



Handelshögskolan
Karlstad Business School

Yolanda Aji Abei

Impact of Internal Control on
Fraud Detection and Prevention
in Microfinance Institutions

Business administration

Master's thesis
30ECT

Term: Spring 2021
Supervisors: Lazarus Fotoh,
Sven Siverbo

Acknowledgements

I would like to acknowledge and thank the Swedish Institute (SI) for granting me a scholarship enabling me to pursue my master's program and thesis with ease.

I would also like to thank my supervisors Professor Sven Siverbo and Lazarus Fotoh for guiding me through the entire thesis process.

I would also like to thank and appreciate all the respondents from the MFIs in Cameroon for their collaboration and useful information that made my research feasible.

Finally, I would like to thank my family and friends for their moral and emotional support in encouraging me to get through.

Karlstad, June 2021

Yolanda Abei

Abstract

Microfinance institutions (MFIs) are an important tool of poverty reduction which has gained grounds over the years and grown rapidly given the services they provide. The rapid growth of the MFIs has had huge challenges on their regulatory framework which in turn has resulted in the prevalence of fraudulent cases. With the devastating effects of fraud on MFIs and the importance of MFIs in many economies this thesis aims to examine how the design and use of internal control impact fraud detection and prevention in MFIs. To achieve this aim, a qualitative study was conducted with a case study on eight MFIs in Cameroon. Primary data will be obtained from fourteen semi-structured interviews. Data will be analysed manually using thematic analysis. The findings revealed that internal control has a positive impact on fraud detection and prevention in MFIs by reducing fraud incentive, opportunity, rationalization, and capability. Further, findings revealed that the greatest causes of fraud in MFIs are poor remuneration, weak monitoring, and a poor internal control system. Therefore, for the purpose of future fraud prevention, MFIs should ensure to improve their remuneration schemes, improve¹ their monitoring system and ensure regular internal control system updates in term of software and design. The study also, suggests further research on this topic in MFIs with a case study in other countries of the world. It will also be interesting for other researchers to explore how the aspect of capability as a key determinant of fraud can be reduced. This thesis contributes to academic literature as there is lack of studies on the impact of internal control on fraud detection and prevention in MFIs.

Keywords: Internal control, Fraud prevention, Fraud detection, Microfinance Institution.

Abbreviations

ACFE: Association of certified fraud examiners

AICPA: American Institute of Certified Public Accountants

COSO: Community of Sponsoring Organizations of the Treadway Commission

IAASB: International Auditing and Assurance Standard Board

MFI: Microfinance Institutions

MINFI: Ministry of Finance

List of tables

Table 1: Summary of key findings of prior research.....30

Table 2: Interview details.....34

Table 3: Classification of fraud.....35

Table 4: Classification of internal control.....35

Table 5: Summary of key empirical findings of the research46

Table of Contents

1. Introduction.....	9
1.1. Background.....	9
1.2. Problematization.....	12
1.3. Aim	13
1.4. The structure of the study	13
2. Theoretical framework	14
2.1. Definition of fraud.....	14
2.2. Fraud detection and prevention.....	16
2.2.1. Fraud triangle.....	17
2.2.2. Fraud diamond theory.....	19
2.3. Definition of internal control.....	21
2.4. The COSO framework.....	22
2.4.1. Control environment.....	22
2.4.2. Risk assessment.....	23
2.4.3. Control activities.....	23
2.4.4. Information and communication.....	24
2.4.5. Monitoring.....	24
2.5. Summary of internal control, fraud prevention and detection	25
2.6. The impact of internal control design and use on fraud prevention and detection.....	27
2.6.1. Internal control and incentive	26
2.6.2. Internal control and opportunity	27
2.6.3. Internal control and rationalization.....	28
2.6.4. Internal control and capability.....	29
2.7. Summary of prior studies on the impact of internal control design and use on fraud prevention and detection.....	29
3. Method.....	31
3.1. Research Approach and Design	31
3.2. Sample population.....	32
3.3. Data collection method	32
3.4. Data analysis process.....	34
3.5. Trustworthiness	36
3.5.1. Credibility	36
3.5.2. Transferability	36
3.5.3. Dependability.....	37

3.5.4. Confirmability	37
3.6. Ethical consideration.....	37
4. Empirical Findings.....	39
4.1. Background of findings	39
4.2. The impact of internal control design and use on fraud detection and prevention.....	41
4.2.1. Internal control and incentive	41
4.2.2. Internal control and opportunity.	42
4.2.3. Internal control and rationalization.....	43
4.2.4. Internal control and capability.....	45
4.3. Summary of empirical findings.....	45
5. Analysis and Discussion of finding.....	47
5.1. General discussion.....	47
5.2. The impact of interna control on fraud detection and prevention.....	47
5.1.1. Internal control and fraud incentive.....	48
5.1.2. Internal control and fraud opportunity.....	49
5.1.3. Internal control and fraud rationalization.....	50
5.1.4. Internal control and fraud capability	51
6. Conclusion and Discussion of Contribution.....	53
6.1. Summary Conclusion	53
6.2. Significance of the study.....	54
6.3. Limitations.....	55
6.4. Recommendation for further studies.....	55
Reference list	57
Appendixes	66
Appendix 1: Consent form.....	66
Appendix 2: Interview questions.....	67

1. Introduction

This chapter presents the background, problem statement, the aim of the study, and the structure of the study.

1.1. Background

This thesis aims to investigate how internal control design and use impact fraud detection and prevention in microfinance institutions (MFIs).

MFIs are economic development approach created to benefit the low-income population by providing financial services to low-income clients, including small business owners (Legerwood, 1998). The MFIs sector has evolved as tools for poverty reduction (Drašarová & Srnec, 2016; Gérard et al., 2018; Postelnicu & Hermes, 2018; Khan et al., 2020) after the failure of the formal institutions to provide financial services to the poor population (Jarvid & Abrar, 2015). The microfinance sector has experienced rapid growth over the years (Yimga, 2018) with over one million of them worldwide (Manan & Shafiai, 2015). This growth of the MFIs can be traced to the quest for fostering financial inclusion of the unbanked poor population around the world (Ho & Mallick, 2017). Similarly, Postelnicu and Herm (2018) expand the reason for MFIs growth to be, linked to the importance of financial access to consumption, generation of business opportunities and improvement of the long run formal economic inclusion of the poor. MFIs are an important part of the financial system of many countries given their numerous activities which began with giving loans to people with low incomes based on little more than a joint guarantee (Sainz-Fernandez, et al., 2015). Furthermore, MFIs have grown into a major institution offering a wide range of financial products and services such as loans, transfers, deposits and microinsurance (Sainz-Fernandez, et al., 2015).

Although MFIs have registered success stories both at the client and entity level, the issue of fraud is a serious threat to their sustainability (Kumar & Conteh,

2015). This can be associated with the rapid growth of the MFIs which in turn resulted in challenges in the regulatory and institutional framework of their financial sector (Collins, 2014). Likewise, Ho & Mallick (2017) adds that fraud in MFIs can occur in any institution and any country with weak institutions, weak rule of law, and MFI officials with fraudulent behaviour for personal gain. Furthermore, Conteh and Kumar (2015) argue that one of the key causes of increased fraud cases in MFIs is a result of the Board's inability to understand internal control. And inadequate internal control in MFIs brings fraud, which is a serious threat to their long-term sustainability (Kuma & Conteh, 2015). Consequently, this creates hurdles and obstacles in achieving the objectives of servicing the poor and expanding financial inclusion (Kuma & Conteh, 2015). Therefore, internal control is very important to MFIs to ensure they remain operational, produce quality accounting reports, and avoid low-quality accruals resulting from intentional misstatements and unintentional accounting errors (Nalukenge et al., 2017). Internal control in any institution is an effort made by the institution to ensure its business activities are supervised to create secure and successful entity-winning practices (Nugraha & Bayunitri, 2020). Hence, internal control is important for MFIs to avoid the risk of fraud. This is because, in the case of fraud, the MFIs stand to lose the most (Boateng et al., 2014).

Fraud involves all deceptive ways in which one individual acquires an advantage over another by false representation (Albrecht et al., 2015). To show the extent of fraud's influence on a global scale, the Association of Certified Fraud Examiners [ACFE] (2016) have estimated that in general business organisations would in most cases lose 5% of their yearly revenue to fraud. Gee and Button (2019) also pointed out that the global fraud losses are equivalent to 6.05% of GDP, that is, \$5.127 trillion, while related losses have increased by 56% in the last decade. ACFE's recently released "2020 Report to the Nations", underlines that the median cost of every incident of occupational fraud globally amounts to \$125,000 with a median period of 14 months. While the median loss for every

incident of financial statement fraud is more severe, amounting to \$954,000 with a median period of 24 months (ACFE 2020).

Hence the devastating effects of fraud have resulted in internal control gaining more grounds over the years. This can be traced to the corporate and accounting scandals of the past like the Enron, WorldCom, and Tyco scandals in 2002, costing investors to lose billions of dollars and resulting in the enactment of the Sarbanes–Oxley Act, also known as SOX (Sarbanes & Oxley, 2002). The legislative reason behind the internal control requirements in the Sarbanes–Oxley Act of 2002 (SOX) was to reduce the possibility of corporate misconduct and fraud and to curtail corporate insiders’ ability to do fraud (Gao & Jia, 2015). The issue of fraud poses a general problem to organizations of all types and sizes around the world (ACFE, 2018).

According to Suh et al., (2019), one of the contributing factors of the banking crisis has been the issue of internal fraud. Suh et al. (2019) further gave examples like the case of the USA where 355 commercial banks and 57 thrift institutions went insolvent resulting in a cost of up to \$90 billion. Furthermore, MFIs being part of the banking sector have not been left out as there have been series of fraudulent issues resulting from their growth. For example, COFINEST a major microfinance player in Cameroon got liquidated because of fraud and mismanagement leading to the arrest of major shareholders (Fotabong, 2012). Butcher and Galbraith (2019) also presented the issue of control fraud in the case of Latin America which resulted from the rapid growth of MFIs. This resulted in the diversion of interests meant to benefit the poor to those in charge of control in the MFIs in the form of a microfinance Ponzi scheme (Butcher & Galbraith, 2019). Lin et al., (2014) on the other hand add that there are so many instances where managers are the ones who bridge to commit fraud and, in these instances, there is very little internal control can do to prevent it. Moreover, Tchakoute-Tchuigoua and Soumaré (2019) express that recent studies have revealed that many MFIs allocate decision-making authority to the loan officer giving them power over information and loan decisions. This

creates an avenue for agency problems and consequently fraud in the long run. This can be backed by Godfroid (2019) who explains that the main actors of fraud crimes in MFIs are the loan officers who do it on relatively small amounts.

1.2. Problematization

There have been mixed findings on the role played by internal control in fraud reduction which prior studies have presented in other firms. For instance; Peltier-Rivest and Lanoue (2015) researched on cutting fraud losses in Canadian banking organizations to analyze the effect of various internal controls in the form of hotlines, regular ethics (fraud) training, surprise audits, internal and external audits, and background checks, on reducing occupational fraud losses by victim organizations. The findings revealed that internal control had a positive effect on fraud loss reduction.

Similarly, Joseph et al. (2015) study on the effect of internal control on fraud detection and prevention in district treasuries in Kakamega, revealed a significant relationship between the adequacy of internal controls and fraud prevention and detection. Also, the study of Othman et al., (2015) on identifying the methods to detect and prevent fraud and corruption in the public sector in Malaysia revealed that internal control is among the most effective ways to detect and prevent fraud. Furthermore, Le and Tran's (2018) study on Vietnamese companies, revealed that internal control had a great impact on fraud control but with some components having more impact than others. Similarly, the study of Vu and Nguyen (2020) on public officials in Vietnamese companies showed that the internal control system reduced law fraud in the form of law violation but not the case of bribery. While the study of Shonhadji and Maulidi (2020) on governmental organizations revealed that risk assessment and monitoring activities (internal control) are efficient measures of fraud detection fraud.

