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# Perceived effectiveness of anti-money laundering preventive measures in reducing incidences of money laundering through commercial banks in Kenya.

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**PERCEIVED EFFECTIVENESS OF ANTI-MONEY  
LAUNDERING PREVENTIVE MEASURES IN  
REDUCING INCIDENCES OF MONEY LAUNDERING  
THROUGH COMMERCIAL BANKS IN KENYA**

**JACKLINE OYOO**

**ADMISSION NUMBER 142260**

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF COMMERCE IN FORENSIC  
ACCOUNTING AT STRATHMORE UNIVERSITY**



**STRATHMORE UNIVERSITY BUSINESS SCHOOL  
STRATHMORE UNIVERSITY  
NAIROBI, KENYA**

**MAY 2024**

## DECLARATION

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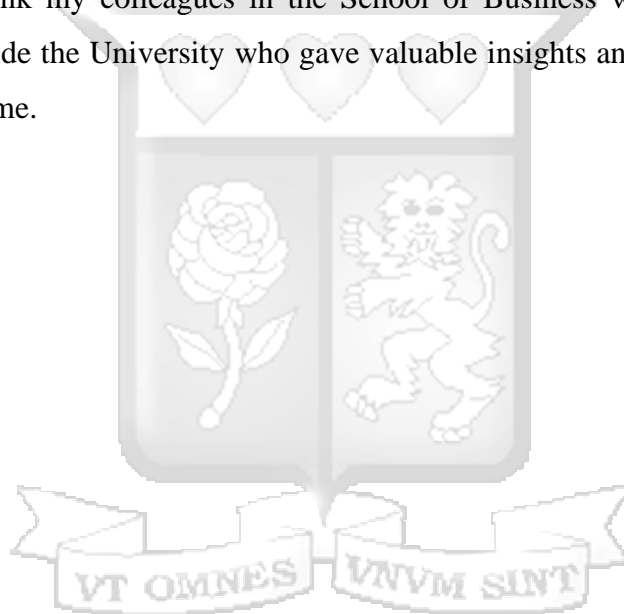
Director, Office of Graduate Studies

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## ABSTRACT

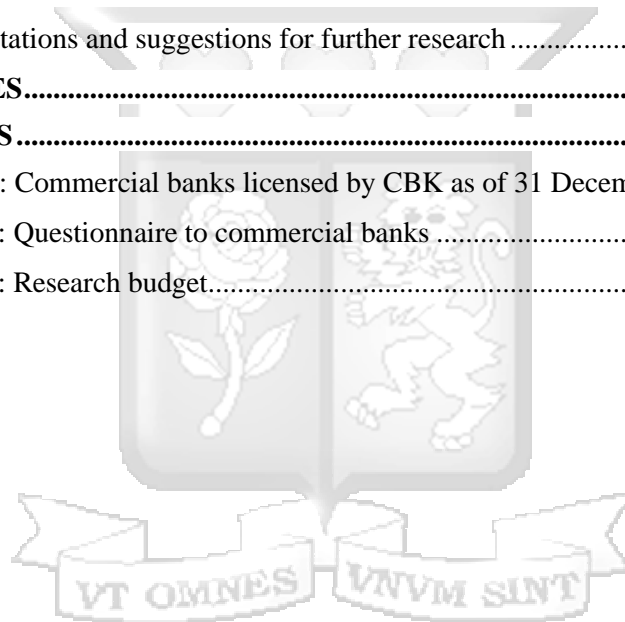
Many legislative and institutional efforts have been directed at countering money laundering for over thirty years but there are several accounts of money laundering cases still being reported worldwide. Banks are important in combating money laundering. They have been heavily penalized for violating Anti-Money Laundering (AML) regulations and, in some instances, for their controls failing to prevent money laundering. The above raises the question of whether the underlying problem is just a violation of policies and regulations or whether the existing AML system is flawed. Given the above, the study assessed the perceived effectiveness of AML preventive measures as applied by commercial banks in Kenya to reduce the likelihood of money laundering. The specific objectives were to determine whether customer due diligence measures and the ongoing monitoring of transactions using digital systems by commercial banks as required by the applicable law are effective in reducing money laundering incidences. The study assessed how the corporate culture of commercial banks in Kenya affects compliance with the AML preventive measures which in turn affects the measures' effectiveness in reducing incidences of money laundering. The theory of the crying wolf and the fraud diamond theory were applied in the study. The research philosophy adopted for the study was the positivist research philosophy. Questionnaires were administered to obtain primary data. The questionnaires were distributed to 76 respondents drawn from 38 commercial banks registered by the Central Bank of Kenya as of 31 December 2022. 64 responses were received translating to an 84% response rate. Two respondents which included account opening officers and compliance officers were selected from each bank. Descriptive and inferential statistics were applied to analyze the data. In addition, reliability and diagnostic tests were first conducted before inferential statistics analysis. Multiple regression analysis was used to analyze the data. The results showed that the AML preventive measures which comprised client due diligence and ongoing monitoring of transactions and corporate culture had a positive and statistically significant effect on the reduction of incidences of money laundering in commercial banks. From the findings of the study, it was noted that employees play a big role in the implementation and compliance with AML requirements. Therefore, commercial banks should continuously train and update their staff on money laundering trends to improve their efforts in reducing money laundering cases. Further, although CDD, ongoing monitoring and corporate culture are important individually, their applicability and assessment should be done holistically. Therefore, the study recommends the regulator and banks ensure that policies, resources, and efforts are directed at all three measures concurrently. Also, due to limitation of time, the study did not include the updates to the POCAMLA (2009) and POCAMLAR (2013) which were done during the study. Therefore, future studies should consider looking into the impact of the update on regulations in the implementation and effectiveness of AML measures.

## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>iii</b>
<b>ABSTRACT</b> .....	<b>iv</b>
<b>TABLE OF CONTENTS</b> .....	<b>v</b>
<b>LIST OF FIGURES</b> .....	<b>viii</b>
<b>LIST OF TABLES</b> .....	<b>ix</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>x</b>
<b>DEFINITION OF OPERATIONAL TERMS</b> .....	<b>xi</b>
<b>CHAPTER ONE: INTRODUCTION TO THE STUDY</b> .....	<b>1</b>
1.1. Background .....	1
1.1.1. AML preventive measures .....	4
1.1.2. The role of corporate culture in reducing incidences of money laundering.....	6
1.1.3. The AML regime in Kenya.....	8
1.1.4. Commercial banks in Kenya.....	9
1.2. Statement of the problem .....	10
1.3. Research objective .....	12
1.3.1. Specific objectives .....	12
1.4. Research questions .....	12
1.5. Scope of the study .....	13
1.6. Significance of the study.....	13
1.6.1. Policymakers.....	13
1.6.2. Commercial Banks.....	14
1.6.3. Academicians.....	14
1.7. Chapter summary .....	14
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	<b>15</b>
2.1. Introduction.....	15
2.2. Theoretical framework.....	15
2.2.1. The fraud diamond theory.....	15
2.2.2. The theory of the crying wolf .....	16
2.3. Empirical review of existing literature.....	18
2.3.1. Effect of customer due diligence measures in reducing incidences of money laundering .....	18
2.3.2. Effect of ongoing monitoring of transactions in reducing incidences of money laundering .....	21
2.3.3. The role of corporate culture in reducing incidences of money laundering....	23
2.4. Summary of research gaps .....	25
2.5. The conceptual framework.....	30

2.5.1. Operationalization of variables .....	31
2.6. Chapter summary .....	33
<b>CHAPTER 3: RESEARCH METHODOLOGY .....</b>	<b>34</b>
3.1. Introduction.....	34
3.2. Research philosophy .....	34
3.3. Research design .....	34
3.4. Population and sampling.....	35
3.4.1. Population .....	35
3.4.2. Sampling .....	35
3.5. Methods of data collection.....	36
3.6. Data analysis .....	37
3.6.1. The model .....	37
3.6.2. Diagnostic tests .....	38
3.7. Research quality.....	39
3.7.1. Reliability.....	39
3.7.2. Validity .....	40
3.8. Ethical considerations .....	41
3.9. Chapter summary .....	42
<b>CHAPTER 4: PRESENTATION OF RESEARCH FINDINGS .....</b>	<b>43</b>
4.1. Introduction.....	43
4.2. Response rate .....	43
4.3. Demographic characteristics .....	44
4.3.1. Position of the respondent in the bank .....	44
4.3.2. Attendance of AML training.....	44
4.3.3. Banks' tier group and number of branches .....	44
4.3.4. Banks' customer category.....	44
4.4. Descriptive statistical analysis .....	46
4.4.1. The effect of Client Due Diligence measures in preventing incidences of money laundering.....	46
4.4.2. The effect of ongoing monitoring of transactions in preventing incidences of money laundering.....	47
4.4.3. The role of corporate culture in reducing incidences of money laundering....	48
4.4.4. Incidences of money laundering cases.....	50
4.5. Diagnostic test.....	51
4.5.1. Normality test.....	51
4.5.2. A test on Multicollinearity .....	52
4.5.3. Principal component factor analysis .....	53
4.5.4. Correlation analysis .....	53

4.6.	Inferential analysis .....	55
4.6.1.	Multiple Regression Analysis .....	55
4.7.	Chapter summary .....	58
<b>CHAPTER 5: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS.....</b>		<b>59</b>
5.1.	Introduction.....	59
5.2.	Discussion of the results .....	59
5.2.1.	The effect of Client Due Diligence measures in reducing incidences of money laundering .....	59
5.2.2.	The effect of ongoing monitoring of transactions in reducing incidences of money laundering.....	60
5.2.3.	The role of corporate culture in reducing incidences of money laundering....	61
5.3.	Conclusion .....	62
5.4.	Recommendations.....	63
5.5.	Limitations and suggestions for further research .....	64
<b>REFERENCES.....</b>		<b>65</b>
<b>APPENDICES.....</b>		<b>72</b>
	Appendix A: Commercial banks licensed by CBK as of 31 December 2022.....	72
	Appendix B: Questionnaire to commercial banks .....	74
	Appendix C: Research budget.....	78



## LIST OF FIGURES

Figure 1.1 Amount of money laundered globally .....	1
Figure 2.1 The conceptual framework .....	30
Figure 4.1 Response rate .....	43
Figure 4.2 Normality test using box plot .....	51

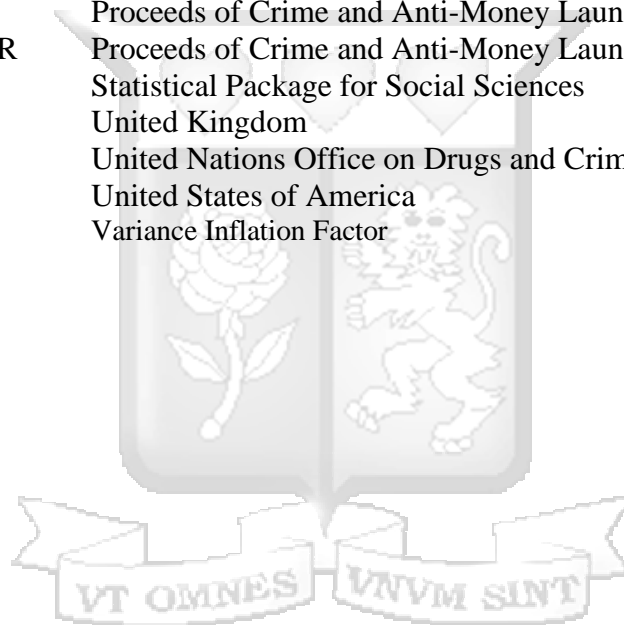


## LIST OF TABLES

Table 2.1 Major studies and research gaps .....	26
Table 2.2 Operationalization of variables .....	31
Table 3.1 Reliability test .....	40
Table 3.2 Exploratory factor analysis .....	41
Table 4.1 Summary of demographic characteristics .....	45
Table 4.2 CDD results.....	46
Table 4.3 Ongoing monitoring results .....	48
Table 4.4 Corporate culture results .....	49
Table 4.5 Incidences of money laundering results.....	50
Table 4.6 Normality test results .....	52
Table 4.7 Variance Inflation Factors.....	52
Table 4.8 Principal component factor analysis .....	53
Table 4.9 Correlation analysis.....	54
Table 4.10 Model summary .....	55
Table 4.11 ANOVA .....	56
Table 4.12 Coefficients .....	57

## LIST OF ABBREVIATIONS

AML	Anti-Money Laundering
BCBS	Basel Committee on Banking Supervision
CBK	Central Bank of Kenya
CDD	Customer Due Diligence
CVF	Competing Value Framework
ECDD	Enhanced Client Due Diligence
ESAAMLG	Eastern and Southern Africa Anti-Money Laundering Group
EU	European Union
FATF	Financial Action Task Force
FRC	Financial Reporting Centre
G7	The International Group of 7
GDP	Gross Domestic Product
KYC	Know Your Customer
PEP	Politically Exposed Person
POCAMLA	Proceeds of Crime and Anti-Money Laundering Act
POCAMLAR	Proceeds of Crime and Anti-Money Laundering Regulations
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
UNODC	United Nations Office on Drugs and Crime
USA	United States of America
VIF	Variance Inflation Factor



## DEFINITION OF OPERATIONAL TERMS

<b>Client Due Diligence</b>	Gathering complete information about the identity of a customer (that may need to be validated in some instances) and an understanding of why a customer wants to do business with an organization. This information should be applied to all transactions with such a customer (CBK/PG/08, 2013).
<b>Corporate culture</b>	Corporate culture is the collective beliefs, attitudes, behaviours, methods of operation, and explicit and implicit regulations that characterize a firm (Bouwman, 2013).
<b>Effectiveness</b>	Effectiveness from a legislative perspective describes how legislation can guide the attitudes and behaviours of people to those prescribed by the legislation. Effectiveness describes how well a legislation may accomplish its intended goals (Mousmouti, 2018).
<b>Money laundering</b>	Converting or transferring property, knowing it is generated from any offence (s), with the intention of hiding the illegal origin of the property or of helping any person who is involved in such offence (s) to avoid facing the legal consequences of his actions (UNODC, 2022).
<b>Ongoing monitoring of transactions</b>	Frequently monitoring relationships with customers and examining transactions made during the relationship (Chitimira & Munedzi, 2022; Le Nguyen, 2018).



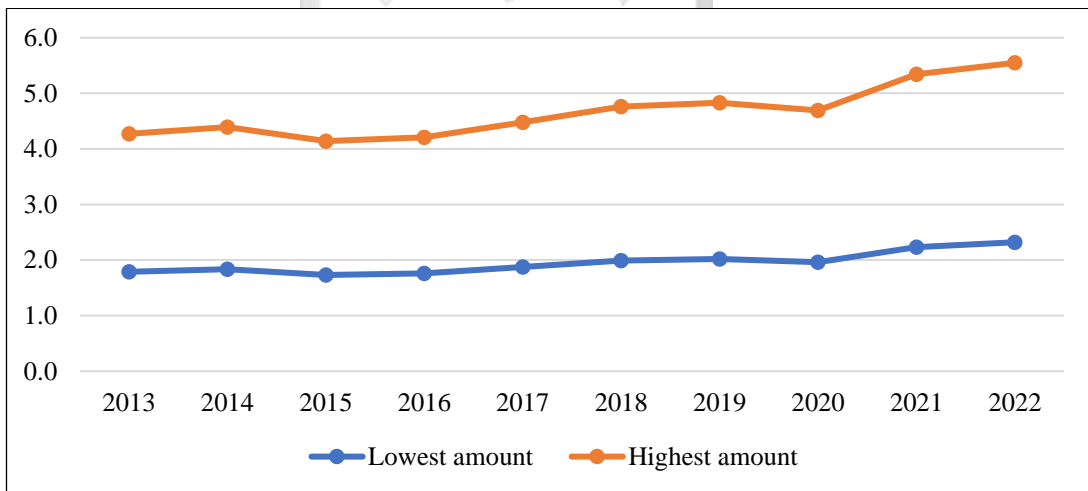
# CHAPTER ONE: INTRODUCTION TO THE STUDY

## 1.1. Background

Money laundering has received attention globally due to its social and economic impact. The United Nations Office on Drugs and Crime (UNODC) estimates that between 2.3 per cent and 5.5 per cent of global Gross Domestic Product (GDP) is laundered annually (UNODC, 2011). This translates to between \$1.7 trillion and \$5.5 trillion (Figure 1.1) in the last 10 years based on the global GDP estimates by the World Bank (2022).

