



**COLLEGE OF BUSINESS & ECONOMICS  
DEPARTMENT OF ACCOUNTING AND FINANCE**

**An assessment of bank fraud trends and its  
determinants: The case of CBE**

**By**

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for the Degree of Masters -MSC in Accounting and Finance**

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**DECLARATION**

I declare that assessment of bank fraud trends and its determinants in the case of CBE is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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## Abstract

Bank fraud in Ethiopia has increased in alarming rate. According to the Ethiopian Federal Police Crime Investigation Bureau's annual report for 2018 and 2019, Ethiopian banks lost 326,343,280 Birr in just those two years. The study assessed the trends of bank fraud and its determinants in the case of CBE. The study used descriptive research design methods. This is because quantitative number of frauds cases counted with sampled call center staff responses to understand types, causes, effects and possible higher level action points. Accordingly, we can understand the overall trends and patterns of frauds specifically related to negative consequences of digitization of banking services. The study interest of population was the CBE Call center customers fraud related complaints that registered on CRM and 89 questionnaires were also distributed to managers and staff of the call center. The identification of the CBE Call center managers and employees done through stratified random sampling techniques.

Through the completion of tally sheets, the delivery of structured surveys, and the reading of several CBE publications and articles, both primary and secondary data gathered. Times series analysis non-parametric Mann-Kendall's trend test were applied to assess the trend and in order to forecast fraud from June to November ,2023, ARIMA technique were used. The total number of fraud cases recorded in CRM from April 1,2022 to May 31,2023 was 495. The researcher selected this period due to the fact that an appropriate data had been recorded at the CBE Call center during this time. There was a modest increase of frauds in the stated period. As it can be summarized from the study, 75% of the respondents believed that customers are losing their confidence on banks because of such increasing cases of frauds. Therefore, various proposed actions shall be taken to reverse such trends.

### **Keywords:**

Digitization of banking services, Banking frauds, Types of Frauds, Cause of frauds

## CHAPTER ONE

### INTRODUCTION

#### 1.1. Background of the Study

Since the economic development of any nation is known to be greatly influenced by commercial banks, there have been much efforts to digitize banking services so as to bring efficiency, better customer services and reducing manual process transaction costs. Digitization of banking services encompasses from opening of saving accounts, transfers, making withdrawals, availing various online credit services, etc. This requires developing various online applications that enable customers to get banking services online. As the usage of banking transactions increased, it introduced different types of online frauds and the rate of fraudulent activities get increasing (Manisha, 2019).

The Ethiopian banking sector consists of National Bank of Ethiopia, one state owned development bank of Ethiopia, a government owned commercial bank of Ethiopia and 29 other private banks. Commercial bank of Ethiopia (CBE) established in 1942 and later reorganized as a share company in 1963. It was played major roles for the development of the country. CBE has opened more than 37.9 million different accounts with its 1940 branches, and it has more than 6.6 million Mobile and Internet Banking service users. Currently it has also 8.3 million CBE Birr and 17 million ATM users. It has also an established call center which accepts calls from customers, and has digitized much of its banking services which contributed for an increasing number of fraud cases in recent years.

Bank Call center usually established to support customers by phone or other computer assisted technologies. Nowadays, call centers used by various companies which started in 1990s that contributed for cost reductions by facilitating extended customer services. There are different forms of call centers which has internal and external focus with passive and active roles in the day-to-day operations of companies. Most of the call centers usually receive calls from customers who contacted them to complain and look for solutions, know about banks services

and so forth, and some operators also engaged in selling and telemarketing (Eshetu, 2020). As call center become abundantly important for customer-company relationship management, call center agents also become increasingly critical, as they serve as the link between companies and customers. In Ethiopia many financial institutions including Commercial Bank of Ethiopia launched call center to manage their customer relationship. These call centers help banks to handle grievance of customers, to transfer and teach the services and products of banks, and transfer information's to the customers. With low level of banking penetration and banking literacy, still the success of the call centers usually very limited. CBE as one of the well-known financial institution in Ethiopia introduced call center in September 15, 2015 G.C and it is trying to address customers through it(CBE, 2023). The major questions that the customers ask are related to Automated Teller Machines (ATM) use, loan getting process, and account related questions like saving for housing, and losing of their savings through various fraudulent activities. Since the banks fraud in Ethiopia has increased in significant rate, a great level of customers who lost their savings in various fraudulent activities primary call to the respective bank call center. Per the Ethiopian Federal police crime investigation bureau annual report of 2018 and 2019, banks in Ethiopia had lost 326,343,280 Birr during those two years' time only. As the Ministry of Justice assessment report disclosed (May 30,2022), an assessment of at least 155 fraud cases found out that the banks have embezzled more than 1.9 billion birrs in the past four years only. As the State Minister of Justice stated, the most common frauds utilized was counterfeit of banking documents.

Therefore, this study specifically assessed the trends of fraud reported to the CBE Call center (951) from April 2022 to May 2023 and understand the possible causes and effects of such trends.

## **1.2. Statement of the Problem**

Organizations are continuously at danger of bank fraud, regardless of their size or industry (Adam, 2011). The loss brought on by insufficient or malfunctioning internal systems, personnel, or processes, as well as by outside circumstances, is known as bank fraud. It is also the category of risk that is the broadest, limited only by factors like fraudsters' creativity, Murphy's Law, which says that "anything that can go wrong will go wrong," and outside occurrences that are totally out of management's control. Bank fraud is therefore the first type of risk that any

institution takes on. Managing and mitigating the bank fraud of an organization is a significant challenge for senior managers (Adam, 2011).

As it was described in the Reporter (Berhane, 2022), an outstanding deposit of commercial banks stood at 1.3 trillion birr that enabling financial institutions declare a record-high profit year after year with no end in sight. This was happened against depositor's negative 30 percent interest rate due to the country high inflation. It happened because of banks branch expansion and the result of public confidence on financial institutions. People save their money in banks, not to earn a saving or for loans, but for safety reasons. This confidence on banks may be lost, as the new study conducted by a team of prosecutors at the Ministry of Justice which stated that commercial banks loss of huge amount of money may affect peoples' perceptions. "When fraud spreads widely, people's trust in banks will decline." said Melaku Kebede, a CEO of Hibret Bank, in a workshop organized by the Federal Attorney General at Sheraton Hotel.

As it was stated on the Reporter (Berhane, 2022), the market leader with a share of almost 50% in the saving market, the Commercial Bank of Ethiopia (CBE) is the biggest loser among the 16 banks that were a victim of fraudsters. Of the 155 court cases related to fraud, almost half of them targeted Commercial Bank of Ethiopia. From the total 1.8 billion birrs lost due to fraud in the banking industry since 2018, the contribution of CBE, which is armed with a paid-up-capital of 40 billion birr, was almost close to one billion birrs. Bank of Abyssinia and Oromia Bank had the second and third targets respectively. Different strategies were employed by fraudsters to steal money from banks. The significant share of fraudulent cases committed involves faked cheques, mobile banking, and direct withdrawal from bank accounts. Some were cooperating with Ethio telecom and the Document Authentication Registration Agency (DARA) which were also involved in some of those cases. Even if banks compensate most of their customers who lost their savings to fraudsters with in due time, some may wait to collect their money back for years and years after losing their money. Often times, when the bank takes the case to the civil court, this situation may be publicized and affect the interest of savers.

Being a fraud victim may affect customers' perception of feeling secure and protected at their bank. Accordingly, fraud may damage the basic nature of bank versus customer relationship due

to broken trust and confidence on their services (Krummeck, 2000), as well as increased complaints because of a breach of service expectations (Varela-Neira, 2010). Thus, this may negatively change customer loyalty and stimulate change of their banks, thereby hurting the Banks's reputation and restricting the attraction of new customers (Buchanan, 2010).

