

St. Mary University

School of Graduate Studies MBA Program



**Assessment of Internal Control System Effectiveness in Fraud Prevention
The Case of Commercial Bank of Ethiopia (CBE)**

By: Samuel Girma ID: SGS0119/2013A

Advisor: Belete Mebratu (Prof)

**A Thesis Submitted to St. Mary's University, School of Graduate Studies in
Partial Fulfilment of The Requirements For The Degree in Master of Business
Administration**

May, 2022

Addis Ababa, Ethiopia

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ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a University advisor.

BeleteMebratu (Prof.)_____

Advisor Signature

St Mary's University, Addis Ababa, Ethiopia

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SAMUEL GIRMA

APPROVED BY BOARD OF EXAMINERS

Dean, Graduate Studies

Signature

Belete M. (Prof.) _____

Advisor

Signature

External Examiner

Signature

Internal Examiner

Signature

DECLARATION

I, the undersigned, announce that the thesis work submitted by me under the supervision of BeleteMebratu (Prof.), entitled 'Assessment of Internal Control system Effectiveness in fraud prevention: In the case of commercial bank of Ethiopia,' for the award of the Masters of St. Mary's University, Masters of Business Administration, is my original work and has never been discussed at any university. Due recognition has been granted to all sources and materials used for this study.

Samuel Girma

Name

Signature

St Mary's University, Addis Ababa, Ethiopia

May, 2022

ABSTRACT

The main purpose of the study was to examine the effectiveness of internal control system in fraud prevention in the case of commercial Bank of Ethiopian. This research was used descriptive statics technique. The data was gathered from primary sources through the use of structured questionnaires. The total population is 219 employees' individuals who work at Commercial Bank of Ethiopia under head office, districts in Addis Ababa and branches. Purposive sampling method was employed to draw the sample from the population. The components of the internal control system (Control environment, risk assessment, control activities, information and communication and monitoring activities) are effective in addressing or alleviating and preventing the frequent occurrence of fraud in commercial bank of Ethiopia. The findings of the study were that commercial bank of Ethiopian has internal control practice by in terms of control environment, risk assessment, information and monitoring, control activity and monitoring. The bank was in good/high extent practice of internal control. The study points out that CBE is in a good condition on providing information to their employees through well-organized mechanisms. The forwarded recommendations was the bank needs to needs to undertake a periodic assessment practice,needs to produce qualified employees by availing training and workshop to the internal control staff.

Keywords: internal control system, Fraud prevention, control environment, risk assessment, information and monitoring, control activity and monitoring activity.

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LIST OF ACRONYMS

ACFE	Association of Certified Fraud Examiners
CA	Control Activity
CBE	Commercial bank of Ethiopia
COSO	Committee of sponsoring organizations
EIC	Effectiveness of internal control
IC	Information and communication
ICS	Internal control system
MA	Monitoring Activity
NBE	National bank of Ethiopia
RA	Risk Assessment

CHAPTER ONE

INTRODUCTION

This chapter presents an introductory chapter of the study, including the background of the study, statement of the problem, objectives of the study, research questions, significant of the study, scope of the study, and organization of the study.

1.1. Background of the study

Banks in developing countries play an effective role in the economic development. The majority of people in such countries are poor, unemployed and engaged in traditional agriculture. Banks help in overcoming these obstacles and promoting economic development. The more efficient the financial sector becomes, the more likely a country's scarce resources can be directed to their most productive use. As this occurs, economic growth can reach its full potential (Levine, 1997).

It is necessary that every bank must have an Internal audit department to ensure that accounting systems provide an efficient means of recording and reporting financial transactions, providing management information and protecting the company's asset from fraud and misappropriation (Achibong, 1993). One of the most effective systems for detecting fraud is Internal Control, which is a system by definition, operating in the same environment as fraud itself and serving as an effective, formidable adversary to the fraud scheme (Meshane, 2007).

Internal control systems can be described as the whole system of control, financial and otherwise established by management in order to carry on the business of the enterprises in an orderly and efficient manner. It involves the control environment and control procedure, all the policy and procedure adopted by the directors and management of an entity to assist in achieving their objectives, including adherence to internal policies, the safe-guarding of assets, the prevention and detection of fraud and error as well as the completeness and accuracy of records, with the timely preparation of reliable financial information (Benjamin, 2001).

Fraud impacts Ethiopian banking organizations in several areas including financial, operational, and psychological. While the monetary loss owing to fraud is significant, the full impact of fraud

on an organization can be staggering. The losses to reputation, goodwill, and customer relations can be devastating. Fraud in general, inflicts untold hardship on bank and customers, as most bank failures are associated with large scale frauds. Therefore, the lack of an effective control in Ethiopian banking sector is the major cause of bank frauds. So, this research intended to examine the effectiveness of the internal control system in fraud prevention in the case of CBE.

1.2 Background of the organization

The history of the Commercial Bank of Ethiopia (CBE) dates back to the establishment of the State Bank of Ethiopia in 1942. CBE was legally established as a 2-share company in 1963. In 1974, it was merged with the privately-owned Addis Ababa Bank (CBE, 2020/21). Since then, it has been playing significance roles in the development of the country both economically and technologically. The bank is a pioneer to introduce modern banking to the country like Western Union Money Transfer Services and currently working with other 20 money transfer agents like Money Gram, Atlantic International (Bole), Xpress Money. It has more than 1811 branches stretched across the country and four branches in South Sudan. It is the leading African bank with assets of 999 billion Birr as of June 30 2020 and had about 22,000 million account holders combined a wide capital base with more than 38,100 talented and committed employees. (CBE, 2020/2021).

Admassu&Asayehgn (2014) discussed that banking industry in Ethiopia is in a rudimentary and fragile state. It is small, relatively undeveloped, closed and characterized by a large share of state ownership. Among the state-owned bank, commercial bank of Ethiopia has the highest share in the banking industry of the country. Its vast transactions and operational activities are exposed to fraud, misappropriation and other irregularities. And in this process the banks internal control system would take significant part. Therefore, this paper examines the effectiveness of internal control system in fraud prevention in Commercial Bank of Ethiopia (CBE).

1.2.Statement of the problem

An effective internal control system and good system of fraud prevention will ensure efficient mobilization of savings and its allocation to productive investment, thereby promoting growth and development, as well as achieving their objectives, profitability, solvency and ultimately restores the lost confidence of customers and lenders overtime. However, the system of intern made internal controls an imperative system to maintain by every business and for that matter the banking sector (ECOBANK Ghana limited, July 2011).

Fraud has become one of the greatest threats to the world economy. It is a global problem, not only in terms of its impact on major corporations and key financial institutions, but also its effect on smaller companies and ultimately the wider public who indirectly pay for the losses through increased costs of goods and services (Okoye, 2006).

Banking fraud is growing from time to time both in kind and size all over the world. Different reports from different parts of the world confirms this fact; for example, Association of Certified Fraud Examiners (ACFE, 2020) reported the highest number of fraud incidence in USA is filed in the banking and financial services (28.8%), with a median loss of \$250,000. The Chinese banking sector as well has a loss of around 26 billion Yuan a massive fraud probe in the eastern port city of Qingdao. Likewise, in India financial fraud is a big problem, contributing to an estimated 19 billion USD in direct losses annually.

In developing countries like Africa this problem is expected to be much severe than the developed countries. Data from the Banking Fraud Investigations Department (BFID), a division of the Central Bank of Kenya, shows that 800 cases of fraud were leading to a loss of \$15.2 million by various financial institutions only in the first quarter of 2014. In Nigeria, The Central Bank of Nigeria (CBN) reported that cases of attempted fraud and forgery in banks, as at halfyear 2019 exceeded what was recorded in the whole of 2018.

Similarly, in our country Ethiopia, there are many incidences that reveal the surge of fraudulent acts in the banking sector. Based on the data from the federal crime Investigation bureau, fraudsters have stolen 326,343,280 birr from Ethiopian commercial banks in the past two years (FCIB, 2018&2019). The Commercial Bank of Ethiopia has lost more than 149,824,271.32 birr

because of fraud, Nib Bank has lost birr 1,760,076.60, Ambessa Bank has lost birr 3,881,400.00, Buna Bank has lost birr 7,626,400.00, Dashen Bank has lost birr 28,981,400.00, Oromiya International Bank has lost birr 80,652,000.00. Fraud in Ethiopia has been increased in the past and financial institutions are severely affected by it.

Studies show different results regarding the effect of internal control on fraud prevention in banks. For instance, Leah (2015) the study was conducted on the effect of internal controls on fraud detection and prevention Among Commercial Banks in Kenya. The results also indicated that there is a negative and significant relationship between financial governance control and level of fraud prevention and detection while the relationship between reporting and budget control and level of fraud prevention and detection was positive and significant. This study was failed to focus on the components of internal control system in fraud detection and prevention.

In Ethiopia a few researches conducted attempted on effectiveness of internal control system on fraud prevention for instance, for instances, Fikru (2018) examines the effectiveness of internal control in Ethiopian banking industry and based on that effectiveness the researcher tests the effectiveness of internal control system in preventing and detection of fraud in Ethiopian banking industry. Among the findings were those internal control techniques employed by banks in checking frauds have been effective but put marks. This study was failed to clearly address the transparency in reporting the performance of internal control system in fraud control for different stakeholders.

The previously conducted research assesses effect of internal control in all state owned and private commercial bank in Ethiopia with mentioned variables, the other research focus on the existence of relationship between internal control system and fraud prevention. The above researches didn't address the assessment of internal control system in fraud prevention in commercial bank of Ethiopia (CBE) as using COSO frame work 5 components of internal control system. This is the gap in literature that this study is wants to fill. Therefore, this paper is intended to fill this gap and also try to show the effectiveness of internal control system in fraud prevention in CBE.

1.3. Objectives of the study

1.3.1. General Objectives

The general objective of the study is to assess the effectiveness of internal control system in fraud prevention in the case of Commercial Bank of Ethiopia.