**Figure 1.1**

*Amount of money laundered globally (US\$ trillion)*



**Note. Compiled by the researcher (2024)**

Money laundering is a problem for many nations, especially Kenya, because it increases criminal activities and illegitimate flows, intensifies the black economy, and denies nations revenue from tax (Hendriyetty & Grewal, 2017). Some of the sources of funds for money launderers include migrant smuggling (Financial Action Task Force: FATF, 2022a; Sanchez, 2017), environmental crime (FATF, 2021; Wright, 2011), drug trafficking, especially synthetic opioids (FATF, 2022b) and kidnapping (Chitimira & Animashaun, 2023). Some of the illicit financial flows are generated from such illegal activities with proceeds laundered and injected back into the economy as clean funds (UNODC, 2020). For instance, global transnational crimes such as those involving drugs, weapons, human trafficking, human organs, cultural

property, counterfeiting, illicit wildlife and fish trade, illegal logging and mining, and crude oil theft were estimated to be worth between \$1.6 trillion and \$2.2 trillion per year (Global Financial Integrity, 2017).

The African continent has suffered the adverse effects of money laundering, which is draining its resources, preventing growth, and supporting illegal activities. According to a report by the United Nations Trade and Development, the illicit financial flows cost Africa about US\$88.6 billion annually (UN, 2022). Criminal activities hamper the advancement of the rule of law as well as social, economic, and environmental growth. For instance, in the case of trading of counterfeit products, the supply of inferior malaria drugs in Sub-Saharan Africa resulted in the deaths of more than 100,000 children in 2013 (World Economic Forum, 2015). Further, about 90 per cent of electronic waste which is about \$19 billion worth is illegally traded or dumped each year most of which is exported to developing nations (UNEP, 2015; UNCTAD, 2020). Illegal waste trade has a significant negative impact on public health and the environment. The illegal waste trade is carried out by selling waste in the black market, falsely declaring hazardous waste as non-hazardous, and classifying waste as second-hand goods to avoid complying with international waste regulations thereby trading with developing nations (UNCTAD, 2020). At the center of the criminal and illegal activities and illicit financial flow is money laundering which is an enabler of such activities. Therefore, it is important to combat the vice and ensure that the preventive measures developed work effectively.

The money laundering process has mainly been explained through three steps (Gilmour, 2023). The first step is placement, which is distancing the money from the crime by entering the banking system (Cassella, 2018; UNODC, 2022). The next step is layering which involves funds moved around to hide their origin (Cassella, 2018; Teichmann, 2017; UNODC, 2022). Eventually, funds get back into the economy from what appear to be genuine sources such as real estate, or company shares in a step called integration (Cassella, 2018; UNODC, 2022). However, the traditional three-phase concept does not adequately capture the new methods of money laundering used by criminals because of technological improvement and globalization (Gilmour, 2023).

Financial institutions, such as banks, have been the primary means of laundering the proceeds of illicit activities for all three phases of the money laundering process (Gikonyo, 2021; Teichmann & Falker, 2020). Even though criminals have expanded their options for money laundering such as the use of virtual assets (Esoimeme, 2018; FATF, 2023a), arts (FATF, 2023b; Steiner, 2017; Teichmann, 2017), tax evasion (Kemsley et al., 2023), consulting firms and cash couriers (Teichmann, 2019), banks continue to provide advantages to criminals over the other money-laundering options. Such advantages include accessibility, convenience, and security (Mniwasa, 2019).

There have been a lot of legislative and institutional efforts globally, including in Africa and Kenya, to counter money laundering since the United States first declared money laundering illegal in 1986 (Nance, 2018). Central to the efforts to counter money laundering is the Financial Action Task Force (FATF). The FATF was founded in 1989 in Paris by the G7 countries, the European Union (EU) and eight other countries, to create and advance regulations to prevent money laundering in the global financial system (FATF, 2022c). The guidelines promoted by FATF have evolved into the main instruments of domestic and international economic and security policies (Nance, 2018). Under the guidance of FATF, in less than three decades, nations have put in place policies, legislations and institutions to reduce money laundering and the financing of terrorism (Pol, 2018).

Given the threats of cross-border crime, illicit financial flows and money laundering facing the African continent, it was necessary to develop a regional mechanism to implement AML programmes. As a result of this initiative, which was backed by FATF and other international organizations, the Eastern and Southern Africa Anti-Money Laundering Group (ESAAMLG) was established in 1999. The ESAAMLG, an associate member of the FATF, is made up of twenty-one African member countries that supports the continent to implement AML measures as guided by the FATF recommendations (ESAAMLG, 2019). Kenya is one of the member countries of the ESAAMLG with the AML regulations guided by FATF recommendations (FATF, 2022c).

Despite stakeholders' initiatives to reduce money laundering, there are several accounts of money laundering cases and non-compliance with regulations being reported worldwide. For instance, the National Westminster Bank was fined over £264 million in 2021 for failure to monitor client transactions (Financial Conduct Authority, 2022). The United Services Automobile Association Federal Savings Bank was fined \$140 million in 2022 for failure to implement AML controls (Financial Crimes Enforcement, 2022). NedBank, a South African Bank, was fined 35 million Rand in 2022 for failing to comply with several administrative provisions of the Financial Intelligence Centre Act. For instance, failure to apply Enhanced Due Diligence measures where required and failure to report cash transactions that were above the recommended threshold (South African Reserve Bank, 2022). In Kenya, a Bank Manager of Diamond Trust Bank was charged for allowing the withdrawal of huge sums of money without evidence as per the regulations laid down by the CBK. The money was used to finance the 2019 DusitD2 Hotel complex Al-Shabaab terrorist attack (Kakah, 2019).

There will always be people who break the law. But there is a possibility that some people do not know the law and break it unknowingly: this may be difficult to argue given the global attention on anti-money laundering activities. However, it may also point to the fact that the existing anti-money laundering system is not working as well as it should.

### **1.1.1. AML preventive measures**

Banks are required to be vigilant and put in place proper and strong AML mechanisms to reduce incidences of money laundering through them. An essential component of the AML regime is the group of preventive measures that are designed to find possibilities to eliminate money laundering in financial institutions (Le Nguyen, 2018). Preventive measures such as Customer Due Diligence (CDD) (Chitimira & Munedzi, 2022; ElYacoubi, 2020; Le Nguyen, 2018; Mugarura, 2014), Enhanced CDD (ECDD) (Chitimira & Munedzi, 2022; Le Nguyen, 2018; Mugarura, 2014) and ongoing monitoring of transactions (Chitimira & Munedzi, 2022; Le Nguyen, 2018) are key to detecting and preventing criminals from laundering their illegal gains through banking institutions (Le Nguyen, 2018).

CDD ensures that banks are aware of the individual whose funds they hold and transact and any possible risk that that person might represent (ElYacoubi, 2020). This allows banks to implement proportionate and relevant compliance measures. ECDD measures are implemented in cases where a higher risk is identified (Chitimira & Munedzi, 2022; De Koker, 2014). Ongoing monitoring of transactions enables a bank to determine if transactions match up with the customers' risk profile including the origin of their funds and allows banks to identify further systemic risks resulting from money laundering thereby continuously updating related controls (Chitimira & Munedzi, 2022). Banks have deployed AML systems which use artificial technologies and machine learning algorithms to monitor and detect instances of money laundering given the large volumes of client data and transactions (Moustafa et al., 2015).

Studies by Alsuwailem and Saudagar (2020); Chen et al. (2018); Chitimira and Munedzi (2022); Colladon and Remondi (2017); De Koker (2014); Le Nguyen (2018); Mugarura (2014), among other studies, have assessed the significance of CDD and ongoing monitoring of transactions as measures to prevent incidences of money laundering. Le Nguyen (2018) found that CDD and ongoing monitoring of transactions adopted by financial institutions are important and effective in protecting financial institutions from money laundering. However, such measures are increasingly invading financial privacy. Similarly, a study by Mugarura (2014) concluded that CDD is effective in reducing incidences of money laundering through banks in the USA and the UK. Also, Chen et al. (2018) concluded that ongoing monitoring systems, controls, and procedures are effective in detecting incidences of money laundering. Similarly, Colladon and Remondi (2017) in a study of a medium size factoring business in Italy concluded that Network Analysis is effective in identifying suspicious transactions based on ongoing monitoring of transactions.

On the other hand, Chitimira and Munedzi (2022) concluded that CDD measures including ongoing monitoring of transactions adopted by South Africa were less effective in reducing incidences of money laundering due to inadequate socio-economic infrastructure and the lack of political will to carry out the measures in a meaningful way. De Koker (2014) also concluded that the FATF's framework to identify and verify customers (CDD) is not effective in reducing incidences of money laundering. In Kenya, a study by Njagi (2009) concluded that Know Your Customer

(KYC) measures were not effective as banks were not complying with the KYC requirement. Njagi's study, however, was carried out in 2009 before the Proceeds of Crime and Anti-Money Laundering Act (POCAMLA) (2009) became effective, which was 2010. Additionally, the study was done before the development and implementation of the Proceeds of Crime and Anti-Money Laundering Regulations (POCAMLAR) (2013).

From the empirical review, the studies on the effectiveness of CDD measures and ongoing monitoring of transactions have arrived at different conclusions (evidence gap) mainly because of studies being conducted in different jurisdictions (contextual gap) and varied methodological approaches (methodological gap) in the assessments. In addition, in Kenya, not so many studies have investigated the effectiveness of AML preventive measures in reducing incidences of money laundering. The gaps from past studies include evidence, contextual and methodological gaps. It is against this background that this study investigated the effectiveness of CDD measures and ongoing monitoring of transactions as applied by commercial banks in Kenya.

### **1.1.2. The role of corporate culture in reducing incidences of money laundering**

Organizational behaviour is greatly influenced and guided by their corporate culture (Ocansey & Ganu, 2017) including the commitment by commercial banks to apply the current AML regulations. Understanding corporate culture is particularly important given the number of instances of banks' non-compliance with regulations being reported worldwide. Banks' systemic risk failures are not seen as isolated incidents caused by a few employees who took unapproved risks that had unfavourable outcomes. Many now think that such failures are caused by systemic flaws that are accepted and possibly even promoted by the culture of such banks (Song & Thakor, 2019). As such, understanding a bank's corporate culture is useful as it determines the level of compliance, effort and resources allocated to fighting money laundering. The measure of culture adopted for this study is a control-oriented culture which is one of the four corporate cultures identified by Quinn and Rohrbaugh (1983) in the Competing Value Framework (CVF). This culture prioritizes compliance, predictability, and conformity while putting a strong emphasis on safety and stability (Nguyen et al. 2019). This culture also emphasizes enhancing efficiency through

improved procedures (Bouwman, 2013). The current study investigates the impact of this culture on compliance with AML regulations which in turn impacts their effectiveness in reducing incidences of money laundering.

Despite the attention given to fighting money laundering and the requirement of banks to put in place AML preventive measures, the effectiveness of such measures depends on the willingness of banks and their employees to comply with such measures. Such willingness is largely dependent on the corporate culture of banks. Past studies have assessed the role of corporate culture on various aspects of an organization such as compensation (Barth & Mansouri, 2021; Song & Thakor, 2019), compliance (Langevoort, 2017), firm value (Graham et al., 2022), firm performance (Barth & Mansouri, 2021; Guiso et al., 2015), managing occupational fraud (Ocansey & Ganu, 2017) and mergers and acquisitions (Bouwman, 2013).

Barth and Mansouri (2021) found that banks with a greater competition culture provide their executives with high amounts of bonuses. Similarly, the study by Song and Thakor (2019) concluded that improvement in bank culture is positively related to outcomes attached to incentives. Langevoort (2017) assessed the culture of compliance in organizations and concluded that culture is crucial to compliance. Particularly, setting the tone at the top is useful to create and communicate a culture of compliance. Graham et al. (2022) in surveying 1,366 executives and business leaders across various sectors in North America concluded that a firm's value increased with better corporate culture. Likewise, Guiso et al. (2015) in looking at different elements of corporate culture on a firm's performance concluded that a company's performance is favorably linked with a high degree of perceived honesty. Further, a study by Ocansey & Ganu (2017) concluded that developing an ethical culture within a company that emphasizes honesty and transparency might lower the likelihood of fraud. Moreover, a study by Bouwman (2013) found that corporate culture can significantly influence individual and group behavior, and thus affect post-merger performance. These studies have emphasized the important role of corporate culture in an organization. Given the aspects the past studies have assessed (compensation, compliance, firm value, and performance, managing fraud and critical role in mergers and acquisitions), the studies presented conceptual and contextual gaps that this study addressed. The current study focused on a different aspect of an organization which was to study the role of

corporate culture in reducing incidences of money laundering through commercial banks in Kenya.

### 1.1.3. The AML regime in Kenya

In Kenya, AML is guided by the Proceeds of Crime and Anti-Money Laundering Act (POCAMLA) (2009) which became effective in 2010 with the latest amendment made in September 2023. The Act requires a bank to carry out only two actions to detect money laundering. Section 44 of the Act states that *“a reporting institution shall monitor on an ongoing basis all complex, unusual, suspicious, large or such other transactions as may be specified in the regulations, whether completed or not, and shall pay attention to all unusual patterns of transactions, and to insignificant but periodic patterns of transactions which have no apparent economic or lawful purpose as stipulated in the regulations”*. Section 45 of the Act states that *“a reporting institution shall take reasonable measures to satisfy itself as to the true identity of any applicant seeking to enter into a business relationship with it or to carry out a transaction or series of transactions with it, by requiring the applicant to produce an official record reasonably capable of establishing the true identity of the applicant”*. Sections 46 and 47 give details as to how these actions should be carried out, including a requirement to establish an internal control system to identify persons and monitor transactions.

The Act is supplemented with the Proceeds of Crime and Anti-Money Laundering Regulations (POCAMLAR, 2013; Gikonyo, 2018) which was amended in October 2023. Section 6 of the Regulations requires *“every reporting institution to undertake a Money Laundering Risk Assessment to enable it to identify, assess, monitor, manage and mitigate the risks associated with money laundering. In undertaking the risk assessment, a reporting institution shall develop and implement systems that will enable it to identify and assess money laundering risks consistent with the nature and size of the institution and the outcome of such assessment shall be documented”*. It adds no action other than the two required by the Act: it merely goes into more detail in explaining the actions required by the Act. The Act and its regulation provide a framework for the prevention of the crime of money laundering (Gikonyo, 2018).

In addition to the domestic proceeds of crime, Kenya is also exposed to foreign proceeds of crime, given its prominence as a regional hub based on its economic and financial development (ESAAMLG, 2022). Furthermore, given the country's geographic location, the country acts as a transit route for illicit wildlife trafficking, drug trafficking and money laundering connected to trade (ESAAMLG, 2022; Gikonyo, 2018). According to FATF's second round of mutual evaluation conducted by the ESAAMLG (2022), Kenya has enhanced its AML legal and institutional frameworks since the previous mutual evaluation conducted in 2011. However, the report pointed out some deficiencies such as understanding of terrorism financing risks, risk-based supervision, the implementation of preventive measures for Designated Non-Financial Businesses and Professionals, inadequate measures and efforts directed at Non-Profit Organisations, Money/Value Transfer Services, lack of risk assessments on Virtual Asset Service Providers, lack of clear strategy around investigations, and prosecution of money laundering and financing of terrorism offences, inadequate disclosures on beneficial owners and politically exposed persons, among others (ESAAMLG, 2022). These gaps resulted in Kenya being placed on FATF's grey list in February 2024. Kenya had, however, embarked on several interventions and initiatives to implement the recommendations by ESAAMLG (2022) before officially being placed on the grey list.

#### **1.1.4. Commercial banks in Kenya**

Commercial banks in Kenya are supervised by the Central Bank of Kenya (CBK). There were thirty-eight commercial banks licensed by the CBK as of 31 December 2022 (CBK, 2022). The CBK has issued Prudential Guidelines on Anti-Money Laundering and Combating of the Financing of Terrorism (CBK/PG/08) (2013) which are adopted from POCAMLAR (2013) to guide the identification, prevention, and managing potential money laundering incidences within financial institutions including commercial banks in Kenya. The CBK/PG/08 (2013) guideline supplements the POCAMLA (2009, 2023) and POCAMLAR (2013, 2023).

