# PERCEIVED EFFECT OF INTERNAL CONTROL SYSTEMS ON FRAUD DETECTION AND PREVENTION IN THE PUBLIC SECTOR IN KENYA; A CASE STUDY OF CIVIL REGISTRATION DEPARTMENT

BY

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# DECLARATION

**Declaration by the candidate**

This research project is my original work and has not been submitted to any other university for examination.

Signature…………………………Date…………………………………….

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**Declaration by the supervisor**

This research project has been submitted for examination with my approval as the university supervisor,

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# DEDICATION

This research study is dedicated to my family and friends, who have always supported me through my academic journey. May the Almighty God bless them forever and ever, Amen!

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# ABSTRACT

An effective internal control system should be able to provide managers with the means to increase accountability for their plans and to obtain reasonable assurance that the programs they direct meet established goals and objectives. Fraud related practices have increasingly been reported in Kenya public sector, despite of the government instituting internal controls systems. The overall study objective was to establish the effectiveness of internal controls on fraud detection and prevention in the public sector in Kenya. It addresses four specific objectives to establish the effect of the control environment and activities, risk assessment, information and communication and monitoring and evaluation on fraud detection and prevention at the Civil Registration department Kenya. The study was guided by the fraud triangle theory and self-control theory. Cross-sectional survey research design was used with a sample of 260 staff from various units in the Civil registration department. These were Headquarters, Field services, Central registry, and Nairobi registry. The results show that Control activities and environment ($\beta 1=0.158$, $P=0.002$), risk assessment ($\beta 2=0.514$, $P<0.001$), information and communication ($\beta 3=0.128$, $P=0.025$), and monitoring and evaluation activities ($\beta 4=0.117$, $P=0.028$) significantly and positively influence fraud detection and prevention. In summary, the study concludes that there is a significant positive relationship between internal control systems and fraud detection and prevention in the department of civil registration in Kenya. The five identified components of effective internal controls: control environment and activities, risk assessment; information and communications and monitoring, should be applied in a collaborative linkage to form an integrated system that reacts dynamically to changing conditions. The internal control system should be merged with the operations of the civil registration department to enhance detection and prevention of fraud. The study therefore recommends that effective and efficient internal control policies and procedures should be put in place to detect and prevent fraud within government departments and other institutions.

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## ABBREVIATIONS AND ACRONYMS

APC           - Auditing Planning Committee

CMA           - Certified Management Accountant

CoK           - Constitution of Kenya

COSO          - Committee of sponsoring organizations

CRD           - Civil Registration Department

CRO           - Civil Registration Office

CRS           - Civil Registration Services

GFRP          - Government Financial Regulations and Procedures

ICS           - Internal Control System

IFMIS         - Integrated Financial Management Information System

ISA           -International Standards on auditing

PFM           - Public Finance Management

PWC           - Price Water Coopers

SPSS          - Statistical package for social scientists

# DEFINITION OF TERMS

**Control environment:** The control environment helps to set the organization's tone, affecting the control Realization of its persons. It is the basis for all other elements of interior control, offering discipline as well as structure. According to Anthony (2004), a control environment sets the tone for the organization, influencing the consciousness of its people.

**Control activities:** The control activities refer to the actions supported by internal control objectives, procedures and policies enabling managers to address risk timely, effectively and efficiently Steves, (2004).

**Fraud:** Fraud, is an intentional act that results in a material misstatement in financial statements that are the subject of an audit, AICPA, (2003). A wrongful or criminal deception intended to result in financial or personal gain

**Internal Control Systems**: Internal control systems are a set of procedures and policies put in place to safeguard the assets of an organization by minimizing the chances of fraud cases and ensure the potentiality of an organization Adams, (2012). |It is a process for assuring achievement of an organization's objectives in operational effectiveness and efficiency, reliable financial reporting, and compliance with laws, regulations, and policies

**Monitoring**: According to the NYSGAAIC Act of 2007 Monitoring is the review of an organization's activities and transactions to assess the quality of performance over time and to determine whether controls are effective. It is the valuation of internal control actions overtime. It is achieved by continuing monitoring actions as well as by distinct assessment of internal control, self- valuation, peer evaluation, and internal inspection.

**Information and communication:** According to NYSGAAIC Act 2007, Communication is the exchange of useful information between and among people and organizations to support decisions and coordinate activities. ACCA (2005) considers information flow as a process through which the right organizational members tend to receive the right information at the right time. Information should be communicated to management and other employees who need it in a form and within a timeframe that helps them to carry out their responsibilities. Information and communication are necessary for the implementation of control.

**CHAPTER ONE**

**1.0 Introduction**

The chapter highlights the background to the study, the statement of the problem, objectives of the study, significance of the study and Scope of Study.

1.1 **Background of the study**

Investors and other stakeholders in both public and private sector institutions are concerned with the security    of their assets. Owners delegate rights to managers to act in the principal's best interest. This separation of ownership from control implies a loss of effective control by shareholders and taxpayers over managerial decisions hence concerns over the safety of their investment. Any organization, whether public or private can be vulnerable to fraudulent activities. Fraud can get into an organization's reporting system undetected and spread quietly involving many people.

According to the Certified Management Accountant CMA, (2009), fraud is a risk that impacts negatively on business growth. It is, therefore, important that good governance and accountable policy practices are adopted to achieve the organizational goal of safeguarding shareholder's assets and wealth maximization. The key among the best practices is the control measures put in place to detect and prevent fraud within the entity, whether private or public (COSO, 2011). The Committee of Sponsoring Organizations (COSO, 1994) provides five incorporated elements of internal control which are control environment, Risk Assessment, control activities, information and Communication, and Monitoring activities. The study reflects on the perceived effectiveness in the application of these components to prevention and control of fraud in public service organizations.

The Association of Certified Fraud Examiners 2002 report to the USA Federal Government Occupational Fraud and Abuse reveals that 46.2% of frauds occur because the victims lacked sufficient controls to prevent the fraud. In Kenya, The Treasury News of 2010 revealed that between 25 and 30 percent of the national budget or about Ksh. 270 billion is lost annually through fraud. These losses were mainly attributed to the escalation of costs in Government procurement occasioned by weak internal control systems. Reports from watch dog institutions also reveal that government departments do not properly account for funds allocated to them.

Internal control systems are a set of procedures and policies put in place to safeguard the assets of an organization by minimizing the chances of fraud cases and ensure the potentiality of an organization (Adams, 2012) Internal controls refer to the plans and/or programs applied to safeguard company's assets, ensure the integrity of its accounting records, deter and detect fraud and theft. It is a means by which an organization's resources are directed, monitored, and measured. An internal control system is a central element in preventing and detecting fraud, thus fostering the successful operation and productivity of any organization. Internal control procedures reduce process variation, leading to more predictable outcomes and it is a critical element of the Foreign Corrupt Practices Act (FCPA) of 1977 and the Sarbanes–Oxley Act of 2002, which required improvements in internal control in United States public corporations.

An internal control structure is a significant component of any institution and a foundation for safe operation within it. Abiola (2013) suggests that the internal control concept is very critical for proper management of an organization's risk, which may constitute barriers to the attainment of its set objectives if neglected. Internal control can, therefore, makes sure that aims, as well as goals of an institution, will be achieved,

thus enhance the achievement of its long-term productivity goals as well as maintaining consistent financial and administrative reporting. Internal controls form a backbone of preventing fraudulent activity by ensuring proper authorization of the transaction, avoiding errors and irregularities as well as exposing those already committed.

Most of the past research has shown that where ethics are weak, corruption, unethical conduct, inefficiency, poor department, and general poverty of the citizenry abound. There has been established a strong correlation between public service management systems founded on strong ethical standards and the prosperity of nations (Wahyudi et al., 2013).

### 1.1.2 Public sector and Civil Registration Department in Kenya

The public sector of Kenya comprises of the National government, County governments, development partners and public corporations. The public sector provides essential goods or services that either is not or cannot be provided efficiently by the private sector. Among the objectives of the public sector in Kenya include; to enhance quality and efficiency of public service delivery; to improve performance management in the public service; to strengthen management systems and processes in government; to enhance the capability of public service leadership and management and to transform the culture and attitude of public service employees (PSC, 2018).

For many years, Kenya has struggled with how to counter the effects of unethical behaviors and lack of integrity in the management of public affairs. The need for a specific law governing this area was recognized as far back as 1956 when the Prevention of Corruption Ordinance was enacted. But it is in the last decade or so that we have seen a flurry of activity on the legislative front with the passing of the Anti-

Corruption and Economic Crimes Act, 2003; Public Officer Ethics Act, 2003; signing up to the African Union Convention on Preventing and Combating Corruption, United Nations Convention Against Corruption, 2003; and The Constitution of Kenya, 2010 providing a strong anchor for the fight against corruption. Most recently, the Proceeds of Crime and Money Laundering Act 2015 was passed.

Enactment of the laws has been accompanied by the establishment of institutions with specific mandates to combat unethical behaviors and corruption. The entities include EACC, ARA, FRC, Special Magistrates Courts, and recently the establishment of the Anti-Corruption Division of the High Court (Kinisu, 2016). In the last 20 years, Kenya's civil service has undergone several changes as well. Some of these changes include employee rationalization leading to wage bill reduction, performance improvement, structural adjustment Program after aid cuts, and the institutionalization of results-based management.

From 1993 to 2002, the government retrenched more than 100,000 civil servants but had only a negligible impact on the effectiveness or efficiency of the civil service. The government then introduced results-oriented management, but by 2005 nothing much had come out of it. Later, between 2006 and 2008, the government decided to shift the public service towards a results-orientation approach by introducing and facilitating the development and management of a holistic Results-Based Management system through the 'Results for Kenya' Program. The aim was to enhance performance efficiency in all government ministries, departments, and agencies. It is also meant to reverse the negative image of public service (UNDP-Kenya, 2018).

Civil Registration Department (CRD) is one of the four departments in the Ministry of Interior and Coordination of the National Government (MICNG), Civil Registration Department (CRS) in Kenya is responsible for the recording of all births and deaths occurring in the country and issuance of birth and death certificates. According to the United Nation, civil registration is a continuous, permanent, universal, and compulsory recording of the occurrence and characteristics of all vital events (I.e., birth, and death). The department has a head office in Nairobi and other 110 offices across the country with 800 employees distributed across the country.

Numerous weaknesses and challenges inhibit civil registration in Kenya, this includes the outdated birth and death registration act (CAP149). Other weaknesses and challenges include lack of standardized registration and operational procedures, cultural obstacles and altitude towards registration, harsh operational terrain, and inadequate budgetary allocation; as a result, registration coverage for birth and death is still low. CRD, with the support of the MICNG, has been involved in the current reform in the public service. These reforms are geared towards addressing the challenges to improve service delivery.

Despite having initiated various reforms in the department covering the policy, and legal environment, human resource management, and financial management, there are still many complaints about the poor performance from various stakeholders, recently there was a public outcry about the poor service delivery and corruption in the department. The birth and death registration Act (CAP 149), Public finance management Act (PFM) and the public procurement Acts are main documents that governs the affair of this department.