Despite some studies alluding to the significance of internal control in reducing fraud within organizations, other studies point out weaknesses in internal controls, resulting in more fraud. For instance;

Spatacean's (2012) study on the Romanian financial investment companies revealed that ineffective internal control (control environment) increases the rationalization of fraudulent financial reporting.

While the study of Nawawi and Salin (2018) on a company undertaking business relating to designing, manufacturing, trading, installation, construction, maintenance of sewerage treatment plant and solid waste management, revealed that internal control on expenditure claims was weak which could result in occupational fraud.

The contrasting viewpoints of prior research have been the main catalyst of this study. Also, lack of prior studies on the impact of internal control on fraud detection and prevention in MFIs despite their importance and their increasing failure rates. Hence, a study in this area is important to ensure the long-term fraud occurrence which in turn ensures the survival of MFIs which leads to the aim of this thesis.

1.3. Aim

The thesis aims to examine how internal control design and use impact fraud detection and prevention in MFIs.

1.4. The structure of the study

The remaining sections of this thesis will be as follows; chapter two will present the theoretical framework. Chapter three will cover the research method. Chapter four cover the findings of the research. Chapter five presents the analysis and discussion of the findings, and chapter six the conclusion, contributions, limitations, and recommendations for future research.

2. Theoretical framework

This chapter presents the definition of fraud, fraud prevention and detection which will be followed by fraud theories (fraud triangle theory, fraud diamond theory), the conceptual framework of internal control which includes the definition of internal control will also be looked at, the COSO framework of internal control which are control environment, risk assessment, control activities, information and communication, and monitoring. This will be followed by a summary of internal control and fraud and then empirical studies of prior research.

2.1. Definition of fraud

Fraud is a global problem that affects organizations all over the world (ACFE, 2020). Fraud has been defined differently by different studies because fraud is seen differently by different individuals or organizations hence fraud for one may be completely not for another (Baldock, 2016). Similarly, Lokanan (2015) explains fraud as a multifaceted phenomenon, whose contextual factors are not fixed to a particular framework. While Kurpierz and Smith (2020) point out that “fraud is a colloquial and technical term that is used as an umbrella system to describe a large number of dishonest and harmful behaviours” (p.1077). Consequently, the harm caused by fraud goes beyond direct financial loss, to the collateral damage that may include harm to external business relationships, employee morale, firm reputation, and branding (Bierstaker et al., 2006). For this study, the definition of fraud by Abetch et al. (2015) will be used. According to Albretch et al. (2015), fraud begins when trust and confidence placed in an individual is violated, hence fraud involves all the deceptive ways in which an individual obtains an advantage over another by false representation. Kranacher and Riley (2019) also present the components of fraud from a common law perspective which encompasses: “(1) A material misstatement; (2) Knowledge that the statement was false when it was spoken; (3) Reliance on the false statement by the victim; (4) Damages resulting from victim's reliance on the false statement” (p.4). Albrecht et al., (2015) add that fraud can be classified into

those committed against the organizations and those that are committed on behalf of the organizations. On the other hand, ACFE (2020) looks at fraud from the view of occupational fraud.

ACFE (2020) defines fraud as “fraud committed by individuals against the organizations that employ them which is among the costliest forms of financial crime in existence” (p.6). Suh et al. (2019) add that Occupational fraud is fraud committed against an organization by its employees and sometimes characterized as internal, insider or employee fraud or just fraud. Occupational fraud goes undetected and is often never reported so determining the full extent of its losses is usually very difficult (ACFE, 2020). According to Boateng et al. (2014) the types of fraud common to MFIs includes: Cheque kiting, account opening fraud, Cash theft/cash pilferage, collusion in the issuance of loans, manipulation of financial data, inappropriate loan write-offs, ghost loans and kickbacks. The fraud types boil down to three main types namely, misappropriation, corruption, and financial statement fraud (ACFE, 2016; Albrecht et al. 2015). Kranacher and Riley (2019) explain that asset misappropriation entails the theft or misuse of an organization’s assets, such as skimming cash, cheques, stealing inventory, and payroll fraud.

Corruption on the other hand can take different forms from bribery to theft to misappropriation and favouritism (Baldock, 2016). Kranacher and Riley (2019) further add that corruption involves the illegal or wrongful abuse of authority in a business transaction to obtain personal benefits. This is contrary to an individual’s obligation to his or her employer or the rights of another such as accepting bribes and engaging in conflicts of interest (Kranacher & Riley, 2019). While financial statement fraud and order fraudulent statements as explained by Kranacher and Riley (2019) involves the deliberate misappropriation of financial or non-financial information to deceive others who are relying on it to make economic decisions. It includes acts such as overstating revenues, understating liabilities, or expenses, or making false promises regarding the safety and prospects of an investment.

ACFE (2020) underscores that asset misappropriation has the highest level of occurrence of 86% cases but with the smallest median loss effect of \$100,000 per case. This is followed by corruption as the second-highest level of occurrence of 43% cases amounting to a median loss of \$200,000. Financial statement fraud is the least occurrence with only 10% of scheme cases but this scheme has the most devastating effect with a median loss of \$954,000. The interest figures presented by ACFE gives a clear glimpse of how great of an effect fraud has on organizations. Therefore fraud, if not effectively prevented and detected, can cause serious damage to an organization (Ghazili et al. 2014).

2.2. Fraud Detection and Prevention

According to Riney (2018), a combination of prevention and detection acts as a good tool for making vulnerable organizations stronger and more resistant to fraud. This is supported by Sow et al. (2018) who add that the most economical way to manage financial loss through fraud is prevention. Hence fraud prevention refers to practical measures established by an organisation to avoid or stop fraud occurrence (ACFE, 2020). Furthermore, fraud prevention requires a system of rules which when put together minimizes the likelihood of fraud occurring while maximizing the possibility of detecting any fraudulent activity that may emerge (Biegelman & Bartow, 2006). Fraud detection, on the other hand, involves identifying fraud as fast as possible once it has been committed and comes in after fraud has failed to be prevented (Othan et al., 2015). Hence, fraud detection increases the perceived risk of getting caught thereby deterring people from engaging in fraudulent behaviour (Jeppesen, 2019). Fraud detection plays a vital role in fraud investigation and prevention because the speed and way with which fraud is detected can have a significant impact on the fraud magnitude which in turn may help curb future fraud occurrence (ACFE, 2020). A major step to detecting and eventually preventing fraud is to identify the factors that can lead to fraud (Ghazili et al., 2014, ACFE, 2018). Hence, Cressey's fraud triangle model was a model that was put forward to explain why people commit fraud (Biegelman & Bartow, 2006; Riney 2018).

2.2.1. Fraud Triangle

According to Lokana and Sharma (2018), the fraud triangle theory is the most widely used theory of fraud which was developed in 1953 by Donald Cressey. This theory was developed as a fraud detection and prevention tool to explain why people commit (Riney, 2018). Suh et al. (2019) add that according to Cressey the three factors need to be present for people to commit fraud. These factors are perceived pressure (non-shareable financial pressure), perceived opportunity and perceived rationalization (the ability to adjust one's self-perception) making up the fraud triangle (Lokana & Sharma, 2018). The relationship between can be seen graphically below (figure 1). Suh et al. (2019) stress these three fraud components are linked and must exist simultaneously. Nevertheless, even in the absence of one of the components, fraud can still be avoided.



Figure 2: The Fraud Triangle

Source: ACFE

The first element of the fraud triangle is perceived pressure. Ghazali et al. (2014) explained that perceived pressure from the non-shareable financial problem may result from stigma or a sense of pride which motivates people to commit fraud. This may only result because the individual is unable to communicate their financial strain (Le et al., 2020). Hence, pressure could result from an individual's feeling to maintain his/her current lifestyle while he has limited income (Zakaria et al., 2016). Other examples of fraud pressure include greed,

high debts, poor credits, investment losses and family pressure (Kranacher & Riley, 2019). Furthermore, Butcher and Galbraith (2019) explained that increased loan portfolio resulting from the growth of MFIs motivated control fraud. This took the form of disguising interests through manipulation and high-interest rate charges to clients. However, the pressure to commit fraud may not only be financial but non-financial as well for example employee's non-satisfaction at work (Lokanan, 2018). This leads to the second element of fraud.

The second element of the fraud triangle is the perceived opportunity. According to Biegelman and Bartow (2012), the opportunity is defined by the ease with which fraud is committed. Hence, perceived opportunity occurs where the internal control system is weak (Peltier-Rivest & Nicole, 2015; Lokana, 2018, Riney, 2018; ACFE, 2020). Furthermore, Godfroid (2019) explains that the position of an individual can also create an opportunity for fraud as is the case of loan officers in MFIs who are the main actors of fraud crimes in MFIs. This is because decision making power in most MFIs is given to the loan officers giving (Soumaré, 2019). Hence, Biegel and Batow (2012) explain that an institution can eliminate fraud by preventing fraud opportunity with internal control.

Finally, the third driver of the fraud triangle is the ability of the perpetrator to find a way to rationalize their actions as acceptable. According to Chiezey and Onu (2013), rationalization refers to people's perception about their work performance and contribution and expectations of what they should derive from the company for delivering value. Ghazali et al. (2014) refer to rationalization as a fraud perpetrator's justification of his fraudulent actions by considering his dilemma as a special exception rather than as a trust violator. Also, Biegelman and Bartow (2012) add that fraud perpetrators always see themselves as victims hence justifying the reasons for them for instance "they owe me" or "everyone is doing it" (p. 35). Hence managing rationalization will contribute to reducing fraud.

In as much as the fraud triangle has acted as a very important tool for fraud detection and initial prevention, there have been significant criticisms about the fraud theory's ability to address fraud issues. Kassem (2020) argued that the fraud triangle is not suitable for the assessment of financial fraud reporting. Kassem (2020) explains that without understanding the motivation and level of integrity of managers as well as consideration of capability financial statement fraud may not be detected. Lokanan (2015) on the other hand argues that the fraud triangle is not an adequate tool for fraud detection. By this, Lokanan (2015) emphasizes that the fraud triangle supports a body of knowledge that lacks the objective criteria required to adequately address all fraud occurrences. Besides, Biegelman and Bartow (2012), explains as a criticism of the fraud triangle that even in the presence of opportunity and pressure/incentive some people may not commit fraud. Hence Albrecht et al. in 1984 suggested the fraud scale theory which puts personal integrity in place of rationalization since by their assumption fraud was difficult to profile (Dorminey et al., 2012). Therefore, this will particularly apply to financial reporting fraud where pressure such as meeting expectation analysts, deadlines, and qualifying for bonuses are more observed (Kranacher & Riley, 2019).

2.2.3 Fraud diamond theory

The fraud diamond was established in 2004 as an extension of the fraud triangle (Wolfe and Herman, 2004). Wolfe and Hermanson (2004), argue that the fraud triangle is not complete without the fourth element of capability which makes up the fraud diamond theory. This is because, without the capability to exploit the shortcomings of control, it may be impossible to commit and conceal fraud (Dorminey et al., 2012). Therefore, the fraud diamond comes as an enhancement of the fraud triangle by adding the fourth element of capability (Wolfe and Herman, 2004). Furthermore, in the context of the Fraud Triangle, capability modifies the opportunity construct by limiting the opportunity to those who have the necessary capability (Dorminey et al., 2012).