1.3.2. Specific Objectives

The specific objectives of the study were

1. To assess the effectiveness of control environment to control fraud in Commercial bank of Ethiopia.
2. To examine how risk assessment is practiced to control fraud in Commercial bank of Ethiopia.
3. To find out how information and communication practices to control fraud in Commercial bank of Ethiopia.
4. To establish the control activity effectiveness in Commercial bank of Ethiopia.
5. To evaluate effectiveness of monitoring activity to control fraud in commercial bank of Ethiopia?
6. To assess the effectiveness of preventive measures in occurrence of fraud in CBE.

1.4. Research Questions

The research will be conducted to answer the following research questions;

1. Is the control environment effective to identify fraud in CBE?
2. Is there effective risk assessment practice to identify the incidences of frauds in CBE?
3. How adequate the information and communication component of internal control system in CBE?

4. What are the monitoring activities of the internal control system in CBE?
5. How does the monitoring activity of internal controls system in CBE?
6. Is the fraud prevention measure effective in mitigating fraud in CBE?

1.6. Significance of the Study

Fraud is a major challenge to the entire business world, no company is immune to it and it is in all facets of life (Olorunsegun, 2010). The outcomes of the study will support the state commercial banks to put in place activities for their day to day management of safeguarding assets, prevention and detection of frauds, errors and irregularities. Also, it is hoped that findings from this study will confirm or refute the present perception about the effectiveness of internal control in commercial bank of Ethiopia. The findings of the study will support identify gaps in the systems of internal control in commercial bank of Ethiopia. The study will also help the banking industry in the fight against fraud, by proposing actions must be taken. It will increase body of knowledge to scholars and academicians on the selected topic. The study will suggest areas for further research studies so that future scholars in the field of accounting can undertake new research issues. The results of the study will inform the bank managers and executives.

1.7. Delimitation /scope of the study

The scope of this study was limited to the Commercial Bank of Ethiopia Head office, district offices and branches in Addis Ababa, as the researcher occupied by time and other resources for other course works not visit other branches outside Addis Ababa. The geographical coverage includes all district and grade 3&4 branches in Addis Ababa. The study has used the clerical staff of CBE; specifically, corporate and branch auditor, district office auditors and branch managers. The reason behind this scope is, the person who has good knowledge about the internal control is senior auditors at HO level, district and branch auditors, and branch manager of CBE. Moreover, it is difficult to incorporate all CBE-staff and branches across the country, due to limited knowledge about the subject matter.

1.8 Organization of the paper

The study was organized into five chapters. The first chapter deals with the introduction of the topic and the second chapter presents review of related literature which is about internal control system effectiveness in fraud prevention. The third chapter deals with the methodology of the research and the fourth chapter presents the analysis and discussions of the study. The fifth chapter presents the conclusion and recommendations of the research.

CHAPTER TWO

LITRATURE REVIEW

2.1. Introduction

Internal control is vital constituent of bank management and a foundation for the secure procedure of banking enterprise. Robust internal control can help to warrant that the objectives of a banking commercial enterprise will be met, that the bank will accomplish lengthy-term success goals, and hold trustworthiness of financial in addition to managerial reporting (Markowski&Mannan, 2008). Such scheme also can aid to verify that the financial institution will act in accordance with bylaws and regulations in addition to pointers, techniques, and minimize the chance of unanticipated loss or destruction to the financial institution 's recognition. The Basel Committee, besides the banking superintendents all around the international, has given interest regularly in the significance of comprehensive inner manipulation. This intensified devotion to inner controls, on account of big losses suffered by way of numerous banks. A scrutiny of the harms related to this loss suggests that they might probably were circumvented if the banks preserved efficient internal control system. Such systems might have prohibited or allowed the earlier discovery of the harms that led to the loss, to restrict the damage to the banks (Opromolla&Maccarini, 2010).

Internal control is a strategy distinct to supply affordable guarantee that management accomplishes effective in addition to green operations, trustworthiness of monetary reporting and amenability with pertinent decrees and techniques (Grant, Miller, &Alali, 2008). Internal control probable averts mistakes plus fraud by inspecting and enhancing managerial and monetary reportage techniques (Rae and Subramanian, 2008). Reasonable warranty may be added while cost powerful sports are in use to restriction deviances, consisting of beside the point or unlawful acts to an unobjectionable degree. Internal audit evaluates the efficiency of the internal manage structures to determine whether the systems are jogging as proposed (Fadzil, Haron&Jantan, 2005).

Internal control has to give emphasis to, accurate identification measurements and monitoring of risk, control activities for every level of operations, formation of trustworthy information system those early report inconsistencies and exhaustive reporting of all operations and monitoring activities (Opromolla&Maccarini, 2010). Internal control can be influenced by a bank 's board 7 of directors and managements and it can be designed to warrant effective and efficient operations, trustworthiness of financial reporting and obedience with valid decrees and regulations (Spira& Page, 2003). Management ought to evaluate and report the success of the bank 's internal control to its shareholders (Rezaee, 1995). Internal control must have the next gears, control environment, risk assessment, control activities, information & communication and monitoring activities (Basel Committee, 2011). These interconnected constituents of internal control must present and function accurately in order to have a satisfactory internal control system (Rezaee, 1995).

2.2. Internal Control system

Internal Control System is the whole system of controls, financial and otherwise, established by the management in order to carry on the business of safeguarding the assets and secure as far as possible the completeness and accuracy of the accounting records (Millichamp, 2002)

According to statement of auditing standards (SAS), internal control is defined as all the policies and procedures adopted by the directors and management of an entity to assist in achieving their objective of insuring, as far as practicable, the orderly and efficient conduct of the business, including adherence to internal policies, the safeguarding of assets, the prevention and detection of frauds and errors, the accuracy and completeness of accounting records, and timely preparation of reliable financial information. However, the committee of sponsoring organization (COSO), 1992, also known as Tread way commission defined internal control as a process affected by an entities board of directors, management and other personnel designed to provide reasonable assurance regarding the achievement of objectives in three categories: effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations.

Basel committee on banking supervision defined internal controls as a process affected by board of directors, senior management and all levels of personnel. It is not solely a procedure or policy

that is performed at a certain point in time, but rather it is continually operating at all levels within the bank (Basel, 1998)

COSO defined internal control as a practice made by an entity's board of directors, management and other staffs created to offer reasonable assurance concerning the accomplishment of objectives (COSO, 1992). It is also an arrangement organized by the firms whose aim is to promote effective and efficient activities (Cook et al. 1980). Moreover, a procedure containing of persistent everyday jobs and doings which is a way to an end, not an end by itself and enacted by people is internal control. It is not only about guiding principle, instructions, schemes, and procedures, but it is also about workforce at all level of an organization that influences internal control. It needs to provide reasonable assurance, not complete assurance, to an entity 's board and senior executives (Jayne et al, 2017).

2.3. Role of Internal Control

Empirical studies exhibited that internal control & its constituents play a substantial role in controlling fraud in organizations (Idogei S, 2017). Internal control plays an imperative role in catastrophe handling and business steadiness practices (Aysel G, 2014). It should be acclaimed that the role of internal control in financial reporting is to assist the truthfulness and trustworthiness of the company's exterior financial reporting procedures. Internal control is not envisioned to offer any guarantees about the company's operating performance, its upcoming consequences, or the excellence of its business model (Delta Pc, 2013).

Internal control encompasses the strategies, approaches, rules and procedures used to accomplish the objectives of the entity. Internal control functions as the first line of shield in safeguarding assets. In a nutshell, it aids managers to accomplish anticipated outcomes via potent protection of public resources. In particular, the system is formed to confirm that some objectives which are essential to the operation of the bank are accomplished. (COSO, 1999) classifies the objectives of internal control scheme as a means to deliver reasonable assurance that; assets are safeguarded plus used for business aim only, business information is correct, workforces obey with laws & regulations.

2.3.1 The Seven Internal Control Procedures in Accounting

Internal controls are policies and procedures put in place to ensure the continued reliability of accounting systems. Accuracy and reliability are paramount in the accounting world. Without accurate accounting records, managers cannot make fully informed financial decisions, and financial reports can contain errors. Internal control procedures in accounting can be broken into seven categories, each designed to prevent fraud and identify errors before they become problems. The seven internal control procedures are separation of duties, access controls, physical audits, standardized documentation, trial balances, periodic reconciliations, and approval authority (David I, 2019).

2.3.2. Separation of Duties

Separation of duties involves splitting responsibility for bookkeeping, deposits, reporting and auditing. The further duties are separated, the less chance any single employee has of committing fraudulent acts. For small businesses with only a few accounting employees, sharing responsibilities between two or more people or requiring critical tasks to be reviewed by co-workers can serve the same purpose. Segregation of Duties is a basic building block of sustainable risk management and internal controls for a business. The principle of SOD is based on shared responsibilities of a key process that disperses the critical functions of that process to more than one person or department. Without this separation in key processes, fraud and error risks are far less manageable. Imagine what would happen if the keys, lock and code for a nuclear weapons system were all in the hands of one person! Emotions, coercion, blackmail, fraud, human error and disinformation could cause grave and expensive one-sided actions that can 't be corrected. Or, consider the software engineer who has the authority to move code into production without oversight, quality assurance or access rights 'authentication. Without SOD, either of these scenarios clearly shows the possibility of disastrous outcomes. As a result, the risk management goal of SOD controls is to prevent unilateral actions from occurring in key processes where irreversible affects are beyond an organization 's tolerance for error or fraud (David I, 2019).