## 1.2  Statement of the Problem

Misuse of public resources goes on in Government despite having internal control systems in place to deal with elements of fraud at the detective and preventative levels. (Auditor general report, 2013).  An efficient internal control system can give managers the means to provide accountability for their programs as well as the means to obtain reasonable assurance that the programs they direct meet established goals and objectives, (NYSGAAIC, 2007).

 The rapid increase in incidences of fraud in third-world countries has led to increased demand for forensic accounting practices in the public sector. 37% of the total respondents globally drawn from various enterprises that are owned by the government have at least suffered from economic crime in the period of the last 12 months. These ranks highest in comparison to other organizations and has raised the threat level of fraud PWC (2018).

There is systemic fraud that arises when public officers take advantage of weak systems of internal control or when they circumvent the systems altogether through collusion (Kinisu, 2016). Corruption in public procurement, for instance, is of this nature and significantly accounts for up to 70% of the loss of public funds. There is a general conviction that legitimately established frameworks of controls, enhance the announcing procedure and offer ascent to solid reports which upgrade the responsibility and capacity of administration of an organization. Although several efforts in enhancing internal controls in the public sector have been brought forth, very little is known regarding their effectiveness in the fraud detection and prevention.

Few studies have been conducted in Kenya regarding the topic, particularly in the Civil Registration Department. In the year 2010, Kenya's anti-corruption commission directorate of the preventative services published a report titled, "Examination report into the systems, policies, procedures, and practices of the civil registration department." This report highlighted the various weaknesses and corruption loopholes that existed in the civil registration systems in Kenya and gave recommendations on how to address them.

Some of the existing internal control systems at the public institutions are manual based and have several weaknesses which inhibits fraud detection and prevention. Office of the Auditor General, National Tax Payers Association of Kenya (NTA), Efficiency Monitoring Unit, Internal Auditor General, Inspectorate of State Corporations, and the Kenya Anti-Corruption Commission are some of the institutions established and mandated to recommend for effective internal controls systems and deal with acts of fraud in one way or another in Kenya. It is upon this backdrop that this study sought to investigate the relationship.

The control environment helps to set the establishment's tone, affecting the control realization of its employees. Control activities are considered to be the procedures as well as actions that help to ensure that administration directives are done, they ensure that needed activities are taken to deal with hazards that hinder the accomplishment of the entity's aims (COSO, 2011). Control environment is the basis for all other elements of internal control, offering discipline as well as structure. According to NYSGAAIC Act 2007, many different control activities can be used to counter the risks that impend an organization's success.

Most control activities, can be grouped into two categories: detection and prevention control activities. Prevention activities are designed to deter the occurrence of an undesirable event. The development of these controls involves predicting potential problems before they occur and implementing ways to avoid them. Detection activities are designed to identify undesirable events that do occur, and alert management about what has happened. Prevention controls tend to be more expensive than detection controls. Costs and benefits should be assessed before control activities are implemented (Oguda et al., 2015).

Risk assessment is the identification and examination of applicable hazards, which can damage the accomplishment of objectives, creating a basis for determining how the risk should be managed. Fraud as an inherent risk needs to be assessed and anti-fraud programs generated as key to effective internal control culture, based on the accuracy of the assessment, the risk tolerance level can then be determined. To determine whether risk management is effective, relevant risk information should be captured and communicated promptly across the organization, enabling staff, management and the board to carry out their responsibilities. (IIA: PPF, 1999)

Information should be communicated to management and other employees who need it in a form and within a timeframe that helps them to carry out their responsibilities. Information and communication are necessary for the implementation of control in every organization.

Monitoring and evaluation refer to the valuation of internal control actions over time. According to Oguda et al. (2015), internal control systems need to be monitored. This is accomplished through ongoing monitoring activities, separate evaluations, or a combination of the two. On-going monitoring occurs in the course of operations. It

includes regular management, supervisory activities, and other actions taken in performing their duties.

The scope and frequency of separate evaluations will depend on assessment of risks and the effectiveness of ongoing monitoring procedures. Management should focus monitoring efforts on internal control and achievement of the organization's mission. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, risk tolerance levels, and their own responsibilities.

## 1.3 Objectives of the Study

### 1.3.1 General objective

To establish the perceived effect of internal control systems on fraud detection and prevention in the public sector a case of Department of Civil Registration.

### 1.3.2 Specific Objectives of the Research

The study was guided by the following specific objectives are to;

i. Establish the perceived effect of the control environment and activities on fraud detection and prevention at the Civil Registration Department Kenya.

ii. Assess the role of risk assessment on the fraud detection and prevention at the Civil Registration Department in Kenya.

iii. Analysis the influence of information and communication on fraud detection and prevention at the Civil Registration department Kenya.

iv. Establish the perceived effect of monitoring and evaluation on fraud detection and prevention at the Civil Registration Department Kenya.

**1.3.3 Research hypotheses**

The study was guided by the following research hypothesis;

$H_{01}$: There is no statistically significant effect of Control environment and activities on fraud detection and prevention in the Civil Registration Department in Kenya.

$H_{02}$: There is no statistically significant effect of Risk assessment on fraud detection and prevention at the Civil Registration Department, Kenya.

$H_{03}$: There is no statistically significant effect of information on fraud detection and prevention in the Civil Registration Department,

$H_{04}$: There is no statistically significant effect of Monitoring and evaluation on fraud detection and prevention at the Civil Registration Department Kenya.

**1.4 Significance of the Study**

The study will examine the efficacy of the internal Control system as borrowed from the COSO framework on fraud detection and prevention in a public service organization. It is intended to complement existing studies and contribute to the knowledge gap in the area of fraud detection and prevention in civil service in Kenya. The findings of the study will aid the government and policymakers to improve on the existing public service management laws and policies to enhance efficiency and effectiveness in the service delivery in the public service in Kenya.

It is anticipated that the findings of this study will be used to enhance the development of a workable framework for public service management to address various corporate governance issues affecting public organizations in Kenya. Senior government officials, particularly those in administration, will infer to the study when making appropriate fraud detection and prevention decisions and procedures to ensure; ethical

operating standards, full compliance, reporting, and better service delivery. Finally, this research will form a foundation for further research in the area of fraud detection and prevention for the enhancement of organizational performance and sustainability in Kenya and other parts of the world.

## 1.5 Scope of Study

The study was undertaken in the five sections of the department of civil registration in Kenya. It focused on the perceived effects of the internal controls as ways of preventing and detecting fraud. The population consists of eight hundred staff in the head office of CRD. The researcher used questionnaires to obtain data from staff in the mentioned sections. Direct observation was also considered to enable the researcher to come up with a comprehensive report for the study.

**CHAPTER TWO**

**LITERATURE REVIEW**

**2.0      Introduction**

This chapter reviews the conceptual and theoretical framework relating to internal control systems and fraud detection and prevention.

**2.1 Conceptual Discussion**

**2.1.1 The Concept of Fraud**

According to Cressey, Martin et al. (2002), three factors that are present in every situation of fraud: motive or pressure; the need for committing fraud, the need for money, etc., rationalization; the mindset of the fraudster that justifies them to commit fraud and opportunity; the situation that enables fraud to occur, often when internal controls are weak or non-existent.

According to ACFE (2007), fraud is an intentional or deliberate act to deprive another of property or money by  deception or other unfair means. The association classifies fraud into eight categories as follows; misrepresentation of material facts, concealment of material facts, corruption, illegal gratuity, extortion, conflict of interest, embezzlement, and theft. Fraud refers to any illegal act characterized by deceit, concealment, or violation of trust.

The Association of Certified Fraud Examiners 2002 report to the USA Federal Government Occupational Fraud and Abuse revealed that 46.2% of frauds occur because the victims lacked sufficient controls to prevent it. In this connection, various countries in Sub-Saharan Africa have initiated several reforms aimed at rejuvenating their public administration systems.

In the year 2006, the Controller and Auditor-General established the Fraud and Investigation unit under the Specialized Audit Section to address issues including Investigations into Receipts and Payment transactions, Payroll frauds, Procurement frauds, Contract frauds, Computer crimes, Health care frauds, Overtime, Other allowances, and Honoraria claims, cheques and credit cards frauds, falsification of documents and records and other emerging issues that may require to be investigated and reported upon.

Kenya is one of the countries that has been worst hit by fraud with a new survey ranking it seventh in the world among those with the highest levels of economic crime. Conducted in 99 countries, the survey by Price water house Coopers found that economic crime continues to be a significant concern for most firms in Kenya, 52 percent of surveyed respondents said they had experienced economic crime in one form or another. This places the country second on the continent for the prevalence of the vice behind South Africa, which has the worst record globally. These figures are reflective of a trend in which Africa has been repeatedly reported as having the worst economic crime record in the world.

### 2.1.2 Fraud in Kenya public service

Common fraud in public service includes issues such as bribery, corruption, and misuse of authority during public procurement. These practices generally involve the misuse of entrusted power for personal gain; many crimes are uncovered in most cases through tips or complaints from third parties or are detected during internal reviews and external audits. In public service, fraud may originate from both internal and external sources. Examples of internal frauds perpetrated by employees include; procurement fraud, theft and skimming, Fraudulent expenditure claims, and Payroll fraud.

According to the World Bank, Centre for financial reform, Strong internal controls, including maintaining a robust internal control environment, are the best way public sector organizations can mitigate fraud. A robust internal control environment does not guarantee that fraud will not occur in an organization. There has been an increased focus on fraud the world over. Many Large corporate scandals and frauds have shaken both the public and private sectors recently, these scandals have had unquantifiable negative effects. Corruption in Kenya has been a significant problem for many years, inhibiting investment opportunities and service deliveries.

### 2.1.3 Concept of internal control system

Effective internal control is very key for any organization to function effectively. It is defined as a process affected by an organization's structure, work and authority flow, people and management information systems, designed to help the organization achieve specific goals or objectives (AICPA, 2003). An appropriate internal control system helps to ensure the organization's compliance with stipulated laws and regulations, and this will help in the reduction of risk related to damage to the organization's reputation and unexpected losses (Rezae, 1995).

Analysts suggest that with sufficient pressure, incentive and rationalization, the perpetrators often turn their attention towards the opportunities that exist within the public financial management system's internal control structure that could allow for fraud to be committed (Mars Group, 2008).

In Kenya, the PFM Act and GFRP direct the Accounting Officer of Ministries Departments and Agencies to ensure that it has, and maintains, effective, efficient and transparent systems of financial and risk management and internal control, to safe

guard against fraud. He must ensure that a system of internal auditing exists under the control and direction of an Internal Auditor General to evaluate the effectiveness of internal controls.

An internal control system is a central element in preventing and detecting fraud, thus fostering the successful operation and productivity of any organization. Internal control procedures reduce process variation, leading to more predictable outcomes and it is a critical element of the Foreign Corrupt Practices Act (FCPA) of 1977 and the Sarbanes–Oxley Act of 2002, which required improvements in internal control in United States public corporations. An internal control structure is a significant component of any institution and a foundation for safe operation within it.