The AML preventive measures such as CDD and ongoing monitoring of transactions implemented by commercial banks in Kenya are outlined in the POCAMLAR (2013) and CBK/PG/08 (2013). According to these two guidelines, commercial banks should

set up internal control systems to manage the potential threats of money laundering. Banks should use and maintain reliable and independent sources of data and documents to identify and validate the identity of a client who wants to establish a business relationship with them either directly or through a proxy. The banks should also identify and confirm the beneficial ownership and control structure of the client in the case of legal persons and arrangements. Additionally, banks are mandated to obtain and maintain sufficient documentation to ascertain the background and purpose of any complex or unusually large transactions, as well as the sources of funds. The banks must continuously monitor customer transactions and report any unusual transactions that may point to money laundering or the intention to hide the real identities of clients or ownership of assets. The banks should continuously verify and ensure they comply with the AML policies, procedures, and controls. Banks that contravene the provisions of the regulations commit an offence (POCAMLAR, 2013).

## **1.2. Statement of the problem**

According to the Financial Reporting Centre (FRC) (2021) report, between 2016 and 2020, there were thirty-two money laundering cases detected and investigated in Kenya. These cases resulted in eighteen prosecutions but no convictions by 2021. At the time of the FRC (2021) report, several money laundering cases remained pending in court. The slow progress in the legal process is one of the deficiencies that was pointed out by ESAAMLG (2022) that resulted in Kenya being placed on FATF's grey list. Given the lack of statistics on money laundering in Kenya, the amount of funds laundered in Kenya can be estimated based on UNODC's estimates. It is estimated that between 2.3 per cent and 5.5 per cent of global GDP is laundered annually (UNODC, 2011) which translates to between \$1.4 billion and \$6.2 billion laundered in Kenya in the last 10 years based on the country's GDP estimates.

The banking sector has the highest impact on the country's money laundering vulnerability due to its significant contribution to the economy (FRC, 2021). This is attributed to the evolution in the banking sector such as the adoption of electronic transactions, the use of mobile phones and remote access to accounts which have increased banks' susceptibility to money laundering. Banks have borne the brunt of the fight against money laundering with regulators charging them for violating AML

regulations and, in some instances, for their controls failing to prevent money laundering. For instance, during the 2016-2020 period, six banks in Kenya were charged for failing to report suspicious transactions per POCAMLA (2009, 2023) with all the banks opting for plea bargains (FRC, 2021).

Given the amount of time, resources and efforts that have been put towards fighting money laundering, why are there cases of banks being charged for violation of the regulations or for their controls failing to prevent money laundering? The banking sector plays a significant role in the fight against money laundering since the sector is one of the avenues for laundering the illicit proceeds of crime. Therefore, it is important to ensure that the AML preventive measures implemented by commercial banks expose incidences of money laundering. Considering this background, it was important to determine if such measures are indeed effective or need re-evaluation.

Past studies by Alsuwailem and Saudagar (2020); Chen et al. (2018); Chitimira and Munedzi (2022); Colladon and Remondi (2017); De Koker (2014); Le Nguyen (2018); Mugarura (2014) have arrived at different conclusions on the effectiveness of AML preventive measures in reducing incidences of money laundering mainly due to differences in jurisdictions and methodologies used in those studies. A study by Njagi (2009) carried out in Kenya was completed before the POCAMLA (2009) was effective in 2010 and before the development of POCAMLAR (2013): these are the main statutes governing the implementation of AML preventive measures in Kenya. In addition, studies by Barth and Mansouri (2021); Bouwman (2013); Graham et al. (2022); Guiso et al. (2015); Langevoort (2017); Ocansey and Ganu (2017); Song and Thakor (2019) that have looked at the role of corporate culture in different aspects of an organization have not examined the impact of corporate culture on compliance with AML regulations which in turn leads to greater effectiveness of the regulations. The studies presented contextual, conceptual, and methodological gaps which this study seeks to fill.

From the literature review, the effectiveness of AML preventive measures is still an issue that needs further investigation. Given the direct or indirect impact of AML regulations on nations, institutions and individuals and the severe consequences for violations of the regulations (Levi et al., 2018), it is important to re-assess and

determine if the AML preventive measures are doing what they are meant to do, preventing money laundering. This study, therefore, sought to fill the gaps identified based on previous studies and understand if the existing AML preventive measures as applied by commercial banks in Kenya are effective or not.

### **1.3. Research objective**

This study aimed to examine the perceived effectiveness of Anti-Money Laundering preventive measures in reducing incidences of money laundering through commercial banks in Kenya.

#### **1.3.1. Specific objectives**

The specific objectives of the study were:

- i. To determine whether customer due diligence measures applied by commercial banks in Kenya effectively reduce incidences of money laundering.
- ii. To investigate whether the ongoing monitoring of transactions using digital systems by commercial banks in Kenya is effective in reducing money laundering incidences.
- iii. To examine if the corporate cultures of different commercial banks in Kenya play a role in reducing incidences of money laundering.

### **1.4. Research questions**

The following questions guided the research:

- i. Are the customer due diligence measures applied by commercial banks in Kenya effective in reducing money laundering incidents?
- ii. Is the ongoing monitoring of transactions using digital systems by commercial Banks in Kenya effective in reducing money laundering incidents?
- iii. In the opinion of the commercial banks in Kenya, does the banks' corporate culture play a role in reducing incidences of money laundering?

## **1.5. Scope of the study**

The study aimed to examine the effect of AML measures as guided by POCAMLAR (2013) and the CBK's Prudential Guidelines (CBK/PG/08) (2013), from the point of view of commercial banks in Kenya. The study was conducted in February 2024 and March 2024. The study targeted seventy-six respondents drawn from a population of thirty-eight commercial banks registered in Kenya as of 31 December 2022 (CBK, 2022). The respondents selected for the study included account opening officers and compliance officers as they are involved in the implementation and compliance with AML regulations in the banks.

## **1.6. Significance of the study**

Given the efforts in fighting money laundering, determining if such efforts bear results is important. Understanding the effects of AML policies and regulations including the preventive measures helps determine if there is a need to revise the regime or areas of such a regime that require further attention and allocation of resources. This study will be of value to policymakers, users, practitioners (Commercial banks), academics and other entities to whom similar legislation applies.

### **1.6.1. Policymakers**

The study is important to policymakers by identifying gaps in the AML preventive measures framework and informing ways of addressing them. This will improve the measures and ensure that they effectively meet the goal of reducing incidences of money laundering. For the CBK, this study will enhance institutional dialogue and relationships with banks resulting from a collaborative approach to combat money laundering.

### **1.6.2. Commercial Banks**

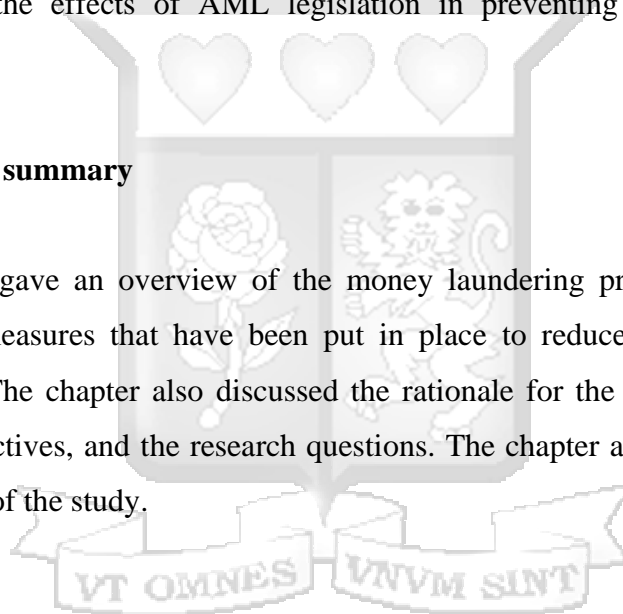
Understanding and interrogating bankers to establish whether the AML preventive measures achieve their objectives informs practical and rational changes to the existing framework. This also adds the banks' voice to the war on money laundering, thereby improving their attitude and approach towards anti-money laundering.

### **1.6.3. Academicians**

To academics, the responses from bank officials on the effectiveness of the existing AML preventive measures provide further areas of research on developing measures to evaluate the effects of AML legislation in preventing and deterring money laundering.

### **1.7. Chapter summary**

The chapter gave an overview of the money laundering problem, trends and the preventive measures that have been put in place to reduce incidences of money laundering. The chapter also discussed the rationale for the study, the general and specific objectives, and the research questions. The chapter also gave the scope and significance of the study.



## CHAPTER TWO: LITERATURE REVIEW

### 2.1. Introduction

This chapter covers the literature on the effectiveness of AML preventive measures applicable to commercial banks in Kenya. The first section of the chapter highlights the theories applicable to the study, followed by an empirical review of literature relating to the effectiveness of preventive measures applied by commercial banks in Kenya in reducing incidences of money laundering, the role of corporate culture in reducing incidences of money laundering and the gaps noted from past studies. The chapter finally presents how the variables to be studied have been operationalized and the conceptual framework.

### 2.2. Theoretical framework

This section presents a theoretical review of the effectiveness of AML preventive measures. The fraud diamond theory and the theory of crying wolf are the basis of this study.

#### 2.2.1. The fraud diamond theory

The fraud diamond theory was introduced by Wolfe and Hermanson (2004) as an enhancement of the fraud triangle theory that was proposed by Cressey (1953). The fraud diamond theory introduced a fourth element of capability to the fraud triangle to strengthen fraud prevention and detection (Wolfe & Hermanson, 2004). This is because it is unlikely for a person to commit fraud without the right skills and ability to recognize and take advantage of control weaknesses (Ruankaew, 2016). Therefore, the elements of the fraud diamond theory include incentive, opportunity, rationalization, and capability (Wolfe & Hermanson, 2004).

The theory provides a comprehensive approach to fraud prevention and detection. Fraud is a predicate offence for money laundering. The fraud diamond theory, therefore, was applied to this study since it emphasizes the need to assess the likelihood of fraud occurring and implement preventive measures to reduce incidences of fraud actively and continuously. Concerning money laundering, commercial banks should

therefore, actively, and continuously assess the likelihood of money laundering, have in place AML preventive measures, and continuously assess if the measures are effective in reducing incidences of money laundering. Some commercial banks in Kenya have been penalized for violating provisions of CBK/PG/08 (2013) which requires them to implement AML preventive measures and report suspicious transactions to the regulator. This could be because of outright violation of the requirements, or it may also point to the fact that the AML preventive measures do not work as well as they should. Therefore, applying this theory to this study was useful to determine if the AML preventive measures applied by the commercial banks in Kenya indeed worked as well as they should in reducing incidences of money laundering.

One of the criticisms against the fraud diamond theory is by Dorminey et al. (2012) who pointed out that the factors in the theory – opportunity, pressure, rationalization, and capability – mainly relate to elements that encourage fraud disregarding the wider institutional and cultural factors that may lead to fraud. Further, the theory ignores how the internal control systems help evaluate and detect fraud (Mackevičius & Giriūnas, 2013).

This theory was useful in evaluating all the three specific objectives of this study. The objective was to investigate if the AML preventive measures (CDD and ongoing monitoring of transactions) implemented by commercial banks in Kenya are effective in reducing incidences of money laundering. Further, the study sought to examine if the willingness of the commercial banks and their employees (corporate culture) led to a reduction in incidences of money laundering.

### **2.2.2. The theory of the crying wolf**

The crying wolf theory was developed from one of the Fables of Aesop, a storyteller from ancient Greece between 620 and 564 BCE (Aesop, 1793). In the story, the boy's pleas are ignored since he calls on people frequently despite failing to confirm a wolf's presence (Takáts, 2011). The analogy was applied by Takáts (2011) in exploring the relationship between regulators and banks and demonstrates how excessive reporting reduces the value of the information in the reports (Takáts, 2011). The AML

regulations imposed on banks by regulators add to their business administration and bureaucracy (Naheem, 2020). For instance, as part of the ongoing monitoring of customer transactions, banks may come across actual or suspicious cases of money laundering. Banks should identify and disclose their awareness or suspicion of the possibility of money laundering (Chaikin, 2009; Gikonyo, 2021; Takáts, 2011). In Kenya, cash transactions exceeding US\$ 15,000 or its equivalent in any other currency should be reported to the FRC (POCAMLA, 2009, 2023). The reports filed by banks are expected to assist in identifying predicate offences and the actions taken ultimately prevent and reduce criminal activities (Chaikin, 2009). Therefore, it is crucial to keep an eye on and report suspicious transactions to help identify transactions linked to money laundering (Gikonyo, 2018).

Failure by banks to report such transactions results in penalties and fines (Chaikin, 2009). Therefore, to avoid penalties, banks may resort to excessive reporting of suspicious transactions even in cases where they are uncertain about the transactions (Takáts, 2011), which undermines the quality and ultimate objective of such reports. This excessive reporting is like the story of “the boy who cried wolf” where the boy’s pleas are ignored since he calls on people frequently despite failing to confirm a wolf’s presence (Takáts, 2011). Excessive reporting is considered a ‘crying wolf’ and fails to identify significant information (Gara & Pauselli, 2020) which is useful for law enforcement agencies. Filing and investigating suspicious transactions is one of the methods of uncovering the proceeds of crime (Gikonyo, 2018); the compromised quality of reports could reduce their effectiveness.

This theory was linked to the second specific objective of this study which was to investigate if the ongoing monitoring of transactions using digital systems by commercial banks in Kenya was effective in reducing incidences of money laundering. The monitoring of customers and transactions should result in the correct identification of suspicious transactions which in turn should be reported to FRC for further investigations. Some banks in Kenya have been penalized for violating this requirement. Therefore, it was important to determine if banks have systems in place to continuously monitor their customer’s transactions and if through such a measure, they could correctly identify and report suspicious transactions for further

investigations based on the theory of “crying wolf” which promotes reasonable reporting of suspicious transactions instead of excessive reporting.

### **2.3. Empirical review of existing literature**

Money laundering risk is a significant threat to a financial system (Kemal, 2014). When banks are linked to money laundering activities, it compromises their credibility and ruins their reputation (Mniwasa, 2019; Nance, 2018). This could result in liquidity issues, financial instability, and in some instances, banks closing because of widespread withdrawals of money (Mniwasa, 2019). Banks, therefore, should have in place control mechanisms to prevent criminals from laundering illicit funds through them. Banks are required to implement preventive measures such as customer identification and verification (Chitimira & Munedzi, 2022; De Koker, 2014; ElYacoubi, 2020; Le Nguyen, 2018; Mugarura, 2014) and ongoing monitoring of transactions (Le Nguyen, 2018; Shust & Dostov, 2020). However, criminals have been found to circumvent existing AML measures (Teichmann, 2019); therefore, it is important to determine if the existing AML procedures are effective in identifying money launderers and their related transactions (Kemal, 2014).

#### **2.3.1. Effect of customer due diligence measures in reducing incidences of money laundering**

The principle of customer identification was first outlined in a document by the Basel Committee on Banking Supervision (BCBS) in 1988 as a measure to help fight money laundering through the banks (Chitimira & Munedzi, 2022). Over the years, CDD has been recognized as a key preventive measure for detecting and discouraging criminals from using financial institutions to clean their illicit funds (Chitimira & Munedzi, 2022; Le Nguyen, 2018). CDD involves identifying and verifying a customer’s identity, the nature of the intended business relationship with the bank and the source of funds (ElYacoubi, 2020; Le Nguyen, 2018). A CDD enables a bank to know the individual they are transacting with as well as the potential danger posed by that person (ElYacoubi, 2020).

Banks are expected to conduct risk-based analysis to determine the potential for money laundering risks associated with customers and transactions (CBK/PG/08, 2013). As a result, banks can categorize their clients as low- or high-risk depending on factors such as regional risk, client risk, and product or service risk (Le Nguyen, 2018; Mugarura, 2014) which determines whether a basic or ECDD is applicable. A basic CDD would apply to low-risk customers while ECDD would apply to high-risk customers (Le Nguyen, 2018). ECDD should be applied to customers from high-risk regions (Le Nguyen, 2018; Mugarura, 2014), to politically exposed persons (Chitimira & Munedzi, 2022; ElYacoubi, 2020; Koster, 2020; Le Nguyen, 2018; Mugarura, 2014), or individuals involved in correspondent banking (Chitimira & Munedzi, 2022; Mugarura, 2014). ECDD entails thorough background checks on high-risk clients, including obtaining detailed confidential information about them, scrutinizing their financial transactions (Chitimira & Munedzi, 2022), and examining their financial footprints (Mugarura, 2014).

