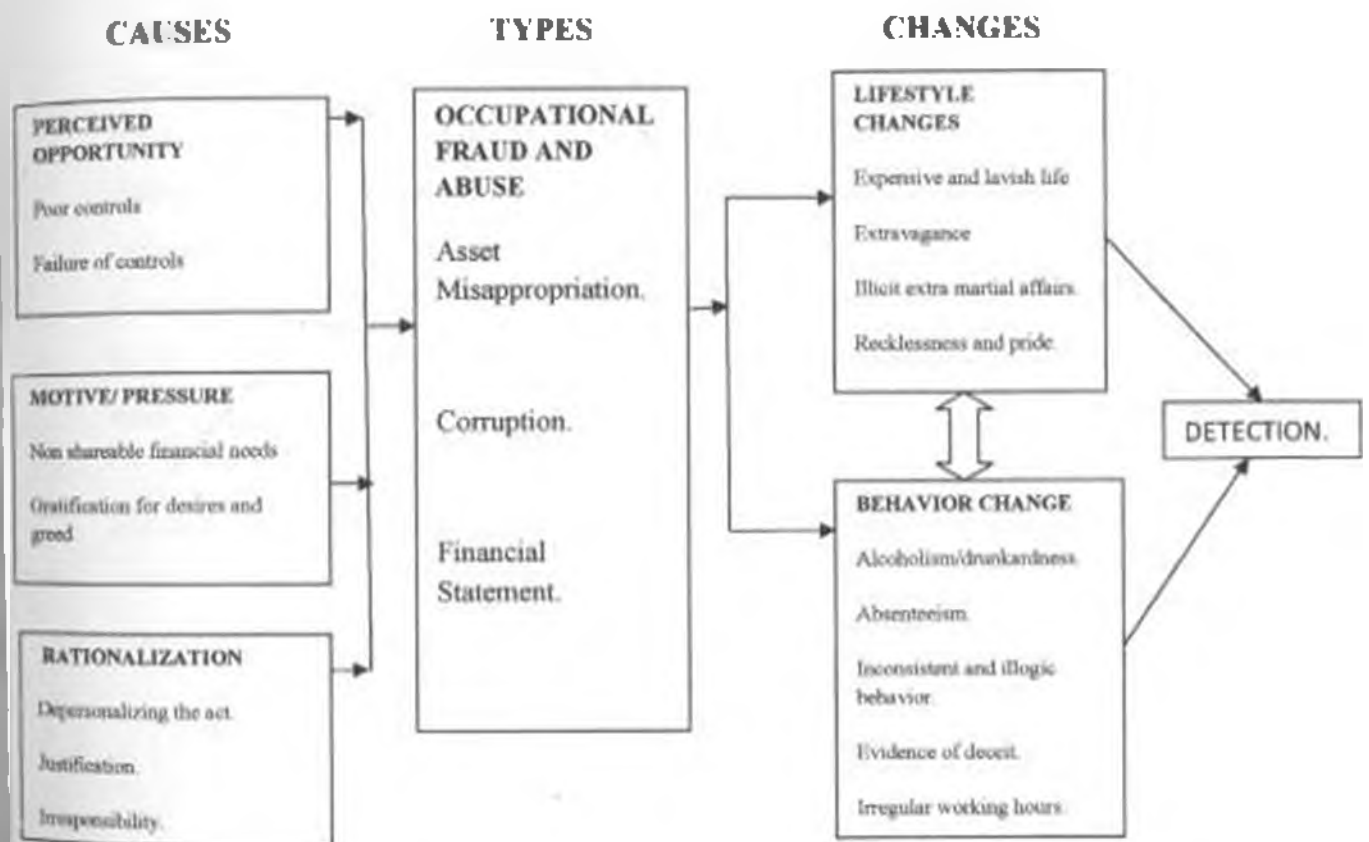
Individuals committing occupational fraud have assessed the benefits accrued in misappropriating company's funds. Fraudsters have an imagined lifestyle they want to achieve and hence believe they have to indulge in the activities that will lead to their goal. Social exchange theory is whereby individuals are thought to engage in activities that they are mutually benefiting. Corruption in Kenya has greatly thrived on the ideology that *"I will assist you if am gaining something from you."*

Other theoretical contributions emerging from the rational/ exchange theory especially from Homas (1974) indicate that to understand large structure of human social life you need to understand social behaviour. This will be very helpful in explanation of the individuals' behaviour and lifestyle behaviors. Fararo (2001) supported Homas proposition that the exchange/rational theory was derived from an understanding of behavioural psychology and elementary economics. This literature will be useful in understanding the relations of occupational fraudsters' behaviour yet they are dealing with money in their bad deeds.

2.8 CONCEPTUAL FRAMEWORK.

Kombo and Tromp (2009) refers conceptual framework as inventing or contriving an idea or explanation and formulating it mentally. It's the direct link of concepts and relationship of constructs that are going to be used in the study. The concept enlisted here show the relationship of occupational fraud and abuse and how it affects the individuals, behaviors and lifestyle

Figure 2.2: Conceptual Framework Illustrating Causes of Occupational Fraud, the Types of Occupational Fraud, and the Behavioral and Lifestyle Changes.



The conceptual figure 2.2 above first outlines the causes of fraud, which are very essential in understanding how the topical issue in the research Occupational fraud causes shown in the conceptual framework in the first three tables are perceived opportunity, motive pressure, and rationalization. These are may not be the only causes of occupational fraud but they are the

major compelling issues for fraud commission (Cressey 1973). However, the study will not focus on the causes

The second chat in figure 2.2 shows the independent variable for the research as occupational fraud, fraud in this study is used as independent variable that influences the behaviors of individuals after and while in commission of occupational fraud. Some of the indicators of occurrence occupational fraud are presence of asset misappropriation, corruption and financial statements (Wells 2007).

The last two chats in figure 2.2 which are interlinked show the dependent variables, these are the changes that are feasible and reasonable to be exhibited by an individual who has committed fraud or is committing fraud. The main area of study will be on the behavior and lifestyle changes in individuals and the two are considered interdependent thus they are interlinked. An individual will pick new traits as he commits fraud and subsequently changes his lifestyle. However, not all changes in an individual will directly lead to a fraud examination and thus the reason for the study; to identify behavior changes and lifestyle changes that can be linked to fraud commission.

The end result as shown in the framework is improved detection after successful indication that fraud is happening due to the emerging behaviour and lifestyle changes identified by fraud examination.

CHAPTER THREE RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design.

Kombo and Tromp (2009) describe research design as the structure of research. It basically shows how all the elements in a research project work together, in a bid to try and explain the research questions raised by the researcher. The study was descriptive and was aimed at describing the relation of lifestyle changes of an individual in the society as a result of involvement in occupational fraud and how that change can be used to point out that an employee is committing fraud.

The study was conducted by purposively selecting the CFEs, who are registered members of Kenya chapter, as the target population. Then random sampling was done for the main respondents (the CFEs) who had pledged to take part in the research. This was aimed at getting random, accurate and informed response from the active practicing CFEs without bias. The qualitative analysis was done with information from secondary data and holding interviews with key informants affiliated to the chapter. The key informants we selected purposively to give opportunity to the experienced and CFEs in management positions in their institutions.

Finally, a review of some fraud policy documents and reports on fraud indicators was carried out for comprehensive understanding of the topical issue and clarification of intricate areas arising from the research. Specific documents referred to oftenly were ACFE reports and the training Fraud Examiners Manual.

3.2 Research Site Selection.

Fraud awareness and education procedures are carried out by various bodies in the world, from T.L, ACFE, World Bank, local institutions like ACFE Kenya chapter, KACC, KBI, NECS, KENAO, ICPAK, etc. The research was narrowed down to a single body of uniformly trained professionals (ACFE). Although, the study sought to capture a wide scope of respondents from the different professions they had to be under the umbrella body of ACFE Kenya chapter.

ACFE Kenya chapter (#134) is an affiliate of ACFE international founded in 1988 by Joseph Wells in the USA. It's an international professional association of anti-fraud and white-collar experts, which trains and helps in fraud awareness in the world. ACFE Kenya chapter is committed to arming anti-fraud professionals with skills and knowledge they need to fight fraud more effectively, the chapter endeavors to train individuals on fraud related matters. The chapter is based at Times Tower Nairobi central business district.

The Kenya chapter has about 200 members and 150 Certified Fraud Examiners as of today. That unified goal and vision of the CFEs brings in the aspect of homogeneity and hence the preferred professional group to carry out the research study.

The premise holds an office and training rooms which was used for the research questionnaire administering and collection location for the CFEs who were able to come to the premise. However, the research did not wholly take place in the premise as not all the respondents are based in the proximity of the chapter premise. The respondents who were based in various institutions in different parts of the Country due to their different professions such as, auditing, security, investigation, banking, management, service industry were visited and the interviews/questionnaires administered there in private offices.

The key informants were visited in their place of work; due to the sensitivity of the material and information to be discussed the interview was held in private rooms.

3.3 Target Population.

Kombo and Tromp (2009), describes population as a group of individuals, objects or items from which samples are taken for measurement. The CFEs under the Kenya chapter was the research target population, this was the proposed research group with whom the research was carried out solely, because of their common goal and their contributions towards the shaping of the research since they were most qualified for the research.

The different professionals from investigators, law enforcement officers, auditors, security officers and risk management contributed valuably to the findings and conclusion of research.

The research also factored in the aspect of experience, how many years the CFEs have been in their field and lastly their direct involvement with fraud detection and deterrence

The total respondents constituted 96 CFEs, with 90 being questionnaire respondents and 6 being key informants.

3.4 Unit of Observation.

For the purpose of the research, the unit of observation was the trained and certified fraud examiner in fraud examination working in various organizations in Kenya. This was because the fraud examiners are in contact with the occupational fraudsters and are best placed to provide information on behaviors they perceive as reasonably significant in fraud detection.

3.5 Unit of Analysis.

Singleton and Straits (1999) describe the unit of analysis as the object of study or item under study, or simply as what or who is to be described or analyzed. The study purposed to observe and analyzing data collected from CFEs in relation to occupational fraudsters behavioral/ lifestyle changes. Hence the unit of analysis was the behavior/ lifestyle changes of fraudsters.

3.6 Sampling Techniques.

Kombo and Tromp (2009), define that sampling as the procedure a researcher uses to gather people, places or things to study. This shows that the sample will be the respondents from a larger population for the purpose of survey. The intended sample size was 100 CFEs from a possible population of 150 CFEs in Kenya chapter, but the selection of the sample size from the population was constrained by the availability of the CFEs required for the research to achieve expected variance in fields of operations.