Therefore, this study had tried to show at least fourteen months recorded fraud trends at CBE Call center with types, causes and impacts. The results show the frequent types & trends of frauds that the customers called for the call center support. Since the call center is open for 24 hours a day with all week days and 365 days a year, mostly some percentage of customers may call to 951 for any type of support, when they encounter some form of fraudster activities. In call center, the act of solving problems and resolving complaints, giving information, answering questions and receiving feedbacks are dedicated to human agents and/or automatic voice response machines that handle telephonic communication with customers. It helps satisfaction recovery when a customer has a problem, complain or even just for feedback. The primary objective of call center operation is customer attention and achievement of high level of customer satisfaction. In today's competitive market, customer service call centers have moved from back to the front office as customer satisfaction and retention strategy (Anton, 1997). Basically, the importance of call center in banking industry is that all players have call centers as a proactive way to differentiate their services. They use call centers to build, maintain, and manage customer relationships by creating direct communication with their customers that help the business do more with customer and attract new customers.

As it is explained by (Techalu, 2022), much of the limited studies that were conducted in Ethiopian banking fraud issues focused on the fraud prevention and detection, limitations of internal control systems, controlling mechanisms and so forth not showing the major types, causes, immediate and long term causes of frauds except his study. Accordingly, this study identified the major twelve types of frauds, major causes, impacts and suggested action points of frauds. Therefore, this study brought better understanding of banking fraud trends by analyzing the CBE call center records and staff perceptions so that minimizes knowledge gap related to fraud baking sector.

### **1.3. Research Questions**

The research seeks to address the following key questions.

- What are the major and frequently reported frauds at CBE Call center from April 1, 2022 to May 31,2023 period?
- What types of fraud trends are showing at CBE Call center from April 1,2022 to May 31,2023?
- What are the major causes of such reported frauds from April 1,2022 to May 31,2023?
- What are those immediate impacts of such reported frauds on CBE and its customers?
- What actions can be taken to change such trends in the upcoming periods?

### **1.4. Research Objectives**

#### **1.4.1. General Objective**

The key objective of this study is to assess the trend of CBE customers reported fraudulent activities through the CBE toll free (951) system.

#### **1.4.2. Specific Objectives**

In line with the above general objective, the research paper has the following specific objectives:

- To assess the major and frequently reported fraud trends at CBE call center from April 1, 2022 to May 31,2023.
- To understand the types, factors, causes and impacts of those reported frauds at CBE Call center from April 1,2022 to May 31,2023.
- Recommend the possible action points that the CBE management can take so that some of those trends can be checked.

### **1.5. Significance of the Study**

The study identified the major and frequently reported frauds by CBE customers and showed trends of such registered frauds for the specified one-year period. The study also highlighted the major causes and impacts of frauds with some higher-level recommendations so as to reverse such trends. An increasing level of frauds erode customers confidence and loyalty on banking services. This will have detrimental impact on banks profitability and its existence. Therefore,

the result of this study can help bank stakeholders to take timely actions and inspire other researchers to conduct more research in this area.

### **1.6. Scope of the Study**

The study has mainly collected and analyzed any of the CBE customers fraud incidents that were registered by the CBE call center agents from April 2022 to May 31,2023. This is because the detailed day-to-day register data was available in an organized, traceable complete structure during this period. In addition, the researcher was also selected the stated period because the CBE Call center customers detailed conversation registration was started in April 2022. A structured questionnaire has also distributed to 30% of CBE Call center members of management and staff so as to understand the causes and impacts of fraud that we can recommend some higher-level action points. The scope was limited to the CBE Call center fraud register analysis and collection of its management and staff opinions. It is good to note that a certain portion of CBE customers who encounter a certain level of fraud may usually call to the cell center for any immediate help.

### **1.7. Limitation of the Study**

This paper focused only on the CBE Call center fraud recordings and distribution of questionnaires to CBE Call center staff and management. It is understandable that some portions of those customers who encounter fraudulent activities may call to 951 to get some supports and information. The researcher could has not also got much studies on the trends of frauds in Ethiopian banking sector Call centers.

### **1.8. Structure of the thesis**

The study has been organized in four chapters. The first chapter mainly deals with introduction that consists of background of the study, Statement of the problem, Research questions, Objective of the study, Significance of the study and Scope of the study.

The second chapter focuses on Review of Related Literature, and the third chapter outlined the Research Design and Methodology of the study. The fourth chapter deals Presentation, Analysis and Interpretation of data. Finally, the last chapter deals with Conclusions and Recommendations.

## **CHAPTER TWO**

### **LITRATURE REVIEW**

This literature review has addressed the theoretical aspects, frauds at banks, types, and their recent trends with an international and local study analysis.

#### **2.1 Theoretical Review**

##### **2.1.1 Concepts of Fraud**

Fraud has various definitions and interpretations by various scholars, researchers and authors. Usually, fraud has been attached with embezzlement, financial misstatement and misappropriation, extortion, illegal collection of wealth by applying deception, bribery, false representation, theft, concealment of materials. Fraud was defined by Adeyemo (Adeyemo, 2012), Fraud can be well defined as any illegal act characterized by deceit, concealment or violation of peoples trust. These frauds may not only dependent on the use of threat or violence or of physical means. On the other hand, Mutesi also (Mutesi, 2011) defined fraud as any predesigned act of criminal cheating, trickery, misappropriation or falsification by a person or group of persons with the intention of misrepresenting facts in order to obtain unfair personal monetary or other advantages. Fraud, according to Osisoma, (Osisoma B.C., 2013), is any of the many strategies that human creativity may create and that a person uses to gain an edge over another. It includes all deceptions, trick, cheating, and unfair ways by which another is lost his assets.

As it is stated above, fraud has been widely defined by various scholars and experts. Hornby (Hornby, 2009) stated that fraud is an action or an instance of approaching somebody in order to make money or obtain resources illegally. Per the ICAN study, fraud represents the use of deception to obtain an unwarranted or illegal financial advantage and an intentional misrepresentation that affects the financial statements true nature and facts. This may intentionally arranged by an individual among management, employees or other third parties.

Fraud perpetrators must have some way to rationalize their cheating practices as acceptable (Albrecht, 2009). Justification of cheating character is usually as a result of a fraudster's lack of personal integrity or moral reasoning (Rae, 2008). Individuals do not get involved in fraud unless they can justify it as being in line with their own personal code of ethics, as personal integrity may be the key holding factor in keeping a person from misappropriating assets (Hillison, 1999). Rationalization by fraudsters may be attached from their feeling that the victims should have been paid them more and that they deserve above what they are getting now (Mutua, 2011). Some individuals may have an intention, character or set of ethical values or experiences that allow them to knowingly and intentionally get involved in a fraud act (Cohen, 2010). A strong code of ethics or principles can prevent individuals from using rationalizations to justify unacceptable behavior; internal auditors however should assume that anyone is capable of justifying their fraud acts (Hillison, 1999) explained that fraud is a prearranged and well-planned cheating process or device usually performed by a person or group of persons, with the aim of trying another person or organization, to gain unfair financial or other advantages, be it monetary or resources, which would not have happened in the absence of such theft procedure. Albrecht (Albrecht, 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 such as opportunity, pressure and rationalizations (Albrecht, 2009). The fraud triangle opportunity, pressure and rationalization are usually related and interactive. If the perceived opportunity is more or the high intense the pressure is, the less rationalization that requires for the fraudster to be involved in such types of frauds (Albrecht, 2010). However, fraud is a highly complex matter and is usually including lots of actions of a combination of factors (Rae, 2008)

On the other hand, in some situations, though the internal controls were poor, there were no such incidence of fraud, while in other cases even though good internal controls existed employees still managed to break the internal controls to commit fraud (Rae, 2008). Better understanding of how opportunities, pressures and rationalizations share to fraud in organizations can support management to easily recognize the areas of susceptible to fraud and strengthen these areas (Albrecht, 2010).