2.3.3. Accounting System Access Controls

Controlling get right of entry to one of a kind component of an accounting gadget via passwords, lockouts and digital get entry to logs can maintain unauthorized customers out of the device while offering a way to audit using the system to pick out the source of errors or discrepancies. Robust access tracking also can serve to deter attempts at fraudulent get right of entry to within the first vicinity (David I, 2019)

2.3.4. Physical Audits of Assets

Physical audits include hand-counting cash and any physical assets tracked in the accounting system, such as inventory, materials and tools. Physical counting can reveal well-hidden discrepancies in account balances by bypassing electronic records altogether. Counting petty cash can be done daily or even several times per day. Larger projects, such as hand counting inventory, should be performed less frequently, perhaps on an annual or quarterly basis. It can be an arduous task to keep tracks of different assets that reside within an organization's inventory. There can be tremendous implications if assets are not managed in a proper and systematic way. Records can easily get misplaced and can get lost in transition when assets are moved from one location to another. Many companies have trouble in tracking the location of assets, recalling previous asset orders or identifying which physical assets have been properly decommissioned. Thus, an inaccurate asset management can lead to loss of money due to broken equipment or purchasing redundant equipment that is not required. One of the best practices to curb these risks is to create an asset register to track the location, condition and life cycle of asset from procurement to destruction. An asset register is a resource which details a company 's different assets that it owns and manages and basically shows the assets the business owns. It is used to track things such as corporate facilities, buildings, hardware, software, digital files etc. Regardless of whether it is acquisition, usage, distribution, inspection, maintenance or disposal of assets etc., asset register is very useful for businesses in the management of all these processes. The asset register is an asset data archive and the system for tracking asset records. It details the value of assets, date of acquisition & disposal and other relevant details and helps to keep records of different assets information owned by the organization for a better asset planning, accounting and performance measurement (David I, 2019).

2.3.5. Standardized Financial Documentation

Standardizing documents used for financial transactions, such as invoices, internal materials requests, inventory receipts and travel expense reports, can help to maintain consistency in record keeping over time. Using standard document formats can make it easier to review past records when searching for the source of a discrepancy in the system. A lack of standardization can cause items to be overlooked or misinterpreted in such a review. A Document Management Software is a computer program used to store, manage and track electronic documents and electronic images of paper-based information captured through the use of a document scanner (David I, 2019).

2.3.6. Daily or Weekly Trial Balances

Using a double-entry accounting system adds reliability by ensuring that the books are always balanced. Even so, it is still possible for errors to bring a double-entry system out of balance at any given time. Calculating daily or weekly trial balances can provide regular insight into the 10 state of the system, allowing you to discover and investigate discrepancies as early as possible (David I, 2019)

2.3.7. Periodic Reconciliations in Accounting Systems

Reconciliation is an accounting process that compares two sets of records to check that figures are correct and in agreement. It also confirms that accounts in the general ledger are consistent, accurate, and complete. However, reconciliation can also be used for personal purposes in addition to business purposes. Account reconciliation is particularly useful for explaining the difference between two financial records or account balances. Some differences may be acceptable because of the timing of payments and deposits. Unexplained or mysterious discrepancies, however, may warn of fraud or cooking the books. Businesses and individuals may reconcile their records daily, monthly, or annually. There is no standard way to perform account reconciliation. However, generally accepted accounting principles (GAAP) require double-entry accounting where a transaction is entered into the general ledger in two places and is the most prevalent tool for reconciliation. Double-entry accounting is a useful way of

reconciling accounts that helps to catch errors on either side of the entry. In double-entry accounting which is commonly used by companies every financial transaction is posted in two accounts, the credit account, and the debit account. One account will receive a debit, and the other account will receive a credit (David I, 2019)

2.2.7. Approval Authority Requirements

Requiring specific managers to authorize certain types of transactions can add a layer of responsibility to accounting records by proving that transactions have been seen, analysed and approved by appropriate authorities. Requiring approval for large payments and expenses can prevent unscrupulous employees from making large fraudulent transactions with company funds, for example (David I, 2019).

2.4. Components of Internal Control

COSO combined charter offers five cohesive components of internal control. For effective internal control scheme, these constituents need to effectively designed, applied, and functioning collectively in unified way. The five components of internal control are presented as follows;

- Control environment,
- Risk assessment,
- Control activities,
- Information and communication and
- Monitoring activities

2.4.1. Control Environment

This component is the crucial and the principal basis for all of the other components of an internal control system. The control environment is symptomatic of the general consciousness of both a bank's board and management, and their perspective in assigning satisfactory level of significance to the control activities. The control environment replicates the overall influences by a bank's board and management in the compulsory discipline & the suitable structure for confirming appropriate internal controls over a bank's operations. The vital constituents of an effective control environment include; Employees integrity and ethical values, Commitment to

12 staff competency and skill enrichment, Involvement of Board Members and Board Committees, Constructive influence of Management's commitment, Organizational structure that empowers the management, clearly defined authority and responsibility, Effective policies and rule for human capitals (NBL, 2005).

2.4.2. Risk Assessment

Risks from outside and inside entities are encountered by all organizations. Risk is described as the likelihood that an incident will happen and unfavourably affect the accomplishment of objectives. Risk assessment includes a vibrant and reiterative process for finding and evaluating risks to the accomplishment of objectives. Risks to the accomplishment of these objectives from inside the entity are measured comparative to conventional risk tolerances. Hence, risk assessment procedures are the foundation for determining how risks will be handled. A requirement to risk assessment is the formation of objectives, connected to different hierarchy of the organization. Management stipulates objectives within groups connecting to operations, reports, and agreement with adequate simplicity to be able to detect and investigate risks to those objectives. Management also contemplates the appropriateness of the objectives for the entity. Risk assessment also requires management to think through the effect of probable variations in the outside environment and within the business model that may reduce internal control ineffectual (Rokeya et al, 2011).

It also assesses the risks the entity facing as it pursues to accomplish its objectives. This assessment offers the foundation for developing suitable risk responses. (COSO, 2009).

2.4.3. Control Activities

According to NYSGAAIC Act 2007 several different control activities can be used to hinder the risks that intimidate an organization's achievement. Nevertheless, most control activities can be gathered into two groups: detection and prevention control actions. Prevention activities are formulated to discourage the incidence of an adverse occasion. The formulation of these controls includes forecasting possible difficulties before they happen and applying ways to circumvent them. Detection activities are framed to find detrimental events that do happen, and aware management about what has occurred. Prevention controls incline to be costly than detection controls. Costs and benefits must be evaluated before control activities are applied. Management

ought to recall that an extreme use of prevention controls can obstruct productivity. No sole 13 control activity offers all of the responses to risk management difficulties. In some circumstances, a mixture of control activities should be used, or in others, one control activity could replace the other. Control activities are involved in at various stages within the bank's administrative structure which includes;

1. **Operational Performance** - Control activities in this part embrace the evaluation of risk in the real financial performance related to the accounted projections. Any substantial discrepancies are then scrutinized to decide whether any explicit bank action must be updated.
2. **Information Processing** - Control activities in this part embrace the authentication of the precision & comprehensiveness of bank transaction to control whether they had been accurately approved. Control activities in the information part are generally dignified through two methods general control & application control. General control is omission over data midpoint processes, comprising processors and servers, and system software obtaining, conservation and admission. Application control is the omission for the plan that the bank exploits to practice and screen transactions.
3. **Physical Controls** - in general it focuses on limiting access to physical resources, comprising cash & check stocks. Control activities embrace physical boundaries, dual safekeeping, & regular inventory count.
4. **Segregation of Duties** - Control activities in this part refer to the obligation of the several duties participated in a transaction, or any bank activities, to different peoples. This method is proposed to avert a bank worker from being in a location to commit criminal activities in the way of that individual's regular duties (Basel committee, 1998).

2.4.4. Information and Communication

Schemes that assist the identifying, capturing, and exchanging of information's that enables individuals to process their tasks. Information is essential for the banks to process internal control everyday jobs to assist the accomplishment of its objective. Management acquire or produce & use relevant and excellence information from both inside and outside source to help

the role of other constituents of internal controls. Communication is the persistent, reiterative practice of offering, distribution, and earning essential information's.

Internal communication is the way by which information is dispersed all over the institute, flowing horizontally, vertically within the organization. It enables workers to obtain a clear communication from senior managers that control obligations must be taken seriously. Similarly, external communications are twofold: they enable incoming communications of significant exterior information's, and they deliver information's to outside entities in reply to requirement and expectation (COSO, 2009).

2.4.5. Monitoring Activities

Monitoring measures the excellence of internal control. Monitoring executed on a daily base, is a procedure that covers the valuation of internal control excellence, the strategy and process of controls and actions to be engaged. Consistent surveillance of the internal control scheme and detection of abnormalities is mandatory in order to accomplish these stated objectives. And this is achieved by Internal Audit or section in companies (Aysel G, 2014).

Actions management launches and functions to evaluate the excellence of performance all the time and quickly solve the discoveries of audits and other assessments (Dr.Theofanis et al, 2001). Internal control scheme requires to be checked a procedure that measures the excellence of the system's performance all the time. This can be achieved via enduring monitoring activities, distinct valuations or a mixture of the two. Continuing monitoring arises in the progress of processes. It embraces steady management and administrative activities. The range and regularity of distinct assessments will be contingent mainly on valuation of risks and the efficiency of continuing monitoring measures. Internal control shortages must be informed to top executive and the board.

2.1.3. Effective Internal Control System

COSO (1992) established criteria for evaluating the effectiveness of internal controls. Internal control is effective if the organization's operational goals are reached, financial statements are prepared on time and accurately, and all applicable rules and regulations are followed. Internal control is a process, but its effectiveness is a state or condition of the procedure at a specific point in time. Accordingly, the proper operation of internal control components gives reasonable

certainty that one or more of the stated categories of objectives to ensure high levels of organizational performance. Thus the company criteria for effective internal control and success of the entire organization. Efficiency and effectiveness of operations had been taken to intend efficiencies and powerful use of its assets along with personnel, correct facts for selection making and safeguarding of property and records (Aren and Lwebbecke, 1994)

Efficiency and effectiveness of operations have been taken to mean efficiencies and effective use of its resources including personnel, accurate information for decision making and safeguarding of assets and records (Aren and Lwebbecke, 1994).