Hence, Wolfe and Herman (2004) explain that for fraud to occur, four elements of incentive, opportunity, rationalization, and individual's capability must be present. For this thesis, the fraud diamond will be used as a tool for detection and prevention in this thesis. This is represented graphically below.



Figure 3: The fraud diamond
Source: Wolfe and Hermanson (2004)

Therefore, Wolfe and Herman (2004) explain that the opportunity to commit fraud in an organisation may occur in the presence of weak internal controls or oversight. However, without the right person with the right capabilities to realize that opportunity and be able to exploit it and with the rationale, fraud may never take place. Hence Wolfe and Herman (2004) give observable traits for committing fraud as (1) The person's position in the organisation may provide the ability to create or exploit the opportunity to commit fraud (2) The person must be smart enough to understand and exploit the internal control weaknesses (3) The right person has a strong ego and great confidence (4) He/she can coerce others to commit or conceal the fraud, a person with a very persuasive personality (5) He/she can lie effectively and consistently and can deal very well with stress.

2.3. Definition of internal control

There is no right way to define internal control as there are diverse internal control functions that are used differently in different institutions. More generally, internal control systems start as internal processes with the positive aim of helping institutions meet their set objectives (Kabuye et al., 2019). According to the American Institute of Certified Public Accountants [AICPA] (2014) “Internal control is a process effected by those charged with governance, management and other personnel designed to provide reasonable assurance about the achievement of the entity's objectives with regard to the reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations” (p.4). On the other hand, the International Auditing and Assurance Standard Board [IAASB] (2018a), defines internal control as “a process designed, implemented, and maintained by those in charge with governance, management, and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regards to the reliability of financial reporting, effectiveness, and efficiency of operations, and compliance with applicable laws and regulations” (p.24). While COSO (2013) defines internal control as “A process, effected by an entity’s board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- Effectiveness and efficiencies of operations
- Reliability of financial reporting
- Compliance with applicable laws and regulations” (p.3).

Hence, internal control according to the argument of Länsiluoto et al., (2016) is aimed at detecting and managing business risks. Therefore, effective internal control decreases the risk of asset loss and promotes reasonable assurance of an entity achieving its financial reporting objectives (AICPA, 2014). The COSO framework was created for the designing, implementing, and conducting internal control and evaluation of the effectiveness of internal control.

2.4. The COSO Framework

The COSO integrated framework was released in 1992 as a framework for designing, implementing and conduction internal control as well as assessing its effectiveness (COSO, 2013). Hence, COSO (2013) points out that for an institution's management to conclude that it has an effective internal control system, it needs to meet up with all the five components of internal control proposed. Furthermore, these five components need to be fully "present" and "functional" within their internal control system. COSO (2013) explains further that being "present" means the components exist with the institution's internal control design and being "functional" implies that components continue to remain in existence in the institution's operations and conduct of their control system. These five components which are control environment, risk assessment, control activities, information and communication, and monitoring should work together in an integrated manner for the internal control to be effective.

2.4.1. Control environment

The control environment as explained by COSO (2013), sets the foundation on which internal control is carried out with regards to the standards, processes, and structure of the organization's internal control system. Furthermore, Collins (2014) argues that the control environment shapes the consciousness of its employees by embracing all the other four components of internal control. For this reason, Zakaria, Nawawi, and Salin, (2016) argue that the control environment is the most important. Hence, COSO (2013) explains that effectiveness entails an organization's commitment to integrity and ethical values of the institution, independence of the board of directors who are key in the control environment. Furthermore, management with the supervision of the board should establish structures, reporting lines, and responsibilities to meet objectives. Also, the organization should demonstrate commitment to attract, develop, and retain competent individuals in line with objectives. And

individuals should be held accountable for their internal control responsibilities to meet set objectives.

2.4.2. Risk assessment

Risk assessment involves a dynamic and iterative process through which management identifies and assesses risks to the realization of its set goals (COSO, 2013). Furthermore, IAASB (2018a) adds that risk assessment establishes how management identifies business risks that are derived from its use of financial statements. Hence, disclosure of risk assessment role enables investors to make decisions on whether to invest in the institution (Ashfaq & Rui, 2019). Therefore, for financial reporting purposes, the entity's risk assessment process incorporates how management identifies business risks relevant to the preparation of financial statements (Al-Thuneibat et al., 2015). According to Ashfaq and Rui (2019), risk assessment involves a two-step approach for risk management. First, to identify key risks related to the firm and then come up with strategies to manage those risks. Therefore, for organizations to achieve effective risk assessment according to COSO (2013), they should set clear goals enabling the identification and evaluation of risks related to the objectives. Furthermore, the source of the risk should be examined to know how to assess it and consider potential fraud in risk assessment.

2.4.3. Control activities

Control activities are the measures established through policies and procedures that help guarantee the management's orders to mitigate risks and achieve its goals (COSO, 2013). Furthermore, this is achieved where organizations have clear policies stating what is expected alongside procedures that put policies into actions (COSO, 2013). This is supported by Zakaria et al. (2016) who argues that control activities ensure that risks are reduced through preventive and detective activities features and can be performed manually and automatically. Chen et al. (2017) on the other hand argues that segregation of duties and other

controls are an important aspect of control activities that reduce the likelihood of manipulation of earnings. Dawson (2015) adds that control activities are represented by actual checks and balances that exist within the institution, it is specific, and the most common form is bank reconciliation. In other words, according to Ashfaq and Rui (2018) control activities also ensure that management of risks is controlled using a two-step approach. That is selecting an appropriate internal control framework and designing strategies to manage those risks identified after assessment.

2.4.4. Information and Communication

Information and communication are systems that allow people in a firm to capture and exchange information needed to perform their duties (Chen et al., 2016). Hence, Communication takes place both internally and externally, and it offers the organization the information needed to perform its internal control activities and achieve its objectives (COSO, 2013). Through Communication, members of staff can understand internal control responsibilities and their importance in the achievement of objectives (Le et al., 2020). Therefore, relevant quality information is generated and obtained by organizations to support the functioning of internal controls. Hence, COSO (2013) lay down that organizations need to communicate clear objectives and responsibilities for internal control both internally and externally for the smooth running of internal control.

2.4.5. Monitoring

Monitoring is the procedure through which the quality of internal control is assessed which can be ongoing evaluation and separate evaluation (Le & Tran, 2018; COSO, 2013). Similarly, IAASB (2018a) describes monitoring as activities designed to detect and correct weaknesses in the effectiveness of controls over transactions for financial instruments. Furthermore, IAASB (2018a) continues that monitoring includes supervision and review procedures designed to detect and correct any flaws in the design or operating effectiveness of

controls. Therefore, effective monitoring ensures the internal control of an organization continues to protect it (AICPA, 2014). Hence COSO (2013) lays down that effective internal control entails organizations performing an ongoing and separate assessment of their internal control. From the assessment, they should communicate internal control efficiency to those parties responsible for taking corrective actions.

The COSO framework can be summarized graphically as shown below.

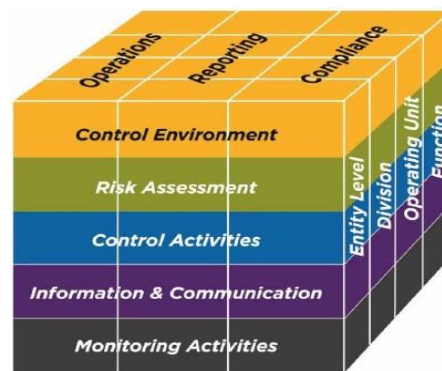


Figure 3: COSO Framework

Source: COSO 2013.

2.5. Summary of internal control, fraud prevention and detection

The theoretical review above points out the devastating effects fraud has on any organization which has made it very vital to utilize internal control as a tool to combat fraud. The COSO framework forms the necessary criteria for organizations to implement the best internal control practices by building a well-structured internal control design. The COSO framework establishes the necessary criteria for an effective internal control system. This includes involving all five elements of the control environment, risk assessment, control activities, information and communication, and monitoring. However, to understand why fraud occurs to enable internal control to achieve its goals, the fraud theories are presented to explain the reasons why people commit fraud. Therefore, for internal control to achieve its goal of detecting and preventing

fraud, the fraud diamond is used as a lens to understand why people commit fraud.

2.6. The impact of internal control design and use on fraud prevention and detection

Here this research explores prior research on the link between internal control and the components of the fraud diamond in fraud detection and prevention. To get an understanding of how internal control influences incentive, opportunity, rationalization, and capability in detecting and preventing fraud.

2.6.1. Internal control and incentive

Rae and Subramaniam (2008) carried out a study on “the quality of internal control procedures antecedents and moderating effect on organisational justice and employee fraud”. The research aimed to combine theoretical concepts from the organizational justice, internal control, and fraud literature to create two distinct models relating to employee fraud and the quality of internal control procedures. Findings from the research revealed that internal control through performance evaluation and fair reward schemes would reduce fraud incentives. Similarly, Nawawi and Salin (2018) supported the study with their finding which revealed that better remuneration paid to the employees could minimize occupational fraud incentive. Furthermore, Peltier-Rivest and Lanoue (2015) analysed the effect of various internal controls in the form of hotlines, regular ethics (fraud) training, surprise audits, internal and external audits, and background checks on reducing occupational fraud losses, by victim banking organisations of Société Générale. Findings from the study revealed that implementing internal control in the form of hotlines and surprise audits significantly reduce the incentive to commit fraud. This was supported by the recommendation of Othman et al. (2015) from their findings which explains that hotlines provide secure and discrete ways for a whistle-blower to give out

information in an anonymous way and hence reducing fraud incentive. Moreover, Nawawi and Salin (2018) also made findings that there is a need for managers to monitor staff's claim submission to keep employees alert and reduce the incentive to commit fraud.

Le et al. (2020) on the other hand, examined the use of internal control system and code of conduct as a more specific element of internal control, in the reduction of fraud (corruption) to the public officials of Vietnamese firms. This study was based on an argument that the use of internal control and code of conduct helps to mitigate motivation, opportunity, and rationalization. The findings from the study revealed that internal control elements such as clear structure and authorities as well as clear mechanisms for risk assessment, monitoring and reporting would reduce fraud incentive.

2.6.2. Internal control and opportunity

The investigation of Othman et al. (2015) on identifying the methods to detect and prevent fraud and corruption in the public sector in Malaysia, made findings that internal control was very important. Their findings revealed that through cash reviews, fraud reporting policy, and staff rotation policies which creates staff awareness, fraud opportunity is reduced.

While a study conducted by Zakaria et al. (2016) on internal controls and fraud through empirical evidence from the oil and gas company, revealed that internal control weaknesses result in the form of poor supervision and improper documentation process, provide fraud opportunity. Furthermore, Baker et al. (2017) conducted a study on breakdowns in internal controls in bank trading information systems with the case of the fraud at Société Générale. To examine the events uncovered at Société Générale, a large French bank, in January 2008. Findings from the study revealed that there was a heavy reliance on manual processing by back-office operating staff which meant that the internal control had some flaws creating room for fraud opportunity. The flaws included the

desk manager's negligence of operational checks, poor communication of specification of functions, lack of fraud risk awareness, and poor supervision. All these flaws reduce internal control effectiveness and result in fraud opportunity.

Nawawi and Salin (2018) on the other hand, investigated the weaknesses of internal control in the expenditure claim process. To explore employees' opinions regarding occupational fraud and whether a company's working environment contributes to employee fraud. The study findings revealed lack of effort taken by the company to update their internal control system resulted in weak internal control on the expenditure claim procedure hence, resulting in occupational fraud opportunity. Hence constant update is necessary to prevent fraud opportunity.