Bhasin (Bhasin, 2011) stated that, “frauds generally happened in banks when safeguards and procedural controls are poorly organized and inadequate, or when they are not carefully tracked, thus providing opportunities to the fraudsters. Frauds are increasing from time to time and fraudsters are becoming more sophisticated, innovative and adaptive with the change of control systems. Banks (2004) indicated that, “most of the time, it is difficult to detect frauds well-in-time, and even more difficult to book the offenders because of complex and lengthy legal processes. In the fear of affecting the banks reputation, these kinds of incidence are often not brought to due process of the law”.

The national bank of Ethiopia fraud monitoring directive No. SBB/59/2014 defined fraud as “an act or omission committed by directors, workers, customers, or shareholders with the purpose of benefiting the party committing fraud or other parties dishonestly or unlawfully (NBE, 2019).”

### **2.1.2 Frauds in Banks**

Over the past few years, the extent of fraudulent transactions committed by third parties has risen alarmingly (Banks, 2005). Frauds greatly affect both banks and their customers relations and banking experiences. Banks allocated substantial operating costs to refund customers’ monetary losses & greatly affected with this inconveniences (Gates, 2009), whereas bank customers also experienced significant time and emotional losses through time. In this types of situations, banks should have to identify the misappropriated transactions, communicate them to their customers, block their accounts and re-assurance or re-opening of a card or account, and deal with any disputes with their customers or reimburse their monetary losses within reasonable time span (Douglass, 2009).

It is known that there are lots of causes of frauds in the banking industry. These causes started from institutional to social, psychological, legal, economic, and even structural ones. They vary from company level to economic, social, psychological, legal, and even infrastructural nature. The immediate sources of most frauds include availability of opportunities to perpetuate frauds; Poor internal controls, lack of proper authorization by a designated person, absence of segregation of duties, lack of clear reporting lines, inadequate documentation and so forth; management noncompliance of Internal Controls; poor or non-existence of ethical code of ethics and business policies; inadequate training for bank personnel, among others. Among the lists of many causes of frauds, poorly designed internal control system is the key causes of bank frauds, in most instances. Therefore, banks shall implement a well-designed, adequate, efficient and effective internal control systems.

Frauds in banking can involve in any types of banking activities such as savings, withdrawals, transfers, loan applications and investments processes. Bank frauds can be committed by individuals and organizations with small- and large-scale impacts to customers and banks itself. Banking fraud is the most serious offence and a major issue for banks and its customers as well which damages trust. Banks should also protect the security of its customers financial data, accounts and transactions. On the other hand, customers have also a responsibility to protect their accounts information from any types of fraud.

### **2.1.3 Types of Frauds in Banks**

Of course, there are lots of frauds in banking industry related to the nature of their works which they are serving millions of customers on daily basis. There is a common perception that the banks fraud increases, so do the associated losses. Application of various digital channels are particularly susceptible including mobile and online banking services. The below are some of the selected banking frauds that customers look for some solutions to their respective call center (s).

**Mobile Fraud:** This fraud usually happening when the bank customers had various transactions using their mobiles. It is unauthorized use and manipulation of mobile phones when the customers tried to get banking services using their phones.

**ATM Card Fraud:** This is usually committed by approaching an individual using an ATM or various distraction tactics by stealing customer ATM card itself & PIN. These fraudsters or criminals may use cash machines to see your data or card details to use it for their fraudulent actions.

**Employee fraud:** Happened when an employees of the company committed a certain type of frauds on its organization or customers. An employee may steal money or other organizational resources by cheating its employer. These types of frauds may be common in some parts of the banking service platforms.

**Check Fraud:** It occurs when paper checks are used to steal money. People may write fraudulent checks on their own account by copying signatures, or draft a fake check. This may include someone writing check in their own account without having enough balances, forging a check in somebody's name, or preparing fake check.

**Wire Transfer Fraud (WTF):** This occurs when the fraudulent tried to transfer funds between banks by writing hacked emails etc. They usually use an urgent need of funds tactics with an emergency tone so that the victims transfer funds emotionally. This fraud also occurs when a third party suspends a transfer by tempering into a person's email or other accounts and correctly guessing or got the answer to the security question provided. Then after the deposit happened to their designated account, they will not transfer to the true intended recipient.

**Loan Fraud:** This may happen when the fraudulent applies for various online or in person loan applications in the name of other customers or individuals.

**Phone Bank Fraud:** These fraudsters usually attempt to push the target to voluntarily give information or transfer their money into another individual's account with due process or understanding of the transactions.

**Signatory Fraud:** This is one of the frauds which may involve emails compromises or washing, is a type of common financial fraud that occurs when a fraudster wrongly represents a senior manager or CEO to pressure an employee to make payment for him immediately.

**Invoice Fraud:** This happened when rogue vendors send fake invoices to a business for immediate payments by changing the bank and other details with wrong information to defraud the company.

**Internet Banking Fraud:** These types of frauds may be manifested in many ways, including phishing, malware attacks, catfish scams and close websites or misrepresenting communications through internet communication platforms. With so much banking transactions performed online; it is not surprising that this is a common type of bank fraud which we may encounter in multiple occasions.

**Identity theft fraud:** There are various forms of identity theft frauds that involve controlling a legitimate bank account and changing the owner using faked documents. This may go to opening bank accounts in somebody name with an intention of committing fraud which later used for depositing or taking stolen money.

**Money Laundering:** This is one of the well-known and much recognized type of high-level frauds which fraudsters deposit their theft money into the bank systems so that they can make the funds look as though they have come from a legitimate source.

**Forged or Fraudulent Documents:** These are documents which have been created, altered, changed, misrepresented or tampered to deceive or fraud someone.

#### **2.1.4 Trends of Bank Frauds**

Per to the new fraud report confirms what many people have already suspected, i.e., Fraud is on the rise. Overall, research showed that global fraud has been increased by increased by 18% in 2022 only, as compared to 2021 that trend driven in large part by the speed of digital services in banking industries and high transactions due to the recent high-level pandemic, rising geopolitical tensions and an uncertain economic landscape in the global economy.

As it was stated in the Reporter newspaper (Berhane, August, 2022), the world is facing more fraudulent activities than ever before due to the rise of using digital platforms. Technology advancements have facilitated it easier for fraudsters to steal lots of money from institutions and their clients. According to PWC's Global Economic Crime and Fraud Survey 2022, cybercrime

makes up more than 36% of fraudulent transactions. With a proportion of average 25%, asset misappropriation and customer frauds are becoming the most prevalent forms of frauds. From the major types of customer frauds, the most usual one is credit card fraud, which Ethiopia has not yet experienced because the credit card system is not accepted.

As it was posted on the English Reporter newspaper (Berhane, June,04, 2022), the Ethiopian Federal police discloses a significant mobile banking fraud in recent times. In the April to May/2022 period only, there were 204 fraud court cases that involve around mobile banking fraud, with the average figure reaching 22 a day, according to investigations working at the Bureau. In recent years, an officials explained that commercial bank of Ethiopia (CBE) has become one of the first bank targeted by fraudsters. It was also stated that the Ministry of Justice announced that 1.8 billion birr was misappropriated by fraudsters from banks between 1999 to 2022 GC.

## **2.2 Empirical Studies Review**

Various empirical studies of frauds in the banks industry (Bhasin, 2013) showed that with the rapidly growing banking industry in the country, frauds in banks are also increasing in very fast pace, and fraudsters have started using various innovative methods as well. A questionnaire-based survey among 345 bank employees showed that poor employment practices, unavailability of effective training, over-loaded staff, poor internal control systems, and low compliance level on bank managers, officers and clerks. The study recommends that a strong internal audit team who aware customers about fraud prevention, making application of laws more strict, by leveraging the power of data analysis technologies, follow fraud mitigation best practices, and employing multipoint scrutiny can minimize fraud losses.