As stated in internal control frame work of COSO (1994) an effective internal control should in priority encompass the five elements the control. In addition effective, internal controls must satisfy three basic criteria: -

-They must be appropriate (that is, the right control in the right place and commensurate to the risk involved).

-They must function consistently as planned throughout the period (that is, be complied with carefully by all employees involved and not bypassed when key personnel are away or the workload is heavy).

-They must be cost effective (that is, the cost of implementing the control should not exceed the benefit)

Basel Committee on Banking supervision (1998) states that in order an internal control effective there should be an effective and comprehensive internal audit carried out operationally independent, appropriately trained and competent staff. It is part of monitoring of internal control system. In addition Basel Committee on banking supervision (1998) also suggested the following principles as a judgment to effective internal control.

Principle 1;States that in effective internal control; the board of directors and senior management of the companies should have a responsibility to develop policies, strategies, and understanding possible risks. They are also responsible for promoting high ethical standards, integrity standards and establishing the culture within the organizations.

Principle 4;an effective internal control requires that the material risks that affect adversely achievement of organizational goal continuously recognized and assessed.

Principle 5; Control activities should be integral part daily activities of an entity. An effective internal control requires appropriate control structure set up at every organizational level.

Principle 6; Effective internal control requires segregation of duties that personnel are not assigned to conflicting responsibilities. Areas of potential conflicts should be identified and minimized.

Principle 7; Effective internal control requires adequate and comprehensive financial, operational and compliance data and external information used for decision making. The information should be reliable, timely and accessible.

Principle 10; Overall effectiveness of internal control should be monitored ongoing basis. There should be continuous evaluation of internal control.

Other studies also discovered; what are the judgments for effective internal control. Wells (2001) recognizes that internal controls can enhance the productivity and competitiveness of organizations. Effective internal control can help companies achieve established financial goals, prevent loss of resources, keep accurate recording of transactions, and prepare reliable financial statements (Ernst & Young 2002).

Apart from different measurements of internal control some argue internal control effectiveness is more dependent on one or more of the elements.

Internal control effectiveness is much dependent on control environment. Spencer (2003) confirms that if an organization gets the control environment right the rest will tend to follow. In evaluating the effectiveness of the internal control environments, Coopers and Lybraud (2006) argued that there is a need to consider whether control objectives are met; management conveys the message that integrity and ethical cannot be compromised, the organization structure provides a moral framework for planning, directing, and controlling operations, management ensures that appropriate responsibility and delegation of authority is assigned to deal with goals and objectives and the Board of Directors and audit committee are sufficiently independent from management to construct a challenge to management decision and take an active role in ensuring that an appropriate “tone at the top exists”.

Turnbull report (2004) indicates risk assessment is an integral part of effective internal control. In order to fulfil organizational objective effective internal control should assess and minimize risks.

2.6. Fraud Concept

One of the rigorous white-collar frauds is the servant fraud in the institute intending to be rich and leave the institute as fast as possible when the fraud has been effectively performed. Committee of Sponsoring Organization of the Tread Way Commission (2010) reports huge amounts of money being missing frequently by public companies and more usually amongst the intermediate or lesser size companies, where more than 25% of resources were missing. The form of the management appears not meaningfully altered from companies not susceptible to fraud (Black, 2005) he called the occurrence as a control fraud.

Chakraborty (2013) explains fraud as any actions by which somebody proposes to acquire a deceitful gain from others where the person creates dishonest earning by the cost of the other parties. The Institute of Professional Practices Framework (Sommer, 2014) explains fraud as any unlawful act characterized by disguise or destruction of faith which do not directly depends on the use of ferocity, committed in companies to get money, assets, or amenities, to circumvent payment of amenities, or to protect own advantage. Chakraborty classifies the frauds into three types as technology oriented, by knowing the customer well, and loan related. ACL clusters fraud in banking into eleven pieces with four being reasonably substantial amongst which are bribery, cash on hand, billing & cheque altering, abusing non-cash assets and stealing amongst numerous others. In today's era, of technology assisted payment mechanisms, it is described that the highest value of frauds occurs. Know your customer is connected to customers, deliberate fraud in any method by duplicating data or falsifying or obtaining data to carry out fraud, while the third is linked to loans.

Fraud detection or prevention is a task that must be wide ranging generally and specifically in the internal audit team. Fraud must not go through and be unnoticed in any fiscal year where an efficient internal control and audit procedure are in place. Internal control is extent of measures that need to identify errors, frauds and abnormalities, to confirm that all transactions are appropriately administered and confirm that all assets are protected through limitation on access for authorized peoples only. It also permits work to be executed by an individual and any oversight or error can be marked out by others (Aguotu, 2002). One of the methods to identify fraud is post audit through internal audit. Internal audit is the procedure involved to check if due procedures have been tracked in the doing the regular actions of a company. According to Gayasi

17 (2000) internal audit functions to deliver independent opinion on financial, accounting and other aspects to the supervisor as a base for defensive and constructive provision. It executes well if it has adequate authority within the entity (Bank for International Settlement, 2012).

2.6.1. The Fraud Triangle Theory

Albrecht et al., (2009) States that fraud is composed of three elements, namely a perceived pressure, a perceived opportunity and rationalization of the act of fraud; these three elements are called the fraud triangle. Every act of fraud, irrespective of whether it is done against an entity or on behalf of an entity, is always composed of the three elements. The three elements in the fraud triangle are interactive, for instance the greater the perceived opportunity or the more intense the pressure, the less rationalization it takes for someone to commit fraud (Albrecht, Turnbull, Zhang, &Skousen, 2010). However, fraud is a complex matter and is a function of a combination of factors for instance, in some cases, although internal controls were poor, there were no incidence of fraud, while in other cases even though good internal controls existed employees still managed to circumvent the internal controls to commit fraud (Rae &Subramaniam, 2008). An understanding of how opportunities, pressures and rationalizations contribute to fraud in organizations can assist management to easily recognize the areas of susceptibility to fraud and strengthen these areas Fraud perpetrators must have some way to rationalize their actions as acceptable (Albrecht et al., 2009). Justification of fraudulent behaviour is usually as a result of a fraudster's lack of personal integrity or other moral reasoning (Rae &Subramaniam, 2008). Individuals do not commit fraud unless they can justify it as being consistent with their own personal code of ethics, as personal integrity may be the key limiting factor in keeping a person from misappropriating assets (Hillison et al., 1999). Rationalization by fraudsters emanates from their feeling that the victims owe them and that they deserve more than they are getting. Some individuals possess an attitude, character or set of ethical values that allow them to knowingly and intentionally commit a dishonest act (Cohen et al., 2011). A strong moral code can prevent individuals from using rationalizations to justify illicit behaviour; internal auditors however should assume that anyone is capable of justifying the commission of fraud (Hillison et al., 1999).

2.6.2 Effects of Fraud on Financial Performance of commercial banks

The escalating of fraud in the banking industry in recent years creates severe threat to the stability and continued existence of financial sector and banks in particular (Usman& Shah, 2013, as cited in Olongo,2013). Akinyomi (2012) point out that fraud if not appropriately checked, could result in vast monetary losses to financial institutions and their customers, reduction of shareholders' money and banks' capital base as well as loss of public confidence in banks. Also, the occurrence of frauds and forgeries might, in extreme cases, lead to the closure of banks (Fatoki, 2015). Many of the troubled banks in Nigeria today had suffered a tremendous deal from frauds and insider credit exploitation (Nwaeze, 2008). Nwankwo (2013, as cited in Chelangat,2014), in his study on the impact of fraud on Bank performance indicate that there is a significant positive relationship between cheque clearing fraud and performance of the Banks while Chiezey and Onu (2013, as cited in Chelangat,2014) revealed that fraud impose harsh trouble on banks and their customers. Chelangat further adds that fraud decreases the quantity of cash available for the growth of the economy.

2.2 Review of Empirical Studies

Here below this research was clearly discussed and review both international and local empirical studies that has done on the effectiveness of internal control system in detecting and preventing fraud.

2.2.1 International Studies

Leah (2015) the study examines the effect of internal controls on fraud detection and prevention among commercial banks in Kenya. Primary data was used in the study. A basic linear regression model was used by the researchers. Version 20 of the statistical software for social sciences (SPSS) was used to run the regressions. According to the regression results, there was a negative and significant association between reconciliation control and fraud prevention and detection level. The findings also revealed a negative and significant association between financial governance control and fraud prevention and detection, while a positive and significant relationship existed between reporting and budget management and fraud prevention and detection.

The study by Samuel, N and Kariuki (2020) the objective was to assess the effect of risk assessment on fraud prevention in Kenya's banking industry. To determine the degree and direction of the association between variables, correlation analysis was used, and regression analysis based on structural equation modelling (SEM) was used to test the hypothesis. The respondents strongly agreed that the parameters set in place are capable of preventing fraud in banks, according to the descriptive analysis. Risk assessment has a significant impact on fraud prevention in Kenya's banking business, according to hypothesis testing. The results of the tests revealed that the risk assessment mechanism in place to analyse the risks has a significant effect on fraud prevention, and as such they should be implemented to prevent fraud in banking sector.

Olaoye (2017) did his study on The Roles of Auditors in Fraud Detection and Prevention in Nigeria Deposit Money Banks: Evidence from Southwest. This study was examined the impact of auditors captured by risk assessment, system audit and verification of financial report on banking fraud control in Southwest Nigeria. The study employed survey design in which a set of questionnaires was administered on the selected banks in Southwest Nigeria. Multiple regression technique and ANOVA were used for the analysis. The results indicated that the level of fraud control in Nigerian banks during the period covered was low; the result revealed that risk assessment management, system audit and verification of financial reports adopted by the banking industry in Southwest Nigeria limit the fraudulent activities among the Nigerian banks by 35, 13 and 18 percent respectively. Based on the findings, the study concluded that risk assessment, system audit and financial report verifications are carried out to determine the effectiveness and impact of auditors on fraud control in Nigerian banks which reveals that auditors 'roles need to be improved to enhance fraud control in banking industry. The study recommended that auditors should increase the scope of their activities on the efficiency of banks internal control system, risk assessment and system audit as this will enhance the detection of fraudulent activities. Also, management of banks should ensure strict compliance with their respective internal control system.