However, the research took a different shape in the field as many CFEs preferred to first see the questionnaire before they could take the interview on the initial request. This deliberated the researcher to send the questionnaire online to all CFEs in the chapter then followed up with a pre-interview session on phone to confirm availability. The questionnaires were then administered orally to the CFEs willing to participate in the research. Hence, the target sample

size was not achieved but, managed a research significant size of 96 respondents together with the key informant. Due to this complexity, I sought to recruit two assistants one in assisting to data collection an employee of ACFE Kenya chapter and an expert in SPSS data coding and entry to ease distribution of work.

The study used non probability sampling to capture the most comprehensive and detailed views of the CFEs only in Kenya. Non probability sampling gave room for precision and reliability of the findings. Further, the research used purposive sampling for key informants to provide rich and in-depth analysis focused on in the study. This sampling procedure was opted to have an increased resourcefulness of the respondents who had hold knowledge on the topical issue. The key informants were then pin pointed to have further insight on the topic.

3.7 Data Collection Tools.

Primary data was collected using questionnaires and interviews. The tools were relied upon to collect data applicable for both quantitative and qualitative analysis which was very useful for the descriptive analysis of data.

Questionnaires were simple and easy to analyze, hence preferred option for the research. The questions were open and closed ended questions to capture the topical issues and give room for guided freedom on the topic such as, the relationship of lifestyle changes and fraud, which are the common indicators of fraud commission, what are the views of CFEs towards usage of lifestyle change as a fraud indicator.

Semi-structured interviews were conducted orally with the help of an interview guide. The guide contained a list of questions and topics that were to be covered while conducting the interview. The guide was helpful in administering the interview to the key informants depending on the availability and willingness of the respondents due to its time consuming nature. Since the research was assessing the perception or views of CFEs towards behavioral changes, the questions administered were similar to establish a centralized view of the behavioral red flags towards fraud detection.

For secondary data, fraud reports in the various institutions were used to shed light on detections measures and fraud policy formulations.

3.8 Data Analysis.

The data collected was processed and analyzed in accordance with the descriptive study design. The data from questionnaire was edited, coded, and used to create a data set using the Statistical Package for Social Scientists (SPSS). Then analysis was done using cross tabulations and frequencies to make the data collected meaningful in response to the research questions.

Further analyses using descriptive statistics such as tables and graphs was used to present the frequencies and percentages for quantitative analysis.

3.9 Problems Encountered.

The research was the first to be conducted with the new members mainly from the finance sector specifically auditing, accounting, consultants, microfinance, banking, etc. this made them shy away from doing a criminology research and thus the number of targeted sample size was not achieved.

Secondly, accessibility of the CFEs, most of the CFEs are working in their principle institutions and thus accessing them was a challenge considering the time limitation. Also this problem was pronounced when some had travelled out of town on business trips although they were willing to take part in the research.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION.

4.1 INTRODUCTION.

This chapter presents the findings from the research done to assess the perceptions of CFEs towards behavioral red flags which are commonly identifiable and used in fraud detection and deterrence. The study covered a single body of professionals under the Association of Certification Fraud Examination in Kenya chapter

Primary data was collected from a sample of 90 respondents for the questionnaire and 6 key informants for qualitative analysis to complement quantitative analysis for a holistic descriptive study. Secondary data was obtained from the Fraud Examiners Manual and also from the ACFE report to the Nations to guide in comparison and support of the primary findings. Also, information on fraud policy and awareness were reviewed.

The research findings in the chapter strived to answer the research questions as well as meeting the research objectives. The figures, percentages, frequencies used within this and the following chapter refer to the entire sample unless stated otherwise.

4.2 Background Characteristics of Respondents.

Background characteristics helped introduce basic traits of the respondents and interviewees. An understanding of these respondents traits will act as a base for our analysis since the study sought to do analyses on the behavior changes of fraud perpetrators in light of these respondents.

4.2.1 Respondents' Age.

The respondents ages are represented by the table 4.1 below, the largest proportion of respondents (58.9%) were between 31 and 40 years. The second largest proportion of the respondent (29%) were between 21 and 30 years and the last two age groups shared the eight respondents with ages 41 to 50 taking 5.6% and ages 51 to 60 taking the remaining 3.3%. This information was provided in table 4.1 below.

The interviewees though not many were from ages 41 to 50 years and ages 51 to 60 years with each category taking equal proportions (50%).

The age frequency was populous in the first two categories and can be explained by the requirements of becoming a CFE. To enroll for ACFE certification and get a license for use of CFE credential, there are qualifications that you need to have met such as; age, initial profession, work experience, etc.

Table 4.1: Respondents' Age

Age	Frequency	Percent
21-30	29	32.2
31-40	53	58.9
41-50	5	5.6
51-60	3	3.3
Total	90	100.0

4.2.2 Respondents' Highest Level of Education.

The sample for the research was carried out with respondents who already have an initial profession. This is mainly because Fraud Examination Certification is recommended to those individuals who are already practicing or intending to practice fraud reduction. The 90 questionnaire respondents constituted four categories of levels of education. The largest proportion had fifty nine respondents having attained a university degree (65.6%), (22.2%) had attained diploma education, while those with master degree or waiting to graduate were (8.9%) and lastly but not least were the last group others (3.3%).

The table 4.2 shows the summary of the information. The other 3.3% also were noted to have undergone professional trainings so as to meet the qualification needed to enroll for CFE courses. The ACFE chapter registration requires that you be a graduate to meet the entry points alternatively have experience in investigation to compensate for the lack of first degree (ACFE:

2011). This explains the reason for a big percentage in the two categories. This information is available in table 4.2 below

Table 4.2 Respondents' Highest Level of Education

Level of education	Frequency	Percent
Diploma	20	22.2
Degree	59	65.6
Masters	8	8.9
Others	3	3.3
Total	90	100.0

4.2.3 Respondents' Occupation.

Auditing (34.4%) was the most common occupation amongst the respondents', twenty external auditors (22.2%) and eleven internal auditors (12.2%). Eighteen respondents were Security officers (20.0%). Ten respondents (11.1%) were accountants, while nine (10.0%) of the respondents were risk analysts who included risk managers, and compliance officers. Eight (8.9%) respondents in the sample were bankers. It's important to note that bankers were considered to be directly involved in banking chores like clerical, customer service, and operations since in the next table 4.4 of respondents' industry there was an overlap of the roles in segregation of industry while forming the clusters. Lastly, one respondent (1.1%) represented the other categories of occupation that was consultancy.

Table 4.3: Respondents' occupation.

Occupation	Frequency	Percent
accountant	10	11.1
investigator	13	14.4
security officer	18	20.0
external auditor	20	22.2
internal auditor	11	12.2
risk analyst	9	10.0
banker	8	8.9
others	1	1.1
Total	90	100.0

The respondents' industry is important in fraud analysis because it may be used to explain the respondents' perception of behaviour change in light of that industry. Difference in industries like occupations is vital in analysis to help compare whether the same behaviour changes recur in across all sectors.

4.2.4 Respondents Industry.

Sixty two respondents (68.9%) were in the service industry. Twenty six respondents (28.9%) were in the banking industry. Although banks render service it was significant to separate the two, for ease of analysis i.e. finance sector and service sector (e.g. auditing and security). The last but not least significant group was others with two respondents representing (2.2%). It is significant to analyze industry of respondents as it may be used for further comparison in analysis of fraud perpetrators behaviour change. The table 4.4 gives a summary.

Table 4.4: Respondent's Industry

Industry	Frequency	Percent
service	62	68.9
banking	26	28.9
others	2	2.2
Total	90	100

4.2.5 Length of Service as a Certified Fraud Examiner.

The study was focused on certified fraud examiner after purposive sampling procedure. It was necessary to analyze the length of service of all the ninety respondents who confirmed that they were certified fraud examiners. Sixty seven respondents (74.4%) were CFEs who had been certified and had served for 1 to 2 years. The second proportion fourteen respondents (15.6%) had served as CFEs for 2 to 3 years and eight (8%) who had just cleared their exams were under 1 year. Only one respondent (1.1%) had served for 4 years. This information is shown in table 4.5 next page.

Table 4.5: Respondents' Length of Service as CFEs.

Length of service.	Frequency	Percent
Under 1 year.	8	8.9
1-2	67	74.4
2-3	14	15.6
4-5	1	1.1
Total	90	100.0

The length of service is very important for this study as it may be used to provide information as to whether the longer you are in the service the better you become in analyses of fraud detection indicators. The background study of the respondents of study would have been vital as well but the sensitivity of the material hinders unauthorized publications.

4.3 Which Lifestyle and Behaviour Change Indicators are Identifiable as Fraud Indicators by CFEs?

Research findings in this section provided detailed analysis of lifestyle and behaviour change indicators that can be used to identify fraudulent employees. Behavioral red flags vary from one individual to another, since every person has a different character trait from the other. This section explored all the indicators of fraud then narrowed down to the commonly used indicators of lifestyle and behaviour change. The sub sections provided insight on the relationship of fraud detection indicators in relation to other factors such as; occupations, age, level of education, length of CFEs, etc.

4.3.1 Fraud Indicators.

4.3.1.1 Key Fraud Indicators.

The responses from the respondents were numerous and repetitive in the same category therefore, they were clustered into five key categories enlisted below. Eighty responses (28.5%) were behavioral red flags, seventy four responses (26.3%) was the second largest indicator representing poor book keeping. Seventy two responses (25.6%) represented weak internal controls and poor management responses (11.7%) were thirty three, the last category was twenty two responses (7.8%) as other key category of fraud indicators. This information is summarized in table 4.6 and the totals are not indicated due to their variance as a result of multiple responses.

Table 4.6: Key Categories of Fraud Indicators.

Key Categories	Responses	Percent	Percent of Cases
weak internal controls	72	25.60	80.00
behavioral red flags	80	28.50	88.90
poor management	33	11.70	36.70
poor book keeping	74	26.30	82.20
other	22	7.80	24.40

Although, this analysis was not part of the research question it was important to analyze it because it introduced the key fraud indicators of occupational fraud occurrence. Further research is feasible to identify which key indicators and their occurrences are present in each of the key category provided. Additionally, this analysis introduced the key topical issue under scrutiny, as well as gave the overview of the key fraud indicators of fraud, then provided the constituent of behavioral red flag as a key indicator taking the largest proportion (88.9%) of the cases presented.