This was supported by the study of Suh et al., (2019) which focused on compliance on how to detect and prevent occupational fraud. This study made finding that risk assessment can prevent fraud opportunity, however because of the Achilles hill of collusion and overrides irrespective of internal controls, fraud may never be completely eradicated. On the other hand, Maulidi and Shonhadji (2020) argue from their findings that poor monitoring results in the opportunity for individuals to commit fraud and this fraud may go undetected.

2.6.3. Internal control and rationalization

The study of Rae and Subramaniam (2008) revealed that employees rationalize fraud when they feel unfairly treated and hence suggests that to reduce this fraud rationalization, the control environment should ensure fairness of the distributive and procedural policies at the workplace. Futher, Spatacean (2012) carried out a study on addressing fraud risk by testing the effectiveness of internal control over financial reporting with a case of the Romanian financial investment companies. This study aimed to identify and assess risk factors related to fraudulent financial reporting. The findings of the study revealed that through integrity and upholding good values in the control environment, the

rationalization of fraudulent practices can be reduced. Similarly, Peltier- Rivest and Lanoue (2015) add that regular ethics training fraud rationalization is reduced.

2.6.4. Internal control and capability

Maulidi and Shonhadji (2020) made an investigation examining the efficacy of COSO internal control in governmental organisations in reducing opportunities to commit fraud. And made finding that control systems can support managers to align employee capabilities, activities and performance with the organisation's goals and missions. Hence, risk assessment and monitoring should be performed continuously if organisations want to prevent fraud capability.

The prior studies described above shows the impact of internal control design and use on fraud prevention and detection. Some of the studies (Maulidi and Shonhadji, 2020; Le et al., 2020; Othman et al., 2015; Peltier-Rwest & Lanoue 2015) revealed that internal control played an important role in reducing fraud. While contrary to these, other studies (Nawawi and Salin, 2018; Baker et al., 2017; Zakaria et al. 2016; Spatecean, 2012) revealed that weak or non-existing internal control procedures increased the chances of fraud occurrence.

2.7. Summary of prior studies on the impact of internal control design and use on fraud prevention and detection

The variation in the findings from prior research is a clear indication that internal control systems are designed and are used differently by different organizations to detect and prevent fraud. Findings from previous research above revealed that internal control impacts fraud detection and prevention through its design and use by reducing fraud incentive, opportunity, rationalization, and capability. The findings can be summarized in a table as shown below.

Table 1: Summary of key findings of prior research

Main areas	Findings
Internal control and fraud incentive	Fraud incentive can be reduced through performance evaluation and fair reward schemes, hotlines, surprise audits, secure and discrete whistleblowing, and monitoring staff claims on submission.
Internal control and fraud opportunity	Ineffective internal control in the form of heavy reliance on manual operations, poor supervision, improper documentation, the manager's negligence of operational checks, poor communication of specification of functions, and poor systems update results in fraud opportunity. However, to reduce fraud opportunity include cash reviews, fraud reporting policy, staff rotation policies, constant modification of internal control are necessary.
Internal control and fraud rationalization	Internal control through fairness of the distributive and procedural policies at the workplace, integrity and upholding values as well as ethical training, fraud rationalization can be reduced.
Internal control and fraud capability	Internal control through constant control and risk assessment would reduce fraud capability.

From the prior studies above there is true that some knowledge exists on the issue of internal control and fraud incentive, opportunity, rationalization, and capability. However, prior research only focuses on some factors. Research on the impact of internal control design and use on the fraud incentive, opportunity, rationalization, and capability as a whole is scarce. This research, therefore, attempts to fill this research gap by answering the following research question:

- How can internal control design and use impact the reduction of fraud incentive, opportunity, rationalization, and capability?

3. Method

This chapter presents an outline of the research methodology which is designed to achieve the objectives of this study. It starts with the research approach and design, the sample population, data collection method, and data analysis process. This shall be concluded by looking at the trust worthiness and the ethical considerations of the research.

3.1. Research Approach and Design

According to Gray (2017), the choice of a research strategy is determined by the research question. Given that this research is aimed at examining how internal control design and use impact fraud incentive, opportunity, rationalization, and capability, both the qualitative and quantitative research strategy apply to this study. However, given its aim, a descriptive qualitative research method is considered most appropriate. A qualitative research method is implemented to get an understanding of the underlying pattern of the field research and answers the questions of “how” and “why” (Gray, 2017). Corbin and Strauss (2015) add that qualitative research gives a more in-depth understanding of the context under study as opposed to the quantitative research methods. This will help the research to understand why and how people think, feel, and react the way they do as regards fraud detection and preventions in MFIs.

A research design gives a framework for how data will be collected (Bryman & Bell (2015). Given the purpose of the study which is to examine the impact internal control has on fraud detection and prevention through the view of the fraud diamond, a case study design seemed most appropriate. A case study involves a concentrated and in-depth study and exploratory interaction between the case and the context under study (Marshall & Rossman, 2014). Therefore a case study design is the best method of obtaining data on the thoughts of those in charge of the internal control.

3.2. Sample population

To put the theories in a practical context, data was collected from eight MFIs in Cameroon. The internal control department of the MFIs was chosen as a suitable department for the study based on the main interest of the study. Intentionally focussing on specific areas and employees of the MFIs, the research focussed its findings on a practical case to prove feasibility. Hence the target population of the study will be managers, internal controllers, and auditors of MFIs in Cameroon. The managers, internal controller, and auditors were chosen because they have a good foundation of internal control and are involved in its running and implementation and can hence provide the right information needed to answer the aim and research question mentioned above. Cameroon is relevant for the context of this study given that MFIs are a very important part of its economy and these MFIs have been threatened and scandalized by several incidences of fraud. Given that more than 40% of the population of Cameroon are living below the poverty line (Akanga, 2017) fraudulent incidences are detrimental to the economy of Cameroon. Besides, because of the issue of corruption and embezzlement causing unequal distribution of wealth, this poor population have turned to the banks for financial aid (Shu & Oney, 2014). Therefore, in this case, the financial aid has come from the MFIs, which has boosted the importance of this sector to Cameroon. Hence investigation on MFIs in Cameroon will be of great importance.

3.3. Data collection method

Primary data collection was employed in this study with the use of semi-structured interviews as the main instrument of data collection. Given this study aims to explore the lived experiences, opinions, and ideas of people to get an understanding of this research, the semi-structured interviews are adopted to allow the researcher to keep an open mind as to what is considered important in the process of data collection (Bryman & Bell, 2015). Furthermore, Bryman

and Bell (2015) explain that interviews make the researcher familiar with the data and ease its further assessment. The interviews were formulated from the theorization of prior studies.

The interview stage was made up of one-on-one, semi-structured interview of managers and auditors that lasted a range of 20–45 minutes. The structure allowed respondents to provide their perceptions to open-ended questions (see Appendix 2). The open-ended questions provide potentials for rich responses, some of which may be unpredicted (Gray, 2015). The semi-structured interview approach is preferable due to its flexible and adaptative nature of the questions, suitable for the exploratory objectives of this research (Bryman & Bell 2015). The interviews were conducted on a cross-section of eight MFIs in Cameroon, with a purposeful sampling of managers, internal controllers, and auditors. The interviews were conducted through WhatsApp because is the most commonly used social media communication tool in Cameroon and also as a result of the Covid-19 pandemic restricting one physical meeting. Further, the need to maintain social distance and to ensure the safety of both the researcher and the respondent online interviews was the best option to adopt.

The initial invitation for the interviews was sent to thirty potential respondents and at the end eighteen of them responded, two of whom failed to attend the interview and two left just the start of the interview due to bad connection. Finally, the interviews were conducted in eight MFIs with a total of fourteen participants of which were six managers, five internal controllers and three auditors. Twelve semi-structured interview questions were developed to ensure the smooth flow of the interview (see appendix 2). Before the interviews, a consent form (see appendix 1) was constructed and sent to the respondents ensuring their informed consent. This was done to give the respondents a view of what the research is about and a chance to give their informed consent on whether to take part in the research. Gray (2017) explains that consent gives the respondent a sense of assurance against exploitation or harm. While the interviews were conducted, recordings were done and significant points were

jotted that ensured that the data collected was adequate and avoid the redundancy of data collected (Gray, 2017). The detail of the interviews is summarized in the table below.

Table 2: Interviews details

Respondent	Position	Work experience	Dates	Duration of interview (Central African time)
R1	Manager	8 years	03-04-2021	37 minutes (9:15-9:42)
R2	Manager	5 years	04-04-2021	32 minutes (13:05-13:37)
R3	Manager	8 years	06-04-2021	30 minutes (12:00-12:30)
R4	Manager	4 years	17-04-2021	27 minutes (9:00-9:27)
R5	Manager	6 years	18-04-2021	25 minutes (13:20-13:45)
R6	Internal controller	8 years	22-04-2021	27 minutes (19:15-20:42)
R7	Internal controller	4 years	23-04-2021	30 minutes (12:00-12:30)
R8	Auditor	8 years	23-04-2021	42 minutes (19:30-20:12)
R9	Internal controller	9 years	24-04-2021	40 minutes (9:00-9:40)
R10	Auditor	6 years	24-04-2021	30 minutes (10:30-11:00)
R11	Manager	6 years	24-04-2021	32 minutes (12:00-12:32)
R12	Internal controller	4 years	25- 04-2021	25 minutes (8:00-8:25)
R13	Auditor	8 years	26-04-2021	22 minutes (12:00-12:22)
R14	Internal controller	5 years	26-04-2021	30 minutes (19:00-19:30)

3.4. Data analysis process

Data analysis refers to the process of critical assessment and simplification of data to obtain understanding which facilitates the presentation of findings (Gray, 2017). Data collected from the interview were transcribed manually to ease understanding by the researcher and to give meaning to the information. Given that the interview involved interaction and discussion with the respondents, the research included some aspect of personal reflexivity in line with the explanation of Gray (2017). The data was analysed using thematic

analysis. The thematic analysis identifies, analyses and reports patterns (themes) within data (Braun & Clarke, 2006).

The analysis process began with the transcription of the interviews using simple and clear English, which was then read thoroughly to gain more data familiarity. The transcribed data was cumbersome which is one of the problems of qualitative research explained by Gray (2019) and hence needed to be simplified to enable a clear and compelling argument. Therefore, there was a need for coding. Coding involves breaking down data into parts which are then labelled (Bryman & Bell, 2015).

The initial codes were obtained directly from the transcripts. Then the codes were collated into themes to create a form of a map to aid the analysis. Some of the themes include “reasons why fraud is an important risk”, “causes of fraud”, “common MFIs fraud types”, “measures taken to handle the fraud cases”, “effectiveness of internal control”, “consideration for internal control design.” These themes were selected to fit the codes and in line with the theoretical framework to ensure that it is relevant towards the achievement of the set aim and objectives. Finally, the themes were broken down into two main sections which are fraud and internal control to ease the answering of the research questions. The themes and codes were summarized in the tables below.

Table 3: Classification for fraud

Theme	Sub-theme	Codes
FRAUD	Incentive	Low remuneration, delay in payment, greed, and family/staff pressure
	Opportunity	Poor work environment, poor monitoring, poor facilities, negligence and poor employee recruitment.
	Rationalization	Bias, low remuneration, and incentive for hard work
	Capability	Lack of job rotation, and duplication of functions

Table 4: Classification of internal control

Theme	Sub-theme	Codes
INTERNAL CONTROL	Control environment	Policies Ethical values and considerations Integrity Use and update the software. Responsibility assignment
	Risk assessment	Assessment process

	Control activities	Segregation of duties Job Rotation
	Information and communication	Communicating clear objectives
	Monitoring	Ongoing Assessment, surprise audits

3.5. Trustworthiness

The trustworthiness of a study involves the integrity of the conclusions drawn from the research (Bryman & Bell 2015). Hence to obtain trustworthiness in this thesis there are four criteria of credibility, transferability, dependability, and confirmability applied (Bryman & Bell, 2015; Gray, 2017).