According to Adewale (2014) this study was conducted on internal control system and financial fraud control case study of Nigerian Customs Service on Internal control systems. The study concluded that internal Control System are not a substitute for good management, they can assist management but do not replace management of provide an excuse for poor management. Based on the outcome of the five hypotheses which was empirically tested and the research finding the

researcher concludes that there should be continuous internal check and audit on the part of management and low level of management to ensure adequate internal control system. Adequate internal control system also ensures proper accountability and the study stated that organizations should provide adequate motivation such as bonuses, incentives to the employees/officers to avoid financial fraud. In addition, effective use of information technology and competent team of experts to work out the logic of standard internal control to enhance the high level of security check would improve the effectiveness of the internal control systems in the organization.

OgudaNdege, Odhiambo Albert and John Byaruhanga (2015) investigated the Effect of Internal Control on Fraud Detection and Prevention in District Treasuries of Kakamega County. The study propose hypothesis to test the relationship between internal controls systems and Fraud Detection and Prevention. The study sampled 31 key respondents out of 122 populations with the acceptance range of 20% sample determination, the sample include district accountant, district internal auditors and head of department, and used close ended questionnaire. The response analysed by using Pearson Correlation. The study result shows there is a significant positive relationship between internal control systems and fraud detection and prevention. Accordingly, an improvement in internal control strategies results in improved fraud detection and prevention.

TsedalLemi (2015) did here study on role of internal control system for organizational performance. This study concluded that there is no absolute guarantee from internal control 20 that organizations objectives will be achieved. It states that internal control is a responsibility of management, employees and other stakeholders. Hence there should be a clear line of responsibility and structure of reporting to discharge any risk of collusion and fraud. Separation of accounting duty from authorization and custody of an asset is a key in detecting control risk. Thus due emphasis should be given to maintain segregation of duties. The control system effectiveness should be evaluated against clearly established criteria 's and should be monitored continuously. This is the responsibility of management and internal auditors.

2.2.2 Local Studies

Fikru (2018) the banks and regulatory authorities have proposed and allowed internal control measures to check the practice of bank fraud. But the effectiveness of any internal control system is dependent on how fluid the system interacts with itself and how embedded it is into the organization's business processes. This paper examines the issues of effective internal control vs. fraud Detection and prevention in the Ethiopian banking industry by adopting primary data.

Using a survey method, this work examined how the internal control systems in the Ethiopian banks have aided in combating or preventing fraud in the banking industry. To do this the study examines the effectiveness of internal control in Ethiopian banking industry and based on that effectiveness the researcher test the effectiveness of ICs in preventing and detection of fraud in Ethiopian banking industry. Among the findings were those internal control techniques employed by banks in checking fraud have been effective but put marks on some improvements and the final conclusion of this study is that there is a significant relationship between internal control system (control environment, risk assessment, control activity, information and communication and monitoring) and fraud.

Kalkidan (2017) this study focused on assessment of fraud control practice in the case of Dashen Bank. The research has applied descriptive statistics by using questionnaires and document review. To undertake the research simple random sampling is used to select respondents from branches and purposive type of sampling was used to select 27 branches out of 109 branches found in Addis Ababa. 185 questionnaires were distributed in which 183 of them returned. Data were analysed using descriptive statistics using SPSS software. The result indicates that there are fraud cases but the rate is low and internal control in the bank is not effective. There is a deficiency in controlling component mainly the risk assessment and information and communication component. Comparing to risk and information communication control environment, control activities and monitoring practice are good. Employees do not have adequate awareness about anti-fraud policy, and the controlling mechanisms used by the bank are not enough to prevent fraudulent activities.

CHAPTER THREE:

METHODOLOGIES AND PROCEDURES

3.1. Introduction

This chapter presents research design and methodologies, target population, sources of data and collection method, and methods of data analysis.

3.2. Research Design and Approaches

The researcher used descriptive research design to evaluate effectiveness of internal control System on fraud prevention in CBE. The quantitative approaches were employed based on the CBE targeted staffs drawn from selected department. Mugenda (2003) indicate that descriptive design is indices that describe a certain sample giving clear information of element without interfering with it. It helps the researcher to describe the characteristics of variables in the organizations earmarked, gather Information, analyse, summarize and interpret it for the purpose of clarification in a short time. The descriptive design minimizes bias, saves time and money. The other reason behind using descriptive design is because the researcher was interested in describing or assessing the existing situation that found in internal control system of the bank and its level of effectiveness in preventing of fraud throughout its operations under the study.

3.3. Population of the Study

The study focused on employees of Commercial Bank of Ethiopia as well as other branches of the bank in Addis Ababa city. Employees who had been working in the bank for at least one year were considered by the researchers.

The researcher selects the staffs that are available on the position of management, finance and internal audit department selectively. Because those individuals or staffs have direct insight with regard to the study objectives and consequently provide reliable information and result for the study. From districts of CBE in Addis Ababa including Head office which auditors are available independently and districts in Addis Ababa Merkato district, Bole District, Megenagna District, Arada District, Kolfe District, Nifas Silk District and Kirkos District.

3.4 Sample and Sampling Method

Bhattacharjee (2012) defined a technique in which a sample is drawn from that part of the population that is close to hand to select the staffs. Purposive sampling technique applied in selecting the targeted population of the study. So that it is impossible to include every member of the population due to the nature of the research. That is why the researcher chose non-probability sampling method. The researcher distributed the questioners to Head office, districts and selected branches in Addis Ababa. This research method was employed because the targeted internal control staffs and head of this department will have access to vital information, experience and professional skills that was necessary and relevant for the study. Due to their position of responsibility they have a better understanding of internal controls system in its effectiveness in fraud prevention. The researcher distributed the questioners to Head office, all eight districts and grade 3 & 4 branches in Addis Ababa. They are Merkato district, Bole district, megenagna district, yekadistrict. Branch managers and internal controllers in each branch and departments have been selected that are directly related with the research objectives. The sample size differed per the structure of internal control staffs selectively applied is 219.

Table 3.1 List of selected respondents

No	Department	Number of respondents
1	Head office	71
2	District	23
3	Grade 3 & 4 branches	125
Total		219
Total		

3.5. Source of Data and Collection Method

To achieve its objective this study obtained primary data. The primary data was collected from the target respondents through questionnaire. Questionnaires are the easiest way to collect data in a cost-effective and time-consuming manner Gilbert, N (1993). That was the reason why the study chose this kind of data collection method. The researcher formulated a list of questions based on the research objectives to ask information from the target respondents. The research

questionnaire contains Likert items on internal control and fraud prevention; against which the respondents are asked to indicate their level of agreement upon a five-point Likert scale (where 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree and 1 = strongly disagree). 5-point Likert scale is a widely used scale that provides intermediate advantage between scales above and below 5-point Likert scales. It delivers deeper insight to what respondents think comparing to 3 scales plus it can be analysed relatively in easy way comparing to scales that exceed 5(Newson, 2021). The questionnaires designed in a manner that the respondents are required to tick one from the choices that better fit the questions provided according to their valuation.

The questionnaire has two parts; part 1 asks educational background, and working experience. part 2 require information on the effectiveness of internal control system via indicators of internal controls and fraud prevention.

3.6. Method of Data Analysis

Data analysis of this study was through descriptive analysis techniques. As stated by Duncan Cramer and Dennis Howitt (2004), descriptive data analysis emphasizes on maximizing the gain from the data by making clearer the process of describing and analysing the data gathered. After proper editing, the data was coded and entered to the software then it was ready to analysis. For the purpose of achieving the objectives of the study, the collected data was processed and analysed with descriptive statistics using Statistical Package for Social Studies (SPSS) of 20th version. This technique is selected because it helps to summarize the sample, provides and allows describing the characteristics of the data collected and it helps to thoroughly analyse and interpret the questions one by one in order to reach meaningful results. Throughout the analysing process, percentages, frequency and mean were employed. In doing so tables were used to present and made easily understandable the findings in order to arrive at certain conclusion.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, AND DISCUSSION

4. INTRODUCTION

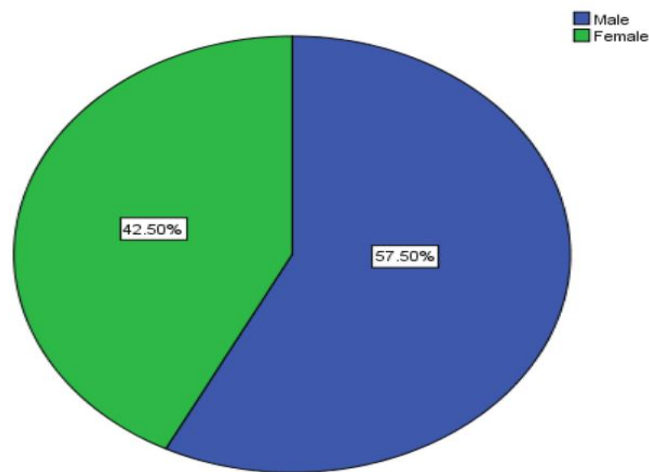
This section describes the analysis and interpretation of the collected data concerning the effectiveness of the internal control system in fraud prevention in the case of the Commercial Bank of Ethiopia. To this effect, the study analysed the demographic information and effectiveness measurement of internal fund control through descriptive statistics like frequency, percentage, mean and standard deviation.

4.1 Demographic background of the Respondents

Demographic information of the respondents was presented by Gender, Age categories, Educational level, and Service years' experience.