"Internal control is a process influenced by the management, board of directors and other personnel tailored to provide the necessary assurance regarding the attainment of the relevant firm's objectives in the following respective fields: compliance with the applicable laws and regulations; Reliability of financial reporting and operation's effectiveness and efficiency" COSO, USA, (1992). Most of the internationally accepted standards and best practices in internal control have classified internal controls into five components namely: Risk assessment and management, Control environment, Control Activities, Information and Communication flow and monitoring and evaluation. Internal control systems are a set of procedures and policies put in place to safeguard the assets of an organization by minimizing the chances of fraud cases and ensure the potentiality of an organization (Adams, 2012). It is a means by which an organization's resources are directed, monitored, and measured.

## 2.2 Theoretical review

### 2.2.1 Theoretical framework

This refers to a buildup of interrelated ideas or thought based on theories. It is a contemplated set of thoughts that are acquired from and bolstered by information. This study is guided by the following theories.

### 2.2.2 The Fraud Risk Triangle Theory

Fraud Risk Triangle Theory was developed by Donald Cressey in the 1950s'. According to this theory, fraud is made of three components namely, perceived pressure, perceived opportunity and rationalization of the act of fraud. These three components are known as the representation triangle or fraud triangle. These three features influence the behavior of workers in every situation throughout their engagement in service delivery.

The three features are intertwined within each act of fraud regardless of whether it is done on behalf of an entity or against the entity. These elements are interactive in the sense that the more intense the pressure or the greater the perceived opportunity, the lesser the rationalization required for an individual to engage in fraud (Albrecht, et al., 2009).

Fraud is a complex subject that constitutes several components Rae & Subramanian, (2008). Motive or pressure is the need for committing fraud, which can be a financial or emotional need, pushing one to commit fraud. In understanding the psychology of the person committing fraud, it is essential to understand how the person is internally justifying the fraud. Cons often con themselves with thoughts like, "I am just borrowing this. I will pay it back later." Alternatively, they may take a moralistic approach as a means for justification. They may think, "I am using this money to help

my family." Some fraudsters may have a fundamental belief that big insurers are sitting on piles of money or that the company "deserves" the loss, having taken in premiums from the "average little guy." Justification for fraud can take many forms but is typically an essential factor in pushing the individual into action.

Rationalization is typically an early trait of first-time and occasional thieves. It may not apply to predatory individuals who have a highly conscious criminal intent to steal from a company or employer, such as in an organized-crime situation. While rationalization is a starting point for many individuals, the internal need for rationalization often fades when small lies or thefts are repeated, possibly becoming more frequent or causing more loss. Typically, the con becomes routine over time, and eventually, the person loses the need for internal justification. As a result, early detection of fraud is critical in preventing schemes from deteriorating into a more damaging series of occurrences. According to Tessier (2013), rationalization or the attitude is the mindset of the fraudster that justifies them to commit fraud. It is the personal justification of dishonest action.

Motivation or pressure is the second angle in examining what is driving the individual to commit the act. Just as with rationalization, the perception of a need or pressure is a critical factor, and it does not matter whether or not the motivation makes sense to others or is based in reality. Individuals may be facing financial or other personal problems such as gambling, drugs, alcohol addiction, or extreme medical bills. Pure greed also can factor into the equation but may be flavored with a sense of injustice. For example, the perpetrator may feel like "the company should have paid me what my car was worth." Finally, the opportunity is the situation that enables fraud to occur, and it is often when internal controls are weak or nonexistent. It is the ability to execute a plan without being caught.

This theory has a great contribution in providing a common-sense theory of employee crime and deviance. Fraudsters must find an opportunity. This is defined as an environment or temporary circumstance that allows for the fraud to be committed, typically with little perceived chance of getting caught or penalized. Windows of opportunity exist for wrongdoing when companies have inadequate internal controls, weak processes, and procedures, unauthorized or unchecked access to assets by employees, or a lack of management review and oversight.

Rapid turnover of claims staff and over-assignment of claims may lead to less thorough reviews of claims submissions. Failure of claims and audit controls may allow false or inflated claims to slip through the cracks. Also, companies may not actively and aggressively investigate and prosecute all fraud claims. All of these factors can create opportunities not only for a one-time fraud but also for a first instance to spiral into a larger scheme (Tessier, 2013).

### 2.2.3 Self-Control Theory

This theory is often referred to as the general theory of crime, it is a criminological theory about the lack of individual self-control as the main factor behind criminal behavior. It suggests that individuals who were inefficiently parented before the age of ten develop less self-control than individuals of approximately the same age who were raised with better parenting. The essentials of self-control include an ability to defer satisfaction, the tendency to be cautious and diligent, cognitive ability, and sensitivity toward others. Individuals lacking self-control tend to be incautious, uncaring, physical rather than mental, chance-taking, shallow and nonverbal (McMullen, 2010).

Likewise, the hypothesis expresses that low poise is found out in youth through parental sustain. Seemingly, conflicting child-rearing practices result in kids who can't

postpone satisfaction, maintain a strategic distance from dangerous conduct, control their motivations and consider the sentiments of others (Holtfreter, 2010). People with more elevated amounts of discretion tend to understand the low likelihood of long-haul advantage and the high likelihood of trepidation is related to criminal endeavor (McMullen, Discretion 2010).

According to self-control theory, people are not inherently criminal, nor are they socialized into crime; rather, people differ in the extent to which they have developed self-control and attend to the controls in their environment which inhibit crime and delinquency. Self-control is very essential if fraud is to be avoided in any association.

## 2.3 Empirical review

Abbott (2000) in his research on control environment explored whether the audit independence and activities is related to fraudulent financial statements. 156 organizations were subjected to the Accounting and Auditing Enforcement Releases AAERs) between the year 1980 and 1986. The study examined the presence of the variable audit committee presence used in previous studies with activities of audit committee and independence, as the previous studies indicated different results with regard to the relationship between the audit committee and the chances of fraud occurrence. The finding of this study shows that the firms run by independent directors and with minimum level of activities have little frauds in their financial statement.

ACCA (2005) found that internal controls concentrate on setting up duties through assignment of energy and  specialist.  Beasley (2009)  said that  it  adopts  an imperative  part  in evading misrepresentation and ensuring the associations assets, in physical make- up for example; apparatus and property, immaterial, for example, notoriety, and protected innovation e.g., trademarks.

According to Finn (2006), there are three types of controls that the entity's internal audit function should recognize; preventive, authorization and detective controls. Preventative controls prevent risks from occurring for example, segregation of duties, recruiting and training the right staff. Authorization controls prevent fraudulent transactions from taking place. Detective controls detect fraud that has not been prevented. These helps to deter undesirable acts in the organization. They could be exceptional reports to reveal that controls have been bypassed. They provide evidence of an occurred loss but do not prevent the loss from occurring, for example, large payments being made without being authorized. They include reconciliatory supervision, internal checks, physical inventions, analysis and audits.

Kakucha (2009) explored the effectiveness of the internal control levels for small businesses in Nairobi city. This study adopted a quantitative research design and a sample of 30 small businesses in Nairobi. Interview technique was used in data collection. Several limitations were identified in internal control systems. In the majority of the business risk assessment information flow were missing. It was noted a negative relationship exist between the firm size and the effectiveness of its internal control systems, while negative association exist between firm owned resources and the weaknesses in the internal control systems. The study recommends the need to enlighten small business operations to achieve effective internal control system.

Barra (2010) used the analytical approach focusing on monitoring and control activities to investigate the effects of penalties and other forms of internal control on the likelihood of the employees to engage in fraud, he used both managerial and non-managerial employees in the study. The study found that separation of duties and the presence of control activities increased fraud commitment cost. It was also found that

segregation of duties is a deterrent of least-cost fraud for employees who are not involved in the management process but rather the managerial employees, this means that that the least cost fraud disincentives increase the penalty level. The study proposes the need for development of an effective preventive control measures which depends on proper monitoring.

Ishumgisa, (2011) and Holmes (2012) depicted internal control as the particular arrangement of strategies, systems and exercises intended to meet a target. There may exist a control within a designed function or activity in a process. Control's information might be element-wide or particular to a record adjust, class of exchanges, or application. In any case, Holmes (2012) keep on saying that controls have particular attributes; controls can be computerized or manual, reconciliations, segregation of obligations, surveys and endorsement approvals, safeguarding and accountability of assets and preventing or detecting error or fraud.

Abiola (2013) suggests that the internal control concept is very critical for proper management of an organization's risk, which may constitute barriers to the attainment of its set objectives if neglected. internal control can, therefore, makes sure that the aims, as well as goals of an institution, will be achieved, thus enhance the achievement of its long-term productivity goals as well as maintaining consistent financial and administrative reporting. Internal controls form a backbone of preventing fraudulent activity by ensuring proper authorization of the transaction, avoiding errors and irregularities as well as exposing those already committed.

(Oguda et al., 2015), in their study explored the effect of internal control on fraud detection and prevention in district treasuries of Kakamega County. The Findings of the study revealed that there was a statistically significant and positive relationship

between the adequacy of internal control systems and fraud prevention and detection in district treasuries in Kakamega County. The study recommends that effective and efficient internal control policies and procedures should be put in place to prevent and detect fraud within district treasuries and other institutions.

Musila (2018) explored the impact of internal controls on fraud detection and prevention in the public sector, a case of public universities, and the study employed a descriptive cross sectional research design with a target population of 31 public universities. The study applied correlation analysis and multiple linear regression equation with the ordinary least square (OLS) method of estimation to establish the relationship between internal control and fraud detection and prevention. This study established a significant positive association between policy compliance and fraud detection and prevention. The study concluded that higher levels of policy compliance led to higher level of fraud detection and prevention. This study recommended that the government should formulate strong internal control system in public institutions in order to curb fraud.

The influence of organizational environment on fraud has been reliably determined in previous studies. Employee theft is influenced by an organization's work climate (Weber et al., 2003; Appelbaum et al., 2006; Kulas et al., 2007) and employee's attitudes toward honesty (Greenberg, 2002). According to COSO (2009), Adams (2012), there exist about five internal control sections which are important in presuming that inner control is viable.

## 2.3.1 Control environment and activities

According to Anthony (2004), a control environment sets the tone for the organization, influencing the consciousness of its people. Control activities are considered to be the procedures as well as actions that help to ensure that administration directives are done. They ensure that needed activities are taken to deal with hazards that hinder the accomplishment of the entity's aims (COSO, 2011). Control actions, if automatic or manual, have many aims as well as functional at numerous administrative and practical levels.

According to NYSGAAIC Act 2007, many different control activities can be used to counter the risks that impend an organization's success. Most control activities, however, can be grouped into two categories: detection and prevention control activities. Prevention activities are designed to deter the occurrence of an undesirable event. The development of these controls involves predicting potential problems before they occur and implementing ways to avoid them. Detection activities are designed to identify undesirable events that do occur, and alert management about what has happened. Prevention controls tend to be more expensive than detection controls. Costs and benefits should be assessed before control activities are implemented (Oguda et al., 2015).