3.5.1. *Credibility*

According to Gray (2017) credibility of a study is established by building certainty in the accuracy of data collection and interpretation. This is achieved through the continuous assessment of empirical findings and matching them to the existing literature. To further increase credibility, the transcriptions of the data collected were sent to the respondents for confirmation that the researcher fully understood the information that was given which is in line with Bryman & Bell (2015). This was productive because the researcher ensured that only relevant candidates for the study with the right information were selected. This is important respondent selection was confirmed by the background questions at the beginning of the interview. Also, the use of recordings ensured that all information given was received and rightly taken down, so no important information is left out.

3.5.2. *Transferability*

Transferability involves the applicability of the findings of the study to other contexts (Gray, 2017). This can be achieved by providing thick descriptions that

will enable other researchers to make judgements on whether the results can be applied to their context (Bryman & Bell, 2015). This is achieved in this study by providing adequate step by step details about how data was collected and analysed.

3.5.3. Dependability

To ensure dependability, all the steps taken in the research were described in an orderly manner. From the problem formulation to the selection of research participants to the interviews and transcriptions to the analysis of data and finally the conclusion in an assessable manner (Bryman & Bell, 2015). Also, sending the transcribed information back to the respondents for confirmation made sure that all data collected was accurate and reliable. Also having the thesis being reviewed and scrutinized by research supervisors increased the dependability.

3.5.4. Confirmability

According to Gray (2017), confirmability addresses the extent to which the steps of the study can be audited, confirmed, or replicated. Furthermore, Bryman and Bell (2015) add that confirmability ensures that the researcher carries out a bias-free conclusion. This was achieved by giving respondents the chance to confirm the interpretation of the findings from interviews in line with their actual intended opinions. Also having a purposeful sample of respondents who are fully aware and informed about the context under study increased the confirmability of the data obtained from the research.

3.6. Ethical consideration

In a qualitative study that involves individuals as part of the research, it is important to consider ethical issues. As explained by Bryman and Bell (2015) ethical issues involve concerns about how potential respondents should be treated and what activities they should be involved in. In the case of this research, the respondents were taken into serious consideration by making sure

that they were comfortable with the entire research process. This was achieved by informing the respondents about the research far ahead of time to give them time to decide on whether to be part of the research. Then a consent form was made (see appendix 1) and sent to all respondents. This form contained the main aim and purpose behind the research and what is expected of them to prepare their minds before the research. The respondents were also guaranteed the confidentiality of all information they provide, and that the participation was completely voluntary (Gray, 2017). And considering the safety and wellbeing of the respondents, the study was conducted from a distance considering the current Covid-19 pandemic. This led to an agreement of using WhatsApp as a medium for conducting the interviews. Furthermore, the respondents asked that they and their MFIs remain anonymous for safety which the researcher made sure of as no names were mentioned during the research. Finally, as an ethical consideration, the transcribed data from interviews were sent to the respondents to confirm their responses and opinions were clearly understood (Bryman & Bell, 2015). Hence no information bias.

4. Empirical Findings

This chapter presents the empirical findings of the research. These findings are from the interviews carried out.

4.1. Background of findings

Fourteen respondents comprising of six managers, five internal controllers and three auditors in total were interviewed to give their perspectives on internal control and its impact on fraud in their MFIs. Based on the data collected, the following results presented below were obtained by the researcher. The work experience of respondents ranges from five to eight years maximum. The results were explained in two sections to answer the research question: how can internal control design and use impact the reduction of fraud incentive, opportunity, rationalization, and capability? The first part explains the background of the findings from questions related to fraud in MFIs, questions related to internal control consideration and internal control effectiveness, and how internal control can be improved. The second section reveals results of how internal control reduces fraud incentive, opportunity, rationalization, and capability.

At the beginning of the interview, the respondents were asked about their view on fraud as an important risk to be treated with much attention. The respondents unanimously agreed that fraud was an important risk factor in MFIs which can result in losses, bad reputation, and eventually stagnation and dissolution of MFI.

According to the respondents, several reasons could account for fraud within the MFI. These factors include Low remuneration, delay in payment, greed, and family/staff pressure all of which create fraud incentive. Furthermore, poor work environment, poor monitoring, poor facilities, management incompetence, negligence and poor employee recruitment create fraud opportunity. While poor remuneration and lack of incentive for hard work cause rationalization. Also, duplications of functions and poor job rotation result in

fraud capability. Respondents reveal that low remuneration is a major cause of fraud in MFIs.

In most cases the staff work too much but are underpaid and so this motivates them to exploit every available opportunity to extort money from members [...] (R3).

Generally, this result implies that, for MFIs to combat employee fraud, strong policies protecting employee and remuneration schemes should be crafted. This will motivate them and thus keep them in positive check.

Furthermore, a question was asked on fraud-related cases in the MFIs to get the frauds common to MFIs and how they handle such situations. Most respondents agreed and gave some instances of fraud-related cases in their various MFIs.

[...] I recall the former manager was discovered to have withdrawn money from several dormant accounts of deceased clients who had no family show up to claim the assets (R4).

Also,

[...] Cash conversion by a field agent “Acao.” The agent collected a certain amount from the small business clients and recorded something different in their books and this was discovered during payday when the client complained that his account balance did not match the records of his transactions (R8).

Other forms of fraud mentioned included forging of signatures, illegal withdrawal of customer money, illegal granting of loans, falsification of records, hacking of password and computer system. Generally, this result indicates, cases of fraud scandals are similar despite the variation in MFIs. Consequently, where fraud was identified, the respondents said investigations were carried out and the perpetrators were sanctioned in line with the policies and regulations of the MFI. For example, after conducting an internal audit to detect fraud, the culprits were held to repay the shortages. In some cases, the collateral security of the offender was ceased by the MFI as punishment for fraud. Cases of fraud after investigations and legal proceedings often resulted in the accused being investigated, suspended, dismissed, and even imprisoned in serious cases. Hence, all the respondents in agreement that fraud was a major cause for

concern in MFIs and hence suggested that internal control is important in any institution for fraud to be detected and prevented.

4.2. The impact of internal control design and use on fraud detection and prevention

Findings from the interviews reveal the importance of internal control in fraud detection and prevention. From the view of the respondents, the COSO framework five components are very important and considered in the implementation of MFI internal control design.

All the five components of internal control are considered within our internal design from the control environment we ensure that we have a stable work environment to carry the rest of the internal system. We implement risk assessment because of the delicate nature of the financing of MFIs, control activities ensure that the right activities back the risk assessment of the institution ensuring free flow of communication and information which encourages team building and monitoring the affair of the MFI internal control system ensures it is running smoothly (R2).

Similarly, one of the auditors explained:

We take into consideration the five COSO components of internal control and map out which applies to which objective or goal [...] (R10).

This result indicates generally that the COSO framework of internal control is vital for fraud detection and prevention in MFIs hence rather than spread resources for the development of new a framework, resources should be concentrated on the maintenance of the COSO framework.

Furthermore, respondents pointed out that though all components of internal control are important, however, respondents revealed the control environment, monitoring, and control activities are the most important components of internal control to prevent fraud.

[...] The control environment is the most important because it forms the base of the entire functioning of the institution. If an institution has a control environment govern by good ethics and integrity, it is bound to have an internal control system that works well. If there is a problem at the top management, the rest of the institution will be affected (R8).

In line with the importance of internal control, the findings revealed that MFIs are governed by good internal control practices based on regulations from

COBAC, MINFI, and CAMCCUL who are the regulatory authorities of MFIs in Cameroon. Software such as Alpha was being used by most of the MFIs to ease control. This result implies great reliance on the government regulatory system.

Most of the respondents sampled for this research revealed that internal control design and how it is used would reduce fraud in MFIs. Below is an excerpt of respondent 1.

[...] Irrespective of all other measures which might be in place, internal control design is the major determinant of how much fraud can be committed in the organisation [...] (R1).

In general, the findings reveal that a good internal control design and how it is used would reduce fraud incentive, opportunity, rationalization, and capability. This implies that generally if institutions want to draft policies on fraud detection and prevention, great consideration should be given to internal control design.

4.2.1. Internal control and incentive

Respondents stressed that for MFIs to reduce fraud incentive they need to re-enforce their reward policies. They explained existing policies on incentives for hard work and promotion are either not put into practice or compromised hence, encouraging fraud. Furthermore, proper remuneration should be considered by the control environment so that staff are not wanting, that way motivation to commit fraud is reduced. The result also revealed if staff are not well paid, regardless of the internal control effectiveness employees will design new methods to commit fraud. Added to this, implementing staff collateral policies will ensure that the MFIs do not make losses and dissuade the staff from fraud for fear of property loss.

[...] Every staff in our is expected to bring collateral security on the signing of an employment contract. That way the employee must think twice before committing a crime as in case of any default, the collateral of the staff is seized as a sanction (R1).

Similarly, the respondent (R10) added that implementing a whistle-blower policy could be a great way to reduce fraud incentive. Furthermore, the respondent (R3) added that if there is adequate communication and enforcement of the consequences of misconduct and fraud, people's fraud incentive would reduce. In addition, the respondent (R5) emphasized that a surprise audit on both managers and other employees reduces fraud incentive. This result implied that if the organization want to minimize fraud incentive to a very large extent, policies that protect remuneration schemes and promotion should be given due consideration.

4.2.2. Internal control and opportunity.

The respondents pointed out that fraud opportunity occurs because of loopholes in internal control systems of MFIs. These loopholes include irregular monitoring, poor working environment, the use of manual operations, poor recruitment practices. From the interviews, some of the respondents pointed out that their MFIs were not governed by the best internal control practices. Below are excerpts from the interview.

[...] The working condition of the internal controller is not the best which in turn affects the way they perform their duties. [...] assessment is done manually which takes a long time and is very tiring which in turn may result in negligence hence giving room for fraud. (R9).

Further,

[...] The recruitment of internal controllers is not based on know-how but rather as a position to sanction staff or staff that are being considered redundant in other departments and services. [...] some employees are recruited based on familiar ties and not by merits (R6).

The respondents unanimously agreed that constant monitoring will reduce fraud opportunity. Respondent (R2) added that fraud training of the staff and proper background checks of the staff would increase staff skills and reduce fraud opportunity. Respondent (R3) also suggested stepping up the control game through surveillance cameras, fraud opportunity will be reduced. Meanwhile

respondent (R7) also suggested an independent internal supervisory board as a solution to management fraud opportunity. Respondents stressed that risk assessment is considered greatly in their internal control design to reduce fraud opportunity. For instance, one of the internal controllers (R6) explained:

[...] We operate with the risk cartography to bring out the possible risk such as the operational risk, credit risk, financial risk and as well as their likelihood of occurrence (R6).

Moreover, one respondent (R5) emphasized that through reconciling cash at the end of each day and controlling the transaction journals of the previous day, fraud opportunity can be prevented. These results imply fraud opportunities only exist because of loopholes in the internal control. Therefore, it is imperative for managers to develop and maintain policies that check against such loopholes.

4.2.3. Internal control and rationalization

For fraud rationalization, respondents emphasized proper remuneration and reward scheme will reduce employee's justification for committing fraud.

[...] A good control environment with the right policies and right energy i.e., the right ethical values will influence people's consciousness and hence reduce their rationalization (R13).