(Kabue, 2015) study has tried to investigate the effects of internal controls systems on fraud identification and prevention among commercial banks in Kenya. The study used primary data. A linear regression model was used. Using the statistical package of for social sciences, the findings indicated that there was a negative relationship between reconciliation control and level of fraud prevention and detection. The findings also indicated that there was an opposite and significant relationship between financial governance control and level of fraud prevention and detection. The relationship between reporting and budget control and level of fraud prevention and detection was also positive and significant.

Hoffmann (Hoffmann, 2012) also assessed the effect of fraud prevention on bank customer relationships in German retail banking systems. The study found out that there was a direct association between customer awareness and knowledge about fraud prevention measures and the quality of customer relationships as counted by satisfaction, trust, and commitment. The nature of customer relationships is positively associated with customer loyalty as measured by intentions to stay their banking relationships with and cross-buy other products from their bank.

Fikru (2018) stated that the bank frauds shall be checked & controlled by a well-designed and aligned internal control system. This has been usually promoted by banks and regulatory authorities. However, the effectiveness of any of such internal control system has been dependent up on how the system interacts with itself and perfectly aligned into the organization 's business processes. This paper examined the issues of an effective internal control versus fraud detection and prevention in the Ethiopian banking industry. Using a survey method, this work has examined how the internal control systems in the Ethiopian banks have supported in combating or preventing fraud in the banking industry. The study examined the extent of the internal control system effectiveness in Ethiopian banking industry and based on that effectiveness the researcher tests the effectiveness of internal Controls in preventing and detection of fraud in Ethiopian banking industry. Among the conclusions were that while internal control methods used by banks to prevent fraud have been successful, there is room for improvement. The study's ultimate recommendation was strengthening an internal control system which include the control environment, risk assessment, control activities, information and communication, and an effective monitoring system.

Tewodros (Yalew, 2021) investigates an effect of fraud on bank performances in Ethiopia commercial banks by distributing questionnaires to 120 participants selected from 9 commercial banks. The study indicated that management, technology, legal and persons are the main causes of frauds. It concluded that fraud affects the financial performance of banks. It recommends that banks in Ethiopia must apply good & an efficient financial administrative control measures that help to identify fraud and follows all the transactions that are considered susceptible to fraud.

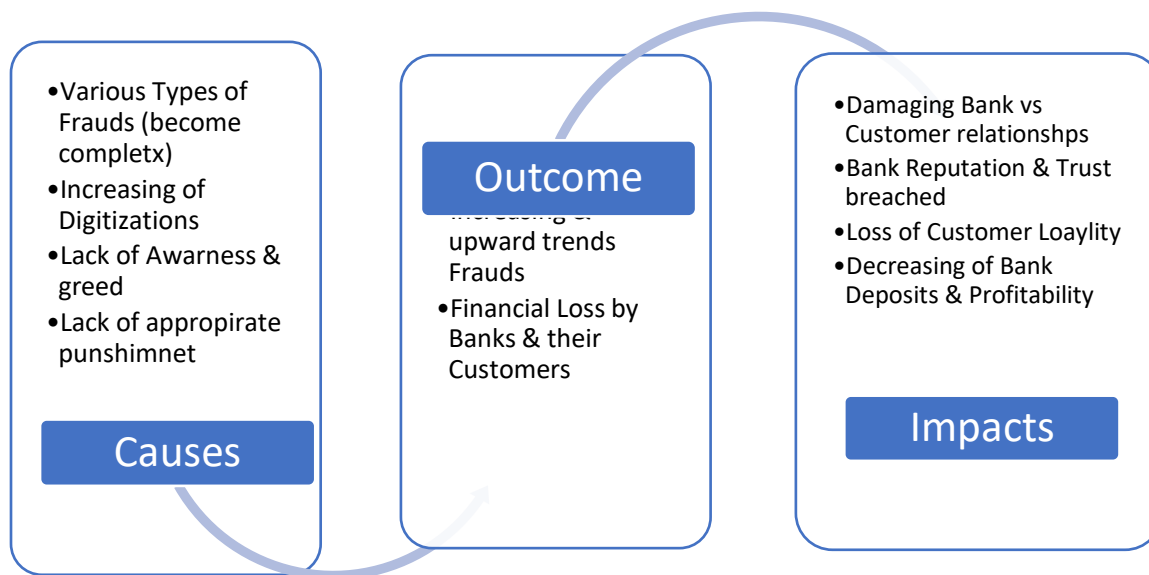
Wubalem (Mulugeta, 2021) assessed about the effectiveness of internal control system for the identification and prevention of fraud in the case of selected commercial banks in Ethiopia. It

recommends that the organization should implement the right mix of technologies and prevention techniques and put additional controls in place including rigorous approval procedures and careful separation of duties. (Letta, 2017) also assessed fraud control practices at Dashen Bank S.C. in Addis Ababa branches by distributing 185 questionnaires. The overall assessment result showed that there were fraud incidents, but the fraud occurrence rate was low and internal control in the bank were not as such effective as expected. The findings showed that there is no as such much awareness about the bank anti-fraud policy, do not use assignment rotation, there were not sufficient segregation of duties, and most branches and security camera were not found at ATM stations, and customers information was not revised.

An electronic banking in Ethiopia-practices, opportunities and challenges study (Garedachew, 2008) evaluated the practices, opportunities and challenges of e-Banking services in Ethiopia. It stated that Ethiopian banks are working in the most underdeveloped & poor infrastructure situations compared to the rest of the World.

### **2.3 Conceptual Framework**

The purpose of this study was to show trends of frauds at CBE Call center and those factors which contributed for that situation. Therefore, based on the literature analysis conducted, the below conceptual framework is designed by the researcher which shows causes, immediate outcomes and long-term impacts. The framework shows the relationship among various factors, causes, and impacts of fraud in the commercial bank of Ethiopia call center.



*Figure 1: Conceptual framework (Source: Adopted from the literature analysis).*

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1. Research Design and Methodology

##### 3.1.1. Research Design

The research used a descriptive research type to gather both qualitative and quantitative data to describe the type, and nature of reported fraud trends through time. Descriptive research method used because the quantitative research method applied to collect number of fraud cases from April 1,2022 to May 31,2023 and questionnaires distributed to understand and describe the types, causes, and effects of frauds.

##### 3.1.2. Population and Sampling Techniques

The researcher shall take all the last twelve months reported frauds at the CBE Call center, and re-categorize it with main and repetitive nature of frauds. A questionnaire shall also be distributed to 30% of the call center management & staff. The selection of the respondents was done through a stratified random sampling technique. Based on the suggestion of Mugenda and Mugenda (Mugenda O.M., 2003) who revealed that a descriptive study should contain at least 30% of the total population, 13 management and 76 staff members of the CBE Call center are selected to fill the attached questionnaires.

##### 3.1.3. Data Sources

This study data sources shall be twelve months reported fraud data, from April 1,2023 to May 31,2023 should be collected from the CBE Call center registration records (CRM). The additional primary data collected from filled questionnaires. The questionnaire designed based on Likert scale with different categories of fraud. Secondary data had also been collected from the CBE reports to the national bank of Ethiopia, and various call center performance reports.

##### 3.1.4. Data Collection Methods

**Tally of daily reported frauds with major fraud types:** Twelve months CRM data from manual fraud registration records has been reviewed & tallied with major types of fraud with the

Annex-3 data collection sheets. Document review methods shows the data gathered which helps as input for the research.

**Questionnaires:** Likert style structured questionnaires shall be distributed to at least 30% of the call center management and staff members so that fraud trends cause, factors, impacts and proposed solutions can be outlined accordingly. The questionnaires also included some open-ended spaces under each category so that the respondents can add some key missing causes, impacts and actions on frauds.