Lower (2008), suggests that control condition refers to where well-appointed persons understand their responsibilities, the points of confinement to their power, and are proficient, careful, and focused on making the correct decision and do it the correct way. Jenny and Pamela (2006) found that an overseeing board and administration upgrade the hierarchical control condition as they set up and viably convey composed arrangements and methodology, a code of morals, and norms of

direct. They likewise improve the control condition when they carry on in a moral way in to making a positive tone at the best and when they require same standard of lead from every other person in the association. The institute of Internal Auditors looks at control environment as one that directives upon organizational members acquire a feeling of consciousness that their continued stay at an organization is assured by demonstration of their expected level of competence as well as their comprehension of authority and responsibility limits. In this respect, organizational members feel and realize that they are accountable to the organization (Dublin, 1999).

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Hollinger (2009) states that control activities are the administrative and supervisory actions that management engages in to keep the organization focused and watchful in addition to keeping members effective and efficient at job accomplishment. Dublin (1999) considers control activities as activities that provide evidence that a loss has occurred. They include; analysis, reconciliations, and reviews. He emphasized the importance of authorizations in the form of expenditures as a result of an approved budget as a control activity. The control activities refer to the actions supported by internal control objectives, procedures and policies enabling managers to address risk timely, effectively and efficiently (Steeves, 2004). He further categorized the activities as preventive and detective.

**2.3.2 Risk Assessment**

Risk assessment is considered to be the identification and examination of applicable hazards, which can damage the accomplishment of objectives, creating a basis for determining how the risk should be managed. According to IIA- PFF (1999), Risks are assessed to determine the probability of an event occurring, the impact, and risk tolerance level. Once identified risks are then classified as high, medium and low. Based on the accuracy of the assessment, the risk tolerance level can then be determined. To determine whether risk management is effective, relevant information should be captured and communicated promptly across the organization, enabling staff, management and the board to carry out their responsibilities. (IIA: PPF, 1999)

The risks may incorporate; public scandal, abuse of incomes, resources and faculty, and furthermore the utilization of unreliable information for decision making. O'Leary (2006) considers recognizable proof of dangers as a test to a few associations. Identification of risks and the learning connected to counter them can be specifically connected to the level viable control framework in countering fraud.

**2.3.3 Information and Communication flow**

According to NYSGAAIC Act 2007, Communication is the exchange of useful information between and among people and organizations to support decisions and coordinate activities. ACCA (2005) considers information flow as a process through which the right organizational members tend to receive the right information at the right time. Information should be communicated to management and other employees who need it in a form and within a timeframe that helps them to carry out their responsibilities.

Sudha (2009 found that lateral information flow is needed to coordinate tasks, share information, resolve conflicts and solve problems. In this case, lateral information flow is the communication between groups of individuals at the same level and thus, information flow between colleagues, departments or units.

Byekwaso (2010) underlined the need for a two-way form of information flow to realize the desired organizational performance because both information flows facilitate the implementation of planned activities. However, he stressed the need for guidance of this information by internal control objectives. Internal controls equally cover the parts of data and correspondence frameworks or procedures that help the character, catch, and trade of data in a shape and time span that empowers individuals to do their obligations (Walker, et al., 2003).

Information and communication are necessary for the implementation of control. Information about an administration's idea, control atmosphere, peril control actions as well as performance should be conversed up, down, and across an organization. Relevant information should be recognized, seized, and communicated in the time frame that enables persons to do their tasks. Information classifications offer reports comprising working, monetary as well as compliance associated information that makes it likely to run and control the industry.

### 2.3.4 Monitoring and evaluation

This is the valuation of internal control actions over time. It is achieved by continuing monitoring actions as well as by distinct assessment of internal control, self-evaluation, peer evaluation, and internal inspection. According to Oguda et al. (2015), internal control systems need to be monitored.  Monitoring is a process that assesses the quality of the system's performance over time. This is accomplished through ongoing

monitoring activities, separate evaluations, or a combination of the two. On-going monitoring occurs in the course of operations. It includes regular management, supervisory activities, and other actions taken in performing their duties. The scope and frequency of separate evaluations will depend primarily on an assessment of risks and the effectiveness of ongoing monitoring procedures.

According to the NYSGAAIC Act of 2007 Monitoring is the review of an organization's activities and transactions to assess the quality of performance over time and to determine whether controls are effective. Management should focus monitoring efforts on internal control and achievement of the organization's mission. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, risk tolerance levels, and their own responsibilities.

## 2.4 Conceptual Framework.

The conceptual framework below shows the relationship between independent variables that include control environment and activities, risk assessment, information and communication, and monitoring and evaluation and the dependent variable, which is fraud detection and prevention in the public sector.  Under the dependent variable, the study has descriptors such as false accounting, corporate frauds, false invoices, office scams and traveling and accommodation scams. All these internal control mechanisms are integral in the fraud detection and prevention if implemented effectively. However, in institutions where there are no such elaborate internal control mechanisms, detecting, reporting, and preventing fraud can be very challenging.

**Independent Variables**                                    **Dependent Variable**
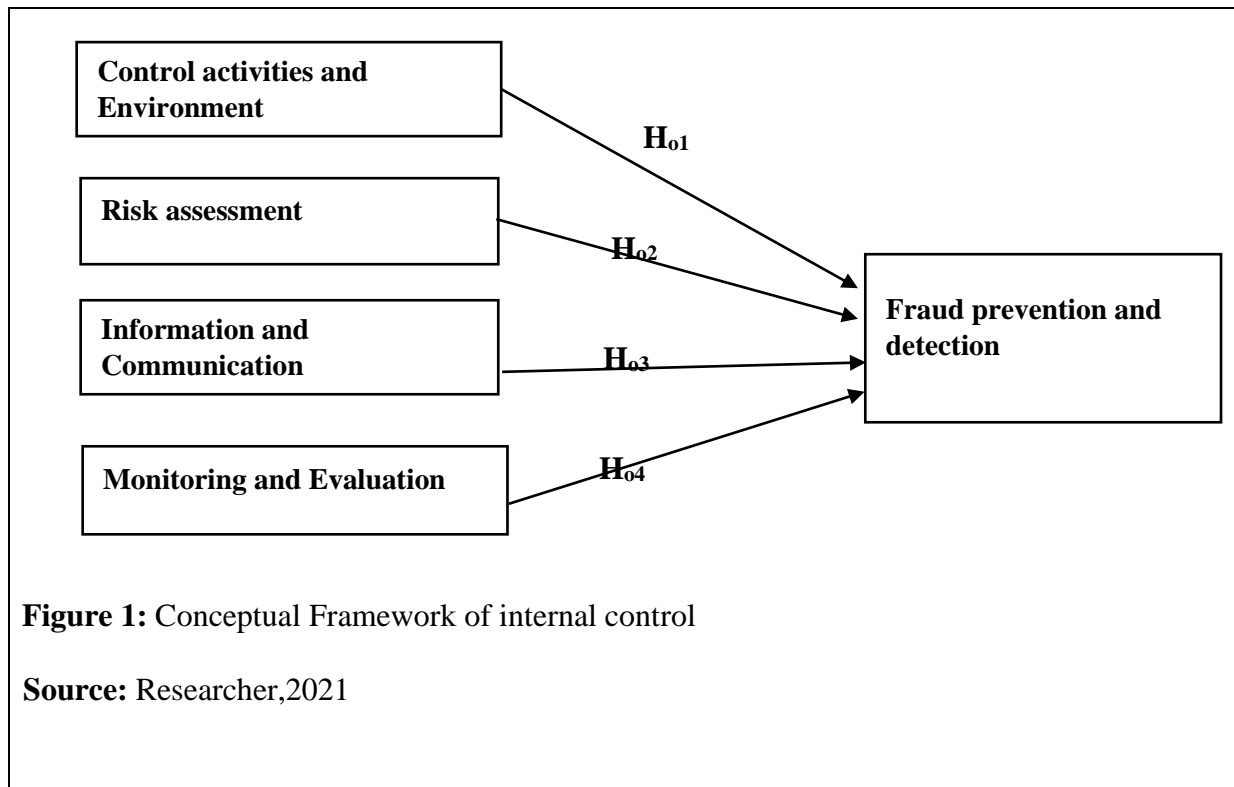


**Figure 1:** Conceptual Framework of internal control

**Source:** Researcher,2021

# CHAPTER THREE

# RESEARCH METHODOLOGIES

## 3.0 Introduction

This chapter explains the methods that will be used to carry out this study. It focused on Research design, location of the study, target population, sampling techniques, sample size, research instruments, piloting, data collection methods, data analysis, logistics, and ethical considerations.

## 3.1 Research Design

A research design is a plan, specifying the methods and procedures to be used in collecting and analyzing data, the study used Cross sectional research design. Mugenda & Mugenda (1999), describes cross sectional research design as a systematic, empirical inquiring into which the researcher did not have a direct control of independent variable as their indicator had already occurred or because the inherently could not be manipulated. Inferences about associations between variables will be made, from associated variables. This research design was selected because the study was not limited to the collection and description of the data but sought to determine the existence of certain relationships among the study variables.

## 3.2 Target Population

The population is the whole group of persons, actions, or items having mutual visible features in which the results will be generalized in the target population (Mugenda &Mugenda, 2003). The target population for this study comprised 800 employees working in the Civil Registration Department. These staff were selected because they are directly involved in the service delivery to the public in their respective sections

and thus have the vital information, experience, and professional skills that were necessary and relevant for the study. Table 1 below show the population distribution within the various sections in the department.

**Table 1: Target population**

| Section/Division | Target Population | Percentage % |
|---|---|---|
| Field services | 600 | 74 |
| Head quarter-Administration | 55 | 7 |
| Central Record division | 45 | 6 |
| Nairobi Central registry | 100 | 13 |
| Total | 800 | 100 |

**Source:** HRM Civil Registration Department, 2020.

**3.3 Sampling Techniques**

The researcher used the Cochran formula to calculate the ideal sample size. Cochran formula allows you to calculate an ideal sample size given a desired level of precision, desired confidence level, and the estimated proportion of the attribute present in the population. This formula is considered especially appropriate in situations with large populations.

The Cochran formula is:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:
- e is the desired level of precision (i.e., the margin of error),
- p is the (estimated) proportion of the population that has the attribute in question,
- $q = 1 - p$.

In this study we assumed that half of the population will have the desired attributes, this gives us maximum variability. So, p = 0.5. We desire a 95% confidence, and at least 5 percent plus or minus precision. A 95 % confidence level gives us **Z values of 1.96**, as per the normal tables, therefore we get; $((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 385.$ Therefore, a random sample of 385 employees in the target population was enough to give the required confidence levels. Since the population being studied is small, the sample size was further modified using this equation:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Where; $n_0$ is Cochran's sample size recommendation, **N** is the population size, and **n** is the new, adjusted sample size. The target population is 800 in this study; therefore, we calculate the required sample as follows; **385 / (1+ (384 / 800)) = 260.14**

Therefore, the study employed a sample of 260 respondents. The researcher used stratified sampling techniques for the study where respondents were grouped into different strata to give results with accuracy (Field, 2005). This then followed the random selection of subjects from each stratum.