Further, the respondent (R1) suggested implementing ethical training programs and developing an ethical organizational culture alongside transformational leadership will reduce fraud rationalization. Similarly, the respondent (R3) explained that in some MFIs, those at the top compel their lower-level staff to make their institutions look better by manipulating their statements of accounts to gain more customers. This in the long run affects these MFIs, because the same employees that were used to make the institution look good, begin to rationalize their fraudulent activities. This result implies that if MFIs implement ethical training for new employees, replace the old corrupt minds and build a more ethical organizational culture, fraud rationalization will be minimized.

Furthermore, setting achievable goals for employees will reduce work pressure and hence a reduction in fraud rationalization.

4.2.4. Internal control and capability

Finally for fraud capability as explained by the respondents, results when there is duplication of functions and poor job rotation in MFIs. Further, respondents explained that these make some employees very conversant with duties hence, giving them the opportunity and capability to manipulate record and commit fraud. Therefore, as a solution, respondents emphasized on job rotation and segregation of duties are elements of the control activities that can reduce fraud capability. Though not stopped as people may always discover new ways to increase their capability.

Segregation of duties and job rotation restricts an employee's opportunity of mastery enough to build capability [...] (R2).

Similarly, respondents added that constant monitoring and risk assessment will reduce people's capability to carry out fraud.

[...] It takes the ability to exploit opportunity and the success of fraud operation to build capability. Hence, with the constant monitoring and risk assessment to ensure instant detection of error, fraud capability can be reduced (R5).

4.3. Summary of empirical findings

The empirical findings from the interviews revealed that fraud is an important risk that needs to be treated with much attention as its effects are detrimental to MFIs. Responses revealed that fraud occurs due to incentive, opportunity, rationalization, and capability to do fraud which has made it imperative to be minimized with the aid of internal control. The respondents highlighted that these four factors of fraud can be reduced with the use of internal control system. Therefore, respondents confirmed this by pointing out that the five COSO components are important in internal control design given the different roles these components play in deterring fraud within the MFIs. The findings

of the relationship between internal control design and use and fraud are hence summarised in the table below.

Table 5: Summary of key empirical findings of the research

Main areas	Findings
Internal control and fraud incentive	Internal control through re-enforcement of reward policies, proper remuneration and reward policies, whistleblowing policies, instituting employee collateral requirement on the signing of employment contract, enforcing, and communicating clear consequences for misconduct and fraud, and surprise audits, would reduce fraud incentive.
Internal control and fraud opportunity	Fraud opportunity results from loopholes in internal control like poor work environment, poor monitoring, poor facilities, negligence of operations and poor employee recruitment practices. Hence internal control practices like Constant monitoring, fraud training, risk assessment, cash reconciliation, and use of passwords, would reduce fraud Opportunity
Internal control and fraud rationalization	Internal control through ethical training programs, developing ethical organizational culture and setting reasonable tasks for the employee.
Internal control and fraud capability	Internal control through job rotation, segregation of duties, constant monitoring, and risk assessment, will reduce fraud capability.

5. Analysis and Discussion of finding.

This chapter gives an analysis of the results of the respondents. The results are discussed in line with the research questions, theory, and previous studies. The analysis of the findings is going to be based on the fraud diamond theory and the COSO framework for internal control as the main theories of the study as from chapter two. Hence fraud can be reduced through the lens of the fraud diamond and with the use of internal control. The analysis is segmented into two sections, namely: general discussion and internal control design and use on fraud detection and prevention.

5.1. General discussion

From the empirical findings in chapter four above, it is evident that fraud remains one of the major risks affecting MFIs which if not treated with care could result in damages like losses, bad reputation, and consequently stagnation and dissolution of the MFIs. This confirmed the research of Bierstaker et al. (2006) who argued that fraud damages go beyond direct financial loss to collateral damage. Consequently, the respondents presented a series of fraud that are common to MFIs which confirmed MFIs common fraud types presented by Boateng et al. (2014). The common MFI frauds included forging of signatures, illegal withdrawal of customer money, illegal granting of loans, falsification of records, hacking of password and computer system. Further, the empirical findings revealed that internal control design and use had an impact on fraud detection and prevention by answering the research question of “How can internally control design and use impact the reduction of incentive, opportunity, rationalization, and capability to commit fraud?” However, Suh et al. (2019) noted irrespective of the internal control design and use in place fraud, fraud is inevitable because it overrides, and fraud may never be completely eradicated. Notwithstanding, results revealed that internal control serves as a vital tool to minimize fraud risk.

5.2. The impact of internal control on fraud detection and prevention

The impact of internal control on fraud detection and prevention in this study was viewed under four themes which will be discussed in the subsequent paragraphs (incentive, opportunity, rationalization, and capability).

5.2.1. Internal control and fraud incentive

Previous research like Othman et al., (2015); Nawawi & Salin (2018); and Rae & Subramaniam (2008) highlight fraud incentives are reduced because of internal control practices such as performance evaluation and fair reward schemes, surprise audits, secure and discrete whistleblowing, and monitoring staff claims on submission. This study confirms the findings of Othman et al., (2015) on secure and discreet whistleblowing and Nawawi and Salin (2018) on monitoring of staff claims on submission as means to reduce fraud incentive. This is by explaining that through whistle-blowing policies and surprise audits (monitoring) fraud perpetrators are in constant fear of been caught hence reducing fraud incentive. Further, this study also confirms the finding of Rae and Subramaniam (2008) on performance evaluation and fair reward schemes as ways to reduce fraud incentive by emphasizing the importance of proper remuneration and incentive for hard work of employees to deter fraud incentive. Generally, it can be said that if MFIs focus on internal control practices such as performance evaluation, fair reward schemes, surprise audits, secure and discreet whistleblowing and monitoring, fraud incentives will be minimized. Given this result aligns to prior research as indicated above, this should be taken into consideration.

However, this study did not identify hotlines as a fraud mitigating tool in MFIs contrary to prior findings of Peltier-Rivest and Lanoue (2015) and Othman et al. (2015) on hotlines as a means of reducing fraud incentive. Despite the contradiction, this study revealed a new internal control strategy which is the use of employee collateral policy upon the signing of an employment contract to discourage fraud incentive. When employees are made to bring valuable

collaterals upon employment, they are deterred from fraud incentive in order not to lose their collateral as punishment for fraud. This means that this study does not only contribute to previous studies as revealed by the resulting alignment above but also adds a new strategy to prior studies of Othman et al., (2015); Nawawi & Salin (2018); and Rae & Subramaniam (2008). This result obtains imply the need for variation in strategies to eradicate fraud incentive. An organisation needs to consider the application of all revealed strategies to minimize the weaknesses of either of the strategies. Added to this, communication, and enforcement of the consequences of misconduct and fraudulent actions will also minimize fraud incentive. When employees through rules and organisational culture understand the consequences of their actions like loss of job, suspension, and detention, it will reduce their incentive to commit fraud.

5.2.2. Internal control and fraud opportunity.

Previous research like Othman et al., (2015); Zakaria et al. (2016); Nawawi and Salin (2018), show that fraud opportunities are consequences of ineffective internal control practices such as heavy reliance on manual operations, poor supervision, improper documentation, the manager's negligence of operational checks, poor communication of specification of functions, and poor systems update. Therefore, to reduce fraud opportunities, previous research points out internal control practices like cash reviews, fraud reporting policies, staff rotation policies, and constant modification of internal control systems is necessary. This study confirms the findings of Baker et al. (2017) that fraud opportunity results from heavy reliance on manual operations, manager's negligence of operational checks, poor communication of specification of functions, lack of fraud risk awareness, and poor supervision. This study revealed that some MFIs rely on manual operations which reduced the efficiency of their internal control given that manual operations are not only exhausting but also time-consuming. This has resulted in negligence of operations. Furthermore, this study confirms the research of Zakaria et al. (2016) who

noted that weak internal control in the form of poor supervision and improper documentation process creates fraud opportunity. The findings of this research noted that fraud opportunity results from loopholes in internal control systems. This study also confirms the findings of Nawawi and Salin (2018) who noted that outdated internal control systems result in fraud opportunity. Based on our results, improving the working environment, and using updated internal control software systems, will increase its efficiency and reduce fraud opportunities. Added to this, the findings of this research findings reaffirm the results of Suh et al. (2019) who emphasized that risk assessment can prevent fraud opportunity. This study explains that through risk assessment in the form of risk cartography possible risk like operational risk, credit risk, financial risk and predict the possibility of re-occurrence can also prevent future fraud opportunity. Given that fraud opportunities are a result of weaknesses within the internal systems, it is very important to draft policies that allow for constant updates on the internal control within an organisation. Moreover, for an organisation to minimize the weaknesses from their implemented internal control system, resources should be allocated for the hiring of highly skilled technical personnel that can maintain and update the software systems frequently. This will not only help the organisation eradicate fraudulent practices but also minimize risk in her major operations. This will further lead to an expanded profit margin and goodwill of the organisation since scandals on fraud are unlikely to be heard by the public.

5.2.3. Internal control and fraud rationalization.

Previous research by Rae and Subramaniam (2008); Spatacean (2012) and Peltier-Rivest and Lanoue (2015) emphasized fraud rationalization is reduced through internal control practices like the fairness of distributive and procedural policies, integrity, upholding good values in the control environment, and regular ethics training. Nawawi and Salin (2018), also noted that company culture and environment within companies affected the likelihood of fraud. This study confirms the results of Rae and Subramaniam (2008) on the fairness

of distributive and procedural policies. It also confirms Spatacean (2012) who emphasized integrity and upholding good values in the control environment. Furthermore, Peltier-Rivest and Lanoue (2015) highlighted the importance of regular ethics training. All these were considered as good internal control measures towards reducing fraud rationalization. Generally, an organisation needs to craft policies that encourage ethical training and a strong inbuilt organisational culture. This will lead to the development and maintenance of high standard morals, positive values, and well-coordinated employee behaviour. Given that these values are expected from all employees, it will positively affect all stakeholders and the various managerial positions. This will result in the development of transformational leadership. Added to this, top managers will be able to enhance good working conditions that prioritize employee welfare. Moreover, there will be an unbiased division of labour as goals are set within specific jurisdictions within the organisation. Consequentially, good remuneration and incentives schemes will be developed and maintained in the organisation. This mitigates the rate of fraudulent practices and boosts ethical consciousness in the control environment.

5.2.4. Internal control and fraud capability

Previous research like Maulidi and Shonhadji (2020) noted that fraud capability can be reduced through internal control practices like continuous monitoring and risk assessment. This study confirms this finding of Maulidi and Shonhadji (2020) by explaining that through continuous risk assessment and evaluation of past fraud cases, patterns in fraud practices can be discovered, hence enabling the development of new risk assessment strategies that can be put in place to reduce capability. Furthermore, MFIs need to develop monitoring control systems that are flexible and easy to check. This will not only reduce fraud capability but enhance changes that might have resulted from globalization. Moreover, building a monitoring system equally helps organizations to easily adapt to changes from the global market and thus a competitive advantage.

However, this study reveals that fraud capability can be reduced through segregation of duties and job rotation, which limit fraud perpetrator's ability to exploit fraud opportunities. This aligns with the argument of Chen et al. (2017) which explains that segregation of duties and other controls are fundamental aspects of control activities that reduce the possibility of manipulation of earnings. Therefore, this study contributes by reaffirming the findings of Maulidi and Shonhadji (2020) and bringing to light the important role of segregation of duties and job rotation in mitigating fraud occurrence in an organization.

6. Conclusion and Discussion of Contribution.

This chapter presents the summary of findings. It revisits the purpose of the study and the contributions made. It will also present the implications of the study. This chapter wraps up this research by presenting the limitations of this study and suggests further research.