Commercial banks are required to identify the beneficial owners of a business relationship and take appropriate steps to validate their identity (Le Nguyen, 2018). The identification of ultimate beneficial owners entails the identification and verification of the natural people behind legal persons and arrangements including the nature of their business, ownership, and control structure (CBK/PG/08, 2013). Companies may be used as a means of evading taxes or for illegal purposes; therefore, beneficial ownership transparency is important in unveiling the real person behind a corporate vehicle (Gilmour, 2020). For instance, because shell firms are simple to set up and operate and it is possible to conceal their beneficial owners and transactions, criminals can take advantage of them (Le Nguyen, 2018). In Kenya, a beneficial owner is a person, whether individually or jointly, who owns a minimum of 10 per cent of a company's share or voting power. A beneficial owner is also a person who holds a right, directly, or indirectly, to appoint or remove a director of the company or exercise significant influence or control over the company (The Attorney General, 2020).

Studies done to evaluate the effect of CDD measures in reducing incidences of money laundering have shown mixed results. Chitimira and Munedzi (2022) qualitatively analyzed the CDD measures adopted by South Africa in comparison with measures established by the BCBS and FATF recommendations to establish whether they are

effective in combating money laundering. The study concluded that although South Africa has adopted the international CDD measures, the measures are less effective in reducing incidences of money laundering due to insufficient socio-economic infrastructure and the political will to effectively implement the measures. Similarly, De Koker (2014) in assessing the effectiveness of the customer identification and verification framework (CDD) developed by FATF concluded that the framework is not effective. De Koker (2014) reviewed articles and documents of the FATF, BCBS and the Alliance for Financial Inclusion and found that the framework is vague, thus not enabling banks to know their customers and determine the risks of money laundering and in turn reduce incidences of money laundering. In addition, the framework resulted in bureaucratic processes.

On the other hand, a qualitative study by Le Nguyen (2018) on the impact of money laundering prevention measures on financial privacy, with a focus on banking secrecy, found that the preventive measures (CDD) adopted by financial institutions are important and effective in protecting financial institutions from money laundering. However, such measures are becoming much more intrusive on financial privacy. Like Le Nguyen (2018), a study by Mugarura (2014) which analyzed CDD requirements, their applicability and the difficulties associated with their global adoption concluded that CDD is effective in reducing incidences of money laundering through banks. However, the level of development across nations affects its effectiveness and threatens the core business of financial institutions. The study by Mugarura (2014) was based on a review of primary (Provisions of different AML legislations in the USA and the UK) and secondary data sources (Data in academic textbooks, journal papers, and research documents from organizations such as FATF).

Given that the studies discussed above have shown mixed results based on different geographical coverage and adoption of qualitative techniques in the assessment of the effectiveness of CDD measures, they presented evidence, contextual and methodological gaps which the current study aimed to fill.

In Kenya, Njagi (2009) examined if KYC applied by banks in Kenya were effective in preventing money laundering incidences. Structured questionnaires were used to obtain data from commercial banks and analyzed the data using multiple regression.

The study concluded that the KYC measures were not effective as banks were not complying with the KYC requirements. This study, however, was done in 2009 before the development and implementation of the POCAMLAR (2013). There was also the development of the CBK/PG/08 (2013) in 2013 which provided additional guidance to commercial banks in the implementation of AML preventive measures. The study presented a contextual (time) gap and evidence gap which this study addressed.

### **2.3.2. Effect of ongoing monitoring of transactions in reducing incidences of money laundering**

Ongoing monitoring of transactions means frequently monitoring relationships with customers and examining transactions made during the relationship (Chitimira & Munedzi, 2022; Le Nguyen, 2018). This is done to ensure that the transactions are in line with what the institution knows about the customer, their business, their level of risk and their source of funds (Chitimira & Munedzi, 2022; Le Nguyen, 2018; Shust & Dostov, 2020). Additionally, through this procedure, banks can identify, stop, and discourage money laundering (Chitimira & Munedzi, 2022).

Given the high volumes of transactions, increasing automated transactions with customers and the varied structure of data that banks handle (Chen et al., 2018), the use of AML digital systems is important. Banks utilize AML digital systems to analyze transactions and detect any abnormal transactions which could point to possible money laundering activities (Moustafa et al., 2015). Banks mostly use rule-based systems that, while useful, may not fully detect suspicious transactions because they are dependent on static rules that have already been generated (Chen et al., 2018).

Studies have started investigating the use of artificial intelligence and machine learning approaches which use different algorithms to better assess suspicious activities (Chen et al., 2018). Algorithms are typically used to evaluate risks related to money laundering, identify unusual and suspicious transactions, and examine group behavior in financial transactions (Alsuwailem & Saudagar, 2020). For instance, a fuzzy logic algorithm could detect money laundering cases based on past similar cases; a support vector machine algorithm is used to identify anomalies in transactions which are out of the norm (Chen et al., 2018). Another example is a Social Network Analysis

algorithm which can be used to identify the nature or linkage between bank accounts (Colladon & Remondi, 2017). A decision tree (Lawrencia & Ce, 2019) can be designed to automatically rank transactions and score customers based on their potential risks (Chen et al., 2018).

A study on machine learning algorithms for AML by Chen et al. (2018) evaluated various options for ongoing monitoring of transactions focusing on the quality of data, accuracy in detection, capacity to scale, and the speed of execution. The study reviewed published literature on the use of machine learning techniques adopted to identify transactions linked to money laundering. The study concluded that ongoing monitoring systems, controls, and procedures are effective in detecting incidences of money laundering. However, the current systems have not paid much attention to the quality of data. Similarly, Alsuwailem and Saudagar (2020) did a study to assess the effectiveness of the application of machine learning methods to identify transactions that seem suspicious. They adopted a systematic literature review of published conference and workshop proceedings, journal articles and books. The study concluded that the AML systems are effective in detecting suspicious transactions and in turn reducing incidences of money laundering. However, there is a need for improvement in risk assessment of different clients which in turn determines the types of AML systems to be utilized by financial institutions. In addition, Colladon and Remondi (2017) studied the effectiveness of using Social Network Analysis for ongoing monitoring of transactions to prevent incidences of money laundering. The study was based on an analysis of the central database of a medium-sized factoring business in Italy where the financial operations from November 2013 to June 2015 were recorded. The study used a logit regression model and concluded that Network Analysis is effective in identifying suspicious transactions. The study's focus was however, on a factoring company, a financial institution, rather than a commercial bank.

The studies on AML systems have mainly been qualitative with one study adopting a quantitative (logit regression) method focusing on a factoring company. The studies presented methodological and contextual gaps as the current study adopted a quantitative methodology to assess the effectiveness of AML digital systems as applied by commercial banks.

### **2.3.3. The role of corporate culture in reducing incidences of money laundering**

The question of how corporate culture affects the different aspects of an organization has been researched with most of the studies generally arriving at the same conclusion which is that corporate culture is important. The studies have looked at how corporate culture affects different dimensions of an organization. Such dimensions include the effect of corporate culture on compensation (Barth & Mansouri, 2021; Song & Thakor, 2019), compliance (Langevoort, 2017), firm value (Graham et al., 2022), firm performance (Barth & Mansouri, 2021; Guiso et al., 2015), managing occupational fraud (Ocansey & Ganu, 2017) and mergers and acquisitions (Bouwman, 2013).

The study by Barth and Mansouri (2021) on how corporate culture in banks determines CEO's compensation concluded that banks with greater competition orientation provide their executives with a higher percentage of the total salary in the form of variable payments and bonuses. The study determined the cultural dimensions of 133 financial institutions based on the 10-K reports filed by institutions between 2002 and 2014. The study then analyzed the CEO compensation schemes in the respective institutions against their corporate culture dimensions. The study concluded that corporate culture has an impact on the CEO's compensation packages. Similarly, a study by Song and Thakor (2019) concluded that improvement in bank culture is positively related to outcomes attached to incentives. The study examined how culture determines the strategic directions of banks in terms of growth versus stability and safety. Bank culture determines the types of employees attracted to such a culture with a mutual attraction on shared beliefs including strategic directions and compensation.

Studies that looked at the impact of corporate culture on the value and performance of a company arrived at the same conclusion. The studies showed that there was a positive correlation between firm value and performance and corporate culture. Graham et al. (2022) in surveying 1,366 executives and business leaders across various sectors in North America concluded that a firm's value increased with better corporate culture. In the study, a company's culture was linked to outcomes such as compliance (ethics), creativity, output, and the value of a company. Agreement about goals, consistent and predictable actions, coordination, long-term view in decision making, freedom and willingness of employees to speak up, integrity and trust among employees were some

of the items identified as reinforcing or working against the effectiveness of corporate culture. Similarly, Guiso et al. (2015) in assessing the impact of various corporate culture elements on the performance of a company concluded that the performance of a company is favorably connected with a high degree of perceived honesty. The study surveyed employees of about 1,000 firms in the USA to determine which corporate values mostly informed their behavior. Values such as integrity, teamwork, innovation, respect development, quality, safety, community, and communication were assessed. The study found that higher output, profits, improved relationships, and compliance are all benefits of having top managers that people believe to be honest and moral. Furthermore, Barth and Mansouri (2021) found a positive correlation between the competitive corporate culture of a financial institution and its performance and risk. According to Barth and Mansouri (2021), competition-oriented firms attract competitive workers resulting in strong internal competition between workers which increases firms' value. On the other hand, firms with a strong focus on control manage to reduce the volatility of stock returns but pay this reduction in risk with a lower stock return. An analysis of buy-and-hold returns and volatility of 133 financial institutions' returns in the USA was done and assessed against their respective corporate culture dimensions.

Studies that assessed the impact of corporate culture in managing occupational fraud (Ocansey & Ganu, 2017) and in mergers and acquisitions (M&A) (Bouwman, 2013) also concluded that corporate culture is important in both aspects. Ocansey and Ganu (2017) concluded fostering an ethical culture within the organization based on integrity and transparency can help lower the chances of fraud. The tone at the top is important in creating and sustaining such an environment which in turn motivates employees to do the right thing. This study was qualitative and based on the literature review of past studies, existing internal control frameworks and assessment of corporate scandals such as Enron, Parmalat, WorldCom, and Toshiba, among others. Bouwman (2013) concluded that corporate culture can significantly influence individual and group behavior, and thus affect post-merger performance. They examined the effect of Organizational Behavior and Economics literature on corporate culture given failed M&A transactions such as Daimler-Chrysler, Sprint-Nextel, Citicorp-Travelers, and HP-Compaq.

Langevoort (2017) assessed the culture of compliance in organizations and concluded that culture is crucial to compliance. Understanding the culture of an organization is good not just for the organisations themselves but for the regulators. Setting the tone at the top is useful to create and communicate a culture of compliance. Corporate leaders and boards of directors should always identify ways of communicating and integrating values on one hand and the other, anticipate and find ways of dealing with resistance and denial of such a culture.

The past studies on corporate culture (Barth & Mansouri, 2021; Bouwman, 2013; Graham et al., 2022; Guiso et al., 2015; Langevoort, 2017; Ocansey & Ganu, 2017; Song & Thakor, 2019) have assessed the critical role corporate culture plays in different aspects of an organization. The previous studies presented conceptual and contextual gaps which the current study aimed to address by assessing the role of corporate culture in compliance with AML preventive measures thus reducing incidences of money laundering through banks in Kenya which in turn affects the effectiveness of such measures. Understanding a bank's corporate culture is useful as it determines the level of compliance, effort and resources allocated to fighting money laundering.

#### **2.4. Summary of research gaps**

Researchers have stressed the importance of CDD measures and ongoing monitoring of transactions in preventing incidences of money laundering in financial institutions and preserving the reputation of banks (Alsuwailem & Saudagar, 2020; Chen et al., 2018; Chitimira & Munedzi, 2022; Colladon & Remondi, 2017; De Koker, 2014; Le Nguyen, 2018; Mugarura, 2014; Njagi, 2009). However, the studies have given mixed results presenting an evidence gap and largely adopted qualitative techniques in their assessment. The use of qualitative techniques such as the review of AML legislations on preventive measures, review of past studies and conducting interviews in determining the effectiveness of AML preventive measures presented a methodological gap that this study aimed to address. Further, except for the study by Njagi (2009), the other studies focused on different jurisdictions thereby presenting a contextual (geographical) gap. It was valuable to study if, in the Kenyan context, the CDD measures and ongoing monitoring of transactions prevent incidences of money

laundering. The study by Njagi (2009) was done in 2009 before the effective date of POCAMLA (2009) which was in 2010. In addition, POCAMLAR (2013) which is the main regulation guiding the implementation of CDD measures and ongoing monitoring of transactions by commercial banks in Kenya had not been developed. As a result, there was a contextual (time) gap that the current study addressed.

Further, studies by Barth and Mansouri (2021); Bouwman (2013); Graham et al. (2022); Guiso et al. (2015); Langevoort (2017); Ocansey and Ganu (2017); Song and Thakor (2019) looked at the role of corporate culture on different aspects of an organization in different geographies presenting conceptual and contextual gaps. Given the critical role of corporate culture in how organizations are managed, this study aimed to assess how culture impacts compliance with AML preventive measures in Kenyan commercial banks which in turn impacts their effectiveness in preventing incidences of money laundering.

**Table 2.1**

*Major studies and research gaps*

<b>Author (s)</b>	<b>Purpose of the study</b>	<b>Concept</b>	<b>Methodology used</b>	<b>Findings</b>	<b>Research gaps</b>
Chen et al. (2018)	Examining machine learning algorithms and techniques used to identify potentially suspect money laundering transactions	Ongoing monitoring of transactions	Qualitative analysis	Ongoing monitoring systems, controls, and procedures are effective in detecting incidences of money laundering. However, the current systems have not paid much attention to quality of data.	Methodological gap – The study reviewed past published literature.

<b>Author (s)</b>	<b>Purpose of the study</b>	<b>Concept</b>	<b>Methodology used</b>	<b>Findings</b>	<b>Research gaps</b>
Chitimira and Munedzi (2022)	Analysis of international AML best practices (CDD, ECDD, ongoing monitoring of transactions and Risk-based approach) as adopted by South Africa	CDD measures	Qualitative analysis	The AML laws in South Africa are based on international standards and best practices provided in the FATF recommendations and BCBS core principles.	Contextual gap – The study was applied to financial institutions in South Africa.  Methodological gap - The study adopted a qualitative approach of literature review.
Colladon and Remondi (2017)	To assess the effectiveness of using Social Network Analysis for ongoing monitoring of transactions to prevent incidences of money laundering in a medium size factoring business in Italy	Ongoing monitoring of transactions	Logit regression model analysis	Network Analysis is effective in identifying suspicious transactions .	Methodological gap – The method used for data analysis.  Contextual gap – The study focused on a factoring company in Italy.
De Koker (2014)	To determine the goal, extent, and effectiveness of the customer identification framework of the FATF	CDD measures	Qualitative analysis	The design of FATF’s identification and verification framework does not effectively achieve its purpose, therefore ineffective.	Methodological gap - The study has applied a theoretical assessment of the effectiveness of CDD measures.
Barth and Mansouri (2021)	To examine the impact of corporate culture on CEO compensation	Corporate culture	Quantitative analysis	Corporate culture has an impact on CEO’s compensation	Conceptual gap - The study is assessing impact of

<b>Author (s)</b>	<b>Purpose of the study</b>	<b>Concept</b>	<b>Methodology used</b>	<b>Findings</b>	<b>Research gaps</b>
				packages. Financial institutions with competitive culture give their executives higher compensation packages.	culture on compensation. Contextual gap – The jurisdiction of the study (USA).
Graham et al. (2022)	To assess the role of culture on firms' value	Corporate culture	Quantitative analysis	A firm's value increases with better corporate culture such as compliance (ethics), creativity (innovation) and productivity.	Conceptual gap - The study is assessing impact of culture on firm's value. Contextual gap – The jurisdiction of the study (North America).
Guiso et al. (2015)	Analyze how corporate culture impacts organization's performance	Corporate culture	Quantitative analysis	A firm's performance is stronger when staff believe that management are trustworthy and ethical.	Conceptual gap - The study is assessing the impact of culture on the performance of an organization. Contextual gap – The jurisdiction of the study (USA).
Njagi (2009)	Determine compliance with KYC requirement by banks and its effectiveness in reducing fraud and	CDD measures	Multiple regression analysis	The KYC measures were sufficient in reducing money laundering cases. However,	Contextual (Time) gap - The study was done in 2009 before the implementation of the POCAMLAR 2013.