**3.4 Sample Size**

In the study, there were 260 key respondents sampled out of a population of 800. To obtain the optimum sample size, the researcher employed Kerlinger's method of determining sample size. According to Kerlinger (1983), a sample is representative of the total population if it ranges between 10% -30% of the total population. That translated to 20% which was within the acceptable range. Table 2 below shows the

sample composition**.** The study considered 32.5% of the population.  According to Cooper and Schindler (2003), a representative sample represents at least 10% of the population. Therefore, for purposes of statistical representation, 32.5% was arrived at using the Cochran formula.

**Table 2: Sample composition**

| Category | Population | Sample Size | Sampled Percentage (%) |
|----------|-----------|-------------|------------------------|
| Field services | 600 | 195 | 32.5 |
| Headquarter-Administration | 55 | 18 | 32.5 |
| Central record division | 45 | 15 | 32.5 |
| Nairobi central registry | 100 | 33 | 32.5 |
| **Total** | **800** | **260** | **32.5** |

 **Source:** Researcher, 2021

**3.5 Measurement of Variables**

In this study variables were measured using both interval and ordinal scale (5-point Likert scale).  Ordinal scale has all its variables in a specific order, beyond just naming them while Interval scale offers labels, order, as well as a specific interval between each of its variable options, Beaney, M. (2010).

**Table 3: Measurement of variables**

| VARIABLE | INDICATORS | MEASUREMENT |
|---|---|---|
| Control activities and environment | -Staff working relationship<br><br>-Approved job standards<br><br>-Record maintenance<br><br>-Internal control manuals | Ordinal (5-point Likert scale) |
| Monitoring and evaluation | -Effective reporting mechanism<br><br> -Independent internal audit<br><br>-Segregation of duties | Ordinal (5-point Likert scale) |
| Risk assessment | -Controls in approval decisions<br><br>-Mechanisms to identify change<br><br> -Knowledgeable persons | Ordinal 5-point Likert scale) |
| Information and communication | -Internal control information available<br><br>-Clarity in communication<br><br>-Clear interdepartmental communication | Ordinal (5-point Likert scale) |
| Fraud detection and prevention | - Office supply scam<br><br>- Travelling and subsistence scam<br><br>- Revenue & recognition<br><br> - False accounting<br><br>-Accounting for funds,<br><br>- Efficiency and effectiveness of operations,<br><br>-Economy in project implementation | Ordinal (5-point Likert scale) |

**Source:** Researcher, 2021

## 3.6 Research Instruments

The research involved primary data sources. The data was collected by the use of structured &semi-structured questionnaires, which contained open and close-ended questions. The questionnaires were administered to the selected group in the four sections of the Civil Registration Department. The questionnaire in this study is

outlined in two sections. The initial part contains both demographic and operational characteristics designed to determine fundamental issues including the demographic characteristics of the respondent. The second part was devoted to the identification of internal control systems on the fraud detection and preventions where the four variables of the study were put into focus.

## 3.7 Validity and Reliability of the study instrument

Validity is the degree to which an instrument measures what it is supposed to measure (Kothari, 2008). Validity is a non-statistical method used in validating the content employed in research tools such as questionnaires and structured interviews (Orodho 2004). Therefore, for this study, the validity of the research tools was determined by comparing results and comments from two senior lecturers at the Technical University of Kenya. Their comments, observations, and recommendations were incorporated into the final questionnaire.

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Orodho, 2004). The test-retest technique was used to measure the reliability of the data. This method involved administering the same questionnaire twice to a sample of 20 members of staff of CRD in Nairobi and after keeping the initial conditions constant administered the same test to the same group of respondents 3 weeks later.

The responses from the first and second rounds of testing were analyzed using Cronbach alpha to determine the coefficient of reliability. The scales Cronbach alphas were all above 0.7; control activities and environment (0.86), risk assessment (0.84),

information and communication (0.79), and monitoring and evaluation (0.76) which indicates that reliability and convergent validity were achieved.

## 3.8 Data collection procedure

Before data collection, the researcher completed a research proposal and defended it before a panel of supervisors to get permission for data collection from the University. Further, permission was sought from the management of the civil registration department. Data were collected in a single-phase through the drop and pick method. This helped in answering research questions as framed in the questionnaire. Self-administered questionnaires were used to collecting data from selected CRD staff. The researcher employed the services of two research assistants to collect all the required data.

## 3.9 Data Analysis and presentation techniques

Data were analyzed by using Statistical Package for the Social Sciences (SPSS) version 21.0 for windows. All the measurement scales are assessed using descriptive (mean and standard deviations) and exploratory approaches (factor analysis). The study hypotheses were tested using multiple linear regression analysis. Factor analysis is the practice of condensing many variables into just a few, so that your research data is easier to work with. Factor is a family of statistical methods that can be used to identify the latent factors driving observable variables (Kang, Hyuncheol, 2013)

### 3.9.1 Model Specification

The regression model was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where; **Y** is the value of the Dependent variable in this study which is fraud detection and prevention. $\alpha$ (Alpha) is the Constant or intercept, $X_1$, $X_2$.......... are the independent variables defined below;

$X_1$ = Control activities and environment

$X_2$ = Risk Assessment.

$X_3$ = Communication, as well as information.

$X_4$ = Monitoring and Evaluation

$\varepsilon$ = Error term accounts for the probable aspects that could affect the dependent variable that were not seized in the study.

### 3.9.2 Assumptions of multiple linear regression model

Multiple linear regression is a statistical method we can use to understand the relationship between multiple predictor variables and a response variable. However, before performing multiple linear regression, we must first make sure that five assumptions are met. These assumptions are essentially conditions that should be met before we draw inferences regarding the model estimates.

**1. Linear relationship:** There exists a linear relationship between each predictor variable and the response variable.

**2. No Multicollinearity:** Multicollinearity occurs when a linear relationship exists between some or all the explanatory variables. This will be tested using the variance

inflation factor (VIF). **VIF** values that exceed 10 are generally viewed as evidence for the existence of multicollinearity (Gujarati and Porter, 2009).

**3. Independence:** Multiple linear regression assumes that each observation in the dataset is independent.

**4. Homoscedasticity:** Multiple linear regression assumes that the residuals have constant variance at every point in the linear model. When this is not the case, the residuals are said to suffer from heteroscedasticity. The residuals have constant variance at every point in the linear model. To test for heteroscedasticity the **Breusch-Pagan test** will done using Stata software, this tests the null hypothesis of constant variance using the fitted values of the dependent variable.

**5. Multivariate Normality:** The residuals of the model are normally distributed. To test for normality the normal P-P Plot of regression standardized residual of the dependent variable (fraud detection and prevention) will be done using SPSS.

**3.10 Ethical Considerations**

The researcher sought clearance from the university. The researcher explained to the respondents the purpose of the study and request their willingness to participate in it. Thus, participation in this research was voluntary, free from any coercion. Moreover, the dignity of all research participants was respected. The subjects were assured of confidentiality.

# CHAPTER FOUR

## DATA PRESENTATION AND DISCUSSION OF FINDINGS

### 4.0 Introduction

This chapter demonstrates the results, analysis, interpretation and presentation of the findings obtained from the field. Data has been presented in form of tables, charts, etc. The questionnaires were distributed to 260 respondents who are employees of the department of Civil Registration.

### 4.1 Profile of the Respondents

### 4.1.1 Gender of the Respondents

The study involved 260 respondents out of which 43% were male while 57% were female as shown in figure 2 below;
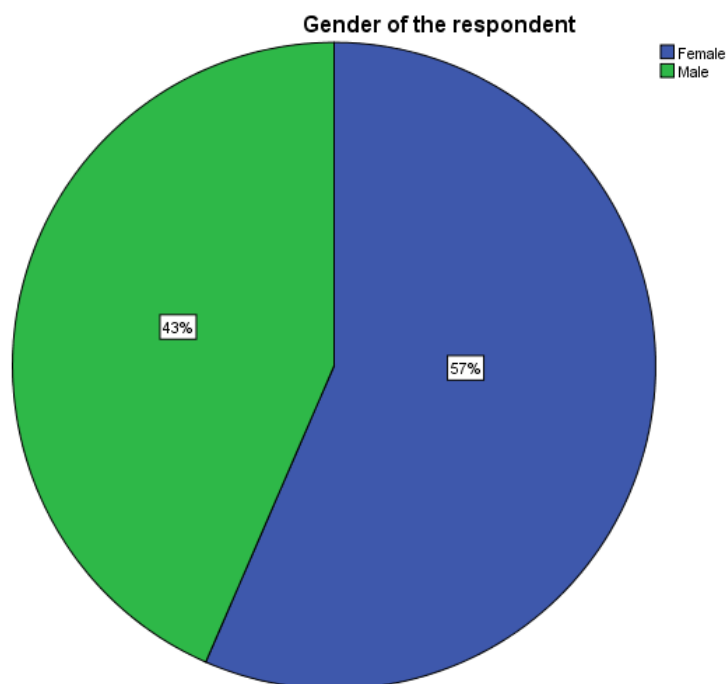


**Figure 2:** Gender of the respondent

**Source:** Primary data

**4.1.2 Education Level of the Participants**

The research sought to determine the highest level of education of the participants. Findings are presented in Figure 3 below; The Results reveal that 56% of the respondents had undergraduate degrees, 22% had diploma qualifications, while 5% had a master's degree. It was also established that 2% of the respondents had PhD qualifications.

The findings show a well-educated and highly qualified workforce at the department that would discharge their functions with utmost competence. This indicates the level of literacy and competence and ability to understand the concept of controls and fraud prevention and detection at their place of work.
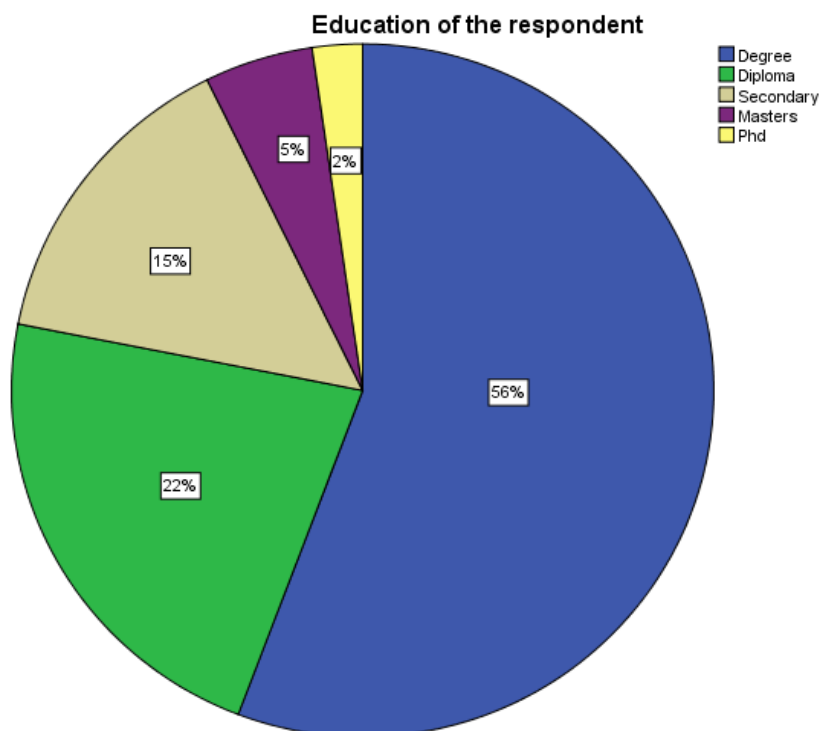


**Figure 3:** Education level of the respondent

**Source:** Primary data

**4.1.3 Age and Length of service of respondents**

The Respondents were asked to state how long they had served in their current duty stations. The objective of this question was to assess the length of exposure and interaction with control challenges within the department. Table 4 below shows that on average the respondents have served for 13 years in the organization. This is an indication that most respondents had worked for a longer period in their current duty stations and that they were well placed to respond accurately to the questions about internal control and fraud prevention and detection in the department. It was, therefore, appropriate to conclude that the information they gave was reliable. The average age of the respondent is 39.75 years.