6.1. Summary Conclusion

The purpose of this study is to examine how internal control design and use impact fraud detection and prevention in MFIs. This study reveals that internal control design and use positively impacts fraud detection and prevention. This research proves that internal control mitigates fraud incentive, fraud opportunity, rationalization, and fraud capability. Generally, organizations are involved in some sought of internal control design and use either at a formal or at an informal level. Hence it is important since it is used as a tool to check against fraud. Most times organisations function by hiring personnel who in most cases are not usually the owners or investors of that institution. As a result, these personnel sometimes turn to override organisational policies and engage in selfish practices such as fraud. This further makes it vital for the implementation of a good internal control system and use. As proven by the results of this study, internal control positively impacts fraud detection and prevention. Therefore, organisations like banks, MFIs, small and medium enterprises, local businesses operating without a good internal control policy, stand a higher risk of being exposed to fraud. The absence of a control and monitoring system increase fraud incentive, fraud opportunity, rationalization, and fraud capability. Furthermore, organisations with poor remuneration schemes and policies sometimes think being less concerned about employee welfare has no major effect on them. However, it has a grievous effect on employee attitude towards fraudulent activities. Hence, organisations with healthy employee welfare services like good remuneration, do not only do away with fraud but also enjoy quality employee performance. Since new forms of fraud are being invented around the world, it will be in the best interest of every

organization or financial institutions to constantly improve their internal control systems. This can be done by employing frequent software updates. Added to this, monitoring an organization against fraud solely depend on the internal control system put in place. So, it is very important to consider developing a monitoring system that best fit the transactions of the organisation. This means an internal control design and use of one institution may not necessarily be the best for another institution. Hence, the choice of an internal control design and use is subjective.

6.2. Contribution of the study

Given the aim of this thesis, the findings resulted in varying benefits.

The main purpose of internal control is to safeguard an entity's assets. Broadly internal controls function to minimize risks and protect assets, ensure accuracy of records, promote operational efficiency, and encourage adherence to policies, rules, regulations, and laws. The findings of this study can be used by the management of MFIs to gain insights into areas within their internal control that needs enhancement, enabling them to build a better internal control design that can better detect and prevent future fraud occurrence.

Also, this study highlights the significant role of internal control in ensuring the long-term sustainability of MFIs. Therefore, MFIs regulatory bodies can use these findings as a basis to craft enhanced internal control regulations.

Further, this study also contributes to the existing body of knowledge on the impact of internal control on fraud detection and prevention in MFIs which has not been explored.

Finally, given that this area of studies has not been explored in the microfinance sector, this study serves as a base for future research particularly on an in-depth examination of the impact of internal control on fraud detection and prevention in MFIs.

6.3. Limitations

A major limitation of the study was the issue of Covid-19 that distorted the initial plan of how the research was intended to be carried out. The initial plan for the interview was a face-to-face meeting to get the aspect of social interaction and facial and body communication. But given the need for social distancing and considering the health of both the respondents and the research, WhatsApp was considered as the communication medium. The interviews had to be done through audio WhatsApp because this was the only medium accepted by the respondents. This medium was good but given that the WhatsApp calls were audio-based the facial expression of the respondents could not be seen and interpreted which makes it difficult to tell they were telling the truth or not.

Another limitation of the study was the issue of the limited sample size which may not favour generalization. This is because a larger sample would have been more helpful to generalize. Due to this limitation, the results of this study cannot be generalized as there are possible omissions of valid information that can alter the results presented.

Another limitation was the time and resources allocated for the research. There limited time to conduct proper research that can explore every detail.

Furthermore, this research is on just the case of Cameroon MFIs. This implies we cannot rely only on its findings to generalize for the rest of the world. This is because what might apply or work well for one part of the world might not be the case for another part of the world.

6.4. Recommendation for further studies

Given the importance of MFIs to low-income economies and the world at large and the increasing threat of fraud in MFIs, carrying out further research on MFIs is very important. Also given that MFIs Cameroon is only a single case

and may have different rules, regulations, policies, norms, and organizational cultures, what governs MFIs in Cameroon may not be applicable for MFIs in other countries. It is therefore imperative that this topic should be explored in MFIs with a case study in other countries of the world. Also given that this study's findings revolved around poor remuneration as one of the major causes of fraud in MFIs, research on the extent to which employee remuneration and employee welfare would influence fraud deterrence.

It will also be interesting to explore how the aspect of capability as a key determinant of fraud can be reduced. This is because capability greatly influences fraud behaviour and how it is managed and given the findings of how this aspect of fraud can be reduced. It is very important for future research to explore how internal control is a tool of fraud detection and prevention because the effect that results from failing to reduce fraud capability is grievous to any organization.

Reference list

- Act, S. O. (2002). *Sarbanes-Oxley act*. Washington DC.
- Akanga, K.F. (2017). Microfinance accountability in Cameroon: a cure or a curse for poverty alleviation? *Journal of Accounting and Organizational Change*, 13(1), 112-130 <https://doi.org/10.1108/JAOC-11-2015-008>
- Al-Thuneibat, A. A., Al-Rehaily, A. S., & Basodan, Y. A. (2015). The impact of internal control requirements on profitability of Saudi shareholding companies. *International Journal of Commerce and Management*, 25(2), 196-217. <https://doi.org/10.1108/IJCOMA-04-2013-0033>
- American Institute of Certified Public Accountants (AICPA). (2002). *SAS No. 99: Consideration of Fraud in a Financial Statement Audit*. Available at: <http://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-00316.pdf>
- American Institute of Certified Public Accountants [AICPA] (2014). *The importance of internal control in financial reporting and safeguarding plan assets*. Available at: <https://www.aicpa.org/content/dam/aicpa/interestareas/employeebenefitplanauditquality/resources/planadvisories/downloadabledocuments/plan-advisoryinternalcontrol-hires.pdf>
- Ashfaq, K., & Rui, Z. (2019). The effect of board and audit committee effectiveness on internal control disclosure under different regulatory environments in South Asia. *Journal of Financial Reporting and Accounting*, 17 (2), 170-20 <https://doi.org/10.1108/JFRA-09-2017-0086>
- Association of Certified Fraud Examiners (ACFE) 2016. *Report to the Nations on Occupational Fraud and Abuse*. Available at: <https://www.acfe.com/rtn2016/docs/2016-report-to-the-nations.pdf>
- Association of Certified Fraud Examiners (ACFE) 2020. *Report to the Nations 2020 Global Study on Occupational Fraud and Abuse*. Available at:

<https://acfe-public.s3-us-west-2.amazonaws.com/2020-Report-to-the-Nations.pdf>

Association of Certified Fraud Examiners (ACFE). 2018. Report to the Nations: 2018 Global Study on Occupational Fraud and Abuse. Available at: <https://www.acfe.com/report-to-the-nations/2018/default.aspx>

Baker, C. R., Cohanier, B., & Leo, N. J. (2017). Breakdowns in internal controls in bank trading information systems: The case of the fraud at Société Générale. *International Journal of Accounting Information Systems*, 26, 20-31. <http://dx.doi.org/10.1016/j.accinf.2017.06.002>

Baldock, G. (2016). The perception of corruption across Europe, Middle East and Africa. *Journal of Financial Crime*. 23(1), 2016 pp. 119-131. <https://doi.org/10.1108/JFC-02-2015-0004>

Biegelman, M.T. & Bartow, J.T. (2006). Executive Roadmap to Fraud Prevention and Internal Control: Creating a Culture of Compliance. Wiley.

Biegelman, M. T., & Bartow, J. T. (2012). *Executive roadmap to fraud prevention and internal control: Creating a culture of compliance*. John Wiley & Sons.

Bierstaker, J. -L., Brody, R. -G., & Pacini, C. (2006). Accountants' perceptions regarding fraud detection and prevention methods. *Managerial Auditing Journal*, 21(5), 520-535 <https://doi.org/10.1108/02686900610667283>

Boateng, A.A., Boateng, G.O., & Acquah, H. (2014). A literature review of fraud risk management in micro finance institutions in Ghana. *Research Journal of Finance and Accounting*, 5(11).

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>

Butcher, W., & Galbraith, J. (2019). Microfinance control fraud in Latin America. In *Forum for Social Economics* 48(1), 98-120). <http://dx.doi.org/10.1080/07360932.2015.1056203>

Chen, H., Dong, W., Han, H., & Zhou, N. (2017). A comprehensive and quantitative internal control index: construction, validation, and impact.

- Journal of Review of Quantitative Finance and Accounting*, 49(2), 337-377.
<https://doi.org/10.1007/s11156-016-0593-x>
- Chen, Y. J., Liou, W. C., Chen, Y. M., & Wu, J. H. (2019). Fraud detection for financial statements of business groups. *International Journal of Accounting Information Systems*, 32, 1-23.
<https://doi.org/10.1016/j.accinf.2018.11.004>
- Chiezey, U., & Onu, A.J.C. (2013). Impact of fraud and fraudulent practices on the performance of banks in Nigeria. *British Journal of Arts and Social Sciences*, 15 (1), 12-25.
- Collins, O. O. (2014). Effect of internal control on financial performance of micro-finance institutions in Kisumu Central Constituency, Kenya. *Journal of Scientific Research and Essay*, 3, pp.139-155.
- Committee of Sponsoring Organizations of the Treadway Commission. (2013). *Internal control-integrated framework*. Available at:
<https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>
- Dawson, S. (2015). *Internal control/ anti-fraud program design for the small business: A guide for companies not subject to the Sarbanes-Oxley Act*. John Wiley & Sons.
- Dorminey, J., Fleming, A. S., Kranacher, M. J., & Riley Jr, R. A. (2012). The evolution of fraud theory. *Issues in accounting education*, 27(2), 555-579.
<https://doi.org/10.2308/iace-50131>
- Drašarová, M., & Srnec, K. (2016). Microfinance as a tool for poverty reduction: A study in Mexico. *Mediterranean Journal of Social Sciences*, 7(5), 18.
<https://doi.org/10.5901/mjss.2016.v7n5p18>
- Fotabong, L. A. (2012). *The Microfinance Market of Cameroon-Analyzing Trends and Current Development*. <http://dx.doi.org/10.2139/ssrn.2007912>
- Gee, J., & Button, M. (2019). *The financial cost of fraud 2019: The latest data from around the world*. Available at:
<https://www.crowe.com/uk/croweuk/insights/financial-cost-of-fraud-2019>

- Ghazali, M. -Z., Rahim, M. -S., Ali, A., & Abidin, S. (2014). A preliminary study on fraud prevention and detection at the state and local government entities in Malaysia. *Procedia-Social and Behavioral Sciences*, 164, 437-444.
- Godfroid, C. (2019). Relationship lending in microfinance: How does it impact client dropout?. *Strategic Change*, 28(4), 289-300. <https://doi.org/10.1002/jsc.2271>
- Ho, S. J., & Mallick, S. K. (2017). Does Institutional Linkage of Bank-MFI Foster Inclusive Financial Development Even in the Presence of MFI Frauds? *Scottish Journal of Political Economy*, 64(3), 283-309. <https://doi.org/10.1111/sjpe.12124>
- International Auditing and Assurance Standard Board (IAASB) 2018a. *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements*. The International Federation of Accountants. Available at: <https://www.ifac.org/system/files/publications/files/IAASB-2018-HB-Vol-1.pdf>
- International Auditing and Assurance Standard Board (IAASB) 2018b. *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements*. The International Federation of Accountants. Available at: <https://www.ifac.org/system/files/publications/files/IAASB-2018-HB-Vol-2.pdf>
- Iqbal, S., Nawaz, A., & Ehsan, S. (2019). Financial performance and corporate governance in microfinance: Evidence from Asia. *Journal of Asian Economics*, 60, 1-13. <https://doi.org/10.1016/j.asieco.2018.10.002>
- Joseph, O. N., Albert, O., & Byaruhanga, J. (2015). Effect of internal control on fraud detection and prevention in district treasuries of Kakamega County. *International Journal of Business and management invention*, 4(1), 47-57.