4.3.1.2 Key Indicators of Behavioral Red Flags.

The responses on key behavioral change indicators were repetitive thus they were clustered to four major categories of behaviour and lifestyle indicators. However, the key indicators of these categories were analyzed thereafter, from the responses in the questionnaire and from the interviews held.

The largest proportion according to the respondents showed that eighty three responses (32.8%) practiced expensive living standards. Some of the expensive living standards exhibited by the occupational fraud perpetrators included living beyond ones mean, buying expensive jewelry, cars, palatial homes, gifts, making frequent expensive trips and overspending or having spendthrift attitude. Sixty eight responses (26.9%) were reported to have sudden or erratic behaviour change from the normal trends they used to have. These sudden changes represented (75.6%) of the cases and some of the sudden noticeable behaviour change included excessive gambling, alcoholism, withdrawal syndrome, deceitful, extended working hours, frequent long calls in silent tones or coded language, being cosy with clients, unexplained sudden relationships with vendors, etc. Sixty one responses (24.1%) showed indication that people who committed fraud had some personal problems which manifested in their behavior. A constituent the response (67.8%) of the cases showed some of those personal problems such as depression, isolation, lack of motivation, behaviour profiling (nervousness, withdrawn from other staff, self-suspicious). Lastly, forty one responses (16.2%) indicated that perpetrators had illicit extra marital affairs. This information is provided in table 4.7 next page and the totals are not indicated due to their variance as a result of multiple responses.

Table 4.7: Key Indicators of Behavioral Red Flags.

Indicators	Responses	percentage	Percent of Cases
expensive living standards	83	32.80	92.20
illicit relationships	41	16.20	45.60
sudden behavior change	68	26.90	75.60
personal problems	61	24.10	67.80

The summary of these behavioral indicators showed are shown in the table 4.7 above. Expensive living standards (92.2%) took the largest proportion indicating the significance its usefulness in fraud detection and deterrence. Second largest portion of the cases presented (75.6%) were sudden erratic change. The last two categories were represented by percentages (67.8%) and (45.6%) for personal problems and illicit relationships respectively. These findings were important in helping make an informed decision on the conclusion of usefulness of behavioral red flags. These indicators also help highlight the presence and usage of behavioral red flags indicator.

4.3.2 Key Behavioral Red Flag Indicators and the Respondents' Background.

This section endeavored to show the relationship between various background information of the respondents and how it revealed variant indications of behavioral and lifestyle changes. Some of the background information included industry, occupation, level of education and length of service.

4.3.2.1 Respondents' Behavioral Red Flag Indicators and Industry.

The respondents in the service industry had (68.7%) of expensive living standards, (68.3%) revealed illicit relationship, (64.7%) showed sudden behaviour change and finally (68.8%) personal problem.

Banking industry provided exploitable information on behaviour red flag indicators using expensive living standard as (28.9%), (26.8%) from illicit relationship, (35.3%) sudden behavior

change and personal problems had a (27.9%) usability in the banking industry. Other categories of industry were also aware of these indicators and reported (2.4%) on expensive living standards, (4.9%) on illicit relationships and (3.3%) on personal problems.

Table 4.8: Respondents' Behavioral Red Flag Indicators and Industry of Respondents.

Industry of respondents	Behavioral red flag indicators.			
	expensive living standards %	illicit relationships %	sudden behavior change %	personal problems %
Service	68.70	68.30	64.70	68.80
Banking	28.90	26.80	35.30	27.90
Others	2.40	4.90	0.00	3.30
Total	100.00	100.00	100.00	100.00

4.3.2.2 Respondents' Occupation and Behavioral Red Flag Indicators.

External auditors who were (22.2%) of the total respondents (see table 4.3) had most responses (34.1%) on illicit relationships and (24.1%) responses on usability of expensive living standards. Security officers had (24.6%) responses on personal problems and (19.1%) responses on sudden behaviour change. Risk analysts had (17.1%) responses on illicit relationships while bankers had (12.2%) responses on illicit relationship. Accountants and internal auditors shared the same perception on usage of illicit relationship with (7.3%) each.

The challenge and difficult of fraud identification was reflected by the analysis of the data above. The importance of this analysis was to show how the indicators of lifestyle and behavioral red flags vary from one occupation to another. Although all the indicators are present in all the fields, different professionals are inclined to different detection procedures as the cases presented in table 4.9 below.

These variations can be used to deduce that different CIEs in their different occupations have identifiable and noticeable behavioral red flags indicators. A very small section of professionals under others category recorded (0%) expensive living standards. This is not significant in the study due to two things one other category of occupation only represented (1.1%) of the whole population. Secondly, other category recorded other behavioral red flag indicators such as (2.4%) of illicit relationships, (1.5%) of sudden behaviour change and finally (1.6%) of personal problems. This information is summarized in table 4.9 next page.

Table 4.9: Respondents' Behavioral Red Flag Indicators and Occupation.

Occupation	Behavioral red flag indicators			
	expensive living standards %	illicit relationships %	sudden behavior change %	personal problems %
Accountant	10.8	7.3	14.7	9.8
Investigation	15.7	9.8	14.7	6.6
security officer	18.1	9.8	19.1	24.6
external auditor	24.1	34.1	20.6	21.3
internal auditor	13.3	7.3	14.7	18.0
risk analyst	8.4	17.1	4.4	14
Banker	9.6	12.2	10.3	3.3
Others	0	2.4	1.5	1.6
Total	100.0	100.0	100.0	100.0

Further analysis can be derived from the table 4.9 for comparison of the frequencies of the indicators pointing towards behavioral red flags in relation to occupation of CIEs. The analysis was used to come up with the final analysis of the indicators that were used for identification of fraud perpetrators using their behaviour and hence giving a perception on the usability of these indicators.

4.3.2.3 Respondents' Behavioral Red Flags Indicators and Length of Service.

The length of service was to determine whether there are any noticeable changes present in fraud indicators used in identification of behavioral red flag in relation to the years of service. The largest proportion in all the four major categories was to in ages 1 and 2 years. The percentages were (78.0%) for illicit relationships, (75.9%) for expensive living standards, (72.1%) were for sudden behaviour change, while (73.8%) was for personal problems. However, this information compared to that in table 4.5 which indicated that age 1 to 2 years carried the largest proportion (74.4%) of respondents and thus explaining the reason for higher frequencies in their responses.

CFEs who had served for 2 to 3 years had (15.7%) responses on expensive living standards and (17.1%) illicit relationships. Further, respondents who had served less than one year also provided indicators which they felt could explain behavioral red flag such as (7.2 %) expensive living standards, (11.8%) sudden behaviour change and (8.2%) personal problems. This is found in table 4.10.

Table 4.10: Respondents Behavioral Red Flags and Length of Service.

	Behavioral Red Flag Indicators.			
Years of service	expensive living standards %	illicit relationships %	sudden behavior change %	personal problems %
Under 1 year	7.2	4.9	11.8	8.2
1-2	75.9	78.0	72.1	73.8
2-3	15.7	17.1	14.7	16.4
4-5	1.2	0	1.5	1.6
Total	100	100	100	100

The research investigative nature of which lifestyle indicators are exhibited by person committing fraud or had committed fraud had successively achieved its objective one of the study by listing the indicators in table 4.7 above.

With regards to objective one of the study which was to find out which are the indicators of behavioral changes and lifestyle changes indicators are identifiable by the CFEs. It may be deduced that there are many indicators which can identify fraud as seen in table 4.6 in the explanation of main fraud indicators. Behavioral red flags (lifestyle and behavior change) had (28.5%) and present in (88.9%) cases presented. Further analysis for the actual indicators of the behavioral red flags which were present in the (88.9%) of the cases presented, four other categories were identified, expensive living standards (32.8%), illicit relationships (16.2%), sudden behaviour change (29.9%) and finally (24.1%) presented to have some personal problem. Also referred to as non shareable problems (F.E.M 2010, Cressey 1973)

4.4 How does lifestyle and behavioral change indicator compare to other individual qualities used in fraud detection and investigation. Such as age, gender, level of education, prior criminal records etc.

Research findings in this section provided insight into the various individual qualities fraud examiners compare in an individual especially when formulating a hypothesis for fraud examination. However, the research had to be guided by the CFEs who had done investigation on occupational fraud. This was to help identify qualities which will be used to compare with the behavior and lifestyle change as an individual quality useful in fraud examination. Finally, the section gives a comparison of behavior change and other fraud indicators in respect to CFEs perception. The information presented was valuable to weigh the usage of behavior with the use of other qualities. This provided valuable information on comparisons between behavioral red flags fraud indicator and other indicators.

4.4.1 Respondent's Fraud Investigation of Occupational Fraud.

Sixty nine (76.7%) respondents confirmed to have done a fraud investigation of some form and (23.3%) had not done investigation. This is shown in table 4.11 next page

Table 4.11: Respondents who had Done an Investigation.

	Frequency	Valid Percent
yes	69	76.7
no	21	23.3
Total	90	100.0

Further analysis showed (68.9%) of the sixty nine (76.7%) of the previous table 4.11 indicated that they had done investigation related to occupational fraud. This was important so as to clarify that the individual qualities are in relation to the investigation of occupational fraud. Seven (10.1%) respondents indicated that they had done investigation but did not involve fraud occupation. The figures are shown in table 4.12 below.

Table 4.12: Shows Respondents who Investigated Occupational Fraud

	Frequency	Percent
yes	62	68.9
no	7	7.8
Total	69	76.7
Missing	21	23.3
Total	90	100

4.4.2 Perpetrators Individual Attribute and Qualities.

The perpetrators individual qualities are always considered while doing a fraud investigation. They should not be confused to be personal problems. Individual qualities can be useful indicators of fraud. Personal problems were analyzed earlier in the chapter (section 4.3).