**Table 4: Age and length of service of respondents**

|                    | N   | Minimum | Maximum | Mean  | Std. Deviation |
|--------------------|-----|---------|---------|-------|----------------|
| Age                | 260 | 20      | 56      | 39.75 | 4.857          |
| Length of _service | 260 | 1       | 25      | 12.56 | 6.191          |

**Source:** Research findings ,2021

**4.2 Exploratory Factor analysis**

**4.2.1 Introduction**

**4.2.2 Fraud Detection and prevention**

The findings in Table 5 below revealed that majority of respondents agree that internal control system based on COSO framework had a significant effect on fraud detection and prevention in the Civil Registration Department.

**Table 5: Description of the scores of components of internal controls**

| Influence of Specific Internal Control Factors on Fraud Detection and Prevention | Strongly disagree (%) | Disagree (%) | Neutral (%) | Agree (%) | Strongly Agree (%) |
|---|---|---|---|---|---|
| Fraud Detection and Prevention | 11.9 | 6.8 | 18.6 | 27.6 | 35.1 |
| Control activities | 6.5 | 6.3 | 22.2 | 32.4 | 32.6 |
| Risk assessment | 13.3 | 9.8 | 21.9 | 28.2 | 26.9 |
| Monitoring and Evaluation | 17.3 | 17.0 | 15.1 | 26.9 | 23.8 |
| Information and communication | 11.9 | 16.3 | 14.1 | 26.7 | 31.0 |

**Source:** Research findings ,2021

The results in Table 6 below shows that the respondents agree with most of the statements used to measure fraud detection and prevention. The majority of the respondents supported the statement 'Weak/poor management control, monitoring and supervision of internal control system can cause perpetration of fraud'' with 24.2% agreeing and 46.2% strongly agreeing. Many of the respondents disagree with the statement. '' Inadequate training of personnel serves as a lapse open to fraudsters to operate'' with 22.3% strongly disagreeing and 7.3 % disagreeing. The statement 'Inadequate training of personnel serves as a lapse open to fraudsters to operate'' has the highest factor score 0.77. This shows employee training is very important in fraud detection and prevention.

**Table 6: Fraud detection and prevention statements**

| No | Fraud detection and prevention | SD % | D % | N% | A % | SA % | Exploratory Factor Analysis Score loading |
|----|-------------------------------|------|-----|-----|------|------|-------------------------------------------|
| 1 | Inadequate training of personnel serves as a lapse open to fraudsters to operate | 22.3 | 7.3 | 20.0 | 26.9 | 23.5 | .77 |
| 2 | Lack of effective machinery that guarantee severe punishment for fraud perpetrator encourages perpetration of fraud. | 12.7 | 8.1 | 22.3 | 23.1 | 33.8 | .74 |
| 3 | Job insecurity can lead people into committing fraud | 13.8 | 7.3 | 20.0 | 31.9 | 26.9 | .78 |
| 4 | Increased financial burden on individual member of staff / personnel could lead them to commit fraudulent act | 6.9 | 5.8 | 16.2 | 31.9 | 39.2 | .75 |
| 5 | Weak/poor management control, monitoring and supervision of internal control system can cause perpetration of fraud | 8.5 | 5.8 | 15.4 | 24.2 | 46.2 | .74 |
| 6 | Non –adherence to ethical standards set by the management and regulatory body (public service commission PSC) could lead to fraud perpetration | 7.3 | 6.5 | 17.7 | 27.7 | 40.8 | .73 |

**Source:** Research findings, 2021

### 4.2.3 Control activities and environment

The results in Table 7 below show that the respondents agree with most of the statements used to measure control activities. The majority of the respondents supported the statement ''Accounts are reconciled on monthly basis to detect errors and fraud'' with 46.2% agreeing and 34.2% strongly agreeing. Factor analysis extracted one component of control activities and environment explaining 54.8% variance of the construct. The statement, ''staff are aware of the penalties for breaking internal control procedures'' has the highest factor score of 0.76. This implies most of the staff in the department understanding the code of ethics is critical for a control environment.

**Table 7: Control activities and environment statements**

| No | Control activities Statement | SD % | D % | N % | A % | SA % | Exploratory Factor Analysis Score loading Score loading |
|---|---|---|---|---|---|---|---|
| 1 | Staffs are given up to date internal control manuals for reference | 4.2 | 8.1 | 21.2 | 33.5 | 33.1 | .70 |
| 2 | Staff are aware of the penalties for breaking internal control procedures | 16.2 | 8.8 | 32.3 | 21.5 | 21.2 | .76 |
| 3 | Accounts are reconciled on monthly basis to detect errors and fraud | 1.5 | 4.6 | 13.5 | 46.2 | 34.2 | .52 |
| 4 | All payments are authorized by responsible officer before payment | 4.2 | 3.5 | 21.9 | 28.5 | 41.9 | .67 |

**Source:** Research findings,2021

## 4.2.4 Risk assessment and management

The results in Table 8 show that the respondents agree with most of the statements used to measure risk assessment. The majority of the respondents supported the statement 'this organization is kin in identifying risks'' with 27.7% agreeing and 43.5% strongly agreeing. Many of the respondents disagree with the statement. ''Changes of new staff are examined for the risks it may cause'' with 28.8% strongly disagreeing and 16.5 % disagreeing.

The factor analysis results show that eleven statements explain the 52.1% variance in risk assessment. The statement 'Organizational restructuring brings limited risks to the organization'' has the highest factor score 0.76. This shows that organizational restructuring is most essential in risk assessment.

**Table 8: Risk Assessments statements**

| No | Risk assessment Statement | SD (%) | D (%) | N (%) | A (%) | SA (%) | Exploratory Factor Analysis Score loading |
|---|---|---|---|---|---|---|---|
| 1 | There are mechanisms in place to identify and react to changes that can have dramatic effects on the organization | 10.8 | 6.9 | 26.2 | 34.6 | 21.5 | .71 |
| 2 | Controls exist for approving decisions regarding financing alternatives and accounting principles, practices, and methods | 9.6 | 6.9 | 22.3 | 28.5 | 32.7 | .70 |
| 3 | Risks are assessed in relation to changes in the operational | 16.9 | 17.3 | 28.5 | 24.2 | 13.1 | .57 |
| 4 | Changes of new staff is examined for the risks it may cause | 28.8 | 16.5 | 17.3 | 25.8 | 11.5 | .58 |
| 5 | Organizational restructuring brings limited risks to the organization | 10.8 | 6.2 | 25.4 | 27.7 | 30.0 | .76 |
| 6 | New services possess less risks to the organization | 14.2 | 10.8 | 28.5 | 26.2 | 20.4 | .72 |
| 7 | The reporting mechanism in place is less risky to the organization Communication channels is in place for changes in service delivery | 8.5 | 6.5 | 21.2 | 33.1 | 30.8 | .69 |
| 8 | Internal audit has appropriate controls for service delivery | 6.9 | 9.6 | 16.2 | 28.8 | 38.5 | .63 |
| 9 | The organization has competent and knowledgeable personnel | 12.7 | 13.5 | 16.9 | 26.9 | 30.0 | .66 |
| 10 | This organization is kin in identifying risks | 4.6 | 5.8 | 18.5 | 27.7 | 43.5 | .55 |
| 11 | All risks facing this organization are measured | 22.3 | 7.3 | 20.0 | 26.9 | 23.5 | .52 |

**Source:** Research findings, 2021

### 4.2.5 Information and communication

The results show in Table 9 that the respondents agree with most of the statements used to measure information and communication. The majority of the respondents supported the statement 'Information flows freely without any interference'' with 25.8% agreeing and 40.0% strongly agreeing. Many of the respondents disagree with the statement.

''Changes of new staff are examined for the risks it may cause'' with 13.1% strongly disagreeing and 22.3 % disagreeing. From factor analysis finding the eleven statements explain 76.11% variance in Information and communication. The statement ''Staff have access to information'' has the highest factor score of 0.92 implying this is a major element of information and communication.

**Table 9: Information and communication statements**

| No | Information and communication Statement | SD (%) | D (%) | N (%) | A (%) | SA (%) | Exploratory Factor Analysis Score loading |
|----|------------------------------------------|--------|-------|-------|-------|--------|--------------------------------------------|
| 1 | Information flows freely without any interference | 12.7 | 13.1 | 8.5 | 25.8 | 40.0 | .90 |
| 2 | Staff have information on internal controls and accountability | 12.7 | 17.7 | 9.6 | 32.3 | 27.7 | .90 |
| 3 | All channels of communication are utilized by staff | 11.9 | 16.2 | 16.9 | 22.7 | 32.3 | .89 |
| 4 | There is no ambiguity in information communicated | 13.1 | 22.3 | 16.2 | 20.0 | 28.5 | .79 |
| 5 | All operational information is given to staff in time | 10.0 | 17.3 | 13.8 | 30.0 | 28.8 | .89 |
| 6 | All relevant information is communicated to staff | 10.4 | 12.7 | 20.8 | 27.7 | 28.5 | .82 |
| 7 | The organization has clear channels of communications | 13.5 | 11.2 | 12.7 | 30.8 | 31.9 | .91 |
| 8 | The Director is the spokesperson for the organization | 11.2 | 15.8 | 11.2 | 32.7 | 29.2 | .83 |
| 9 | There is good communication between departments | 8.8 | 23.5 | 16.2 | 22.7 | 28.8 | .86 |
| 10 | Staff have access to information | 11.2 | 15.4 | 16.2 | 23.8 | 33.5 | .92 |
| 11 | The current information flow is quick and effective Information flow delays accountability | 15.4 | 14.2 | 13.5 | 25.0 | 31.9 | .86 |

**Source:** Research findings,2021

**4.2.6 Monitoring and Evaluation**

The results in Table 10 below show that the respondents agreed with most of the statements used to measure monitoring and evaluation. Few of the respondents supported the statement 'Monitoring strategies are used at any time during monitoring process'' with 22.3% agreeing and 20% strongly agreeing. This shows that monitoring strategies are rarely used in the department. Many of the respondents agreed with the statement. 'External auditors can rely on the work of internal auditors when auditing'' with 32.7% agreeing and 33.1 % strongly agreeing. The eight statements used explained 65.18% variance in monitoring and evaluation.  The statement 'the organization's projects are monitored and reported as required of their monitoring and evaluation criteria'' has the highest factor score of 0.87. This shows the importance of monitoring and evaluation criteria.