<b>Author (s)</b>	<b>Purpose of the study</b>	<b>Concept</b>	<b>Methodology used</b>	<b>Findings</b>	<b>Research gaps</b>
	money laundering			banks were not complying with the requirements.	

**Note. Compiled by the researcher in November 2023**

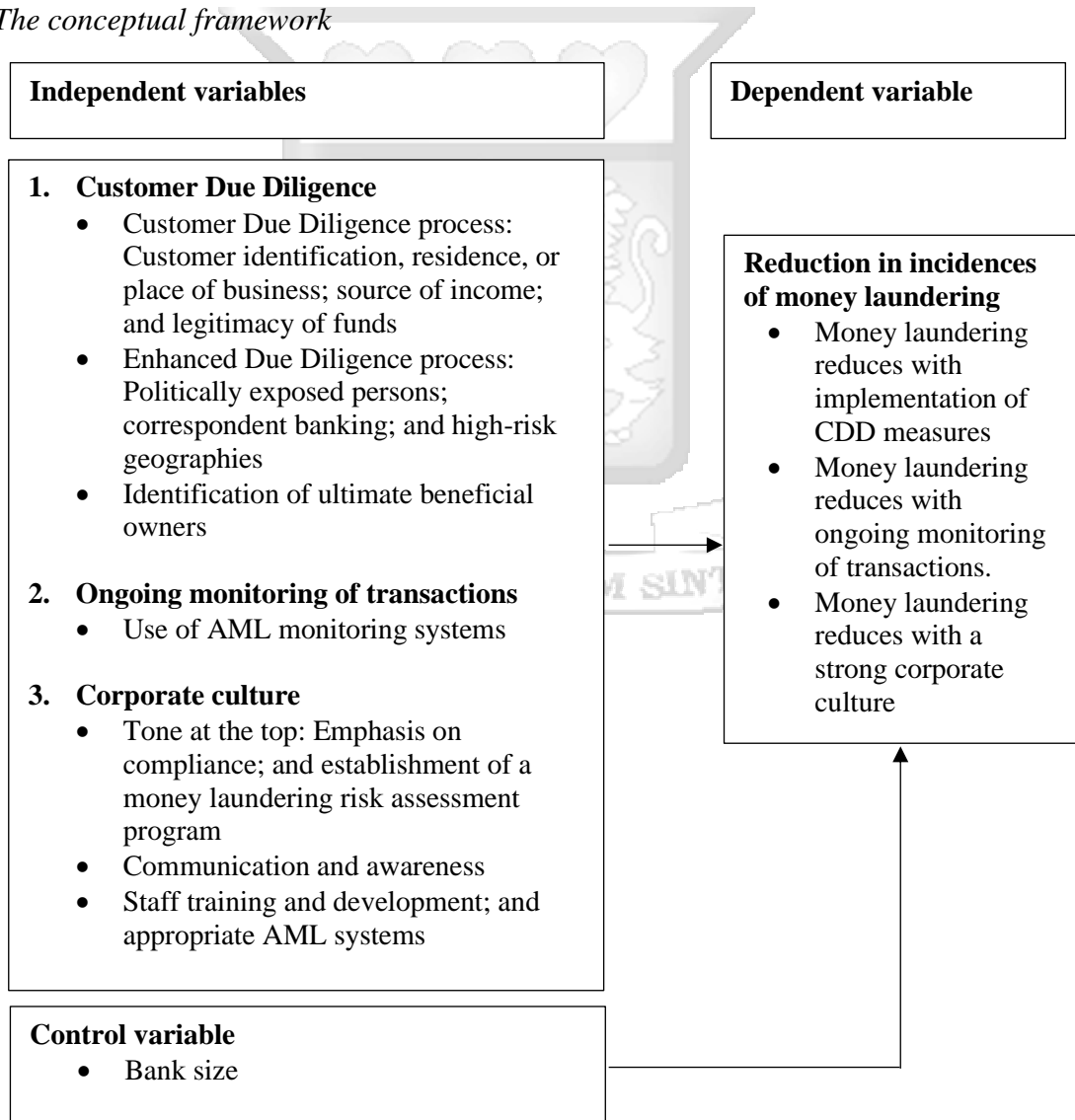


## 2.5. The conceptual framework

This research sought to examine the relationship between anti-money laundering preventive measures and the prevention of incidences of money laundering. The independent variables included customer due diligence, enhanced due diligence, identification of ultimate beneficial owners, the ongoing monitoring of transactions and the dimensions of corporate culture that impact compliance with AML preventive measures. The number of incidences of money laundering was the dependent variable. The conceptual framework is illustrated in Figure 2.1 below:

**Figure 2.1**

*The conceptual framework*



**Note. Compiled by the researcher in November 2023**

### 2.5.1. Operationalization of variables

A 5-point Likert scale ranging from 1 to 5 was used to measure all the variables. The indicators of the variables are shown in Table 2.2 below:

**Table 2.2**

*Operationalization of variables*

Variable	Constructs	Definition	Indicators	Measurement	Supporting literature
<b>Independent variable:</b> CDD measures	Customer due diligence	The level of effectiveness of this construct in preventing incidences of money laundering	<ul style="list-style-type: none"> <li>• Mechanisms to verify customer identity</li> <li>• Procedures to verify customer's place of residence or business</li> <li>• Verification of source of income and legitimacy of funds</li> </ul>	5-point Likert scale on the degree of effectiveness	Chitimira and Munedzi (2022); De Koker (2014); ElYacoubi (2020); Le Nguyen (2018); Mugarura (2014)
	Enhanced customer due diligence	The level of effectiveness of this construct in preventing incidences of money laundering	<ul style="list-style-type: none"> <li>• Mechanisms to identify and assess PEPs, customers from high-risk regions and correspondent banking</li> </ul>	5-point Likert scale on the degree of effectiveness	Chitimira and Munedzi (2022); ElYacoubi (2020); Koster (2020); Le Nguyen (2018); Mugarura (2014)
	Identification of ultimate beneficial owners	The level of effectiveness of this construct in preventing incidences of money laundering	<ul style="list-style-type: none"> <li>• Procedures to identify and verify UBOs, nature of their business, ownership, and control structure</li> </ul>	5-point Likert scale on the degree of effectiveness	Gilmour (2020); Le Nguyen (2018)

Variable	Constructs	Definition	Indicators	Measurement	Supporting literature
<b>Independent variable</b> Ongoing monitoring of transaction	Use of AML monitoring systems	The level of effectiveness of this construct in preventing incidences of money laundering	<ul style="list-style-type: none"> <li>• Establishment of systems to monitor customer transactions</li> <li>• Performance of systems monitoring customer transactions</li> </ul>	5-point Likert scale on the degree of effectiveness	Chen et al. (2018); Chitimira and Munedzi (2022); Colladon and Remondi (2017); Le Nguyen (2018)
<b>Independent variable:</b> Corporate culture	Tone at the top	The level of commitment of management to comply with AML preventive measures	<ul style="list-style-type: none"> <li>• Emphasis on compliance</li> <li>• Establishment of a money laundering risk assessment program</li> </ul>	5-point Likert scale on establishment of money laundering risk assessment programme	Langevoort (2017); Ocansey and Ganu (2017)
	Communication and awareness	The level of awareness and communication about money laundering and AML preventive measures	<ul style="list-style-type: none"> <li>• Regular communication of AML measures and risk assessment program</li> </ul>	5-point Likert scale on the frequency of communication of AML preventive measures and risk assessment programme	Guiso et al. (2015); Langevoort (2017)
	Staff training and development	The level of AML training programmes for staff	<ul style="list-style-type: none"> <li>• Provision of appropriate AML systems</li> <li>• Regular AML training programmes for staff</li> </ul>	5-point Likert scale on the frequency of AML training programmes.	Guiso et al. (2015); Langevoort (2017); Ocansey and Ganu (2017)
<b>Dependent variable:</b> Incidence of money laundering	Incidence of money laundering	The degree to which the organisation reports suspicious transactions which	<ul style="list-style-type: none"> <li>• Decrease in incidences of money laundering</li> </ul>	5-point Likert scale on the degree of impact	Chitimira and Munedzi (2022); ElYacoubi (2020)

Variable	Constructs	Definition	Indicators	Measurement	Supporting literature
		are confirmed as illegal cases			
<b>Control variable</b>	Bank size	Size of bank as per CBK's classification	<ul style="list-style-type: none"> <li>• 1 for large bank</li> <li>• 2 for medium bank</li> <li>• 3 for small bank</li> </ul>	Size based on weighted composite index	CBK (2022)

**Note. Compiled by the researcher in November 2023**

## 2.6. Chapter summary

The chapter started with a description of the relevant money laundering theories which included the theory of the crying wolf and the fraud diamond theory. The empirical studies on the effect of preventive measures on incidences of money laundering including how corporate culture affects compliance were discussed. Thereafter, the conceptual framework which depicted the relationship between the AML measures together with corporate culture and the effect on the incidences of money laundering was presented. Finally, the chapter presented how the independent and dependent variables have been operationalized.



## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1. Introduction**

This chapter presents the methodology used in the study starting with the research philosophy. The section then looks at the research design, followed by the method of sampling, collection of data, data analysis and presentation of the results. The chapter also looks at the quality of the research and assesses the ethical approach towards the study.

### **3.2. Research philosophy**

Research philosophy is made up of notions about the nature of social phenomena (ontology), how knowledge about it should be produced and studied (epistemology) and the role of values and ethical consideration (axiology) (Saunders et al., 2019). A research philosophy guides the methodology, research plan, gathering of data and analysis techniques used in research (Saunders et al., 2019).

The philosophy adopted for this study is positivism because it is founded on the premise that reality is external and independent of social actors (Saunders et al., 2019). Relating to this study, this means that money laundering may occur whether people are aware of it or not and therefore, AML preventive measures must be implemented to stop incidences of money laundering. Further, this study sought to investigate if the AML preventive measures implemented by banks (the cause) prevent or reduce incidences of money laundering cases (the outcome) which is based on the positivist position of cause and effect (Creswell & Creswell, 2017). In addition, a quantitative method was applied in this study, where data was obtained using questionnaires, analyzed, and presented in quantitative form using descriptive and inferential statistics which made a positivism approach relevant to the current study.

### **3.3. Research design**

Research design provides a framework for the collection and analysis of data (Bell et al., 2019). The choice of research design involves considerations of the different aspects of the research such as expressing the causal relationship among variables (Bell

et al., 2019). This study examined if the AML preventive measures (the independent variables) and corporate culture (another independent variable) are effective in preventing incidences of money laundering (the dependent variable). The study adopted a correlational research design to examine the association between the variables being studied. A correlational study design aims to establish an association between two or more variables within the same population (Curtis et al., 2016). This approach was used by the researcher to obtain quantitative data on the variables at the same time from account opening officers and compliance officers working in the thirty-eight commercial banks in Kenya. Further, inferential, and descriptive statistics were applied to analyze the data obtained to ascertain the association between the independent and dependent variables which gave insights into the effectiveness of the AML preventive measures.

### **3.4. Population and sampling**

#### **3.4.1. Population**

A population can be defined as a group of people, things or events that have similar characteristics that can be observed (Mugenda & Mugenda, 2003). The population for this study was the thirty-eight commercial banks licensed by the CBK as of 31 December 2022 (Appendix A).

#### **3.4.2. Sampling**

Purposive sampling was used to select respondents. Purposive sampling is a technique where a researcher deliberately selects the units to be included in a sample because they have characteristics required for the sample (Kothari, 2004). The units selected for sampling from the population included the account opening officers and compliance officers in the respective commercial banks since they were the most appropriate to answer the questionnaire. The account opening officers are responsible for onboarding the customers and overseeing the due diligence on customers. Therefore, they understand and apply the AML preventive measures, and they are fully aware of the corporate culture of their respective banks in implementing AML measures. They are also good judges of whether the measures are effective or not based

on their experience and trends they observe from onboarding customers and carrying out due diligence on them. The compliance officers are responsible for ensuring the banks comply with the requirement to have AML preventive measures and for ensuring the measures work as they should. Therefore, they were relevant to this study. In addition, they are good judges of whether the measures are effective or not as they monitor the controls that have been put in place and the results or impact of such controls.

Given there were thirty-eight licenced commercial banks and the intended unit of analysis, the total respondents for the study were seventy-six. This is an acceptable sample size as it is more than thirty cases as suggested by Borg et al. (1996).

### **3.5. Methods of data collection**

Primary quantitative data was obtained through a questionnaire which was grouped into themes. Questionnaires are used to obtain information from respondents about a particular subject (Saunders et al., 2019). Section A of the questionnaire collected some company and respondent information to give insights into the profile of the banks and the respondents. Section B addressed the effect of client due diligence measures in preventing incidences of money laundering. Section C assessed the effect of ongoing monitoring of transactions using AML systems in preventing incidences of money laundering. Section D addressed the degree to which corporate culture in the respective banks affects compliance with the measures mentioned in Sections B and C. Finally, Section E addressed the extent to which the implementation of measures in Sections B and C has reduced the incidence of money laundering cases. Ordinal data such as the Likert scale are often used to obtain opinions from respondents (Cohen et al., 2018). Therefore, closed-ended questions with responses based on a five-point Likert scale were used. Refer to Appendix B for a copy of the questionnaire.

Considering the topic, resources at hand, and restrictions in time, a self-administered questionnaire was used. This method was convenient for participants; fewer resources were used, and results were obtained more quickly. Self-administered questionnaires are gaining popularity in social sciences, and the benefits are supported by Baatar (2012). A poor response rate from respondents is the main drawback of a self-

administered survey, unlike in-person and telephone interviews which can boost response rates. To solve the issue of poor response rate, follow-up calls were made to participants reminding them to complete the questionnaires.

### 3.6. Data analysis

According to Saunders et al. (2019), data analysis is the ordering, structuring, and making sense of data collected. Therefore, the data collected through the questionnaire was first checked for completeness and errors. It was then edited and coded for importation into SPSS. Descriptive statistics is used to describe and present data (Cohen et al., 2018). Therefore, the researcher used descriptive statistics (Mean and standard deviation) to give an overview and summary of the data collected from the participants for all the variables. Further tables and charts were also used to present the results.

For the inferential statistics, a multiple regression was used to evaluate the effect of client's due diligence measures, ongoing monitoring of transactions and corporate culture on incidences of money laundering. Also, a control variable, bank size, was included since it was likely to affect the capacity of the implementation of AML measures by banks thus affecting their effectiveness in reducing incidences of money laundering.

#### 3.6.1. The model

The regression model was as follows:

$$Y = \beta_0 + \beta_1 \sum \text{Client due diligence} + \beta_2 \sum \text{Ongoing monitoring of transactions} + \beta_3 \sum \text{Corporate culture} + \beta_4 \sum \text{Bank size} + \varepsilon$$

Where:

Y = reduction in the incidences of money laundering cases

$\beta_0$  = the intercept

$\beta_1, \beta_2,$  and  $\beta_3$  = the coefficients of the predictor variables

$\beta_4$  = the coefficient of the size of a bank

$\varepsilon$  = the error term

### **3.6.2. Diagnostic tests**

There is a need to check the assumptions underlying a linear regression to ensure the reliability of the model (Brooks, 2011). Some of the diagnostic tests that were done for this study before analysis was performed include the normality test, principal component factor analysis, multicollinearity, and correlation analysis.

#### **3.6.2.1 Normality test**

Checking the normality assumption is useful to determine if a parametric or non-parametric test should be applied (Orcan, 2020). A normality test was done on both dependent and independent variables using box plots and the Shapiro-Wilk test. The results are presented and discussed in chapter 4.

#### **3.6.2.2 Principal component factor analysis**

Factor analysis is used to summarize the findings of a study on relationships between variables to ascertain the number and nature of variables that explain the patterns of the observed relationship (Hayton et al., 2004). A principal component factor analysis using Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy, Bartlett's test of Sphericity, and factor loadings was done on the independent variables. The results are presented and discussed in chapter 4.

#### **3.6.2.3 Multicollinearity**

Alin (2010) states that multicollinearity exists when two or more independent variables are highly correlated with each other. A multicollinearity test was done to determine if a high correlation existed between two or more independent variables. A multicollinearity test using Variance Inflation Factor (VIF), was done to determine the degree of correlation between the predictor variables. If a test results in a VIF value of above 10, there is a high multicollinearity (Gujarati & Porter, 2009). Therefore, some of the highly correlated predictors may be removed from a model, making a ratio out of the highly correlated variable, and including the ratio in place of the single variable (Lim & Brooks, 2011). The results are presented and discussed in chapter 4.