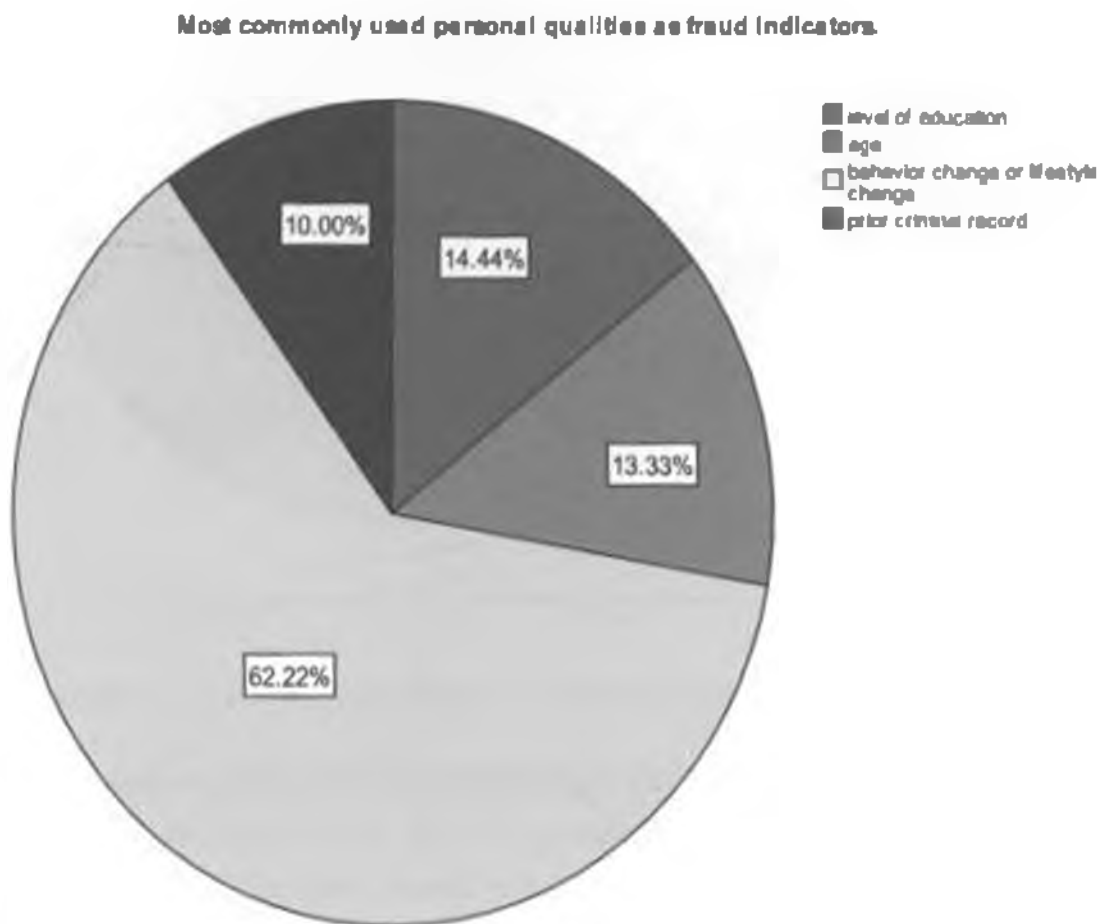
Individual qualities are used to single out criminals from other employees. Numerous characteristics emerged from the study such, position in organization, annual income, behaviour and lifestyle changes, time on job, gender, age, level of education, collusion with vendors, prior

criminal record. However, the study focused on commonly referred to individual characteristics and compared them with behaviour and lifestyle changes.

4.4.2.1 Most Commonly Used Personal Qualities as Fraud Indicators.

Behaviour change was rated as the most commonly used (62.22%) fraud indicators amongst all other personal characteristics. Level of education was (14.44%) while age was (13.33%). Lastly, prior criminal record was (10%). This data is provided in figure 4.1 next page.

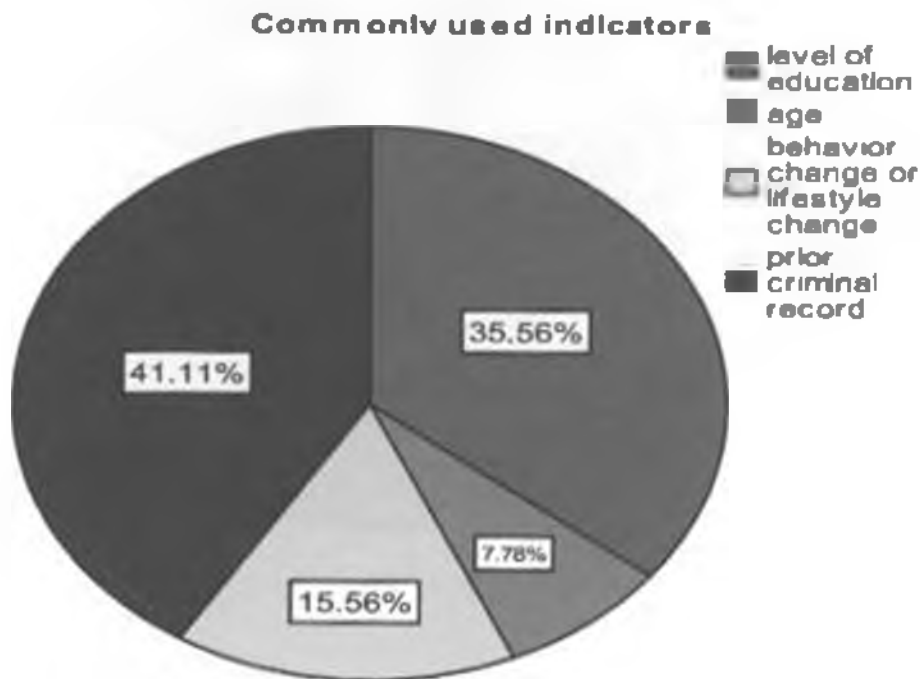
Figure 4.1: Most Commonly used Personal Qualities as Fraud Indicators.



4.4.2.2 Commonly Used Personal Qualities as Fraud Indicators.

Prior criminal record was the commonly used (41.11%) indicator of the personal characteristics assessed. Level of education shared (35.56%) and behaviour change also was commonly used (15.56%). Finally age as an indicator shared (7.78%). This information is shown in figure 4.2 below.

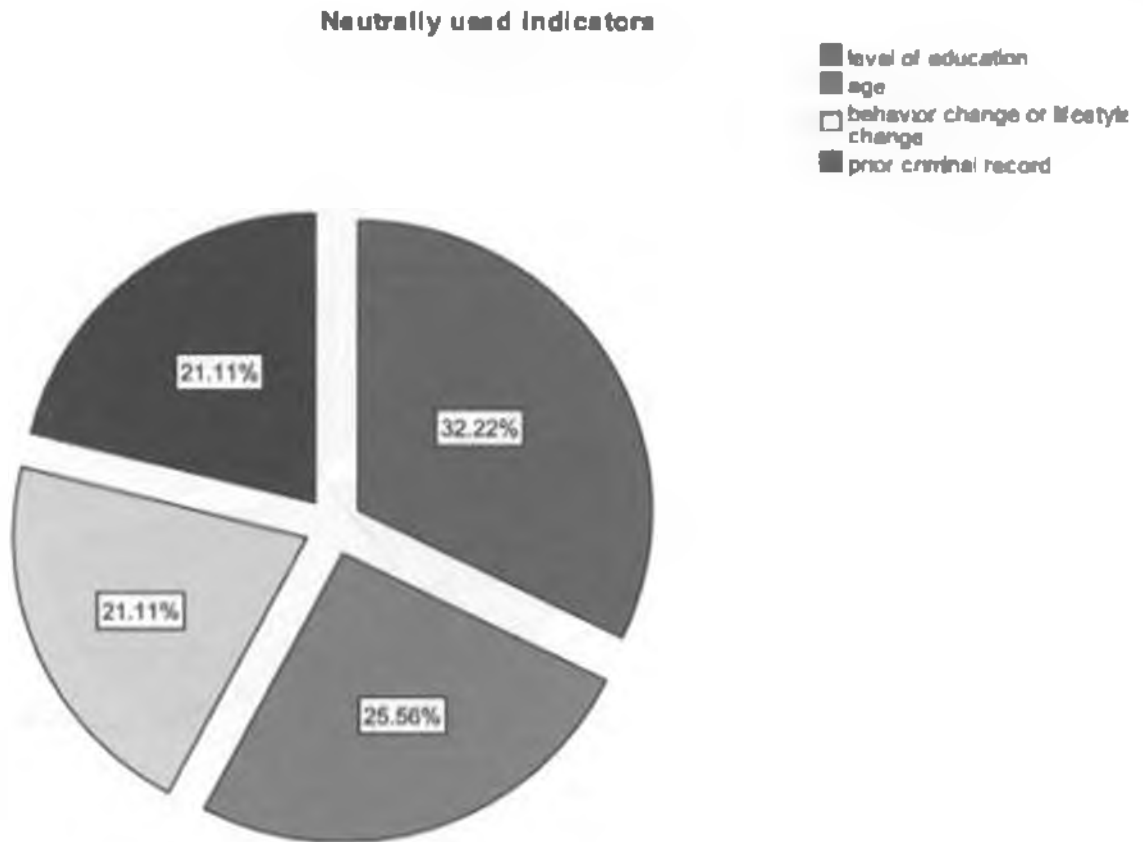
Figure 4.2: Respondent's Commonly Used Personal Qualities as Fraud Indicators.



4.4.2.3 Neutrally Used Personal Qualities as Fraud Indicators.

The personal indicators which were considered neutral while doing an investigation according to the CFEs were the indicators which were not influential in the case but can still be used to indicate possible fraud. The most neutral was level of education with (32.22%), age was (25.55%) and lastly behaviour changed and prior criminal records which have been ranked highest in the previous categories were ranked least with (21.11%). See the chart in figure 4.3 below for summary of the information.