**Table 10: Monitoring and evaluation statements**

| No | Monitoring and Evaluation | SD (%) | D (%) | N (%) | A (%) | SA (%) | Exploratory Factor Analysis Score loading |
|---|---|---|---|---|---|---|---|
| 1 | Monitoring strategies are used at any time during the monitoring process | 22.7 | 15.8 | 19.2 | 22.3 | 20.0 | .80 |
| 2 | The organization projects are monitored and reported as required of their monitoring and evaluation criteria | 13.8 | 21.5 | 16.9 | 28.5 | 19.2 | .87 |
| 3 | There is a reporting mechanism for all activities of this organization | 27.3 | 16.9 | 10.4 | 25.4 | 20.0 | .83 |
| 4 | Quality assurance is adhered to for all organization projects | 27.3 | 15.4 | 14.6 | 21.9 | 20.8 | .85 |
| 5 | Internal audit is independent of management influence | 21.9 | 16.2 | 13.5 | 24.6 | 23.8 | .85 |
| 6 | External auditors can rely on the work of internal auditors when auditing | 5.4 | 16.2 | 12.7 | 32.7 | 33.1 | .79 |
| 7 | Segregation of duties or mitigating controls exist within transaction processing, authorization custody, and recording functions | 13.8 | 16.9 | 16.5 | 26.9 | 25.8 | .74 |
| 8 | Separation of duties exists between procurement, account payables and disbursements. | 5.8 | 16.9 | 17.3 | 32.7 | 27.3 | .72 |

**Source:** Research findings,2021

## 4.3 Multiple Linear Regression analysis

## 4.3.1 Model diagnostics

## 4.3.1. a Test for Normality

Figure 4 shows test for normality using the normal P-P Plot of regression standardized residual of the dependent variable fraud detection and prevention. The results presented below indicate that the residuals are approximately normally distributed implying that by extension the data fits well (Gujarati and Porter, 2009).
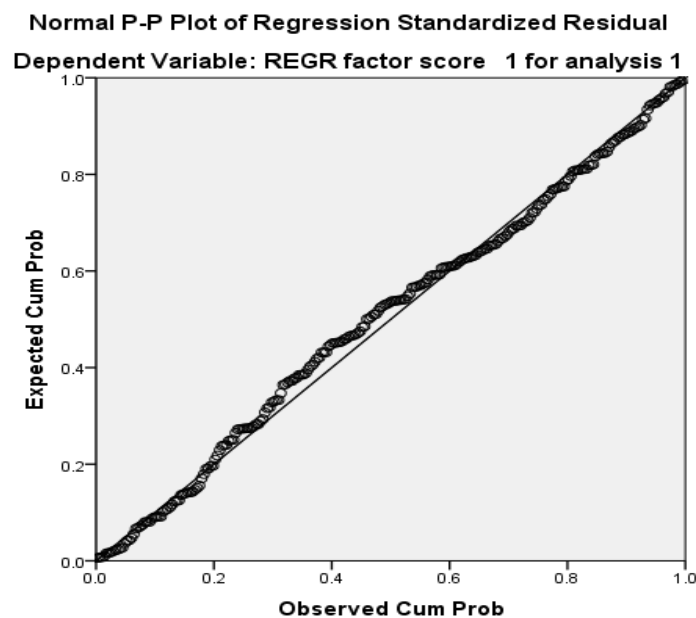


**Figure 4:** Test for Normality

## 4.3.1.b Multicollinearity

Multicollinearity which occurs when a linear relationship exists between some of or all the explanatory variables. This was tested using the variance inflation factor (VIF). The presence of multicollinearity causes the inflation of the variance of the model and coefficients hence the confidence interval becomes wide and inferences made are unreliable. VIF values that exceed 10 are generally viewed as evidence of the existence

of multicollinearity (Gujarati and Porter, 2009). There was no evidence of multicollinearity as the VIF range 1.151 to 1.453 as indicated in Table 11 below.

**Table 11:Variance Inflation Factor (VIF)**

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | **Tolerance** | **VIF** |
| 1 | (Constant) | | |
| | Control environment and activities | .869 | 1.151 |
| | Risk assessment | .752 | 1.330 |
| | Information and communication | .688 | 1.453 |
| | Monitoring and evaluation | .791 | 1.264 |

**Source:** Research findings, 2021

### 4.3.1. c Heteroscedasticity

To test for heteroscedasticity the Breusch-Pagan / Cook-Weisberg test (Gujarati and Porter, 2009) was used. This tests the null hypothesis of constant variance using the fitted values of the dependent variable, Fraud detection and prevention was used. This test was done using STATA software. Ones we fitted the regression model the Breuch pagan test was done using hettest command which is short for "heteroscedasticity test":

# Hettest

Breuch-pagan / cook-weisberg test for heteroskedasticity

Ho: Constant Variance

Variables: fitted values of fraud detection

ch2(1)          =   14.88

Prob  < chi2   =   0.001

The test yielded chi2 (1) = 14.88 and p< 0.001 thus the test hypothesis is rejected implying there is no heteroscedasticity.

**4.3.2 Correlation analysis**

The findings of the study revealed a positive association between risk assessment and prevention and detection of fraud (r=0.622, P< 0.001). These results are in line with Oguda et al, 2015) which assessed the "Effect of Internal Control on Fraud Detection and Prevention in District Treasuries of Kakamega County. The study found that there was a statistically significant and positive relationship between the adequacy of internal control systems and fraud prevention and detection in district treasuries in Kakamega County. Information and communication and prevention and detection of fraud revealed a positive association (r=0.404, P< 0.001). This implies that increase in information and communication increases the fraud prevention and detection increases. The finding also revealed that there exists an inverse relationship between monitoring and evaluation and control activities. An increase in control activities and environment will lead to decrease in monitoring and evaluation activities. Increase in control activities will lead to less monitoring activities and overall cost savings.

**Table 12: Correlation analysis**

|  | Fraud | Control activities and environment | Risk assessment | Information and communication | Monitoring and evaluation |
|---|---|---|---|---|---|
| Fraud | 1.000 |  |  |  |  |
| Control activities and environment | 0.277*** | 1.000 |  |  |  |
| Risk assessment | .622*** | .269*** | 1.000 |  |  |
| Information and communication | .404*** | .055 | .433*** | 1.000 |  |
| Monitoring and evaluation | 0.177** | -.217*** | 0.087* | .388*** | 1.000 |

*** 1% level of significance, ** 5% level of significance, * 10 % level of significance

**Source:** Research findings, 2021

**4.3.3 Analysis of Variance (ANOVA)**

Table 13 below shows the analysis of variance results from the study. The F value of 49.199 was significant 1% level. The F-test of overall significance indicates that the

multiple linear regression model provides a better fit to the data than a model that contains no independent variables.

**Table 13: Model summary table**

| ANOVA[a] | | | | | |
|---|---|---|---|---|---|
| **Model** | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 1   Regression | 112.817 | 4 | 28.204 | 49.199 | .000[b] |
|      Residual | 146.183 | 255 | .573 | | |
|      Total | 259.000 | 259 | | | |
| | **R Square Change** | **F Change** | **df1** | **df2** | **Sig. F Change** |
| | .436 | 49.199 | 4 | 255 | .000 |
| a. Dependent Variable: Fraud | | | | | |
| b. Predictors: (Constant), Monitoring and evaluation, Risk assessment, Control environment and activities, Information and communication | | | | | |

**Source:** Research findings,2021

Further the model summary results in Table 12 suggest that together the factors of internal control; control activities and environment, risk assessment, information and communication and monitoring and evaluation explain significantly about 49% of the variance in fraud detection and prevention.

**4.3.4 Interpretation and discussion of findings**

The results of the multiple linear regression analysis conducted are presented Table 14 below. The results show that the fraud detection and prevention is positively and significantly associated with the variables of internal control system. This is in line with the study on "effectiveness of internal control on fraud detection and prevention on commercial banks Listed in Nairobi securities exchange" by Silas Nyaga Micheni, (2016)

**Table 14:The coefficient of regression analysis**

| Fraud | | | | | P>t |
| --- | --- | --- | --- | --- | --- |
| | Unstandardized Coefficients | Standardized Coefficients | Robust Std. Err. | t | P-value |
| Control environment and activities | .160 | .158 | .050 | 3.120 | .002 |
| Risk management and assessment | .514 | .514 | .054 | 9.477 | .000 |
| Information and communication | .128 | .128 | .057 | 2.249 | .025 |
| Monitoring and Evaluation | .117 | .117 | .053 | 2.207 | .028 |
| Constant | -0.03 | | 0.047 | 0.000 | 1.000 |

**Source:** Research findings, 2021

**4.3.5 Hypothesis testing**

**H$_I$: Control environment and activities does not affect fraud detection and prevention in the Civil Registration Department in Kenya**

One unit increase in control activities increases fraud prevention and detection by 16% ($\beta$=0.58, p>0.002) ceteris paribus, this result implies that the first hypothesis of this study Control environment and activities does not affect fraud detection and prevention in the Civil Registration Department in Kenya should be rejected. These results infer that instituting control activities has a positive effect on fraud detection and prevention.

**H$_2$: Risk assessment does not affect fraud detection and preventions at the Civil Registration Department**

The results also indicate that the second hypothesis is rejected. Ceteris paribus a unit increase in risk assessment increases fraud prevention and detection ($\beta$=0.514, p

>.000). This was the most impactful factor. The result implies that there is a strong positive relationship between risk assessment and fraud detection and prevention.

**H$_3$: Information and Communication flow does not affect the Fraud detection and prevention in the Civil Registration Department**

This result indicates that a unit increase in access to information and communication improves fraud detection and prevention by 13%, ($\beta$=0.128, p>0.025), all other factors constant. Therefore, the third hypothesis is be rejected. The result implies that there is a positive relationship between information and communication and fraud detection and prevention.

**H$_4$: Monitoring and evaluation does not affect fraud detection and prevention at the Civil Registration Department Kenya**

Monitoring and evaluation increase fraud detection and prevention significantly thus the fourth study hypothesis is rejected. One unit increase in monitoring and evaluation increases fraud detection and prevention by 12% ($\beta$=.117, p>.028) all other factors constant.

## CHAPTER FIVE

## 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS
## 5.1 Introduction

This section presents the summary of the research. From the statistics examination in the preceding sections, the following deductions, as well as recommendations of the study, were established from the results.

### 5.1.1 Control Environment and Control activities

This study has revealed that major internal control systems that are in place to detect and prevent fraud in the department of civil registration, are activities that provide evidence that an activity has occurred, and this includes review, analysis, and reconciliations. Additionally, the study indicated that the department's management conducts the processes of authorization and approval procedures, separation of duties, controls over access to assets and records, verifications, reconciliations, reviews of operating performance, reviews of activities, and supervision.