- Jeppesen, K. K. (2019). The role of auditing in the fight against corruption. *Journal of The British Accounting Review*, 51(5), 100798. <https://doi.org/10.1016/j.bar.2018.06.001>
- Kabuye, F., Kato, J., Akugizibwe, I., & Bugambiro, N. (2019). Internal control systems, working capital management and financial performance of supermarkets. *Cogent Business and Management*, 6(1), 1573524. <https://doi.org/10.1080/23311975.2019.1573524>
- Kassem, R. (2020). Fraudulent Financial Reporting Risk Assessment: External Auditors' Perceptions Versus the Traditional Fraud Triangle Theory. *The 9th Counter Fraud Conference and Forensic Accounting Conference*, Portsmouth, United Kingdom
- Khan, A. -A., Khan, S. -U., Fahad, S., Ali, M. -A., Khan, A., & Luo, J. (2020). Microfinance and poverty reduction: New evidence from Pakistan. *International Journal of Finance and Economics*. <https://doi.org/10.1002/ijfe.2038>
- Kranacher, M. J., & Riley, R. (2019). *Forensic accounting and fraud examination*. John Wiley & Sons.
- Kumar, A., & Conteh, A. (2015). Common frauds in micro finance institutions (MFIs). *International journal of advanced rural management*, 1(1), 11-18. Available at: <http://management.cloudjournals.com/index.php/IJARM/article/view/Mgmt-113>
- Lämsiluoto, A., Jokipii, A., & Eklund, T. (2016). Internal control effectiveness – a clustering approach. *Journal of Managerial Auditing*, 31 (1), 5-34. <https://doi.org/10.1108/MAJ-08-2013-0910>
- Le, N.-T.-B., Vu, L.-T.-P. & Nguyen, T.-V. (2020). The use of internal control systems and codes of conduct as anti-corruption practices: evidence from Vietnamese firms", *Baltic Journal of Management*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/BJM-09-2020-0338>

- Le, T. T. H., & Tran, M. D. (2018). The effect of internal control on asset misappropriation: The case of Vietnam. *Journal of Business and Economic Horizons*, 14(4), 941-953. <http://dx.doi.org/10.15208/beh.2018.64>
- Ledgerwood, J. (1998). *Microfinance Handbook: An institutional and financial perspective*. The World Bank.
- Lin, Y. C., Wang, Y. C., Chiou, J. R., & Huang, H. W. (2014). CEO characteristics and internal control quality. *Corporate Governance: An International Review*, 22(1), 24-42. <http://dx.doi.org/10.1111/corg.12042>
- Lokanan, M. (2018). Theorizing Financial Crimes as Moral Actions. *Journal of European Accounting Review*, 27(5), 901-938, <https://doi.org/10.1080/09638180.2017.1417144>
- Lokanan, M. E. (2015). Challenges to the fraud triangle: Questions on its usefulness. In *Accounting Forum*, 39(3), 201-224. <http://dx.doi.org/10.1016/j.accfor.2015.05.002> 0155-9982
- Lokanan, M., & Sharma, S. (2018). A fraud triangle analysis of the LIBOR fraud. *Journal of Forensic and Investigative Accounting*, 10(2), 187-212.
- Mihaela, D., & Iulian, S. (2012). Internal control and the impact on corporate governance, in Romanian listed companies. *Journal of Eastern Europe Research in Business and Economics*, 2012, 1. <https://doi.org/10.5171/2012.676810>
- Manan, A. K. S., & Shafiai, M. H. B. M. (2015). Risk management of Islamic microfinance (IMF) Product by financial institutions in Malaysia. *Procedia Economics and Finance*, 31, 83-90. [https://doi.org/10.1016/S2212-5671\(15\)01134-X](https://doi.org/10.1016/S2212-5671(15)01134-X)
- Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications
- Mbah, R. E., & Wasum, D. F. (2019). Microfinance Survival: The Impact of Credit Management on the Sustainability of Micro Finance Institutions in Cameroon. *Historical Research Letter*, 50, 41-47. <http://dx.doi.org/10.7176/HRL/50-05>

- Mihaela, D. & Iulian, S. (2012). Internal Control and the Impact on Corporate Governance, in Romanian Listed Companies. *Journal of Eastern Europe Research in Business & Economics*, 2012(2012), 1-10. <https://doi.org/10.5171/2012.676810>
- Nalukenge, I., Tauringana, V. & Mpeera Ntayi, J. (2017). Corporate governance and internal controls over financial reporting in Ugandan MFIs, *Journal of Accounting in Emerging Economies*, 7 (3), 294-317. <https://doi.org/10.1108/JAEE-02-2016-0018>
- Nawawi, A., & Salin, P.A.S.A. (2018). Internal control and employees' occupational fraud on expenditure claims. *Journal of Financial Crime*. 25(3), 891-906 <https://doi.org/10.1108/JFC-07-2017-0067>
- Othman, R., Aris, N. -A., Mardziah, A., Zainan, N., & Amin, N. -M. (2015). Fraud detection and prevention methods in the Malaysian public sector: Accountants' and internal auditors' perceptions. *Journal of Procedia Economics and Finance*, 28, 59-67. [https://doi.org/10.1016/S2212-5671\(15\)01082-5](https://doi.org/10.1016/S2212-5671(15)01082-5)
- Peltier-Rivest, D. & Lanoue, N. (2015), "Cutting fraud losses in Canadian organizations", *Journal of Financial Crime*, 22(3), 295-304. <https://doi.org/10.1108/JFC-11-2013-0064>
- Postelnicu, L., & Hermes, N. (2018). Microfinance performance and social capital: A cross-country analysis. *Journal of Business Ethics*, 153(2), 427-445. <https://doi.org/10.1007/s10551-016-3326-0>
- Rae, K., & Subramaniam, N. (2008). Quality of internal control procedures. *Managerial Auditing Journal*, 23(2), 104-124. <https://doi.org/10.1108/02686900810839820>
- Riquet, C., & Poursat, C. (2013). Managing failing deposit-taking institutions: regulatory experience from Africa. *The World Bank*, 88168, pp. 1-16. [https://doi.org/10.1016/S2212-5671\(14\)00829-6](https://doi.org/10.1016/S2212-5671(14)00829-6)

- Riney, F. A. (2018). Two-Step Fraud Defense System: Prevention and Detection. *Journal of Corporate Accounting and Finance*, 29(2), 74-86. <https://doi.org/10.1002/jcaf.22336>
- Shonhadji, N., & Maulidi, A. (2020). Is it suitable for your local governments? *Journal of Financial Crime*.
- Sow, A. N. G., Basiruddin, R., Mohammad, J., & Rasid, S. Z. A. (2018). Fraud prevention in Malaysian small and medium enterprises (SMEs). *Journal of Financial Crime*, 25(2), 499-517. <https://doi.org/10.1108/JFC-05-2017-0049>
- Spatacean, I. O. (2012). Addressing Fraud Risk by Testing the Effectiveness of Internal Control over Financial Reporting—Case of Romanian Financial Investment Companies. *Procedia Economics and Finance*, 3, 230-235.
- Suh, B.J., Nicolaidis, R., & Trafford, R. (2019). The Effect of Reducing Opportunity and Fraud Risk Factors on the Occurrence of Occupational Fraud in Financial Institutions. *International Journal of Law, Crime and Justice*, 56, 79-88. <https://doi.org/10.1016/j.ijlcrj.2019.01.002>
- Tchakoute-Tchuigoua, H., & Soumaré, I. (2019). The effect of loan approval decentralization on microfinance institutions' outreach and loan portfolio quality. *Journal of Business Research*, 94, 1-17. <https://doi.org/10.1016/j.jbusres.2018.09.021>
- Tucker, M., & Miles, G. (2004). Financial performance of microfinance institutions: a comparison to performance of regional commercial banks by geographic regions. *Journal of Microfinance/ESR Review*, 6(1), 4. Available at: <https://scholarsarchive.byu.edu/esr/vol6/iss1/4>
- Wolfe, D. T., & Hermanson, D. R. (2004). The fraud diamond: Considering the four elements of fraud. *CPA Journal*, 74(12), 38-42.
- Yimga, J. (2018). Microfinance expansion and its effects on cost efficiency. *The Quarterly Review of Economics and Finance*, 69, 205-216. <https://doi.org/10.1016/j.qref.2018.03.006>

Zakaria, K. M., Nawawi, A., & Salin, A. S. A. P. (2016). Internal controls and fraud—empirical evidence from oil and gas company. *Journal of Financial Crime*, 23(4)1154-1168. <https://doi.org/10.1108/JFC-04-2016-0021>

Appendix 1.

Consent Form

The purpose of this data collection process is to aid my investigation on how the design and use of internal control impact fraud detection and prevention in microfinance institutions (MFIs). The main objective of the study is to get an increased understanding of the internal control design of MFIs, the component of internal control which is considered most important in the detection and prevention of fraud. This brings me to my main interest, which is to get your experience and opinion on what types of internal controls MFIs use in fraud detection and prevention. Also, to get your opinion on what types of internal control you feel is most appropriate and effective in detecting and preventing fraud. On this note, I want to assure you that this process is completely voluntary. Therefore, you have the right to decide whether to be part of this research process. If at any point in time you do not feel the need to continue, you have the right to withdraw without any explanation. Given the current Covid-19 pandemic, this interview will be conducted on Zoom or WhatsApp at your convenience. I also want to assure you that every piece of information collected during this process will be treated with utmost confidentiality and anonymity is guaranteed. All data collected will be processed confidentially in such a way that this information does not get into the wrong hands. The data processing will continue until the end of the thesis which will be in June 2021. On the completion of this thesis, all collected data will be deleted.

After reading through the information describing the purpose of the research, I agree to take part in this research. I am now fully aware that my participation is completely voluntary and that I can at any point in the interview cancel my participation in the study without stating any reason.

For any further questions contact:

Yolanda Aji Abei: Student; yolaabei100@student.kau.se

Sven Siverbo: Supervisor; Sven.siverbo@kau.se

Lazarus Fotoh: Supervisor; lazarus.fotoh@kau.se

Appendix 2

Interview Questions

Biographical questions

1. What is your job description in your institution?
2. How long have you been working in this institution?
3. Are you directly involved in the internal control system of your institution?

Specific, regarding fraud:

4. Do you consider fraud an important risk to be treated with much attention in your MFI? And why?
5. In your opinion, what is the major cause of fraud in MFIs?
6. Do you recall any fraud-related case in your institution either before or during your stay in the institution? If yes, what measures were used to handle the situation?

Specific, regarding internal control:

7. Are any specific factors your MFI takes into consideration in the implementation of the internal control system? (like the consideration of fraud)
8. Do you feel your internal control system is governed based on best-recommended practices? If yes, what are the policies and measures in place against fraud?

Internal control and fraud detection and prevention:

9. Does your MFI have an internal control software for fraud detection or is everything done manually?
10. Which component(s) of internal control do you consider most important if MFIs are to prevent fraud? Why?
11. How in your opinion can MFIs improve their internal control to prevent fraud?

12. In your opinion, do you think it is possible to have internal control design and use it in a way that reduces the fraud perpetrators:

- motivation to commit fraud.
- Opportunity to commit fraud.
- Justification for fraudulent actions.
- Capability

Any final remark?