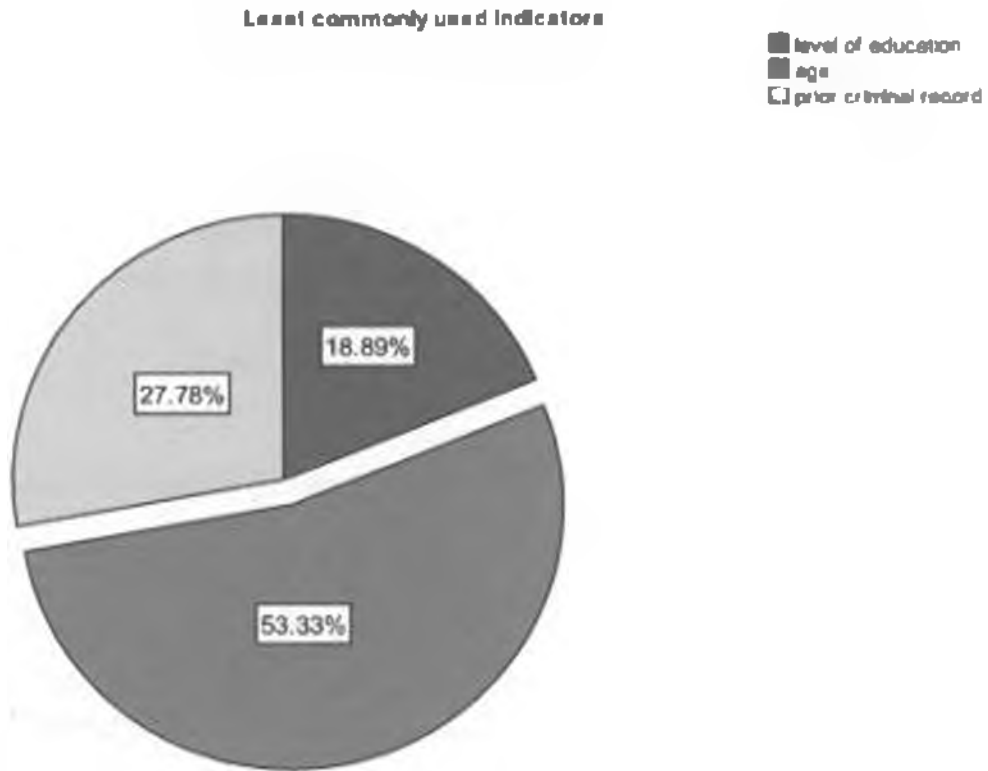
Figure 4.3: Respondents Neutrally used Personal Qualities as Fraud Indicators.



4.4.2.4 Least Commonly Used Personal Qualities as Fraud Indicators.

The least commonly used personal quality (53.33%) was age. Prior criminal records was (27.78%) and level of education (18.89%). Behaviour change did not feature at all in the least commonly used indicators. The summary findings are in the figure 4.4 next page.

Figure 4.4: Respondents Least Commonly used Personal Qualities as Fraud Indicators.



4.4.3 Respondents' Frequency in Usage of Behavioural Red Flag.

This sub section identified the respondents' rate in usage of behavioral red flag. Prior to this response it had been confirmed that all the ninety respondents (100%) had knowledge of behaviour red flag a fraud indicator. Thirty seven respondents (41.1%) rated their usage of behavioural red flag as most often, thirty five (38.9%) of the respondents said often, while seventeen respondents (18.9%) rated their usage as less often. Lastly, only one individual rated the usage as less often (1.1%). This information is summarized in the table 4.13 next page.

Table 4.13: Respondents' Frequency in Usage of Behavioral Red flag.

	Frequency	Percent
Most often	37	41.1
Often	35	38.9
Neutral	17	18.9
Less often	1	1.1
Total	90	100.0

4.4.3.1 Respondents Frequency in Usage of Behavioural Red Flag in the Industry.

A cross tabulation was to relate the rate of occurrence vis a vis the service industry revealed that, thirty one respondents (83.8%) in the service industry used most often as compared to four (10.8%) in the banking industry. Fourteen respondents (82.4%) in the banking industry were neutral in usage. Only one respondent from service industry rated the usage as less often. Twenty seven respondents (77.10%) in service industry against eight (22.9%) in banking industry used the red flag often.

This analysis is important since it gave the usage and comparison of usage of the red flag in various industries.

Table 4.14: Respondents Usage of Behavioural Red flag and Service Industry.

Industry of respondent	Frequency of Usage.				Total %
	Most often %	Often %	Neutral %	Less often %	
Service	83.80	77.10	17.60	100.050	68.90
Banking	10.80	22.90	82.40	0.00	28.90
Others	5.40	0.00	0.00	0.00	2.20
Total	100.00	100.00	100.00	100.00	100.00

4.4.3.2 Respondent's Frequency in Usage of Behavioural Red Flag and Level of Education.

Carrying out a cross tabulation of the level of education and rate of usage of the behavioral red flag fraud indicator revealed the following. Sixteen degree respondents (94.1%) usage as neutral. Twenty three respondents (62.2 %) with degree used the indicator most often while nineteen (54.3%) those in the same level of education used often. Thirteen respondents (37.1%) with diploma courses used the indicator often and six respondents (16.2%) confirmed usage of the indicator most often. The tabulation also showed three (8.1%) respondents in others as having used the indicator often. This information can be seen in the table 4.15 below.

Table 4.15: Respondents' Frequency in Usage of Behavioural Red Flag and level of Education.

Level of Education	Frequency of Usage				
	Most often %	Often %	Neutral %	Less often %	Total %
Diploma	16.20	37.10	5.90	0.00	22.20
Degree	62.20	54.30	94.10	100.00	65.60
Masters	13.50	8.60	0.00	0.00	8.90
Others	8.10	0.00	0.00	0.00	3.30
Total	100.00	100.00	100.00	100.00	100.00

4.4.3.3. Respondents' Frequency in Usage of Behavioural Red Flag in their Occupation.

Carrying out a cross tabulation of the level of education against frequency in usage of the behavioural red flag revealed that accountants (47.10%) were neutral in their usage of the indicator. Bankers (29.4%) indicated that they were also use neutral and external auditors (27.0%) used the indicator most often. The internal auditors (31.40%) used the indicator often, investigator and security officers shared (24.30%) each and stated use of the indicator most often. This information can be found on table 4.16 next page.

Table 4.16: Respondents' Frequency in Usage of Behaviour Red Flags in their Occupation.

Occupation	Frequency of Usage			
	Most often %	Often %	Neutral %	Less often %
Accountant	5.40	0.00	47.10	0.00
Investigator	24.30	11.40	0.00	0.00
Security officer	24.30	25.70	0.00	0.00
External auditor	27.00	25.70	0.00	100.00
Internal auditor	0.00	31.40	0.00	0.00
Risk analyst	16.20	0.00	17.60	0.00
Banker	2.70	5.70	29.40	0.00
Others	0.00	0.00	5.90	0.00
Total	100.00	100.00	100.00	100.00

The risk analyst (16.20%) confirmed usage of the indicator most often and also (17.60%) respondents of risk analysis cited their frequency usage of the indicator as neutral. This information is available in table 4.16 above.

4.4.4 Respondents' Comparison of Behaviour Red Flag as a fraud indicator with other Indicators.

As reflected in the table 4.17 below, majority of the CFEs (forty seven constituting 52.2% of the sample) indicated that use of behavioral indicator was high as compared to other indicators. Twenty nine respondents (32.2%) rated usage of the indicator as very high. CFEs constituting 13% compared the fraud indicator with others as neutral and only one CFE who rated behavioural indicator as low. This information is compared in the table 4.17 next page.

Table 4.17: Respondents' Rate of Behavioral Red Flag in Comparison with other Fraud Indicators.

	Frequency	Valid Percent
Very high	29	32.2
High	47	52.2
Neutral	13	14.4
Low	1	1.1
Total	90	100.0

4.4.4.1 Respondents' Rate of Comparison of Behavioral Red Flag in Industry.

According to the cross tabulation done in relation to rate of comparison of the indicators and industry it revealed that, (57.7%) respondents in banking industry ranked behavioural red flag as high and (51.6%) in the service industry ranked it high. In the service industry (38.7%) ranked behaviour change as very high while bankers ranked the indicator (11.5%) as very high. Bankers constituting (30.8%) rated its comparison to the other indicators as neutral. All the other industry members rated it very highly (100%) against other indicators. This information is summarized in table 4.18 below.

Table 4.18 Respondents' Industry and Rating of Behavioral Red Flag Fraud Indicator.

Industry of Respondent	Comparison with other indicators			
	Very high %	High %	Neutral %	Low %
Service	38.70	51.60	8.10	1.60
Banking	11.50	57.70	30.80	0.00
Others	100.00	0.00	0.00	0.00
Total	32.20	52.20	14.40	1.10

4.4.4.2 Respondents' Rate of Comparison of Behavioral Red Flag Indicator and Level of Education.

The level of education and comparison rate in the cross tabulation revealed that the category of diploma graduates regarded the indicator highly (85.0%) and other regarded usage of behaviour change as high (66.7%), masters level regarded both high (50%) and very high (50%). CFEs with a degree rated the indicator high at (40.7%) and very high (10.0%). This information is summarized in table 4.19 below

Table 4.19: Respondents' Comparison Rating of Behavioral Indicator and Level of Education.

Education	Comparison with other indicators			
	Very high %	High %	Neutral %	Low %
Diploma	10.00	85.00	5.00	0.00
Degree	37.30	40.70	20.30	1.70
Masters	50.00	50.00	0.00	0.00
Others	33.30	66.70	0.00	0.00
Total	32.20	52.20	14.40	1.10

4.4.4.3 Respondents' Rate of Comparison of Behavioral Red Flag Indicator and Length of Service.

According to the cross tabulation it revealed that, the respondents between the 1 year and 2 years of certification they rated behaviour indicator high (56.7%) and (50.0%) of the CFEs under 1 year of service rated the indicator high Respondents in 2 to 3 years of service rated the indicator as very high (50.0%) and also rated the indicators as high (35.7%) Respondents constituting (28.4%) between in years 1 and 2 of service and (25%) in under year 1 of certification rated the indicator as very high

From the cross tabulation in terms of service, it was deduced that those with over 2years rated the usage of the fraud indicator as very high as compared to those who had just received their certification. The summary of the relationship is in the table 4.20 below.

Table 4.20: Respondents' Length of Service and Ratings of Behavioral Red Flag Indicator.

Years served	Comparison with Other Indicators			
	Very high %	High %	Neutral %	Low %
Under 1 year	25.00	50.00	25.00	0.00
2-3	28.40	56.70	13.40	1.50
3-4	50.00	35.70	14.30	0.00
4-5	100.00	0.00	0.00	0.00

From the findings in the tables shows this section, the relation between the respondent's background information and frequency of usage the behavioral red flag provided vital information for analysis of the second objective of the study. Data presented in this section also provided a summary of how the behavioral red flag compared with other indicators in light of other background information like, industry, level of education, length of service as CFE.

With regards to objective two of the study, which sought to establish the comparison of behaviour changes with other fraud indicators related to personal qualities, it is noteworthy that (62.22%), (See figures 4.1) of the respondents confirmed that they most commonly used the indicator, (41.11%), (See figure 4.2) of the CFEs confirmed that they commonly used it in their investigation. Those CFEs who used the indicator neutrally were (32.22%), (see figure 4.3) and lastly (53.33%), (see figure 4.4) shows the respondents who admitted to have least used age as a fraud indicator that is in relation to all the other four indicators.