### **3.6.2.4 Correlation**

Correlation measures the strength and direction of relationships between two or more variables. Pearson's correlation coefficient was applied in this study to test the strength of the relationship between the variables. The value of the coefficient can be in the range of -1 and +1. A perfect negative correlation is denoted by a value of -1, a perfect positive correlation is shown by a value of +1, and no correlation is indicated by a value of 0 (Saunders et al., 2019). Specifically, values < 0.3 indicate weak correlation, values >0.3 but <0.5 indicate moderate correlation, while values >0.5 indicate strong correlation.

### **3.7. Research quality**

Reliability and validity are useful elements in assessing any measurement instrument of social science research (Mohajan, 2017). A pilot test is necessary to determine issues that are likely to arise, gaps in the study, and difficulties that may occur during the research process (Creswell & Creswell, 2017). A pilot test was conducted with an expert dealing with AML in financial institutions.

#### **3.7.1. Reliability**

Reliability is the level of confidence that may be placed in the data obtained through the research instrument (Mohajan, 2017). To be reliable, a questionnaire should yield consistent results across various conditions (Saunders et al., 2019). In this study, Cronbach's alpha was applied to determine the internal consistency of the questionnaire. The Cronbach's alpha value ranges between 0 and 1. A score of 0.7 and above is the recommended level of measurement of reliability (Hair et al., 2019). Table 3.1 below shows the results of the reliability test.

**Table 3.1**

*Reliability test*

<b>Variable</b>	<b>Cronbach's Alpha</b>
Client due diligence	.767
Monitoring	.763
Corporate culture	.769
Bank size	.800
Incidences	.713
Overall reliability (N=5)	.802

**Note: Research data (2024)**

From the reliability statistics above, the overall Cronbach's alpha is 0.802 which shows that the tool is consistent and thus reliable. Also, the Cronbach's value for the CDD (0.767), ongoing monitoring (0.763), corporate culture (0.769), and bank size (0.800) are greater than 0.7 hence the tool is consistent.

### **3.7.2 Validity**

Validity is the degree to which research represents phenomena under investigation (Mohajan, 2017). One of the forms of validity is internal validity which describes the capacity of a research instrument to assess what it claims to assess (Cooper & Schindler, 2019). Content validity which is a form of internal validity is the extent to which a research instrument provides adequate coverage of the investigative questions (Saunders et al., 2019). It ensures that the research questionnaire contains enough questions to explain the research concept (Mohajan, 2017). An Exploratory Factor analysis was applied to reduce data to a smaller set of summary variables (Beavers et al., 2019). The results comprised the Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy, Bartlett's test of sphericity, and factor loadings for each latent variable. The factor loadings for all the specific variables were above 0.5 and, as a result, were all retained for further analysis. A factor loading with a value of more than 0.5 should be retained for further analysis (Schreiber, 2021). Also, the KMO values were all above 0.5, therefore, the variables were all retained for analysis. The Bartlett's test produced a significant value for all the variables ( $p < 0.05$ ) indicating unequal variances across the group. Given the above, all the variables were retained for further analysis. Table 3.2 below gives an overview of the results.

**Table 3.2***Exploratory factor analysis*

Variable	Indicators	Factor loadings	KMO and Bartlett's Test			
			KMO Measure of Sampling Adequacy	Approx. Chi-Square	df	Sig.
Due Diligence	DUEDIL1	0.824				
	DUEDIL2	0.782				
	DUEDIL3	0.736				
	DUEDIL4	0.816				
	DUEDIL5	0.733				
	DUEDIL6	0.545				
	DUEDIL7	0.795				
	DUEDIL8	0.689				
	DUEDIL9	0.802	0.767	295.882	36	0
Corporate Culture	CORCUL1	0.566				
	CORCUL2	0.659				
	CORCUL3	0.673				
	CORCUL4	0.575				
	CORCUL5	0.536				
	CORCUL6	0.624	0.684	75.548	15	0
Incidences	INCIDEN1	0.603				
	INCIDEN2	0.603				
	INCIDEN3	0.603	0.5	2.691	1	0.001
Monitoring	MONITR1	0.879				
	MONITR2	0.558	0.581	4.743	1	0

**Note: Research data (2024)**

### 3.8. Ethical considerations

An ethical clearance from Strathmore University and compliance with all the requirements before and during data collection. Additionally, before starting the collection of data, a licence to do the research from the National Commission for Science, Technology, and Innovation was obtained.

Further, the study applied ethical standards for research, such as fairness, and respect for the participants. To this end, all respondents were asked to express their approval and voluntary involvement in the study and state their roles in the banks. Furthermore, the study protected the anonymity and confidentiality of every participant while

preserving the study's integrity. The confidentiality and privacy of the information provided by the respondents was also protected. All findings have been reported truthfully without compromising the authenticity of the study.

### **3.9. Chapter summary**

This chapter gave an overview of the method of research applied in the study. The chapter also discussed the philosophical position, the design of the research, the method of sampling, procedures for collecting data and analysis. In addition, the research quality and ethical considerations were discussed in this chapter.



## CHAPTER 4: PRESENTATION OF RESEARCH FINDINGS

### 4.1. Introduction

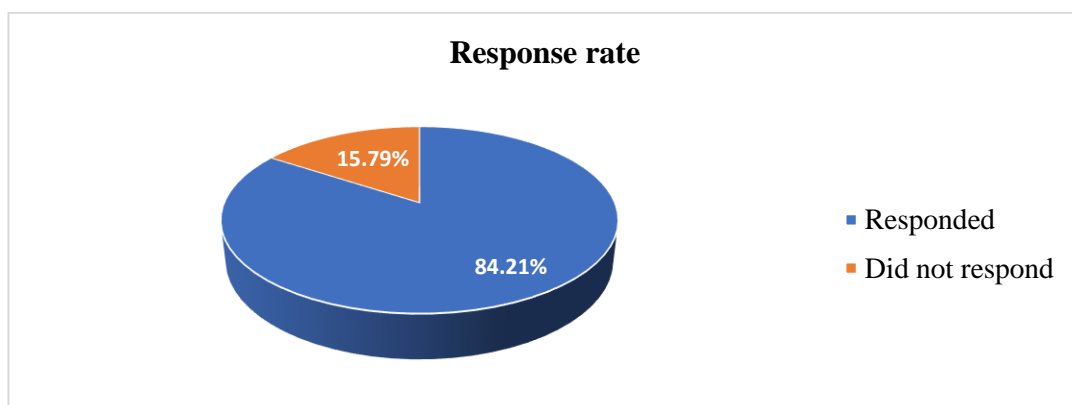
Descriptive statistics (Mean and standard deviation) were used to give an overview, summary and make a comparison of the data collected from the participants for both the independent and dependent variables. Tables and charts have also been used to present the findings. A multiple regression model has been used to determine the relationship between client due diligence, ongoing monitoring of transactions and corporate culture and incidences of money laundering. The reliability results were also examined in this chapter.

### 4.2. Response rate

The targeted number of respondents was 76 (account opening and compliance officers). These were employees who were involved in the implementation and compliance with AML regulations across thirty-eight commercial banks in Kenya. 38 questionnaires were administered through Google Forms while 38 were administered through drop and pick. 64 responses (38 online and 26 hard copies) were received translating to an 84% response rate. According to Mellahi and Harris (2016), the average response rate for surveys is between 35% and 50% while a study by Holtom et al. (2022) revealed an average response rate of 68% in 2022. Considering the above, this study's response rate of 84% is adequate for the generalization of findings. Figure 4.1 gives an overview of the rate of response.

**Figure 4.1**

*Response rate*



**Note. Research data (2024)**

### **4.3. Demographic characteristics**

#### **4.3.1. Position of the respondent in the bank**

Out of the 64 responses received, 50% of the responses were from compliance officers while 50% were from account opening (Customer care service) officers. The two categories of respondents were suitable to provide insights into the effectiveness of AML preventive measures as they are involved in the implementation and compliance of the AML measures. Refer to Table 4.1 for the summary.

#### **4.3.2. Attendance of AML training**

From the responses, all the respondents had attended AML training in the last year. This means the respondents were well positioned to answer the survey as they understand and apply the AML preventive measures and are fully aware of the corporate culture of their respective banks in implementing the AML measures. Further, they are good judges of whether the measures are effective or not based on their experience.

#### **4.3.3. Banks' tier group and number of branches**

From the responses received, 25% of the respondents are in large peer group banks, 25% in medium peer group banks and 50% from small peer group banks. In addition, 62.5% of the banks had branches between 1 and 30, 18.75% had between 31 and 60 branches and 18.75% with over 60 branches. This information is useful as it determines the capacity of a bank to implement and comply with the AML requirements. A summary of this is shown in Table 4.1 below.

#### **4.3.4. Banks' customer category**

The participants were required to indicate the categories (Individuals, SMEs, corporates, public entities) of their customers. Table 4.2 gives an overview of the results. Based on the results, 62.5% of the respondents work for banks that provide services to all the categories, 18.75% of the banks provide to all the categories except public entities, 15.63% provide services to SMEs and corporates and 3.12% to

corporates only. This information is useful as it determines the level of risks banks are exposed to depending on the customers they serve.

**Table 4.1**

*Summary of demographic characteristics*

<b>Item</b>	<b>Details</b>	<b>Frequency</b>	<b>Frequency (%)</b>
<b>Response rate</b>	Responded	64	84.21
	Not responded	12	15.79
<b>Total</b>		<b>76</b>	<b>100.00</b>
<b>Position of the respondents</b>	Customer Care	32	50.00
	Compliance Officer	32	50.00
<b>Total</b>		<b>64</b>	<b>100</b>
<b>Attended AML training in the last one year</b>	Yes	64	100
<b>Bank's tier group</b>	Large	16	25.00
	Medium	16	25.00
	Small	32	50.00
<b>Total</b>		<b>64</b>	<b>100.00</b>
<b>Number of branches</b>	0-30	40	62.50
	31-60	12	18.75
	Over 60	12	18.75
<b>Total</b>		<b>64</b>	<b>100.00</b>
<b>Banks' customer categories</b>			
	Individuals, SMEs, corporates, and public entities	40	62.50
	Individuals, SMEs, and corporates	12	18.75
	SMEs and corporates only	2	3.12
	Corporates only	10	15.63
<b>Total</b>		<b>64</b>	<b>100</b>

**Note: Research data (2024)**

#### 4.4. Descriptive statistical analysis

Quantitative data was obtained based on a 5-point Likert scale. Mean and standard deviation were used to provide descriptive data analysis. The findings are presented in the sections below.

##### 4.4.1. The effect of Client Due Diligence measures in preventing incidences of money laundering

The respondents were required to indicate the level to which they agreed that the selected CDD measures were effective in preventing incidences of money laundering. A 5-point Likert scale was used where 5 = very effective, 4 = effective, 3 = neutral, 2 = least effective, and 1 = not effective. Table 4.2 below shows the results of the responses.

**Table 4.2**

*CDD measures results*

	<b>N</b>	<b>Mean</b>	<b>Standard deviation</b>
Obtaining identity documents and confirming their validity	64	4.8	0.5
Identity and confirmation of place of residence for an individual or place of operation for a business	64	4.3	0.8
Identifying the source of funds	64	4.5	0.7
Understanding and determining the legitimacy of funds	64	4.5	0.8
Ongoing monitoring of relationship with customers and transactions throughout the relationship	64	4.8	0.6
Conducting enhanced due diligence on politically exposed persons	64	4.6	0.5
Conducting enhanced due diligence on customers from high-risk geographies	64	4.4	0.7
Conducting enhanced due diligence where a correspondent banking relationship is involved	64	4.6	0.6
Identifying and confirming the ultimate beneficial owners, legal representatives, and trustees, where applicable	64	4.5	0.7

**Note: Research data (2024)**

From Table 4.2 above, obtaining identity documents and confirming their validity (Mean = 4.8, SD = 0.5) and ongoing monitoring of relationships with customers and transactions throughout the relationship (Mean = 4.8, SD = 0.6) had the highest mean score. The study also indicated that the identification and confirmation of the place of residence for an individual or place of operation for a business (Mean = 4.3, SD = 0.8), identifying the source of funds (Mean = 4.5, SD = 0.7) and understanding and determining the legitimacy of funds (Mean = 4.5, SD = 0.8) are important reducing incidences of money laundering. Further, conducting enhanced due diligence on politically exposed persons (Mean = 4.6, SD = 0.5), customers from high-risk geographies (Mean = 4.4, SD = 0.7), and where correspondent banking relationships (Mean = 4.6, SD = 0.6) help reduce incidences of money laundering through the commercial banks. The respondents also agreed that identifying and confirming ultimate beneficial owners, legal representatives, and trustees, where applicable (Mean = 4.5, SD = 0.7) is important and effective in reducing cases of money laundering through commercial banks.

From the results above, the mean values for all the due diligence measures were between 4.3 and 4.8 which correspond to “effective” on the Likert scale. This shows that respondents agreed that client due diligence measures are effective in reducing incidences of money laundering. Also, the standard deviation for all the measures was less than one meaning that there was a low variation in response from the mean.

#### **4.4.2. The effect of ongoing monitoring of transactions in preventing incidences of money laundering**

For the second independent variable, the respondents were to first, rate the extent to which their respective banks had implemented AML digital systems to monitor transactions. A 5-point Likert scale was used where 5 = Very well implemented, 4 = well implemented, 3 = Implemented, 2 = Fairly implemented, and 1 = Poorly implemented.

Secondly, the respondents were to indicate the degree to which they agreed that the AML systems were effective in preventing incidences of money laundering. A 5-point Likert scale was used where 5 = very effective, 4 = effective, 3 = neutral, 2 = least

effective, and 1 = not effective. The results of the responses are summarized in Table 4.3 below.

**Table 4.3**

*Ongoing monitoring results*

	N	Mean	Standard deviation
The bank has implemented AML digital systems to monitor customer transactions	64	5.0	0.0
The AML systems used to monitor transactions are effective in preventing incidences of money laundering	64	4.4	0.6

**Note: Research data (2024)**

From Table 4.3 above, the extent to which banks have implemented AML digital systems to monitor customer transactions had a mean of 5 and a standard deviation of 0.0. Based on the Likert scale, a mean of 5 indicates very well implementation of digital systems by commercial banks in Kenya. The standard deviation was 0 meaning there was no variation in responses from the mean. The results show that respondents agree that the digital AML systems used to monitor transactions are effective in reducing incidences of money laundering through commercial Banks (Mean = 4.4, SD = 0.6). The results above indicate that the respondents agree that the AML systems implemented by commercial banks in Kenya, to some extent, play an important role in protecting banks from money laundering.

**4.4.3. The role of corporate culture in reducing incidences of money laundering**

For the third variable, the respondents were to indicate the degree to which they agreed that the selected indicators of corporate culture played a role in the banks' compliance with AML preventive measures. A 5-point Likert scale was used where 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree. Table 4.4 below shows the results of the responses.

**Table 4.4***Corporate culture results*

	<b>N</b>	<b>Mean</b>	<b>Standard deviation</b>
The bank's corporate culture emphasizes compliance with AML preventive measures	64	4.8	0.4
The bank has a money laundering risk assessment program that enables us to identify, assess, monitor, manage and mitigate the risks associated with money laundering	64	4.8	0.4
The outcome of money laundering risk assessment is documented	64	4.8	0.5
The bank regularly communicates and raises awareness on money laundering risks and has a risk assessment program	64	4.9	0.3
The bank regularly provides training on AML preventive measures	64	4.9	0.3
The bank has provided appropriate AML systems and trained me how to use the systems	64	4.8	0.5

**Note: Research data (2024)**

Based on the results of the study, a bank's corporate culture that emphasizes compliance with AML preventive measures (Mean = 4.8, SD = 0.4) is important and useful in reducing money laundering. The respondents also agreed that their respective banks had money laundering risk assessment program that enabled them to identify, assess, monitor, manage, and mitigate the risks associated with money laundering (Mean = 4.8, SD = 0.4) and the outcome of such risk assessment was documented (Mean = 4.8, SD = 0.5) and regularly communicated (Mean = 4.9, SD = 0.3). The money laundering risk assessments, documentation, and communication of the same are effective in ensuring that banks stay on top of the risks of money laundering therefore reducing cases of money laundering. Further, the respondents agreed that the bank regularly provided training on AML preventive measures (Mean = 4.9, SD = 0.3) and were provided and trained on how to use the appropriate AML systems (Mean = 4.8, SD = 0.5).