Pie chart 4.1. Gender of respondents

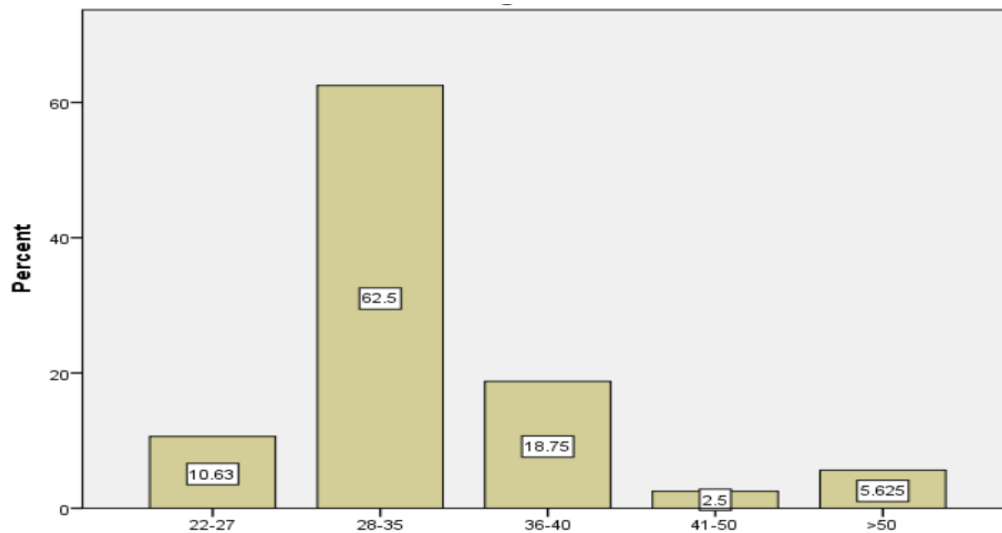
As depicted in figure 4.1, out of 219 respondents who filled and returned the questionnaires, the majority of the participants were male, which constituted about 57.5% while the remaining 42.5 % of them were females.



Source: SPSS Survey Output

Pie chart 4.2. Age Distribution of respondents

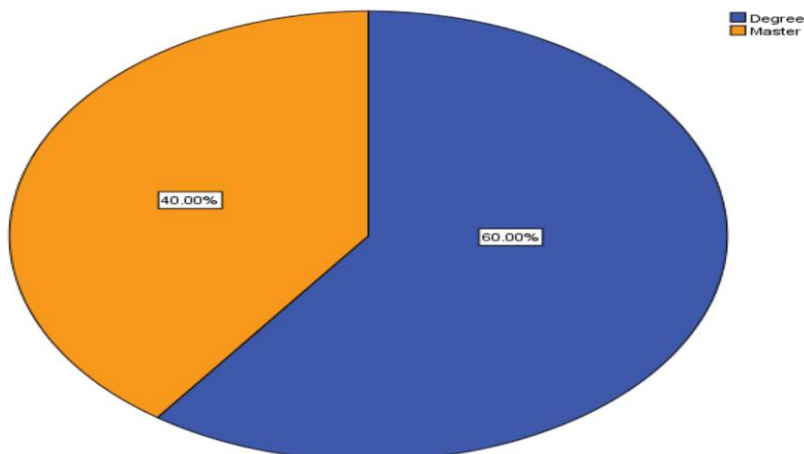
Concerning the age distribution of the respondents, the majority fell at age of 28-35 about 62%, 18.7% of them were aged between 36-40 years old, 10.63% were aged between 22-27 years and 8% of the respondents above 41 years old.



Source: SPSS Survey Output

Pie chart 4.3. Educational Qualification

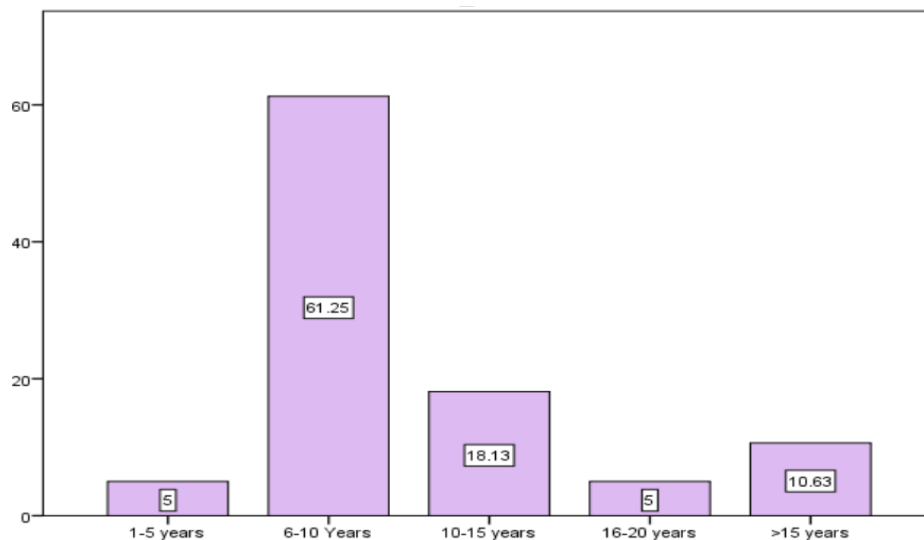
Concerning the educational level of the participants, about 60% of the respondents have master's degrees holders while the remaining 40% were degree holders. This finding advocated that the participants of the study were educated employees.



Source: SPSS Survey Output

Pie chart 4.4. Service Years' of Experience

Concerning service years of experience, 61.2% were between 6-10 years' experience, followed by 10-15 years, which account for 18.1%, and above 16 years account for 15.6% of the total respondents. From this statistical figure, one noted that the majority of the respondents who participated in the survey were experienced, employees.



Source: SPSS Survey Output, 2022

4.2. Effectiveness of Internal Control System in preventing Fraud

The Bank respondents were asked to indicate their extent of agreement with the effectiveness of the internal control system in preventing fraud in the case of Commercial Bank of Ethiopia. To achieve this, five effectiveness measurement dimensions have been used namely; controls environment, risk assessment, control activities, information and communication, and monitoring activities. Besides, the study ought to examine the degree of agreement toward fraud prevention. The reflections or level of agreement of the respondents for the effectiveness of the internal control system in fraud prevention were presented with the mean and standard deviation. To measure the degree of effectiveness of each internal control system in fraud prevention, the study has taken Zaidation and Bagheri's (2009) rating benchmark score as a guideline. According to this guideline, if the mean score below 3.39 is considered as low, the mean score from 3.40 up to 3.79 is considered moderate and a mean score above 3.8 is considered as high.

As depicted in table 4.7, the mean score level of respondents ranged from 3.5 to 4.1 for all effectiveness measurement dimensions. Looking at each dimension, the information and communication, and monitoring activities were scored with a mean score of 4.0 and 4.1, respectively. Taking Zaidation and Bagheri's (2009) rating mean score method as the benchmark, the score of these two dimensions was highly effective in fraud prevention in the case of the Commercial Bank of Ethiopia. On another hand, the remaining dimensions such as Control Environment (Mean=3.5), Risk assessment (Mean=3.5), and Control activities (Mean=3.7) fall under moderate agreement level.

To sum up, looking at the effectiveness of the internal control system in fraud prevention from information and communication and monitoring activities were highly effective level while from control environment, risk assessment and control activities viewpoint the level effectiveness was moderate level.

Table 4.1: Descriptive Statistics of internal control system Effectiveness

Effectiveness Dimensions	N	Min	Max	Mean	Std. Dev
Control Environment	219	2.2	4.2	3.5	0.49
Risk assessment	219	2.4	4.8	3.5	.45
Control activities	219	2.8	4.6	3.7	.34
Information and communication	219	2.4	4.6	4.0	.43
Monitoring activities	219	3.3	5.0	4.1	.34
Fraud Prevention	219	2.2	4.8	3.6	.39

Source: SPSS Survey Output, 2022

4.2.2 Readability and Validity Test

Before data analysis, the research instrument was assessed for its reliability as well as validity. These tests are the most fundamental features in the evaluation of any measurement instrument or tool for good research.

4.2.2.1. Reliability

Reliability analysis was carried out to test the internal consistency of the research variables. If the items of the factors fail to show reliability, it questions the validity of the study result

(Anderson et al., 2010). Cronbach's Alpha was used for measuring the total consistency between all items of the instrument and internal consistency among items for each dimension. The Cronbach's alpha value above 0.6 is considered an acceptable level of reliability (Hair et al 1998; Nunnally, 2000 George &, 2003). As indicated in table#, all variables were above the minimum threshold value of 0.6; which indicate the variables are internally consistence.

Table4.2: Reliability tests

Reliability Statistics	
Cronbach's Alpha	N of Items
0.706	31

SPSS Survey Output

4.2.2.2. Validity

Validity measures whether the question or item measures what it is supposed to measure or it refers to how well a test measures what it is purported to measure (Cozby, 2001). To check the validity of the instruments, experts in the field fraud prevention in Internal audit department at the head office of CBE were consulted about the content of the instrument, the ambiguity of questions, items, and their relevance to ensuring content and face validity. Tabachnick and Linda S. Fidell (2001).