Further cross tabulation tables in this section provided information indicating that twenty nine (32.2%) of the respondents rated behaviour change as very high as compared to other indicators, forty seven CFEs (52.2%) constituent compared it as high in relation to other respondents. Lastly, thirteen (14.4%) CFEs believed it was neutral in relation to other indicators.

Additionally we can deduce, from the data presented and analyzed, that the general frequency of usage of the red flag indicators was high and most often as presented in the tables, thirty seven respondents (41.1%) used it most often as their indicator, thirty five respondents (38.9%) used it often, seventeen CFEs (18.9%) used it in neutral tones, and lastly CFE (1.1%) used the behavioral red flag less often (see table 4. 13).

4.5 How Effective is the Use of Behavioral Red Flags in Fraud Examination?

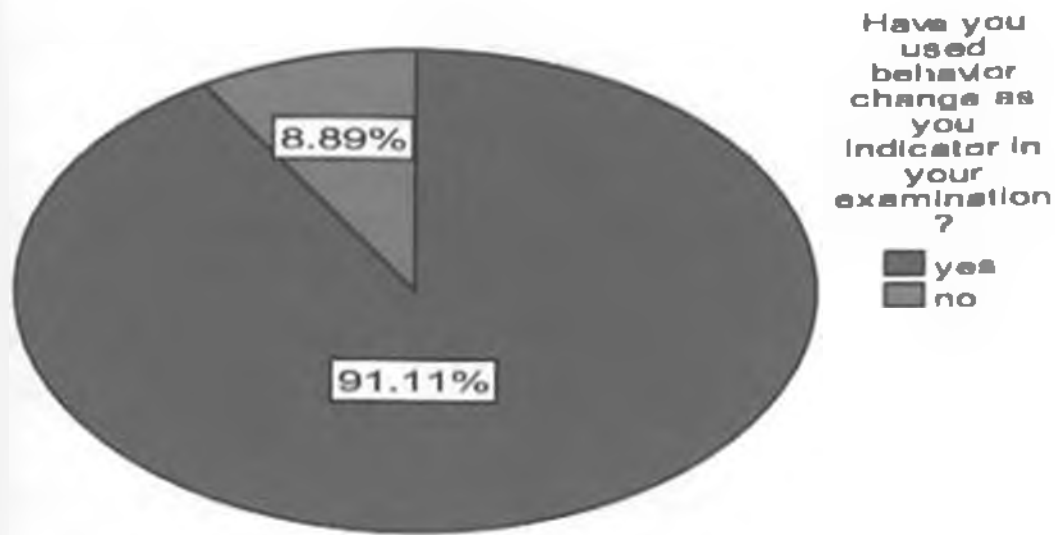
This section relied mainly on data from the interview held with the key informants and also response from the respondents. The section was used to give the general perception of whether the usage of the behavioral red flag is effective or not.

4.5.1 Respondent's Usage of Behavioral Red Flag.

Research findings in this sub section provided insight on the varying responses from their respondents on their usage of behaviour changes and lifestyle changes. The importance of this section was to investigate and establish the kind of relation and effective use of behavioral red flags that the CFEs have.

The figure 4.5 below represents the respondents who had used behaviour change in an investigation. This data was used in reference to only one case study of their choice from the respondents. The largest constituent eighty two CFEs (91.11%) reported to have used the behaviour change and only eight CFEs (8.9%) of the CFEs had not used the behaviour changes. The summary is provided in the figure 4.5 below.

Figure 4.5: Respondents' Usage of Behaviour Red Flag.



4.5.1.1 Respondents' Usage of Behaviour Red flag in their Industry.

Sixty one respondents in the service industry had used the red flag while only nineteen in the banking industry had used behaviour for their fraud examination. The other industries represented by only two respondents having used it. This information was confirmed by the key informant that the banking industry mainly dealing with book keeping deals with other indicators mainly poor book keeping misrepresented figures, cooked books, unbalanced accounts etc.

Table 4.21: Respondents' Usage of Behavioral Red Flags in their Industry.

Industry of respondent	Respondents' Usage of the Red Flag.	
	yes	No
Service	61	1
Banking	19	7
Others	2	0
Total	82	8

4.5.1.2 Respondents' Usage of Behavioral Red Flag in their Occupation.

The cross tabulation reveals the kind relationship between the usage of behaviour red flags in the respective occupation of the CFEs. The previous (table 4.21) revealed that the banking industry and especially the accounting sectors did not favor the usage of behaviour red flags. The reasons as well are provide in the same chapter what the accountants prefer to use as discussed with during the interviews. Security, external/internal auditors and investigators all (100%) used behaviour in the analyses. However, only (60%) had used some form of behaviour analysis, (77.85%) of the risk analysts had used the indicator. A constituent of (75%) of the bankers had also used some form of behaviour checks. The summary of the sub section is found in the cross table 4.22 below.

Table 4.22: Respondents' Usage of Behavioral Red Flags in their Occupation.

Occupation	Respondents' Usage of the Red Flag.	
	Yes %	No %
Accountant	60.00	40.00
Investigator	100.00	0.00
Security officer	100.00	0.00
External auditor	100.00	0.00
Internal auditor	100.00	0.00
Risk analyst	77.80	22.20
Banker	75.00	25.00
Others	100.00	0.00
Total	91.10	8.90

4.5.1.3 Respondents' use of Behavioral Red Flag per their Age.

The respondent's age was considered in the analysis of the usage of fraud indicator, respondents between the age 41 to 50 years and 51 to 60 years all (100%) confirmed that they had used behaviour indicator in the case. Ages 31 to 40 years, (96.2%) confirmed that they had used the

indicator while (79.3%) respondents in ages 21 to 30 had used some form of behaviour identification in their cases. This information is summarized in table 4.23 below.

Table 4.23: Respondents' Use of Behavioral Red Flag per their Age.

Age of respondent	Respondent Usage of the Red Flag	
	Yes %	No %
21-30	79.30	20.70
31-40	96.20	3.80
41-50	100.00	0.00
51-60	100.00	0.00
Total	91.10	8.90

From the three data set presented in this sub section, it can be deduced that most of the CFFs regardless of their age, occupation and service industry had used some form of behaviour changes and lifestyle changes analysis at least in one of their cases. The next sub section sought to clarify the effectiveness of usage of behavioral red flag.

4.5.2 Behavioral Red Flag Indicator Effectiveness in an Investigation.

This sub section follows the effectiveness of using of behavioral red flags in an investigation. The responses are dependent of the previous respondents (91.1%) of those who had said yes. Further, the sub section briefly looked at those amongst the (91.1%) respondents who did not find the behaviour change red flag effective and the reason provided. Interviews conducted helped expound on why the effectiveness of the behavioural red flags suffered shortfalls.

4.5.2.1 Respondents View of Effectiveness of Behavioral Red Flag.

As reflected in table 4.15 below, eighty two respondents (91.1%) had said yes that they had used fraud examination. Of the (91.1%) the largest constituent had said that, the use of behavioral red flag was successful in build-up in formulation of fraud hypothesis and prosecution after other

evidence had been collected and authenticated. Those who said yes that they had investigated using behaviour change but no successful prosecution were twenty (22.2%) of the (91.1%). The reasons were provided in interviews and also in the questionnaires. The information is available in the table 4.24 below.

Table 4.24: Respondents' Successful Usage of Behavioral Red Flag.

	Frequency	Valid Percent
yes	62	75.6
no	20	24.4
Total	82	100
Missing	8	
Total	90	

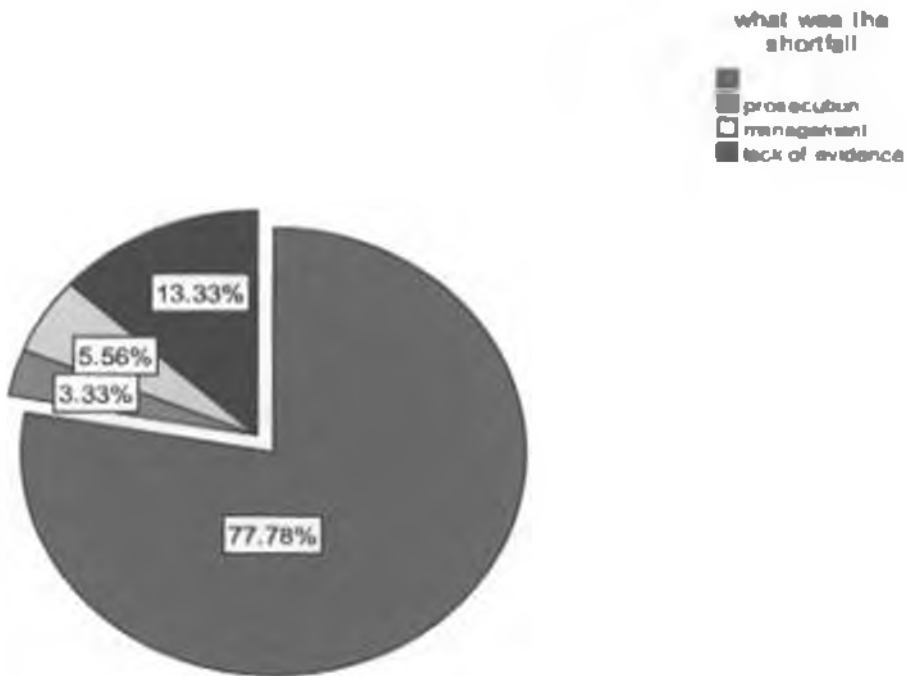
4.5.2.2 Respondents' Shortfall for Usage of Behavioral Red Flags.

The research probed to find out why the use of behaviour had failed in successful closing of the case. The reasons provided were lack of proper evidence, poor management, and prosecutorial powers. The data presented by the figure 4.6 below showed four categories; those who did not respond to the shortfall question because either they did not use behavioral red flag at all (8.89%), (see figure 4.5) or it was effective (75.6%), (see table 4.15) in their usage constituted (77.78%) identified in blue had no shortfall.

The largest constituent (13.33%) was the CFFs who said the cases failed due to lack of proper evidence for prosecution. The second large proportion (5.56%) cited management at the top. Further clarification on this aspect was guided by the interview that revealed, the 'tone at the top' (top management) was actually a hindrance to fraud investigation and also one of the key indicator of fraud under the category of poor management (see table 4.6). Lastly, (3.33%) blamed the prosecutions and judicial system hiccups as having hindered successful prosecution of cases. The information can be viewed in the summary form in the next page figure 4.6.

From the data presented it was deduced that just like any other fraud indicator that cannot serve alone apart from actual theft or cash larceny, behavioral red flag can successfully (75.6%) be used in fraud indication.