### **3.1.5. Data Analysis Tools**

Different types of descriptive and frequency counts with percentages were used to analyze the data. Finally, the collected data was presented and analyzed by using tables & charts in MS Excel. Time series analysis was used to analyze the trend of fraud whether it is increased or decreased. Therefore, non-parametric Mann-Kendall's (MK) trend test were employed to see the trend. In order to forecast fraud from June to November, 2023, Auto-regressive Integrated Moving Average technique was used. The response rate, profile, age distribution, educational background and working experiences on CBE was analyzed.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION

The existing theoretical and empirical literatures have shown us that the fraud cases are increasing with surge of digitization usage in the banking industry.

This chapter first discussed about the results of tally sheets which was collected by the researcher from detailed review of customer complain register and CRM cases. The detailed analysis of fraud cases which were identified from those records from April 1,2022 to May 31,2023 can also show us the prevalent types of frauds & trends observed during the stated timeline. It describes about the responses rate, profiles and results analysis of the survey that was conducted among CBE Call center staff and management. The main purpose of the survey was to gather data about the types, causes, trends, impacts of fraud with some key proposed action points. The questionnaire was organized with four areas including background of respondents' information, types of fraud, causes of fraud, trends of fraud, impacts of fraud and possible suggested actions that can be taken to reverse the fraud trends. Overall, the questionnaire consisted of 34 qualitative questions with Likert style headings that the respondents can select one among five possibilities. This questionnaire was distributed to a sample of 89 individual respondents in the CBE Call center agents and management teams. The data was analyzed by STATA Statistical package (STATA Version 16). The data will also be presented in the below tables, charts and frequencies and percentages.

This chapter summarizes findings from the actual fraud tracking of the CBE Call center recordings from April 2022 to May 31,2023, questionnaires result and focus group discussions.

#### **4.1. Actual Fraud Cases Recorded in CBE Call Center**

Based on the literature reviewed findings, the researcher identified twelve types of frauds that customers may call to call centers so that they can get an immediate support or information's. The researcher is interested to know the total number of frauds cases under each type of frauds and their trends throughout time.

The below table 1 shows us about the results of tally sheets which was collected by the researcher from detailed review of customer complain register book and CRM cases. The total number of fraud cases recorded in CRM from April 1,2022 to May 31,2023 was 495. From the primary data taken from the complain register book and CRM frauds cases, 96% were related to mobile frauds next to WTF (3%), ATM (1%) & employee frauds (1%). We can see that mobile fraud is the most widely used fraud method by fraudsters which most customers called for.

**Table 1. Summary of Fraud Cases from tally Sheet**

<b>S/N</b>	<b>Types of Frauds</b>	<b>Total Number of Fraud cases from April 1,2022 to May 31,2023</b>	<b>Percent</b>
1	Mobile Fraud	476	96%
2	ATM Card Fraud	3	0.65%
3	Employee Fraud	3	0.65%
4	Check Fraud	-	-
5	Wire Transfer Fraud	13	3%
6	Loan Fraud	-	-
7	Signatory Fraud	-	-
8	Invoice Fraud	-	-
9	Internet Banking Fraud	-	-
10	Identity Theft Fraud	-	-
11	Money Laundering	-	-
12	Forged or Fraudulent documents	-	-
	<b>Total Cases</b>	<b>495</b>	<b>101%)</b>

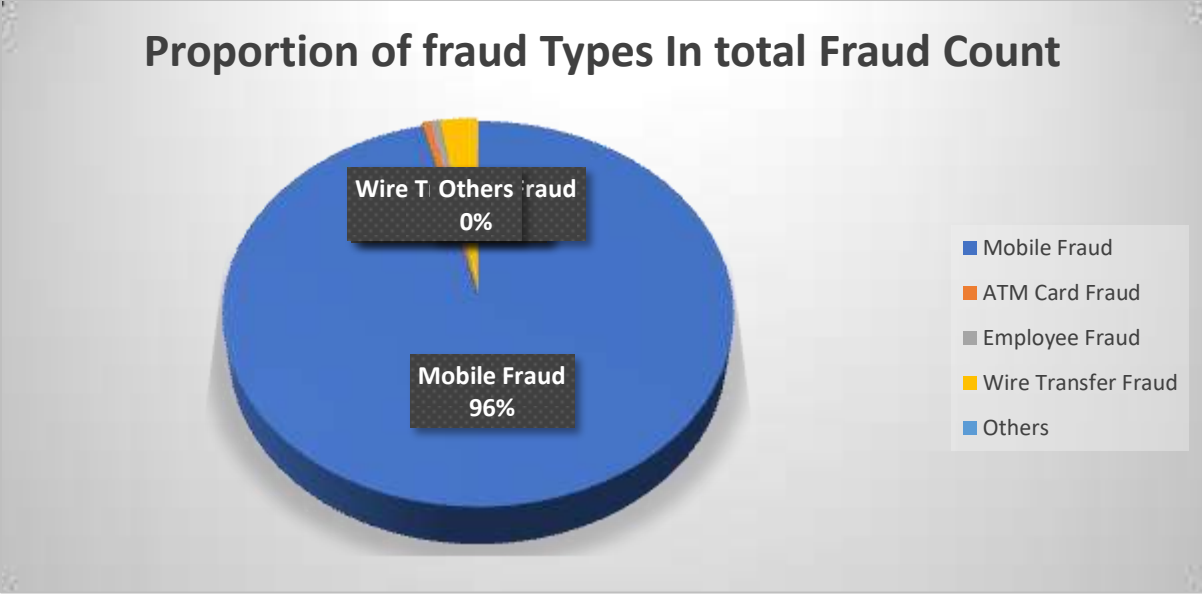


Figure 2. Proportion of Fraud Types from April 1,2022 to May 31,2023

As we can see the below figure 3 below which shows the monthly level counting of frauds cases, there is a modest increasing of fraud cases throughout the counting period with October to December peak months. There were much fraud cases from October to December due to the launching of new digitized services by CBE that attracted much fraudsters during this period.

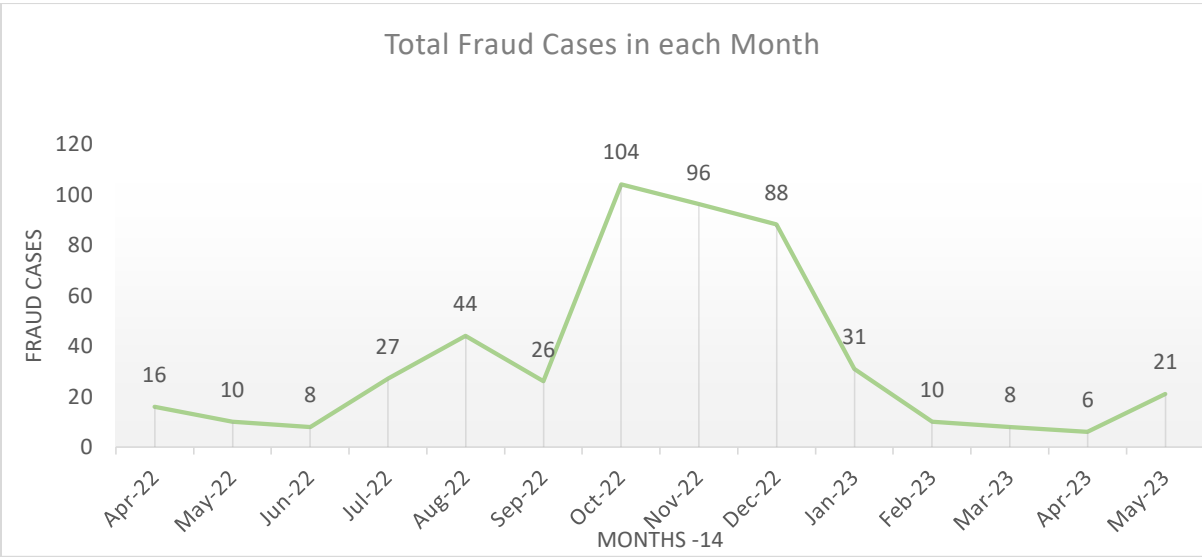


Figure 3. Trends of monthly fraud cases from April 1,2022 to May 31,2023

Trend test was performed by non-parametric Mann-Kendall's (MK) trend which shows there is no change over the time span.