From the findings above, the mean values of the different aspects of corporate culture were between 4.8 and 4.9 which from the Likert scale means “agree”. Regular communication, awareness and training had the highest mean of 4.9. In addition, the standard deviation values are less than one meaning that there was a low variation of responses from the mean. This indicates that the corporate culture adopted by commercial banks in Kenya has led to a reduction in incidences of money laundering.

#### 4.4.4. Incidences of money laundering cases

For the dependent variable, the respondents were to indicate the level to which they agreed that the implementation of CDD measures and ongoing monitoring of transactions had led to a reduction in incidences of money laundering. A 5-point Likert scale was used where 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree. Table 4.5 below shows the results of the responses.

**Table 4.5**

*Incidences of money laundering results*

	<b>N</b>	<b>Mean</b>	<b>Standard deviation</b>
The implementation of client due diligence measures has led to a reduction in incidences of money laundering	64	3.8	1.1
The ongoing monitoring of transactions using AML digital systems has resulted in the reduction of incidences of money laundering	64	3.8	1.3

**Note: Research data (2024)**

From the table above, the mean and standard deviation of the impact of the implementation of CDD measures in reducing incidences of money laundering is 3.8 and 1.1 respectively. Based on the Likert scale, a mean of 3.8 represents a ‘neutral’ response meaning that the respondents are not sure whether the implementation of CDD measures has led to a reduction in money laundering cases. The standard deviation is greater than one but less than two which indicates a low variation of responses from the mean. The impact of the ongoing monitoring of transactions using

AML systems in reducing incidences of money laundering has a mean of 3.8 and a standard deviation of 1.3. The mean indicates a ‘neutral’ response based on the Likert scale meaning that the respondents are not sure whether the implementation of ongoing monitoring of transactions using AML systems has led to a reduction in cases of money laundering. The standard deviation is greater than one but less than two which indicates a low variation of responses from the mean.

#### 4.5. Diagnostic test

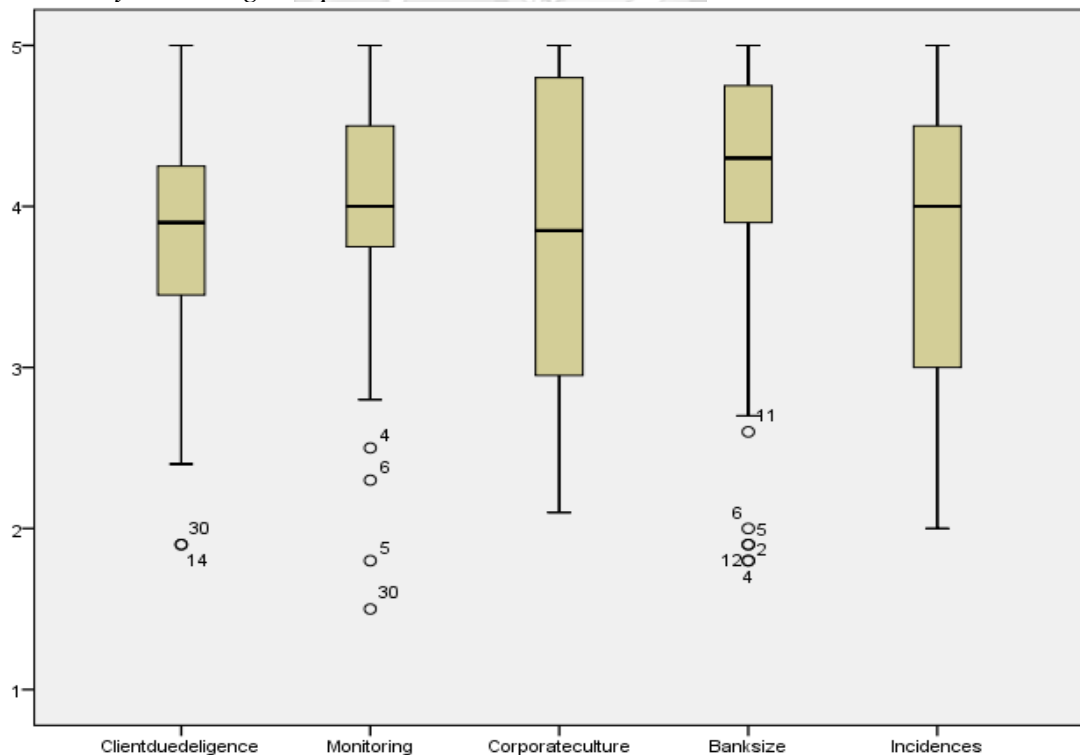
Diagnostic tests were carried out to ensure the reliability of the model and the validity of the findings. The diagnostic tests carried out include normality tests, principal component factor analysis, multicollinearity, and correlation analysis.

##### 4.5.1. Normality test

A normality test was done on the variables using both the box plots and the Shapiro-Wilk test. The box plot results are as per Figure 4.2 below.

**Figure 4.2**

*Normality test using box plot*



From the box plot in Figure 4.2 above, CDD and corporate culture are normally distributed. Monitoring of transactions is skewed to the right and incidences of money laundering are skewed to the left. However, the skews are not severe thus variables are included in further analysis.

The output of the Shapiro-Wilk test for normality is presented in Table 4.6 below. The test yielded 0.051, 0.053, 0.055, and 0.052 values for CDD, ongoing monitoring of transactions, corporate culture, and incidences of money laundering respectively. The values were more than the alpha value of 0.05 showing that data follows a normal distribution.

**Table 4.6**

*Normality test using the Shapiro-Wilk test*

	Shapiro-Wilk		
	Statistic	df	Sig.
Client due diligence	.955	64	.051
Ongoing monitoring of transactions	.900	64	.053
Corporate culture	.924	64	.055
Incidences of money laundering cases	.853	64	.052

a. Lilliefors Significance Correction

**Note: Research data (2024)**

#### 4.5.2. A test on Multicollinearity

A test on multicollinearity was done for the predictor variables using the Variance Inflation Factors (VIF). As shown in Table 4.7 below, all the VIF values are below 10 and tolerance values above 0.1 thus no multicollinearity with the predictor values.

**Table 4.7**

*Variance Inflation Factors*

Model	VIF	Tolerance
Client due diligence	1.572	.636
Monitoring	1.569	.637
Corporate culture	1.390	.719
Bank size	1.224	.817

**Note: Research data (2024)**

### 4.5.3. Principal component factor analysis

Factor analysis is used to summarize the findings of a study on the association between variables to determine the number and nature of variables that account for the patterns of the observed relationship (Hayton et al., 2004). A principal component factor analysis was done on the independent variables to determine the most influential ones. From Table 4.8 below, the loading factors for CDD, monitoring, corporate culture, and bank size were 0.756, 0.765, 0.733, and 0.631 respectively. All the loading factor values were above 0.5 thus all the variables were retained for further analysis.

**Table 4.8**

*Principal component factor analysis*

<b>Variables</b>	<b>Component 1</b>
Client due diligence	.756
Ongoing monitoring	.765
Corporate culture	.733
Bank size	.631

Extraction Method: Principal Component Analysis.  
a. 1 components extracted.

**Note: Research data (2024)**

### 4.5.4. Correlation analysis

Correlation measures the direction and strength of relationships between two or more variables. The correlation analysis for the study is presented in Table 4.9 below. The correlation results are based on Pearson's correlation coefficient which can be in the range of -1 and +1. A perfect negative correlation is denoted by a value of -1, a perfect positive correlation is shown by a value of +1, and no correlation is indicated by a value of 0 (Saunders et al., 2019). Specifically, values < 0.3 indicate weak correlation, values >0.3 but <0.5 indicate moderate correlation, while values >0.5 indicate strong correlation.

**Table 4.9***Correlation analysis*

		Incidences	Client due diligence	Monitoring	Corporate culture	Bank size
Incidences	Pearson	1	.549**	.571**	.548**	.497**
	Correlation					
	Sig. (2-tailed)		.000	.000	.000	.000
	N	64	64	64	64	64
Client due diligence	Pearson	.549**	1	.566**	.413**	.277*
	Correlation					
	Sig. (2-tailed)	.000		.000	.001	.027
	N	64	64	64	64	64
Monitoring	Pearson	.571**	.566**	1	.402**	.296*
	Correlation					
	Sig. (2-tailed)	.000	.000		.001	.018
	N	64	64	64	64	64
Corporate culture	Pearson	.548**	.413**	.402**	1	.396**
	Correlation					
	Sig. (2-tailed)	.000	.001	.001		.001
	N	64	64	64	64	64
Bank size	Pearson	.497**	.277*	.296*	.396**	1
	Correlation					
	Sig. (2-tailed)	.000	.027	.018	.001	
	N	64	64	64	64	64

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Note: Research data (2024)**

From Table 4.9 above, CDD ( $r = 0.549$ ,  $P < 0.05$ ), monitoring of transactions ( $r = 0.571$ ,  $P < 0.05$ ) and corporate culture ( $r = 0.548$ ,  $P < 0.05$ ) had a strong positive influence on the reduction of incidences of money laundering and the relationship statistically

significant. Bank size had an  $r$  value of 0.497 which indicated a moderate positive influence on the reduction of incidences of money laundering with the association being statistically significant. The results above indicate that CDD, ongoing monitoring of transactions and corporate culture are crucial in reducing cases of money laundering through Commercial Banks in Kenya.

## 4.6. Inferential analysis

### 4.6.1. Multiple Regression Analysis

The association between the independent and dependent variables was established using a multiple regression analysis. The interpretation of the result was based on regression coefficients, coefficient of determination, ANOVA, and model summaries. Refer to Table 4.10, Table 4.11, and Table 4.12 below for the results.

**Table 4.10**

*Model summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734 <sup>a</sup>	.539	.508	.62377

a. Predictors: (Constant), Bank size, Client due diligence, corporate culture, Monitoring

**Note: Research data (2024)**

From Table 4.10 above, the 0.734 R value shows a positive correlation between the independent (CDD, monitoring, corporate culture, and bank size) and the dependent (reduction in incidences of ML) variables. The value of the coefficient of determination (R-Square) is 0.539 meaning that 53.9 per cent of changes in the reduction of incidences of money laundering can be explained by CDD, ongoing monitoring, corporate culture, and bank size. The .508 value of the adjusted R square indicates that the independent variables explained 50.8 per cent of changes in the reduction of incidences of money laundering while the remaining changes can be explained by other variables not included in the model.

The analysis of variance results is shown in Table 4.11 below.

**Table 4.11**

*ANOVA*

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	26.884	4	6.721	17.274	.000 <sup>b</sup>
Residual	22.956	59	.389		
Total	49.840	63			

a. Dependent Variable: Incidences

b. Predictors: (Constant), Bank size, Client due diligence, corporate culture, Monitoring

**Note: Research data (2024)**

ANOVA was used to assess the significance of the multiple regression model. The null hypothesis, in this case, is that CDD, ongoing monitoring, corporate culture and bank size do not affect the reduction in incidences of money laundering ( $\beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$ ). From the results, the F calculated value was 17.274 while the F critical value was 2.53 at a 5% level of significance. Since F computed was greater than F critical, the null hypothesis was rejected, and the alternative hypothesis was accepted and established that CDD, ongoing monitoring, corporate culture, and bank size influence reduction in incidences of money laundering ( $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq 0$ ). The value of P was 0.000 which was less than 0.05 meaning the predictor factors had a statistically significant impact on the reduction in incidences of money laundering.

Table 4.12 below shows the regression coefficients

**Table 4.12**

*Coefficients*

Model	Unstandardized		Standardized		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	-.435	.529			-.822	.414
Client due diligence	.274	.136	.224		2.022	.048
Monitoring	.318	.131	.269		2.434	.018
Corporate culture	.238	.101	.245		2.352	.022
Bank size	.264	.100	.258		2.639	.011

a. Dependent Variable: Incidences

**Note: Research data (2024)**

Table 4.12 above shows the results of the multiple regression. Each independent variable was significantly related to a reduction in incidences of money laundering at a 0.05 significance level.

The results showed that CDD had a positive and significant effect in the reduction of incidences of money laundering ( $\beta = 0.274$ ,  $P = 0.048$ ). This means that when CDD is increased by one unit, holding other factors constant (Monitoring, corporate culture, and bank size), incidences of money laundering will be reduced by 0.274 units. The P value of 0.048 which is lower than 0.05 indicates a significant impact of CDD in reducing incidences of money laundering.

Similarly, the results showed that the ongoing monitoring of transactions had a positive and significant effect on a reduction in incidences of money laundering ( $\beta=0.318$ ,  $P = 0.018$ ). Holding other factors constant (CDD, corporate culture and bank size), an increase in a unit of monitoring results in a 0.318 unit reduction in incidences of money laundering. The P value of 0.018 is lower than 0.05 indicating a significant relationship

between ongoing monitoring of transactions and a reduction in cases of money laundering.

Further, the results showed a significant positive impact of corporate culture on the reduction of money laundering cases ( $\beta = 0.238$ ,  $P = 0.022$ ). This means that when corporate culture is increased by one unit, holding other factors constant (CDD, monitoring, and bank size), incidences of money laundering are reduced by 0.238 units. The P value of 0.022 is lower than 0.05 indicating a significant effect of corporate culture in the reduction of incidences of money laundering.

Finally, from the results, there is a positive and significant relationship between the size of a bank and a reduction in incidences of money laundering ( $\beta = 0.264$ ,  $P = 0.011$ ). This means that an increase in the size of a bank by a unit, holding other factors constant (CDD, monitoring, and corporate culture), will lead to a 0.264 unit increase in the reduction of incidences of money laundering. The P value of 0.011 is lower than 0.05 showing a significant relationship between the size of a bank and reduction in incidences of money laundering.

#### **4.7. Chapter summary**

The chapter analysed and presented the data collected for the study. The data was analysed and presented in tables and figures, using mean and standard deviation and inferential statistics. The chapter also included the study's findings according to the overall and specific goals.

## **CHAPTER 5: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS**

### **5.1. Introduction**

The main objective of the study was to examine the perceived effectiveness of AML preventive measures in reducing incidences of money laundering through commercial banks in Kenya. The theory of the crying wolf and the fraud diamond theory were applied in the study. The research philosophy adopted for the study was the positivist research philosophy. Questionnaires were administered to 76 respondents drawn from 38 commercial banks in Kenya to obtain primary data. 64 responses were received translating to an 84% response rate. The data was analysed and presented in tables and figures, using mean and standard deviation and inferential statistics in chapter 4. This chapter discusses the study's findings, conclusions, limitations, and suggestions for further research.

### **5.2. Discussion of the results**

The studies related to the specific objectives are covered in this section.

#### **5.2.1. The effect of Client Due Diligence measures in reducing incidences of money laundering**

The results of the study found that CDD had a positive and significant effect on the reduction in incidences of money laundering. CDD is the front line of defence in the fight against money laundering. The measure enables commercial banks to interact with and understand their customers. This also enables them to determine the mismatch between the information and documents provided and transactions (Elyacoubi, 2020). This also helps to safeguard against identified money laundering risks and other fraudulent activities. In addition, CDD enables banks to establish a legitimate relationship with the customers which is important as it allows the banks to compete favorably in the dynamic business environment. Standardized procedures are required to ensure proper and thorough CDD is carried out (Shust & Dostov, 2020). In addition, employees undertaking CDD should continuously be trained to not only

refresh on CDD measures but also to keep up to date with the dynamic business environment and how to modify CDD measures given the changing environment. This is important to seal loopholes that may give opportunities to money launderers (Shust & Dostov, 2020).

The findings are like previous studies (Le Nguyen, 2018; Mugarura, 2014) which concluded that CDD measures are effective in preventing incidences of money laundering through commercial banks. Although the previous studies were done in different geographies and mainly adopted qualitative techniques in assessing the effectiveness of CDD measures, they arrived at a conclusion like this study.