Figure 4.6: Respondents' Shortfall in Using Behavioral Fraud Examination.



4.5.3 Respondents' Perception of Usage of Behavioral Fraud Indicator.

This sub section presented data findings that showed the individual response on how they viewed the use of behavioral indicator. The CFEs were asked, what their perception on the usability of the behaviour and lifestyle change for fraud detection was.

The largest proportion forty seven (52.2%) of the CFEs agreed to the usage of behavioral indicators for fraud detection. Thirty seven (41.1%) of the respondents strongly agreed to the usage of the indicator, while the neutral proposition was from six respondents (6.7%) of the whole population. This information is summarized in table 4.25 below.

Table 4.25: Respondents' Perception towards the Usage of Behavioral Indicators.

Can behaviour change be used for Fraud Detection?		
	Frequency	Percent
Strongly agree	37	41.1
Agree	47	52.2
Neutral	6	6.7
Total	90	100

4.5.3.1 Respondents' Perception towards the Usage Behaviour Indicator in their Industries.

The largest category was other with (100%) respondents who strongly agreed, banking industry the second largest proportion (53.8%) agreed towards usage of the indicator Service industry had (53.2%) of the respondents agreeing to usage of the indicator, while a proportion (43.5%) of the respondents in the service industry strongly agreed that fraud can be detected using fraud examination Banking industry presented (15.4%) of neutral respondents on usage of the indicator This information is summarized in the table 4.26 below. This information was in acceptance with Homas (1974) theory which proposed that you have to understand the individual being first so that you can understand the whole society

Table 4.26: Respondents' Perception towards the Usage of Behaviour Indicator in their Industry.

Can Behaviour change be Used for Fraud Detection?			
Industry of respondent	Strongly agree	Agree	Neutral
Service	43.50	53.20	3.20
Banking	30.80	53.80	15.40
Others	100.00	0.00	0.00
Total	41.10	52.20	6.70

4.5.3.2 Respondents' Perception towards the Usage of Behaviour Indicator in their Occupation.

According to table 4.27 below, the responses of the CFEs towards the usage of behaviour indicator revealed that (80%) of the accountants had agreed that fraud can be used. The second largest proportion (77.8%) was security officers who also agreed to the use of the indicator. The proportion of (75.0%) in the banking industry agreed while investigators strongly agreed (69.2%) that the indicator can be used. Risk analyst (66.7%) strongly agreed to the assessment of individual behaviour change while conducting fraud examination. External auditors had (60%) strongly agreeing that fraud can be used and (40%) of the external auditors also agreed that behaviour indicators can be used for the analysis. Summary is provided in table 4.27 below.

Table 4.27: Respondents' Perception towards the Usage of Behavioral Indicator in the Occupation level.

Can Behaviour Change be Used for Fraud Detection?			
Occupation of respondent	Strongly agree %	Agree %	Neutral %
Accountant	10.00	80.00	10.00
Investigator	69.20	30.80	0.00
Security officer	22.20	77.80	0.00
External auditor	60.00	40.00	0.00
Internal auditor	45.50	54.50	0.00
Risk analyst	66.70	11.10	22.20
Banker	0.00	75.00	25.00
Others	0.00	0.00	100.00
Total	41.10	52.20	6.70

4.5.3.3 Respondents' Perception towards Behavioral Indicator in Relation to their Age

A cross tabulation done using age and perception of fraud indicator revealed that the respondents in the ages 41 to 50 years (80%) agreed that fraud can be examined using behaviour change. The second largest proportion (69.0%) was respondents in ages 21 to 30 years. The third category (66.7%) of the respondents between 51 and 60 years strongly agreed to the proposition of fraud investigation using behaviour change. The neutral (13.8%) were skeptical on usage of the behaviour and were ages 12 to 30 years. Further summary is available in the table 4.28 below.

Table 4.28: Respondents' Perception towards Behavioral Indicator in Relation to their Age.

Can Behaviour change be Used for Fraud Detection?			
Age of respondent	Strongly agree %	Agree %	Neutral %
21-30	17.20	69.00	13.80
31-40	54.70	41.50	3.80
41-50	20.00	80.00	0.00
51-60	66.70	33.30	0.00
Total	41.10	52.20	6.70

4.5.3.4 Respondents' Perception towards Behavioral Indicators in Relation to the Level of Education.

The cross tabulation table 4.20 shows the relationship between the perception of respondent and their level of education that revealed, the largest proportion (90%) diploma graduates agreed to the usage of behavioral changes. However, the second largest proportion (87.5%) of master level strongly agreed. Degree respondents shared almost equal proportions that between agree (47.5%) and strongly agree (12.5%). Further summary can be viewed in the table 4.29 next page.

Table 4.29: Respondents' Perception towards Behavioral Indicators in Relation to the Level of Education.

Can Behaviour change be Used for Fraud Detection?			
Level of Education	Strongly agree %	Agree %	Neutral %
Diploma	5.00	90.00	5.00
Degree	44.10	47.50	8.50
Masters	87.50	12.50	0.00
Others	100.00	0.00	0.00
Total	41.10	52.20	6.70

4.5.3.5 Respondents' Perception towards Behavioral Indicators in Relation to Level of Education.

Respondents in the age bracket of 2 to 3 years had the largest proportion (71.4%) and strongly agreed that fraud can be used, (58.2%) of the respondents in the 1 to 2 years category agreed that the indicator can be used. The CFEs under one year of certification agreed by (50%) that the indicator can be used while (25%) of the respondents under 1 year strongly agreed and was neutral (25%) as well of the usage of the indicator. The information can be viewed in summary in table 4.30 below

Table 4.30: Respondents' Perception towards Behavioral Indicators in relation to the Length of Service.

Can Behaviour change be Used for Fraud Detection?			
Length of service	Strongly agree %	Agree %	Neutral %
Under 1 year	25.0	50.0	25.0
1-2	35.8	58.2	6.0
2-3	71.4	28.6	0
4-5	100.0	0	0
Total	41.1	52.2	6.7

The information provided in the sub section was vital in analysis and making conclusion of the whole topic by answering the research question three; understanding the effectiveness of uses of behavioral and lifestyle changes in fraud detection as well as give a perception towards the acceptability of the fraud indicator

With regard to objective three, that was to establish how effective behavioral and lifestyle changes can be used by investigators in a fraud investigation. It can be deduced from the research findings that CFEs had the likelihood of using the behavioral and lifestyle changes of fraud. This proposition is supported by data presented in figure 4.5 showing (91.11%) as having accepted to have used behavior change. Further revelation from the data shows that (52.2%) agreed that the indicators of lifestyle and behaviour can be used. Lastly the two largest proportions (service, 53.2% and banking 53.85) of the study in relation to industry agreed that the indicator can be used.

In summary, the use of behavioral and lifestyle indicators for fraud detection is possible. However, only (22.2%) of whom their cases, that had used behavioral change, were not successful and (13.33%) had cited lack of enough evidence for prosecution but did not say it is not possible to use the indicators. The other shortfall was top management tone at the top meaning the lack willingness and slackness to proceed with the fight against fraud even after detection by the fraud examiners.

4.6 Conclusion.

With regards to objective one of the study which was to find out which categories of lifestyle and behavioral indicators can be used for fraud identification, it was deduced that only (28.60%) can be used as behavioral indicators amongst a list of four other indicators such as weak internal controls (25.60%), poor management (11.70%), poor book keeping (26.30%), and finally other (7.8%).

Further data presented on behavioral red flags showed the categories of indicators which can be used for fraud analysis: expensive living standard (32.8%), illicit relationship or extra marital affairs (16.2%), sudden or erratic behaviour change (26.9%), personal problems (24.1%)

These indicators were further discussed in the guided interviews to reveal the indicators pointing to any of the five categories. Such as living beyond ones mean, buying expensive jewelry, cars, palatial homes, gifts, making frequent expensive trips and overspending or having spendthrift attitude which pointed towards expensive living standards. Sudden behaviour change was signified by excessive gambling, alcoholism, withdrawal syndrome, deceitful, extended working hours, and frequent long calls in silent tones or coded language, being cozy with clients, unexplained sudden relationships with vendors, etc. Personal problems were detected by depression, isolation, lack of motivation, behaviour profiling (nervousness, withdrawn from other staff, self-suspicious. Finally, illicit relationships were detected by trends of maintaining concubines.

Regarding the second objective of the study, that was to establish the comparison of behaviour change and lifestyle change with other personal qualities of fraud detection. The study revealed that (76.7%) accepted that behaviour change can be used for fraud detection against (23.3%). Further comparison indicated that amongst the indicators of fraud related to personal qualities, the most commonly used indicator was behaviour (62.22%), and commonly used indicator was prior criminal record, while (32.22%) neutral was level of education and least commonly used was age with (53.33%) occurrence rate. The study ploughed further to reveal the comparison of the behavior and lifestyle changes with other indicators and it was filed that behavioral indicators were most often (41.1%) used by the CFEs, (35%) of the respondents revealed to have used behaviour indicator often, while (17%) were neutral on the rating of usage of the fraud indicator. Lastly, (1.1%) rated the use of the indicator as less often.

Objective three of the study which establishes how effective the behavioral and lifestyle changes indicator are in fraud detection of occupational fraud, according to the study it was revealed that (91.1%) of all the respondents had used behaviour change as a fraud indicator, further revelation shows that (52.2%) indicated that they agreed behaviour change can be used to detect occupation fraud. The other proportion (41.1%) strongly agreed that behavioral red flags can be used for fraud identification while (6.7%) were neutral on the usage of the indicator.

Finally, to show effectiveness on the usage of the behavioral red flag, with the (91.11%) who had said they have used the indicator, the study revealed that (68.9%) indicated that the cases were

successful closed Generally we can conclude that the usage of red flags is probable and the perception of the CFEs was positive and optimistic towards the usage the behavioral changes despite the shortfalls that were cited thereafter

5.0 CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS.

5.1 INTRODUCTION.

This chapter presents a summary and conclusion of the entire study as well as recommendation that will be useful in the highlighting the possibilities of fraud identification using behavioral red flags and offering possible solutions and recommendations. This was achieved by answering the research questions set at the beginning of the study

5.2 SUMMARY.

The challenges faced by present institutions in the fight against occupational fraud are numerous, especially when the perpetrators of fraud are in the level of management. Identification and reporting fraudulent employees has always been discussed and deliberated upon but, the prevalence of violations of trust and embezzlement of funds is still rampant in the present institutions

Kenya has seen the extensive spread of occupational fraud in its institutions (public and private) that has led to collapse and closure of institutions. This trend has been seen in the Kenya insurance and brokerage industries. TI (2008) compared Kenya with 147 other countries and listed Kenya as number 32. Different reasons have been linked to the prevalence of corruption in Kenya. N.E.S.C (2010) listed greed, poverty, poor remuneration, unemployment, bad governance and cultural reasons. Aitan (2002) indicated that fraud increases with hard economic times. Presently Kenya inflation is at 16% and the shilling is lowest against the dollar (NSE 2011), this signifies hard economic crunch and means that the fraud watchdog institution need to tighten their grip on detection measures to avoid any misappropriation of company and public funds.