Test of Ho: time and total are independent

Prob > |z| = 0.6605

The above test shows that the time and total fraud are independent. It means total fraud was not showing increment or decrement over the time period.

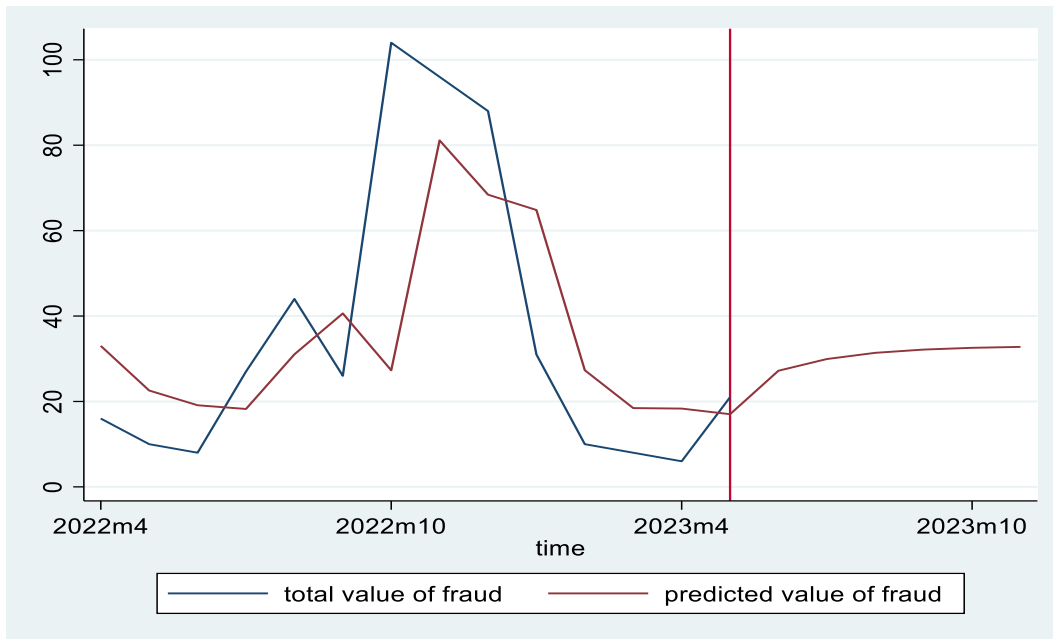


Figure 4. predicted and total value of fraud using the available data from June to November 2023.

Using ARIMA model

Table 2: Predicted and total value of fraud using available data from June to November 2023.

Time	Actual fraud	Predicted fraud
2022m4	16	33.02251
2022m5	10	22.56324
2022m6	8	19.11704
2022m7	27	18.24359
2022m8	44	31.03161
2022m9	26	40.61469

2022m10	104	27.3
2022m11	96	81.13192
2022m12	88	68.4228
2023m1	31	64.82982
2023m2	10	27.31636
2023m3	8	18.45361
2023m4	6	18.33427
2023m5	21	17.01709
2023m6	.	27.19905
2023m7	.	29.93743
2023m8	.	31.38814
2023m9	.	32.15667
2023m10	.	32.56382
2023m11	.	32.77951

## **4.2. Fraud Perceptions of CBE Call Center Staff**

The responses of each fraud's cases can be also better summarized and described below with various methods of descriptive statistics. Using the below tables and graphs which was compiled by EXCEL and STATA software's, we can see the findings of different aspects of frauds as described below. The respondents were requested to provide their opinion on each of the below identified aspects of frauds that may have happened in the Ethiopian banking industry with 5 Likert scales. Below we can see the response rate and respondents' profile of those Call center staff and management who were filled those provided questionnaires. Then the four key aspects of frauds data described with subsequent listed tables and charts.

### **4.2.1. Response rate**

This chapter describes about the response rate, profiles and results analysis of the survey that was conducted among CBE Call center staff and management. The main purpose of the survey was to gather data about the types of causes, trends, impacts of fraud with some key proposed action points. The questionnaire was organized with four areas including background of respondent's information, types of fraud, causes of fraud, trends of fraud, impacts of fraud, and

possible suggested actions that can be taken to reverse the fraud trends. Overall, the questionnaire consisted of 34 qualitative statements with Likert style headings that the respondents can select one among five possibilities.

#### 4.2.2 Respondent Profiles

The respondent's profile that was included in the questionnaire were gender, age, academic level and years of stay in CBE with some categorizations under each line. As we can see from the below table 3, out of 86 sample respondents 58 (67.4%) were male while the remaining 28 (32.6%) were female. 82.6% of the respondents also falls under 30 to 39 age brackets next to 11.6% were from 20 to 29 years, and the rest 5.8% of them were above 40 years of age. Much of the respondents also had also post graduate level educations (58 out of 86 respondents). The remaining 29.1% of them work with graduate level qualifications. 59 out of 86 respondents had also served CBE from 5 to 10 years and the rest of 15 and 12 respondents served below 5 years and above 10 years of respectively. Overall, 82.6% of those respondents worked above 5 years in CBE.

*Table 3. Background Information of the Respondents*

Type of Background Info	Background Info	Frequency	Percent
Gender	Male	58	67.4%
	Female	28	32.6%
Age	20-39	10	11.6%
	30-39	71	82.6%
	>40	5	5.8%
Academic Level	Graduate	25	29.1%
	Post Graduate	58	67.4%
	NR	3	3.5%
Years of stay at CBE	Below 5 Years	15	17.4%
	5 to 10 Years	59	68.6%
	Above 10 years	12	14.0%

### 4.2.3. Types of Frauds

Out of the 86 respondents, significant majority of them (98.8%) believed that mobile fraud is one of the most widely committed types of frauds, following 33.8% of them were stated that ATM card fraud. On the other hand, significant number of respondents believed that the other types of frauds are less frequent types of frauds. Of course, these findings are almost similar with the actual tracked types of frauds with the tally sheets during those selected periods.

Overall, both the actual tracking of frauds cases and questionnaire outcome shows that mobile frauds are the most widely committed types of frauds that the call center teams were encountered in their day-to-day handling of customers. With the exception of Mobile & ATM Card frauds, the majority of respondents felt that the other types of frauds are less frequent to none. Of course, this is in consistent with the actual fraud tracking sheet reports and some of the earlier studies. On the other hand, the below table 4 shows that all the below twelve types of frauds are encountering in their day-to-day banking services even with minimal percentage of instances (highly to rarely frequent rankings).

*Table 4: Respondent Perceptions of Frauds*

S.N	Types of Fraud	Highly Frequent	Frequent	Less Frequent	Rarely Frequent	None	NR	Total
1	Mobile Fraud	83.7%	15.1%	1.2%	-	-	-	100%
2	ATM Card Fraud	8.1%	26.7%	45.3%	18.6%	-	1.2%	100%
3	Employee Fraud	2.3%	7%	25.6%	34.9%	30.2%	-	100%
4	Check Fraud	7%	11.6%	22.1%	40.7%	15.1%	3.5%	100%
5	Wire Transfer Fraud	-	-	17.4%	47.7%	31.4%	3.5%	100%
6	Loan Fraud	2.3%	1.2%	7%	34.9%	54.7%	-	100%
7	Signatory	1.2%	4.7%	24.4%	57%	11.6%	1.2%	100%

	Fraud							
8	Invoice Fraud	2.3%	2.3%	12.8%	48.8%	31.4%	2.4%	100%
9	Internet Banking Fraud	11.6%	7%	10.5%	25.6%	44.2%	1.2%	100%
10	Identity Theft Fraud	-	2.3%	19.8%	33.7%	15.1%	2.3%	100%
11	Money Laundering	11.6%	10.5%	33.7%	15.1%	29.1%	-	100%
12	Forged or Fraudulent documents	9.3%	5.8%	46.5%	24.4%	12.8%	1.2%	100%

**N.R.** Not Responded

#### 4.2.4. Causes of Frauds

The respondents were requested to review those provided major causes of frauds and provide their judgments by selecting one from those five Likert scale measures: highly agree, agree, indifferent, highly disagree and none. The below table 4 shows that much of the respondents agreed with those suggested causes of frauds. 55.8%, 71%, 87.2%, 94.2%, and 90.7% of respondents of question 13,14,15,16 and 17 agreed with those stated causes of frauds. This upheld the universal causes of frauds identified by most previous studies in this subject matter. In contrast, 18.6% of the respondents also highly disagree with the “The Banks System Weaknesses” statements which appear to be an inclination to attach frauds to more of customers awareness and greed problems (Table 5).