4.3 Descriptive Analysis

According to Pallant, (2005) Explain Descriptive statistics concern the development of certain indices from the raw data. These are mean scores, standard deviations and percentage for each subgroup. Interpreting the result of these values will also give us an indication of the effectiveness level on fraud prevention. According toMurry.J. (2013) create equal intervals for a range of five points Likert scale (that ranges from strongly agree to strongly disagree in the survey questionnaire). In the analysing of the data, standard deviation was preferable to use. Small standard deviations show that data are close to the mean whereas a large standard deviation (compared to the mean) indicates that the data points are distant from the mean. The mean is a poor fit of the data. Standard deviation is a measure of how well the mean represents

the data. The variables were measured using a five-point Likert scale where 1 stands for strongly disagree and 5 stands for strongly Agree. Therefore, the interpretation made using the mean of each variable, as a matter of fact the mean falls between the two ranges, hence if the mean approaches to 1 the interpretation would be the respondents disagree on the variable and if it approaches to 5 the reverse would be true. According to Murry.J.(2013) determine the minimum and the maximum length of the 5-point Likert type scale,

Scale	Interpretation
1 to 1.80	Represents (strongly disagree)
1.81 until 2.60	Represents (Disagree).
2.61 until 3.40	Represents (Neutral).
3:41 until 4:20	Represents (agree)
4:21 until 5:00	Represents (strongly agree)

4.3.1. Effectiveness of Risk Assessment

Table 4.3 Descriptive statics of Effectiveness of Risk Assessment

Risk Assessment	Mean	Std. Deviation
The bank has designed an appropriate strategy of identifying risks.	3.57	0.81
The bank designed a system to offer appropriate response to risks	3.38	0.93
Risk are assessed with regard to each transaction cycle	3.99	0.52
Responses are given timely to identified risks	3.57	0.66
Involvement of the internal control staff during risk assessment implementation reduces the occurrence of risk.	3.05	0.87
Grand Mean	3.51	

Source: SPSS Survey Output, 2022

The study examined the level of agreement concerning with the risk assessment. As illustrated in table 4.3, the bank has designed an appropriate strategy of identifying risks the (mean 3.57 and Std. Deviation 0.81) It implies that respondents were agreed since the mean value is higher than 3.41. The survey result shows that respondents were agreed on the bank designed a system to offer appropriate response to risks(Mean=3.38, Std. Deviation=0.81). As it is indicated in the result table responses are given timely to identified risks (Mean=3.57, Std. Deviation=0.66), which lay on agree rang. Involvement of the internal control staff during risk assessment

implementation reduces the occurrence of risk (Mean=3.05, Std. Deviation=0.87). The result shows that respondents were answered neutral or indifference about the items.

From the descriptive statistics result the highest mean value (3.99) given for the bank designed a system to offer appropriate response to risks: this result shows respondents were agreed that the organization has designed a system to offer appropriate response to risks. The Overall mean of the risk assessment for the five questions can be estimated to 3.51 which is the respondent agree about there is effective risk assessment in the bank. The result of the study was supported by Fikiru (2018) Risk assessments become an integral part of internal control system. The management is responsible to identify and assess control risk caused by failure of internal control. The study found that overall risk assessment can be approximated to a mean of 3.63 which show there is effective risk assessment on internal control system in Ethiopians banks. The finding was supported by Wubalem (2021) found that overall risk assessment can be approximated to mean 3.73 which show there is effective risk assessment on internal control system in Ethiopians banks.

4.3.2. Effectiveness of Control activities

Table 4.4 Descriptive statics of Effectiveness of Control activities

Control activities	Mean	Std. Deviation
Duties are segregated among different employees to minimize fraud.	4.16	0.46
Appropriate source documents are maintained for transactions.	4.25	0.46
There are dual controls over bank assets and separation of duties provided for in the banks organizational structure	3.18	0.77
The bank provides adequate physical security for each and other assets subject to theft	3.05	0.87
There is sufficiently designed reconciliation system that used in a regular basis.	3.99	0.52
Management periodically reviews policies and procedures to ensure that proper controls are in place	3.86	0.81
Grand Mean	3.75	

The study also sought to find out the extent to which the respondents agreed with the statement that the bank has a less effective of Control activities to Fraud Prevention. table 4.4 shows that

respondents have agreed for duties are segregated among different employees to minimize fraud (Mean 4.16 and Std. Deviation was 0.46) Appropriate source documents are maintained for transactions (Mean=4.25, Std. Deviation=0.46), There is sufficiently designed reconciliation system that used in a regular basis. (Mean=3.99, Std. Deviation=0.52), Management periodically reviews policies and procedures to ensure that proper controls are in place (Mean=3.05, Std. Deviation=0.81). There are dual controls over bank assets and separation of duties provided for in the banks organizational structure (Mean=3.18, Std. Deviation=0.77), the bank provides adequate physical security for each and other assets subject to theft (Mean=3.86, Std. Deviation=0.87). The result shows that respondents were answered neutral or indifference about the items. The Overall mean of the control activities for the five questions can be estimated to 3.75 which is the respondent are in agreement about their effective control activity in the bank.

The finding of the study was similar with Parker (2014) the study found that Sarbanes-Oxley many companies this control activities to a corrective role; since the control operates after the financial reports are issued, it is effective only in identifying misstatements for importance of accelerating balance sheet account reconciliations in order to make them detective controls and to complete them in time to identify and correct errors before the company files SEC reports.

4.3.3. Effectiveness of Information and Communication

Table 4.5. Descriptive statics of Effectiveness Information and communication

Information and communication	Mean	Std. Deviation
My bank generates relevant control information to all stakeholders.	4.39	.76028
Transactions are promptly recorded to provide quality information.	4.41	.84867
The officer 's responsibilities are clearly communicated.	3.68	.50177
There are established channels of communication for individuals to report suspected branches of laws or regulation.	4.01	.57470
Information is available on a timely manner	3.86	.84563
Grand Mean	3.99	

The participants of the survey were also asked to reflect on their agreement level concerning Effectiveness of information and communication to fraud prevention. The above table 4.5 shows that respondents have agreed my bank generates relevant control information to all stakeholders

(Mean=4.39, Std. Deviation=0.76), Transactions are promptly recorded to provide quality information (Mean=4.41, Std. Deviation=0.84), The officer's responsibilities are clearly communicated (Mean=3.68, Std. Deviation=0.50), There are established channels of communication for individuals to report suspected branches of laws or regulation (Mean=4.0, Std. Deviation=0.54) and Information is available on a timely manner (Mean=3.86, Std. Deviation=0.845). The Overall mean of the Information and Communication for the six questions can be estimated to 3.99 which is the respondent are in agreement about effectiveness of information and communication in the bank.

The study findings similar with Omondi (2013) indicated that carried out that information and communication banks led to increased fraud prevention in the commercial banks and the highest application was on enhancing quality of financial reporting.

4.3.4. Effectiveness of Monitoring Activities

Table 4.6. Descriptive statics of Effectiveness of Monitoring Activities

Monitoring Activities	Mean	Std. Deviation
The bank has monitoring activities to reduce the occurrence of fraud.	3.87	0.65
The bank routinely evaluates the overall effectiveness of internal control system.	4.42	0.50
Monitoring the internal control system of the bank is important to achieve the bank objectives.	4.20	0.67
Monitoring activities helps to determine whether controls under the bank are effective.	4.22	0.57
Appropriate actions are applied based on control findings.	3.72	0.63
The bank routinely evaluates the overall effectiveness of internal control system.	4.39	0.76
Grand Mean	4.14	

Here the study also sought to find out the extent to which the respondents agreed with the statement that the bank has an effective monitoring activity towards fraud control. Table 4.6 shows that respondents have agreed The mean and Deviation for the bank has monitoring

activities to reduce the occurrence of fraud was 3.87 and Std. Deviation was 0.65, the bank routinely evaluates the overall effectiveness of internal control system (Mean=3.87, Std. Deviation=0.65), Monitoring the internal control system of the bank is important to achieve the bank objectives (Mean=4.20, Std. Deviation=0.67), Monitoring activities helps to determine whether controls under the bank are effective (Mean=4.22, Std. Deviation=0.57), Appropriate actions are applied based on control findings (Mean=3.72, Std. Deviation=0.63), The bank routinely evaluates the overall effectiveness of internal control system (Mean=4.39, Std. Deviation=0.76). The overall grand mean value 4.14 shows that all items of the monitoring activities are effective in preventing fraud in the bank.

The finding of were similar with (SOX Guidance, 2007) the study found that all components are relevant to each objective's category. When looking at any monitoring activities are effective in making operations is effective and efficient.

4.3.5. Effectiveness of Control Environment

Table 4.7. Descriptive statics of Effectiveness of Control Environment

Control Environment	Mean	Std. Deviation
There are carefully designed regulations to ensure protection of resources against fraud.	3.86	0.81
All employees in charge of the bank operations perform their responsibility as per the guidelines.	3.07	0.91
There is reasonable assurance that all staffs perceive rules and regulations.	3.37	0.74
There is effective internal audit in my bank.	3.37	0.82
There are no rules that ensure protection of resources against fraud.	3.87	0.65
Grand Mean	3.51	

Here the study also sought to find out the extent to which the respondents agreed with the statement that the bank from control environment. As show in table 4.7, from control environment items respondents have agreed on there is carefully designed regulations to ensure protection of resources against fraud (Mean 3.86 and Std. Deviation 0.81). All employees in charge of the bank operations perform their responsibility as per the guidelines (Mean=3.07, Std. Deviation=0.91), There is reasonable assurance that all staffs perceive rules and regulations

(Mean=3.37, Std. Deviation=0.74), There is effective internal audit in my bank (Mean=3.37, Std. Deviation=0.82), There are no rules that ensure protection of resources against fraud (Mean=3.87, Std. Deviation=0.65).

The overall effectiveness of control environment on internal control system of the bank is effective through mean value of 3.51 to prevent fraud.

4.3.6. Effectiveness of Fraud Prevention measures.

Table 4.8. Descriptive statistics of Effectiveness of Fraud Prevention measures.

Fraud Prevention	Mean	Std. Deviation
My Bank has effective anti-fraud policy	4.15	0.48
My Bank provides fraud training for employees	4.25	0.47
There is no sharing of user access password among employees	3.15	0.80
There is a limit for approving authorities.	3.06	0.88
My Bank has less effective anti-fraud policy	3.86	0.66
Grand Mean	3.69	

As shown in table 4.8, indicated that from fraud prevention items respondents are strongly agreed on My Bank provides fraud training for employees (Mean=4.25, Std. Deviation=0.47). Respondents have agreed on My Bank has effective anti-fraud policy (Mean=4.15 and Std. Deviation=0.48), My Bank has less effective anti-fraud policy (Mean=3.86, Std. Deviation=0.66). There is no sharing of user access password among employees (Mean=3.15, Std. Deviation=0.80), There is a limit for approving authorities (Mean=3.06, Std. Deviation=0.88). The result shows that respondents were answered neutral or indifference about the items.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Summary of finding

The purpose of the study was to examine the effectiveness of internal control system in fraud prevention in the case of Commercial Bank of Ethiopia. To make the analysis the study was used descriptive statistic like mean and standard deviation were used. In this research the study has used five explanatory variables or components of internal control system to measure their effectiveness in fraud prevention in CBE.