Abigail (2011) noted that corruption in Kenya was promoted by political patronage, and influence, favoritism, bad governance in the public and private sectors, etc. Despite awareness of this problem prevalence is still reported to be on the rise (76%) from (62.5%) last year (N.E.S.C 2010).

In light of these facts, fraud detection and deterrence measures are known but still a reported increase in its prevalence from watchdog institutions like K.A.C.C and C.M.A. The study sought to find out what detection and deterrence measures can be put in place for ease of mitigation of

fraud prevalence. The study narrowed to behavioral red flags of fraud identification although there are other fraud indicators that can be used for fraud detection and deterrence.

The research was carried out in one of the institutions involved in fraud awareness and education; ACFE Kenya chapter. The research was a non random sampling using structured questionnaires and guided interviews. Secondary data used for analysis was obtained from ACFE training manual and RTTNs. Data analysis was done with the help of SPSS software.

The sample constituted of 90 respondents selected through purposive sampling so as to fit the criteria that all the respondents were from ACFE Kenya chapter. The age of respondents was from 21 to 30 years (32.2%), ages 31 to 40 years (58.9%), ages 41 to 50 years (5.6%) and finally ages 51-60 (3.3%). Respondents level of education was considered, degree (65.6%), diploma (22.2%), masters were (8.9%) and that was the highest level of education. Another vital background check was length of service as a CFE. Those who had served for 1 to 2 years were (74%), under 1 year (8.9%) while those who had served for 2 to 3 years were (15.6%).

The industry and occupation of the CFEs were important aspect of the study. The service had largest proportion (68.9%), (28.9%) banking and (2.2%) in other industries. In the occupation of the CFEs (22.2%) were external auditors, security officers were (20%), investigators (14.4%), internal auditors were (12.2%), accountants were (11.1%), risk analysts (10%), bankers (8.9%) and others (1.1%).

The largest proportion (28.50%) cited behaviour change as a key indicator, (26.30%) poor book keeping, (25.6%) weak internal controls, (11.7%) poor management and (7.8%) as other. These were the most identifiable main red flags of occupational fraud. Further analysis sort to provide detailed exemplification of indicators of behavioral red flags. Expensive living standard (32.80%) had the largest proportion, (26.90%) sudden behaviour change, (24.10%) personal problems, and lastly (16.20%) illicit relationship. The control theory by Hirsch (1969) suggested that people can only be controlled by the internalized moral codes they have. The values, commitment and beliefs they have. These indicators of fraud can be explained using this theory by expounding on the reasons why people do not conform to the set standards and acquire new behaviour they believe as good.

The study sought to investigate how behavioral red flags relate with other indicator and personal attributes that showed, (62.22%) of the respondents most commonly used indicators, (41.11%) commonly used prior criminal record as an indicator, (32.22%) used level of education as neutral, while (53.33%) least commonly used age. Frequency of usage also varied (41.1%) used the indicator most often, (38.9%) often, (18.9%) neutral, while (1.1%) usage as low. The respondents further rated their usage of behavioral red flag as a fraud indicator in detection (32.2%) as very high, (52.2%) as high, (14.4%) as neutral and lastly (1.1%) as low.

The effectiveness of the usage of behavioral red flag was measured by assessing the successfulness of the cases reported. The respondents' success rate was (68.9%), and only (22.2%) was not successful. Also the measure of acceptability of using behavioral fraud indicator shows that (52.2%) strongly agreed they can use behaviour change, (41.4%) agreed while (6.7%) were neutral on its usage.

5.3 CONCLUSION

It was evident that behavioral red flag is a key indicator of fraud (28.9%) and can be a useful tool for fraud identification (52.2%). ACFE report (2010) supports the use of behavioral red flags by saying that "Behavioral fraud indicators do not prove an individual is engaged in fraud, but should raise warnings signs." The CFEs were upbeat that using the behavior and lifestyle fraud indicator is possible. Proper identification procedure is required and willingness of the top management to proceed with the pursuit of offence. Prosecution and judicial system also have a role to play. Generally, the identification and successful closure of occupational fraud cases need all the stakeholders to be willing and take charge of their roles. This information cuts across the CFEs in all sectors except a noticeable big margin of the CFEs in the accounting and risk department. However, this was explained in the guided interview that their nature of job revolves around book keeping roles, such as reconciliation of accounts, balancing accounts, reporting figures, entries in ledgers and journals, etc. hence their frauds mostly are detected while managing accounts or auditing.

It may be worthwhile to note that (22%) of those who did not successfully close the case did not list behaviour change as one of the hindrance but, listed other external factors such as lack of proper evidence collection, tone at the top (management will), and lastly, prosecution.

procedures. Since it is against the CFE code of ethics to express an opinion of guilt (FEM 2010) most of the case went unattended.

5.4 RECOMMENDATION.

Suggestions that may help to achieve an increased use of behaviour change as fraud indicators are provide

- I. CFEs should always be fast and proactive in observing trends of their employees, colleagues, client's employees, proxy suspects for tip off using behavioral red flags. This proactive observation can lead to new revelations or even explain the stolen funds mystery
- II CFEs should proactively use relativism in their daily duties to identify any asset acquisition not commensurate from the suspects known earnings. Relations of wealth accumulation versus age and asset acquired versus income, etc should be applied
- III CFEs in their institutions need to be proactive in fraud education, awareness, examination, audits and surveillance of suspect employees to identify irregular observable behaviour trends in their institutions. The CFEs should also regularly hold workshops for sensitization and sharing of intelligent information from all occupational and industries to improve on their detection procedures
- IV Present institutions need to know their employees right from recruitment, through wealth declaration policies. Proper employee monitoring and employee feedback implementation. The institutions need to establish proper reporting mechanism to encourage fraud reporting such as whistle blowers policy and fraud hotlines
- V Further studies on emerging trends of fraud behaviour by the CFEs would help in the advancement on the knowledge of fraud indicators. Fraudster keep changing tact once their tracks are discovered, and the only way for the CFEs is to keep abreast is to keep doing studies on the emerging trends

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APPENDIX I

QUESTIONNAIRE FORMAT FOR CERTIFIED FRAUD EXAMINERS

Dear respondent.

My name is Dennis Miano Gichobi a CFE and a master's student in criminology and social order at the University of Nairobi; I am currently conducting research on "the perception by certified fraud examiners towards behaviour and lifestyle change as fraud indicators."

I would like to inform you that you have been selected for the survey as one of the respondent to provide some information which I believe will be very resourceful in understanding fraud detection.

The information collected in this form will be treated with utmost confidentiality.

Your identity will be kept anonymous and thus, you are not required to reveal your name both during the interview and on the questionnaire.

Your honesty in answering the questions in the questionnaire and during personal interview is vital in helping understand lifestyle changes and behavioral change as red flags of fraud.

SECTION A: BACKGROUND.

1. Age bracket.

- a. 10-20 []
- b. 21-30 []
- c. 31-40 []
- d. 41-50 []
- e. 51-60 []

2. Level of education:

- a. certificate []
- b. diploma []
- c. degree []
- d. masters []
- e. Other (specify) [.....]

3. Industry:

- a. service []
- b. banking []
- c. microcredit finance []
- d. teaching []
- e. self employed []
- f. NGO []
- g. Other (specify) [.....]

10. What rouses you to do a fraud examination in an institution?

11. Do these institutions have fraud and security policy?

Yes []/ No [].

12. Which are some of the procedures followed by the institution while conducting fraud,

13. Which are the key indicators that fraud is happening in an institution?

- a.
- b.
- c.
- d.

14. Which other red flags do you know as fraud indicators?

- a.
- b.
- c.
- d.
- e.

15. Have you ever done investigation?

Yes []/ No []

16. If yes, was the case involving occupational fraud?

Yes []/ No []

17. If yes, which indicators were the main personal quality indicators that fraud had occurred in the case?

- a.
- b.
- c.
- d.

18. Do you hold fraud risk awareness in your institutions?

Yes []/ No []

19. If yes, does it help reduce the number of cases reported on occupational fraud?

Yes []/ No [].

20. What would you rate as the highest occurring occupational fraud in your institution?

SECTION C: RELATIONSHIP BETWEEN BEHAVIOUR RED FLAG AND OTHER INDICATORS.

21. List the most common fraud indicators that you know and use in fraud detection?

- a.
- b.
- c.
- d.
- e.
- f.

22. Do you know about lifestyle change/ behavioral change as a fraud indicator?

Yes []/ No [].

23. If yes, how often do you use it in fraud detection?

- a. Most often []
- b. Often []
- c. Neutral []
- d. Less often []
- e. Don not use at all [].

24. Amongst the list of fraud indicators below which indicator do you commonly use?

{Indicate from the commonly used (1) to the least used (4)}

Level of education []

Age []

Behavioral change/lifestyle change []

Prior criminal records []

25. Have you used behavior change as a fraud indicator in your examination?

Yes []/ No []

26. If yes, was the use of the behavior red flag indicators helpful and was the case successfully prosecuted?

Yes []/ No []

27. If no, what was the shortfall?

28. List the indicators of behavioral/ lifestyle changes that you have used for fraud detection.

- a.
- b.
- c.
- d.
- e.

26. Do you agree that lifestyle change can be used for fraud detection?

- a. Strongly agree []
- b. Agree []
- c. Neutral []
- d. Disagree []
- e. Strongly disagree []

27. How would you rank the usage of lifestyle changes/ behavioral indicators as compared to other indicators?

- a. Very high []
- b. High []
- c. Neutral []
- d. Low []
- e. Very low []

SECTION D: FRAUD PREVENTION AND DETERRENCE.

28. In relation to fraud detection and deterrence, how does behavior change and lifestyle change help?

29. How do you tell that someone's behavior has changed and how do you relate that behavior towards fraud commission?

30. What do you think should be done to help detect fraud using behavior / lifestyle change?