*Table 5: Response on Causes of Frauds*

S. N	Causes of Fraud	Highly Agree	Agree	Indifferent	Disagree	Highly Disagree	N R	Total
13	The banks system weaknesses	25.6 %	30.2 %	14%	9.3%	18.6%	2.3 %	100%

14	Increasing of digitization which makes banks system venerable for fraud	32.6 %	38.4 %	10.5 %	11.6 %	7%	-	100%
15	Customer's greed that makes them easily cheated	50%	37.2 %	5.8%	3.5%	2.3%	1.2 %	100%
16	Customers lack of awareness that makes them easily cheated	60.5 %	33.7 %	3.5%	-	2.3%	-	100%
17	Lack of appropriate punishment to fraudsters	69.8 %	20.9 %	5.8%	3.5%	-	-	100%
18	Any other, please specify?	<ul style="list-style-type: none"> <li>- Lack of proper protection system which should be in place to differ fraud actions,</li> <li>- Weak administrative actions on staff fraud perpetrators</li> </ul>						

#### 4.2.5. Trends of Frauds

The respondents were requested to comment on those provided trends of frauds and provide their perceptions by selecting one from those five Likert scale measures: highly agree, agree, indifferent, highly disagree and none. As we can see from the below Table 5, significant majority of the respondents believed that fraud is increasing in an alarming rate due to surge of digitization efforts across banking services. 97.7% and 82.6% of respondents accepted that frauds are increasing significantly with the digitization of banking services, respectively.

Table 6: Respondents perceptions on trends of frauds.

S. N	Trends of Fraud	Highly Agree	Agree	Indifferent	Disagree	Highly Disagree	N R	Total
19	Fraud is increasing in an alarming rate	65.1 %	32.6 %	2.3%	-	-	-	100%
20	All types of frauds have upward trends	38.4 %	40.7 %	12.8 %	5.8%	2.3%	-	100%
21	Digitization of banking services contribute for fraud upward increases	41.9 %	40.7 %	7%	5.8%	3.5%	1.2 %	100%
22	Any other, please specify?	- Bankers promote mobile banking without doing sufficient awareness activities to customers						

#### 4.2.6. Immediate Effects of Frauds

The respondents were also requested to review those provided impacts of frauds and provide their responses by selecting one from those five Likert scale measures: highly agree, agree, indifferent, highly disagree and none. Accordingly, the below table 6. findings reveal that the majority of respondents agreed with loss customers confidence and loss of money by customers and banks. 75% of the respondents concurred that the rising of frauds decreases customers confidence on banking services which customers lose money through the processes. On the other hand, there is a sign that almost half of the respondents (46.5%) indicate that banks also lose money whereas 46.5% of them are indifferent or disagreed with this idea, but 86% of the them believed that customers are losing money. This is inconsistent with the earlier study & Ethiopian banking's reported loss of money.

Table 7: **Respondents Response** on immediate effects of **Frauds**

S. N	Impacts of Fraud	Highly Agree	Agree	Indifferent	Disagree	Highly Disagree	NR	Total
23	Loss of customers confidence on banking services	39.0%	36%	12.8%	7%	3.5%	1.2%	100%
24	Loss of money by banks	25.6%	20.9%	20.9%	23.3%	2.3%	4.7%	100%
25	Loss of money by customers	50%	36%	5.8%	3.5%	2.3%	2.3%	100%
26	Any other, please specify?	<ul style="list-style-type: none"> <li>- Waste of time to track fraudsters,</li> <li>- Wide socio-economic impacts on the country</li> </ul>						

#### 4.2.7. Actions to be taken

The respondents were requested to review those provided actions to be taken statements which are believed to reverse those increasing trends of frauds. It appears that significant majority of the respondents agreed with those provided actions can reverse the rampant increase of fraud trends with due time. As listed below from the Table 8. question 27 to 29, 81.3% and 94.2% of the respondents agreed that improving of the banks system with an immediate customers awareness and call center support can minimize the impacts of frauds.

**Table 8: Responses on actions to be taken**

S. N	Actions to be taken	Highly Agree	Agree	Indifferent	Disagree	Highly Disagree	N R	Total
27	Improve banks system (Invest in new Technologies)	45.3%	36%	10.5%	8.1%	-	-	100%
28	Improve customers awareness about frauds	72.1%	22.1%	2.3%	3.5%	-	-	100%
29	Strengthen call center support & Customer's protection	51.2%	43%	5.8%	-	-	-	100%
30	Establish fraud mitigation unit that can wave for fraud prevention and investigation	57%	29.1%	3.5%	8.1%	2.3%	-	100%
31	Investigate those repeated frauds & support customers in any legal proceedings	60.5%	25.6%	10.5%	1.2%	2.3%	-	100%
32	Improve document & customers authentication mechanisms	60.5%	17.4%	15.1%	4.7%	2.3%	-	100%
33	Enact stringent law that should punish fraudsters	64%	8.1%	22.1%	1.2%	2.3%	-	100%
34	Any other, please specify?	<ul style="list-style-type: none"> <li>- Add local language on mobile banking system</li> <li>- Appropriately design banking products before it will be released to customers.</li> </ul>						

Significant majority of respondents also believed that establishing fraud mitigation unit (86.1%), investigate these repeated frauds (86.1%), improving document & customers authentications

(77.9%) and enacting stringent law that can punish those perpetrators (72.1%) can majorly decrease the impacts of frauds. Overall, these are consistent with the earlier studies which the researcher identified these action points.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is to assimilate the descriptive analysis of findings of the study with the existing literatures in order to answer those outlined fraud questions. Related to digitization of various banking services in recent years, it is widely believed that frauds are increasing with various level impacts. The actual tracking of fraud cases at CBE Call center for the last years and staff responses also corroborate these perceptions. Overall, the trends indicate that mobile, ATM card and some forms digitization services frauds are increasing from time to time.

#### **5.1. Summary of Findings**

The results of the descriptive analysis research had almost supported various literatures that shows frauds are alarmingly increasing with the widely adoption of digitization's in banking services. The findings were consistent with the conceptual framework outlined. Overall trends indicate that some forms of frauds are increasing with determinantal effects on the banks and its customers basic relationships. Most respondents felt that bank fraud was a major issue that was increasing with significant impacts. In general, the findings were largely consistent with the outlined conceptual framework of fraud causes, outcome and long-term impacts.

##### **5.1.1. Types of bank frauds**

In line with the literature discussions, the researcher's identified twelve types of frauds existence almost supported by a certain level of respondents. On the other hand, the tally sheet analysis mainly shows us that mobile, ATM, employee, and WTF frauds are the main types of frauds that most customers called for to the call center.

##### **5.1.2. Causes of bank frauds**

In general, significant number of respondents consented those stated statements from questionnaire number 13 to 18 are the major causes of frauds. The banks system weaknesses, increasing digitization efforts, customers awareness and greed, and lack of an appropriate

punishment of fraudsters are the major causes of increasing frauds. This evidently indicates that the banks staff are aware of the problem of fraud and its implications for the industry.