The results of the current study differed from the study by Chitimira & Munedzi (2022); De Koker (2014); Njagi (2009) which concluded that CDD measures were not effective in preventing incidences of money laundering. The study by Njagi (2009) was done in Kenya who concluded that the KYC measures were not effective as banks were not complying with the KYC requirement. As pointed out earlier, the study by Njagi (2009) was done in 2009 before the implementation of POCAMLA (2009) which was in 2010, before the development and implementation of the POCAMLAR (2013) and before the development of the CBK/PG/08 (2013). This means that there has been a significant improvement in the awareness, implementation, and compliance with AML preventive measures by commercial banks in Kenya since 2009.

### **5.2.2. The effect of ongoing monitoring of transactions in reducing incidences of money laundering**

Based on the results of the study, the ongoing monitoring of transactions had a significant positive effect on the reduction of incidences of money laundering. This means that the ongoing monitoring of transactions is effective in reducing incidences of money laundering cases in commercial banks. Monitoring of transactions should be done intentionally to identify and prevent instances of money laundering (Leonov et al., 2019). It ensures that customer transactions are in line with what the commercial banks know about their customers, their business, their level of risk and their source of funds (Chitimira & Munedzi, 2022; Le Nguyen, 2018; Shust & Dostov, 2020). Given the high volumes of transactions, increasing automated transactions with

customers and the varied structure of data that banks handle (Chen et al., 2018), the use of AML systems is important. Monitoring of transactions also helps banks to identify gaps in their internal controls and provide remedial measures thereby reducing cases of money laundering.

The results of the current study are consistent with past studies (Chen et al., 2018; Alsuwailem & Saudagar, 2020; Colladon & Remondi, 2017) which concluded that AML systems are effective in identifying suspicious transactions including incidences of money laundering. The past studies on AML systems were mainly qualitative with one study that adopted a quantitative approach focusing on a different sector (factoring company).

According to the study, all commercial banks in Kenya have implemented AML systems for ongoing monitoring of transactions and agree that the systems have been effective in detecting incidences of money laundering. This is important to combat money laundering.

### **5.2.3. The role of corporate culture in reducing incidences of money laundering**

Corporate culture had a positive and significant effect on the reduction of incidences of money laundering. This means that corporate culture has a significant and effective impact in reducing cases of money laundering in the banking sector. A strong corporate culture emphasizes integrity, accountability, transparency, and ethical behaviour (Mejri et al., 2021). Fostering an ethical culture within an organization based on integrity and transparency enables a conducive environment for compliance with AML laws and regulations. The tone at the top, open and continuous communication and training of staff are also important in creating and sustaining an environment that motivates employees to comply with AML preventive measures leading to a reduction in incidences of money laundering.

Past studies (Barth & Mansouri, 2021; Bouwman, 2013, Graham et al., 2022; Guiso et al., 2015; Langevoort, 2017; Ocansey & Ganu, 2017; Song & Thakor, 2019) have assessed the critical role corporate culture plays in different aspects of an organization. Such dimensions included the impact of company culture on compensation,

compliance, firm value, firm performance, managing occupational fraud and mergers and acquisitions. The result of this study is consistent with past studies, that corporate culture is important. However, the focus was on the role of corporate culture in compliance with AML preventive measures by commercial banks in Kenya.

### **5.3. Conclusion**

The aim of the study was to examine the perceived effectiveness of AML preventive measures (CDD and ongoing monitoring of transactions) and corporate culture in reducing incidences of money laundering through commercial banks in Kenya.

The study's findings show that the AML preventive measures (CDD and ongoing monitoring) and corporate culture are effective in reducing incidences of money laundering through commercial banks in Kenya. The combined impact of the AML preventive measures, corporate culture, and control variable of the size of the banks is positive and significant. Elaborate CDD measures, consistent and updated application of AML monitoring systems and a consistent corporate culture that promotes ethical values, openness, continuous communication, and training should continuously be adopted by commercial banks in Kenya.

Investigating and confirming that the implementation of AML preventive measures (CDD, ongoing monitoring of transactions) and the corporate culture of commercial banks in Kenya (Causes) positively affect the reduction in incidences of money laundering (effect); this validates the cause-and-effect position of the Positivism philosophy. In addition, a quantitative method was applied in this study, where data was obtained using questionnaires, analyzed, and presented in quantitative form using descriptive and inferential statistics which is also based on the positivism approach.

The study confirmed that commercial banks implement AML preventive measures and a positive corporate culture which includes actively and continuously assessing the possibility of the occurrence of money laundering. These measures are effective in reducing incidences of money laundering through commercial banks which validates the fraud diamond theory, one of the theories adopted for this study. Further, by banks implementing AML systems to continuously monitor customers and their related

transactions, there has been a reduction in incidences of money laundering through commercial banks in Kenya. The use of technology to monitor customers and transactions has helped banks correctly identify suspicious transactions thereby improving the quality of suspicious transaction reports to the FRC. This has enabled banks to avoid the concept of the ‘crying wolf’ where the quality of the reports is poor causing unnecessary alarm and reducing trust with the FRC. Therefore, the theory of “crying wolf” which was the second theory adopted for this study has been invalidated.

## **5.4. Recommendations**

### **5.4.1. Policy recommendations**

The study found that all three measures, CDD, ongoing monitoring of transactions and corporate culture are statistically significant in reducing incidences of money laundering through commercial banks in Kenya. Although CDD, ongoing monitoring and corporate culture are important individually, their applicability and assessment should be done holistically. Therefore, the study recommends policy makers (CBK) and practitioners (banks) to ensure that policies, resources, and efforts are directed at all three measures concurrently.

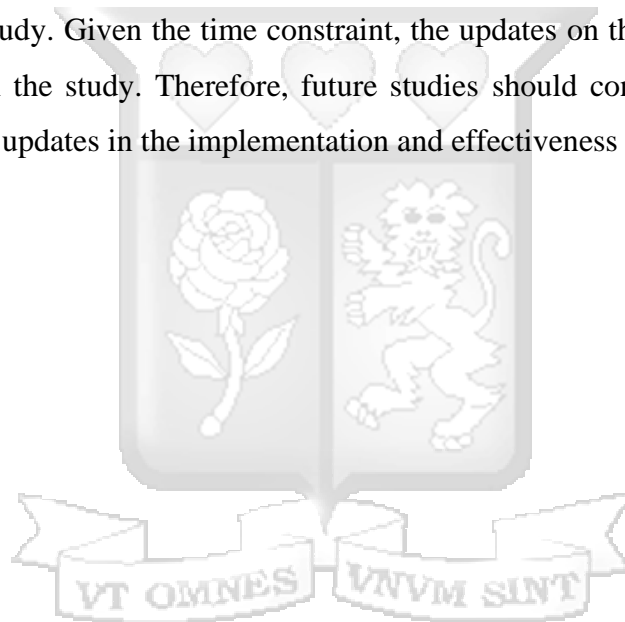
### **5.4.2. Practitioners’ recommendations**

The study found that providing regular training to employees and regularly communicating and raising awareness on money laundering risks are important aspects of a bank’s corporate culture. This indicates that bank employees are important in the fight against money laundering. The study, therefore, recommends that banks (practitioners) should ensure that their employees are continuously trained and kept up to date with money laundering matters. Also, occasional assessment of staff as done with internal control systems to ensure their consistent implementation of AML measures may be essential in ensuring the bank continuously complies with the regulations. Further, the study recommends that the regulator (CBK) and practitioners (banks) continuously find ways of improving the implementation of AML measures based on their experience and given the dynamic business environment.

## 5.5. Limitations and suggestions for further research

The study used questionnaires as the only method of data collection which has limitations in terms of providing insights into the responses. To enrich research findings in future, the use of other data collection methods like interviews and focus group discussions should be considered. However, these forms of data collection may be a challenge especially where bank employees are targeted. This is because most of the respondents may be skeptical about the confidentiality of the study and anonymity of their participation despite reassurances.

Further, there were updates to the POCAMLA (2009) and POCAMLAR (2013) at the time of the study. Given the time constraint, the updates on the regulations were not considered in the study. Therefore, future studies should consider looking into the impact of the updates in the implementation and effectiveness of AML measures.



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## APPENDICES

### Appendix A: Commercial banks licensed by CBK as of 31 December 2022

1	KCB Bank Kenya Limited
2	Equity Bank Kenya Limited
3	Co-operative Bank of Kenya Limited
4	NCBA Bank Kenya PLC
5	ABSA Bank Kenya PLC
6	Standard Chartered Bank (K) Limited
7	Diamond Trust bank Kenya Limited
8	Stanbic Bank Kenya Limited
9	I&M Bank Limited
10	Bank of Baroda (Kenya) Limited
11	Prime Bank Limited
12	Citibank N.A. Kenya
13	National Bank of Kenya Limited
14	Family Bank Limited
15	Bank of India
16	Ecobank Kenya Limited
17	SBM Bank Kenya Limited
18	Victoria Commercial Bank PLC
19	Habib Bank A.G Zurich
20	Guaranty Trust Bank Limited
21	Gulf African Bank Limited
22	Bank of Africa Limited
23	Sidian Bank Limited
24	Credit Bank PLC
25	First Community Bank Limited
26	Guardian Bank Limited
27	African Banking Corporation Limited
28	Development Bank of Kenya Limited
29	Mayfair CIB Bank Limited
30	Middle East Bank (K) Limited
31	Kingdom Bank Limited
32	DIB Bank Kenya Limited

33	Consolidated Bank of Kenya
34	Paramount Bank Limited
35	UBA Kenya Bank Limited
36	M-Oriental Bank Limited
37	Access Bank (Kenya) PLC
38	Spire Bank Limited

Note. Data was obtained from the “Bank Supervision Annual Report 2022” by the Central Bank of Kenya.



## Appendix B: Questionnaire to commercial banks

### Section A: Background of the bank

1. Name of the Bank

---

2. What is your current position in the bank?

*Mark the appropriate box.*

Customer care service

Compliance officer

3. Kindly indicate if you have ever attended an AML training session in the last one year

*Mark only one box.*

Yes

No

4. What is the bank's tier group?

*Mark only one box.*

Large peer group

Medium peer group

Small peer group

5. How many branches does the bank have?

---

6. What is the bank's customer category?

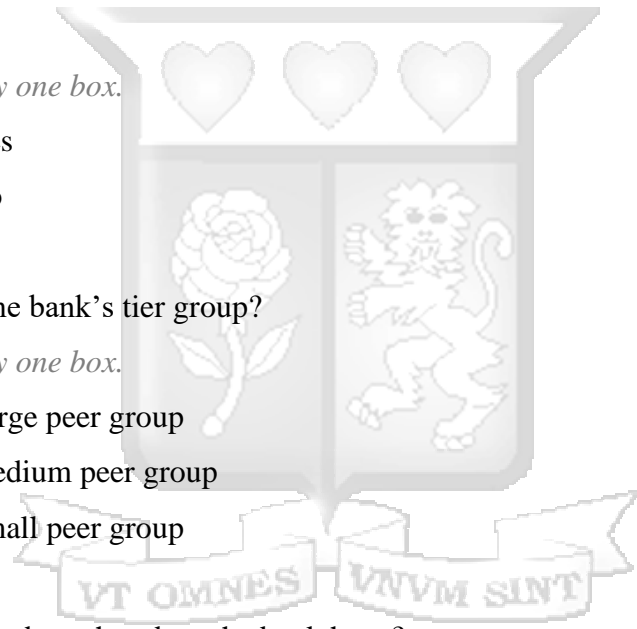
*Check all boxes that apply.*

Individuals

Small & Medium Enterprises

Corporates

Public entities



**Section B: The effect of Client Due Diligence measures in preventing incidences of money laundering**

7. This section examines the extent to which the Client Due Diligence measures mentioned below effectively prevent incidences of money laundering. Please indicate the extent to which you agree with each statement. Where **5 = very effective, 4 = effective, 3 = neutral, 2 = least effective, and 1 = not effective**

*Mark only one box per row.*

	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Obtaining identity documents and confirming their validity					
Identity and confirmation of place of residence for an individual or place of operation for a business					
Identifying the source of funds					
Understanding and determining the legitimacy of funds					
Conducting enhanced due diligence on politically exposed persons					
Conducting enhanced due diligence on customers from high-risk geographies					
Conducting enhanced due diligence where a correspondent banking relationship is involved					
Identifying and confirming the ultimate beneficial owners, legal representatives, and trustees, where applicable					
Ongoing monitoring of relationship with customers and transactions throughout the relationship					

**Section C: The effect of ongoing monitoring of transactions in preventing incidences of money laundering**

This section examines the extent to which the ongoing monitoring of transactions using AML systems effectively prevents incidences of money laundering.

8. Please indicate the extent to which the bank has implemented AML digital systems to monitor customer transactions. Where **5 = very well implemented, 4 = well implemented, 3 = implemented, 2 = fairly implemented, and 1 = poorly implemented**

*Mark only one box per row.*

	5	4	3	2	1
The bank has implemented AML digital systems to monitor customer transactions					

9. Please indicate the extent to which you agree with the statement below. Where **5 = very effective, 4 = effective, 3 = neutral, 2 = least effective, and 1 = not effective**

*Mark only one box per row.*

	5	4	3	2	1
The AML systems used to monitor transactions are effective in preventing incidences of money laundering					

**Section D: The role of corporate culture in compliance with AML preventive measures**

10. This section assesses the extent to which the bank’s corporate culture affects compliance with AML preventive measures. Please indicate the extent to which you agree with each statement where **5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree**

*Mark only one box per row.*

	5	4	3	2	1
The bank’s corporate culture emphasizes compliance with AML preventive measures					

	5	4	3	2	1
The bank has a money laundering risk assessment program that enables us to identify, assess, monitor, manage and mitigate the risks associated with money laundering					
The outcome of money laundering risk assessment is documented					
The bank regularly communicates and raises awareness on money laundering risks and has a risk assessment program					
The bank regularly provides training on AML preventive measures					
The bank has provided appropriate AML systems and trained me how to use the systems					

**Section E: Incidences of money laundering cases.**

11. This section examines the extent to which you agree that the implementation of client due diligence measures and ongoing monitoring of transactions leads to a reduction in incidences of money laundering. Please indicate your level of agreement with the statements below where **5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree**

*Mark only one box per row.*

	5	4	3	2	1
The implementation of client due diligence measures has led to a reduction in incidences of money laundering					
The ongoing monitoring of transactions using AML digital systems has resulted in the reduction of incidences of money laundering					
The bank's corporate culture has resulted in the reduction of incidences of money laundering					

**Thank you for your participation**

## Appendix C: Research budget

Item	Total (Kshs)
Printing	10,000
Transport	10,000
Communication	5,000
Stationery	1,000
Research assistant	30,000
Miscellaneous	10,000
<b>Total</b>	<b>66,000</b>



13<sup>th</sup> February 2024

Ms Oyoo Jackline,  
jackline.oyoo@strathmore.edu

Dear Ms Oyoo,

**RE: The Effectiveness of Anti-Money Laundering Preventive Measures by Commercial Banks in Kenya**

This is to inform you that SU-ISERC has reviewed and approved your above SU-masters research proposal. Your application reference number is SU-ISERC1984/24. The approval period is from 13<sup>th</sup> February 2024 to 12<sup>th</sup> February 2025.

This approval is subject to compliance with the following requirements:

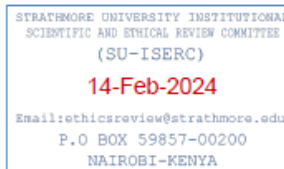
- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,



**Mr Ambrose Rachier,**  
Chairperson; SU-ISERC





REPUBLIC OF KENYA

Ref No: 264590

RESEARCH LICENSE



This is to Certify that Ms. Jackline Oyoo of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: The effectiveness of Anti-Money Laundering preventive measures by commercial banks in Kenya for the period ending : 20/February/2025.

License No: NACOSTI/P/24/33266

264590

Applicant Identification Number



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Date of Issue: 20/February/2024

W. Kitembo

Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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See overleaf for conditions

14<sup>th</sup> February 2024

To Whom It May Concern,

**RE: FACILITATION OF RESEARCH – JACKLINE OYOO**

This is to introduce Jackline Oyoo who is a Master of Commerce (MCOM) Student at Strathmore University Business School, admission number MCOM/142260. As part of our MCOM Programme, Jackline is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MCOM course. To this effect, Jackline would like to request appropriate data from your organization.

Jackline is undertaking a research paper on “**The effectiveness of Anti-Money Laundering preventive measures by commercial banks in Kenya.**” The information obtained shall be treated confidentially and shall be used for academic purposes only.

Our MCOM Programme seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,



Njoki Kiagiri  
Manager – Graduate Programmes  
Strathmore University Business School.