Major internal controls were rated as being effective. The study indicated that there was the need for urgent change in the control activities to make them appropriate and ensure that they function consistently and under the plan and be cost-effective, comprehensive, reasonable, and in direct relation to its objectives. All workers have work schedules hence no job conflicts and there is a mechanism to monitor their regular attendance. Also, the study showed that all the tasks are accomplished according to the approved standards and that the work structure is flexible. Further, the study also revealed that staff have good working relationships among themselves and that jobs are given on a competency basis.

In addition, the study revealed that activities are performed in an environment of creativity and innovation also that the hiring process for contract staff is transparent. The study also indicated that employees are committed to their jobs and that there is no discrimination, the findings are in line with Anthony (2014) noted that the control environment paves way for an organization, influencing the consciousness of its people. It is the basis for all the other components of internal controls.

**5.1.2 Risk Assessment**

The study shows that; internal audit has appropriate controls for service delivery and that the reporting mechanism in place is less risky to the organization communication. Risks are assessed concerning changes in the operational environment. The study also revealed that controls are in place to aid in approving decisions relating to financing alternatives and accounting principles, practices and methods. Additionally, the study revealed that all risks facing the department are measured.

The organization has competent and knowledgeable personnel. Additionally, the study unveiled those changes of new staff is examined for the risks it may cause and that the department is kin in identifying risks. There are mechanisms meant to identify and react to changes that can have undesirable effects on the department. New services present fewer risks to the organization. Additionally, the study revealed that organizational restructuring brings limited risks to the department. The findings are in line with COSO (2014) that it is important to document fraud detection strategies including the individuals or teams responsible for each task.

### 5.1.3 Information and Communication

The study revealed that the information and communication systems in the department were effective. This study revealed that there need for changes on the informal and formal communication channels, to improve information flow. The study also revealed that a two-way model of information flow should be `introduced to achieve the desired organizational performance because both information flows to facilitate the implementation of planned activities in the organization. Further, the study revealed that; staff has information on internal controls and accountability, and that the department has clear channels of communications. The study also revealed that all relevant information is communicated to staff.

Further, the study indicated that all operational information is given to staff in time and that there is good communication between various sections. These findings are in line with the advocacy by Semanda (2011) information that could lead to fraud detection and prevention is indeed communicated to staff. These findings are in line with research by Naidoo (2015), the top-down channel mostly occurs in an impersonal nature leading to information flow ambiguity, clear message delivery failure to subordinates contrary to what is intended by management.

### 5.1.5 Monitoring and Evaluation

The study revealed that; the departments' activities are monitored and reported as required of their monitoring and evaluation criteria. It also revealed that there is a reporting mechanism for all activities of the department. Separation of duties also exists within transaction processing, custody, and recording functions. It is therefore

important to regularly monitor and update fraud detection strategies to ensure they are effective.

**5.2 Conclusion**

On the control activities and the control environment, the study revealed that staff have good working relationships between themselves and also that all jobs are given based on competency. Further, the study revealed that staff are aware of the penalties for breaking internal control procedures and all payments are authorized by the responsible officer before payment.

Regarding the risk assessment, the study revealed that the department has the means to identify and respond to changes that can have adverse effects on the organization, risks are assessed about changes in the operational environment. Additionally, the study found out that internal audit has appropriate controls for service delivery.

With respect to information and communication, the study revealed that employees have information on internal controls and accountability and also that all relevant information is communicated to them. The study research also indicated that operational information is given to staff in time and that there are clear channels of communication.

On monitoring and evaluation, the study showed that activities are monitored and reported as required of their monitoring and evaluation criteria, and that quality assurance is adhered to for all organization projects. Further, the study revealed that external auditors can rely on the works of internal auditors when auditing. In summary, the study concludes that there is a significant positive relationship between internal control systems and fraud detection and prevention in the department of civil registration in Kenya.

**5.4 Recommendation**

The following recommendations are made:

Fraud detection and prevention is founded on the premise that fraud is not a chance occurrence but occurs where the conditions are favorable for it to occur. Fraud detection and prevention affect the root causes and enablers of fraud. Improving organizational procedures to reduce or eliminate the causal factors of fraud is the single best defense against fraud. Therefore, there is a need for CRD employees to maintain efficient, effective, and transparent governance and efficient financial systems to minimize and eliminate fraud. This should address the weakness within the department's structure that may expose resources to the risk of loss due to fraud.

Management should strive to ensure that, risks are effectively assessed and managed, laws and regulations strictly complied with, and that, there is effective communication and monitoring within the department. These wills ensure effectiveness and efficiency of operations, reliability of financial reporting, compliance with laws and regulations and prudent use of public resources.

The five identified components of effective internal controls: control environment and activities, risk assessment; information and communications and monitoring, should be applied in a collaborative linkage to form an integrated system that reacts dynamically to changing conditions. The internal control system should be merged with the operations of the civil registration department to enhance detection and prevention of fraud.

**5.5 Suggestion for Further study**

[1]    Further research can be undertaken on the perceived effect of internal control systems on fraud detection and prevention in the government semi-autonomous organizations and results compared with those of this study. This will broaden our understanding of the extent to which internal control systems impact on fraud detection and prevention depending on the governance structures.

[2]    Further still, the relationship between organizational way of doing things (culture) and fraud detection and prevention in government departments should be explored. Culture is ingrained in all systems in terms of attitudes, values and norms shared among members of the organization. For fraud detection and prevention to succeed, cultural issues should be looked into as predictors of the success of such programs.

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## APPENDICES

## APPENDIX I: Letter of Introduction to Respondents

The Director,

Department of Civil Registration

P o box 40039-00100

Nairobi

Dear Respondent,

## RE: COLLECTION OF SURVEY DATA

To fulfill my program requirements, I am researching analyze the internal control systems on the fraud detection and prevention in Department of Civil Registration. Therefore, I kindly request you to assist me to collect data by filling out the accompanying questionnaire. The information provided will be used exclusively for academic purposes and will be held in strict confidence. Thank you.

Yours faithfully

CPA Moses Irungu Kibugi

**APPENDIX 2: Research questionnaire**

This research is about the perceived effects of internal controls in fraud detection and prevention in the civil service. Please note that any information obtained through this questionnaire will be strictly confidential and will be used for academic purpose only.

**DO NOT INDICATE YOUR NAME ANYWHERE ON THIS QUESTIONNAIRE**

Kindly respond by ticking the box provided as appropriate and using the space provided for other information as requested.

**Section A**: Personal information

1. Gender: (a) Male [  ]          (b) Female [  ]

2.  Age in years:

3.What is your highest level of education?

  (a) Primary [  ]   (b) Secondary [  ]    (c) College diploma   [   ]    (d) University [   ]

4. State the section you are positioned in the organization

(a)  Finance and administration division [  ]    ( b) Central record division        [  ]

(C)  Nairobi central registry                [  ]      (d)   Field services department   [   ]

5. For how long have you been in this organization?

**Operationalization of variables.**

**Section B:**

**Fraud detection and Prevention**
To examine the major causes of fraud and factors that have contributed to its growth and how to curb it.

6. Please rank the following statement on Likert scale ranging from strongly agree to

strongly disagree

Where; 5= strongly disagree 4= disagree 3= not sure 2= agree 1= strongly agree.

| Questions | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Inadequate training of personnel serves as a lapse open to fraudsters to operate | | | | | |
| Lack of effective machinery that guarantee severe punishment for fraud perpetrator encourages perpetration of fraud. | | | | | |
| Job insecurity can lead people into committing fraud | | | | | |
| Increased financial burden on individual member of staff/ personnel could lead them to commit fraudulent act | | | | | |
| Weak/poor management control, monitoring and supervision of internal control system can cause perpetration of fraud | | | | | |
| Non –adherence to ethical standards set by the management and regulatory body (public service commission PSC) could lead to fraud perpetration | | | | | |

**Section C:**

**Control activities and environment**
7. Does the existing control activities any role in frauds prevention in the organization?


Yes [  ]                                        No [    ]


8.  In your own opinion, kindly describe the best control activities which can ease fraud detection in your organization.

……………………………………………………………………………………………
……

9. To what extent do you agree with the following statement relating to control activities? Use scale 1- strongly agrees, 2- agree, 3- Neutral 4- Disagree, 5 – strongly disagree.


| Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Staffs are given up to date internal control manuals for reference purposes | | | | | |
| Staff era aware of the penalties for breaking internal control procedures | | | | | |
| Accounts are reconciled on monthly basis to detect errors and fraud | | | | | |
| All payments are authorized by responsible officer before payment | | | | | |

**Risk assessment and management**

10. To what extent do you agree with the following statement relating to risk assessment? Use scale 1- strongly agrees, 2- agree, 3- Neutral 4- Disagree, 5 – strongly disagree.

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| There are mechanisms in place to identify and react to changes that can have dramatic effects on the organization | | | | | |
| Controls exist for approving decisions regarding financing alternatives and accounting principles, practices and methods | | | | | |
| Risks are assessed in relation to changes in the operational environment | | | | | |
| Changes of new staff is clearly examined for the risks it may cause | | | | | |
| Organizational restructuring brings limited risks to the organization | | | | | |
| New services possess less risks to the organization | | | | | |
| The reporting mechanism in place is less risky to the organization Communication channels is in place for changes in service delivery | | | | | |
| Internal audit has appropriate controls for service delivery | | | | | |
| The organization has competent and knowledgeable personnel | | | | | |
| This organization is kin in identifying risks | | | | | |
| All risks facing this organization are measured | | | | | |

**Information and Communication**

11. How effective are the information and communication systems in your organization

    a) Very effective                                 []

    b) Effective                                     []

    c) Not effective at all                          []

12. In which areas in the communication channel you think need urgent changes in your organization?

…………………………………………………………………………………………

…………………………………………………………………………………………

13. To what extent do you agree with the following statement relating to information communication? Use scale 1- strongly agrees, 2- agree, 3- Neutral 4- Disagree, 5 – strongly disagree.

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Information flows freely without any interference | | | | | |
| Staff have information on internal controls and accountability | | | | | |
| All channels of communication are utilized by staff | | | | | |
| There is no ambiguity in information communicated | | | | | |
| All operational information is given to staff in time | | | | | |
| All relevant information is communicated to staff | | | | | |
| The organization has clear channels of communications | | | | | |
| The Director is the spokesperson for the organization | | | | | |
| There is good communication between departments | | | | | |
| Staff have access to information | | | | | |
| The current information flow is quick and effective Information flow delays accountability | | | | | |

**Monitoring and evaluation**

14. To what extent do you agree with the following statement relating to monitoring and evaluation? Use scale 1- strongly agrees, 2- agree, 3- Neutral 4- Disagree, 5 – strongly disagree.

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Monitoring strategies are used at any time during monitoring process | | | | | |
| The organization projects are monitored and reported as required of their monitoring and evaluation criteria | | | | | |
| There is a reporting mechanism for all activities of this organization | | | | | |
| Quality assurance is adhered to for all organization projects | | | | | |
| Internal audit is independent of management influence | | | | | |
| External auditors can rely on the work of internal auditors when auditing | | | | | |
| Segregation of duties or mitigating controls exist within transaction processing, authorization custody, and recording functions | | | | | |
| Separation of duties exists between procurement, account payables and disbursements. | | | | | |

**THANK YOU FOR YOUR COOPERATION**