The researcher used a sample of 219 people from a targeted population of commercial bank of Ethiopia. To meet objective of the study the researcher used purposive sampling technique based on knowledge of the subject. Quantitative data was analysed using descriptive statistics and the data was coded and entered into Statistical Packages for Social Scientists (SPSS Version 20.0). Analysis was, then, based on descriptive statics.

Internal Control is a strategy, procedures and strategies employed for accomplishment of organizational goals. These priorities are ensuring operational effectiveness, safeguarding assets and adherence to rules and regulations. Both government and financial institutions need an assurance that the internal control mechanism in their institutions is successful enough in attaining those objectives. Though managements can use different criteria's to assess effectiveness of an internal control, COSO (1992) revealed that; internal control effectiveness is resulted from an effective feature of the control environment, control activities, the risk assessment, information flow and communication and monitoring activities of the system itself.

To sum up, looking at the effectiveness of the internal control system in fraud prevention from information and communication and monitoring activities were highly effective level while from control environment, risk assessment and control activities viewpoint the level effectiveness was moderate level.

The effectiveness of control environment on ICs of Ethiopian commercial bank is effective through mean value of 3.51. But the control environment was not perfectly function still it needs more to achieve the objectives of the bank. The components of internal control system (risk assessment) are effective in preventing fraud in Ethiopian commercial bank.

The control activities for the four questions can be estimated to 3.75 which is the respondent are in agreement about their effective control activity in their respective bank. From components of internal control system information and communication are effective in fraud prevention in Ethiopian commercial bank through mean value 3.99. The overall grand mean value 4.14 shows that all items of the monitoring activities are effective in preventing fraud Commercial Bank of Ethiopia.

5.2. Conclusion

This study aimed to assess the effectiveness of the internal control system in fraud prevention in the case of the Commercial Bank of Ethiopia (CBE). To do so, the study randomly selected 219 samples from the target population and presented the finding sing percentage, frequency, and mean. The following key conclusions were derived from the key finding of the study.

- The effectiveness of the risk assessment practice of banks in fraud prevention, it would be fair to conclude that the bank was effective in designing an appropriate strategy for identifying risks, designing a system to offer an appropriate response, risk assessment per transaction cycle, and timely response to the risks related to fraud prevention. On other hand, concluding the bank from the involvement level of internal control staff in risk assessment was not as such an effective;
- The bank was effective in controlling the environment to prevent fraud, particularly by having a sufficiently designed reconciliation system and periodically reviewing policies and procedures. On contrary, the bank was not effective in dual controls of bank assets and separation of duties provided for in the bank organizational structure;
- Based on the survey results, it might be concluded that in all aspects of the internal control system in connection with information and communication such as; generating relevant control information to all stakeholders, transactions are promptly recorded to provide quality information, staffs responsibilities communication, established channels of communication

for individuals to report suspected branches of laws or regulation and Information is available on a timely manner were effective;

- The effectiveness of monitoring activities for fraud prevention, the bank was effective in reducing the occurrence of fraud, routinely evaluating the overall effectiveness of the internal control system, and achieving the bank objective. However, the effectiveness of the bank in taking appropriate actions against fraud based on control findings was not as such effective;
- The bank has the effectiveness of the bank internal control in fraud prevention from a control activities viewpoint such as; segregating duties among different employees to minimize fraud, appropriate source documents are maintained for transactions, and sufficiently designed reconciliation system that is used regularly. However, dual controls over bank assets and separation of duties are provided for in the bank organizational structure and periodically reviews policies and procedures by the management to ensure that proper controls on fraud were not effective;
- Summing up fraud prevention practices, the bank was effective by having an anti-fraud policy, providing fraud training for employees, and not sharing user access passwords among employees were effective. However, the finding indicated that there was a limit for approving authorities.

5.3. Recommendation

Based on the findings of the study, the following recommendations are suggestion as follows:

- The bank management needs to take proactive actions toward the effectiveness by taking appropriate actions against fraud in a timely base on the control findings;
- To minimize risk, the bank needs to undertake a periodic assessment practice. Besides, regular evaluation of control to learn their effectiveness in preventing fraud and identifying weaknesses should be strengthened;
- The involvement level of internal control staff in risk assessment was low. To reverse this, the bank needs to produce qualified employees by availing training and workshop to the internal control staff to be active participants in fraud prevention.
- The internal control system was found to be implemented by the bank. The study recommends the continuous practice of the internal control system to ensure that fraud of any form is reduced to the barest minimum;

- To strengthen the control aspect of the bank in terms of control activities, activities like proper segregation of duties and dual controls over bank assets, and separation of duties provided for in the bank's organizational structure should be strengthened.

5.4. Suggestions for further research

The study sought to establish the effectiveness of internal control system in commercial bank of Ethiopia. It only concentrated on commercial bank of Ethiopia. However there are many financial institutions across the country which include, Banks, Micro finance institution's, saving and Credit associations and insurance companies. Therefore, other studies should focus on the effectiveness of internal control in fraud prevention on the whole sector of financial institution.

Other research should also be conducted on the effectiveness of internal control system in fraud prevention in commercial banks of Ethiopia by including more variables that determine effectiveness of internal control from different variables which are included the current study.

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APPENDIXES

APPENDIX I: QUESTIONNAIRE

St. Mary University

SCHOOL OF GRADUTE STUDIES MBA PROGRAM

Survey Questionnaire Designed for CBE staff

Dear Respondent

The purpose of this questionnaire is to collect data for a research paper entitled “**Assessment of the Effectiveness of Internal Control System in Fraud Prevention in the case of Commercial Bank of Ethiopia**” in partial fulfilment of the requirements for the Master’s degree **at St. Mary’s University**. Your genuine response for all questions provided is crucial for the success of the research. The information obtained will remain confidential and used only for academic purpose. Your responses will be used only for academic research. Your kind and serious cooperation will have significant effect on the result of the study.

Thank you in advance for your precious time and support.

Part One - Demographic Information.

Please put a – mark on all your responses in the box provided each question.

1. Gender

Male Female

2. Age

22- 27 yrs. 28-35 yrs. 36-40 yrs. 41-50 above 50

3. Educational level:

Diploma B.A M.A /M.S.C PHD

4. Total service year within the CBE

1 -5 yr. 6-10 yr. 10-15 16-20 yr. 21 yr.&above

5. Current Department

Head office district office branch office

Part 2. - The Effectiveness of Internal Control on fraud Prevention.

Instruction: Please rate **Effectiveness of Internal Control System in Fraud Prevention in Commercial Bank of Ethiopia** by putting” on scale below. The abbreviations: 1. (SD) stands for **STRONGLY DISAGREE**, 2. (D) Stands for **DISAGREE**, 3. (N) Stands for **NEUTRAL**, 4. (A) Stands for **AGREE**, and 5. (SA) stands for **STRONGLY AGREE**.

1. Fraud Prevention

No	Statement	Rating Scale				
		1=(SD)	2=(D)	3=(N)	4=(A)	5=(SA)
1	My Bank has effective anti-fraud policy					
2	My Bank provides fraud training for employees.					
3	There is no sharing of user access password among employees					
4	There is a limit for approving authorities.					
5	My Bank has less effective anti-fraud policy.					
2. Control Environment		Rating Scale				
		1=(SD)	2=(D)	3=(N)	4=(A)	5=(SA)
6	There are carefully designed regulations to ensure protection of resources against fraud.					
7	My bank managers are committed to demonstrate integrity and ethical values.					
8	All employees in charge of the bank operations perform their responsibility as per the guidelines.					
9	There is reasonable assurance that all staffs perceive rules and regulations.					
10	There is effective internal audit in my bank.					
11	There are no rules that ensure protection of resources against fraud.					
3. Risk assessment		Rating Scale				

		1=(SD)	2=(D)	3=(N)	4=(A)	5=(SA)
12	The bank has designed an appropriate strategy of identifying risks.					
13	The bank designed a system to offer appropriate response to risks					
14.	Risk are assessed with regard to each transaction cycle					
15	Responses are given timely to identified risks					
16	Involvement of the internal control staff during risk assessment implementation reduces the occurrence of risk.					
	4. Control activities	Rating Scale				
		1=(SD)	2=(D)	3=(N)	4=(A)	5=(SA)
17	Duties are segregated among different employees to minimize fraud.					
18	Appropriate source documents are maintained for transactions.					
19	There is an up-to-date physical asset register.					
20	There are dual controls over bank assets and separation of duties provided for in the banks organizational structure					
21	The bank provides adequate physical security for each and other assets subject to theft					
22	There is sufficiently designed reconciliation system that used in a regular basis.					
23	Management periodically reviews policies and procedures to ensure that proper controls are in place					
	5. Information and communication	Rating Scale				
		1=(SD)	2=(D)	3=(N)	4=(A)	5=(SA)
24	My bank generates relevant control information to all stakeholders.					
25	Transactions are promptly recorded to provide quality information.					
26	The officer's responsibilities are clearly communicated.					
27	There are established channels of communication for individuals to report suspected branches of laws or regulation.					

28	Information is available on a timely manner					
	6. Monitoring activities	Rating Scale				
		1=(SD)	2=(D)	3=(N)	4=(A)	5=(SA)
29	The bank has monitoring activities to reduce the occurrence of fraud.					
30	The bank routinely evaluates the overall effectiveness of internal control system					
31	Monitoring the internal control system of the bank is important to achieve the bank objectives.					
32	Monitoring activities helps to determine whether controls under the bank are effective.					
33	Appropriate actions are applied based on control findings.					
34	The bank routinely evaluates the overall effectiveness of internal control system					