### **5.1.3. Trends of bank frauds**

Per the actual fraud cases tracking analysis and the questionnaire responses on trends of frauds, there is the general consensus that frauds are increasing in line with the digitization of banking services.

### **5.1.4. Effects of bank frauds**

In addition to the loss of money by banks and its customers, 75% of the respondents concurred that the rising of frauds affects customers confidence on banking services which will have determinantal impact on its long-term profitability.

### **5.1.5. Actions to be Taken**

Significant majority of the respondents agreed with those proposed actions so as to reverse the recent significant increase of fraud cases.

## **5.2. Conclusions**

From the discussion of the results and available data, various conclusions can be outlined related to an increase of frauds in the banking services. These results and findings have been used to generate a set of below conclusions.

- A) Among the twelve types of frauds identified by the researcher, customers usually called for mobile, ATM, and Wire Transfer frauds.
- B) Even if the actual number of frauds cases shows modest types of increases during the study period, most of the call center staff and management believed that frauds are alarmingly increasing from time to time.
- C) Banks should pay more attention to mobile fraud because as the actual tracking of frauds indicated, the upward trends brought significant loss of customers confidence on banking services and money.
- D) The analysis of questionnaires data shows that frauds had an immediate and long term effects on the baking performances and profitability.

- E) Digitization of banking services is one of the basic factors behind increasing of various frauds, and therefore the banks should not be reluctant to invest in various appropriate fraud prevention systems.
- F) Most respondents (94.2%) believed that improving customer awareness is an important factor to fight back an increasing of bank frauds.
- G) Most respondents also believed that strengthening call center support and customers protection activities, and establishing fraud mitigation unit can highly support fraud prevention & investigations activities.
- H) Thoroughly investigate those repeated frauds & support customers in any legal proceedings, enact stringent law, and improving document & customers authentication mechanisms also recommended to fight against such increasing banking frauds.
- I) Including various local languages with an appropriately designed banking products and doing sufficient awareness activities to customers.

### **5.3. Recommendations**

From the discussion of the results and above stated conclusions, various recommendations can be outlined so as to reverse an increase of frauds in related to digitization of banking services. These results and findings have been used to generate a set of recommendations for the commercial bank of Ethiopia and other Ethiopian banks. Since

Banks should pay more attention to mobile fraud because as the actual tracking of frauds indicated, the upward trends brought significant loss of customers confidence on banking services and money. Various mechanisms should be laid out to minimize those mobile and other forms of frauds. Generally, various major recommendations have emerged from this study for the commercial bank of Ethiopia and other banks.

Considering high perceptions of fraud among banking staff and customers, banking sector should devote time and money to reverse fraud trends over time. The banking leaders must be diligent and implement a robust system in line with digitization of banking services. The banking management must also try to eliminate any loopholes of the banking services applications that fraudsters can use it for their advantage. Accordingly, banks can implement various fraud

prevention mechanisms including an appropriate IT protection, doing various customers awareness campaigns, background checks, and other relevant actions.

On the other hand, banks shall use their respective call centers creating awareness about fraudsters techniques and also support those customers who encountered a certain level of frauds. Banks should also create awareness to the customer through TV, Radio, and different social media platforms.

The researcher also would like to encourage detailed studies about frauds in Ethiopian banking sector by involving customers who encountered frauds and the general public.

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**Annexes-1: Tally Sheets**  
**Addis Ababa University**

**Department of Finance & Accounting**

**Call Center Recorded frauds tally sheet to be filled by researcher by reviewing the daily level CRM & manual records.**

S/N	Major Types of Reported fraud	April 2022	May 2022	June 2022	>>>	>>>	May 2023
1	Mobile Fraud						
2	ATM Card Fraud						
3	Employee Fraud						
4	Check Fraud						
5	Wire Transfer Fraud						
6	Loan Fraud						
7	Signatory Fraud						
8	Invoice Fraud						
9	Internet Banking Fraud						
10	Identity Theft Fraud						
11	Money Laundering						
12	Forged or Fraudulent discounts						

*Thank you!*

## **Annexes-2: Questionnaires**

### **Addis Ababa University**

#### **Department of Finance & Accounting**

My Name is **Mintamir Shibabw**, a postgraduate student at Addis Ababa University, faculty of Business and Economics, and working for CBE Call center. This is a kind request to take some of your time and complete the below questions as part of my research topic” **Assessment on fraud trends and its determinants in the case of CBE Call Center**”. Here, I am interested to know your views on the following statements regarding the **types of frauds, causes of frauds, trends of frauds, impacts of frauds and actions that shall be taken to reverse those trends**. I am humbly request you in answering the following questions. This questionnaire is to collect data for purely academic purposes, and your responses will be kept confidential.

#### **Background of Information:**

Kindly answer the following questions by ticking (or X):

1. **Indicate your gender:** Male: \_\_\_\_\_ Female: \_\_\_\_\_
2. **Age:** 20 to 29 Years \_\_\_\_\_ 30 to 39 years \_\_\_\_\_ 40 to 49 Years \_\_\_\_\_ 50 Years & Above \_\_\_\_\_
3. **Your Academic level:** Graduate \_\_\_\_\_ Post Graduate \_\_\_\_\_
4. **How many years you have served CBE?** Below 5 Years \_\_\_\_\_ 5 to 10 Years \_\_\_\_\_ and Above 10 Years \_\_\_\_\_

#### **Questionnaire:**

S/N	Questions	Highly Frequent	Frequent	Less Frequent	Rarely Frequent	None
	<b>Types of Fraud:</b>					
1	Mobile Fraud					

2	ATM Card Fraud					
3	Employee Fraud					
4	Check Fraud					
5	Wire Transfer Fraud					
6	Loan Fraud					
7	Signatory Fraud					
8	Invoice Fraud					
9	Internet Banking Fraud					
10	Identity Theft Fraud					
11	Money Laundering					
12	Forged or Fraudulent discounts					
	<b>Causes of fraud:</b>	<b>Highly Agree</b>	<b>Agree</b>	<b>Indifferent</b>	<b>Disagree</b>	<b>Highly Disagree</b>
13	The Banks system Weaknesses					
14	Increasing of digitization which makes banks system vulnerable for fraud					
15	Customer's greed that makes them easily cheated					
16	Customers lack of awareness that makes them easily cheated					
17	Lack of appropriate punishment to fraudsters					
18	Any other? Please specify: -					
	<b>Trends of Fraud:</b>	<b>Highly Agree</b>	<b>Agree</b>	<b>Indifferent</b>	<b>Disagree</b>	<b>Highly Disagree</b>

						ee
19	Fraud is increasing in an alarming rate					
20	All types of frauds have upward trends					
21	Digitization of banking services contributed for fraud upward increases					
22	Any other? Please specify: -					
	<b>Impacts of Fraud:</b>	<b>Highly Agree</b>	<b>Agree</b>	<b>Indifferent</b>	<b>Disagree</b>	<b>Highly Disagree</b>
23	Loss of customers confidence on banking services					
24	Loss of money by banks					
25	Loss of money by customers					
26	Any other? Please specify: -					
	<b>Actions shall be Taken:</b>	<b>Highly Agree</b>	<b>Agree</b>	<b>Indifferent</b>	<b>Disagree</b>	<b>Highly Disagree</b>
27	Improve the banks system (Invest in new Technologies)					
28	Improve customers awareness about frauds					
29	Strengthen call center support and customers protection					
30	Establish fraud mitigation unit that can work for fraud prevention and investigations					

31	Investigate those repeated frauds & support customers in any legal proceedings					
32	Improve Document & Customers Authentication mechanisms					
33	Enact stringent law that should punish fraudsters					
34	Any other? Please specify: - -					

***Thank you!!***