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CREDIT RISK MANAGEMENT PRACTICES OF DEVELOPMENT FINANCE INSTITUTIONS (DFIS) AND ENHANCING THE EFFECTIVENESS OF SME FUNDING IN BOTSWANA

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ABSTRACT

The study examines how Development Finance Institutions (DFIs) in Botswana handle credit risk, with an emphasis on the importance of industry diversity, corporate governance, collateral, and regulatory compliance while funding SMEs. Six people participated in the study, and qualitative research methodology and questionnaires was used to collect data on the credit risk management practices of the Citizen Entrepreneurial Development Agency (CEDA). The use of qualitative methodologies is further justified by the complexity of credit risk management measures in the setting of DFIs and SMEs in Botswana. It is important to emphasize that qualitative research helps with strategy planning and decision-making by providing insights into human and organizational dynamics. Sampling approaches was used to connect research findings to broader applications, enabling the justifiable extrapolation of findings to comparable organizations and industries. Techniques for thorough sampling are emphasized for their capacity to connect research findings to broader applicability, enabling the justifiable extrapolation of conclusions to comparable organizations and enterprises. The theoretical framework offers an in-depth comprehension of stakeholder interactions and the function of financial intermediaries in credit risk management by integrating financial intermediation theory with stakeholder theory.

Moreover, the thesis looks on credit risk mitigation, and demonstrates how CEDA's credit portfolio diversification across different industries promotes wider economic goals in addition to citizen empowerment. Furthermore, emphasis is placed on how crucial it is for DFIs to handle credit risk effectively, particularly in the setting of funding SMEs. The task for DFIs is to find a balance between helping SMEs with a tolerance for risk, while also adjusting credit risk management techniques that set them apart from typical companies. The researcher will have to make sense of the qualitative findings in relation to the research questions to interpret and report the data. The objective is to provide an easily understood and clear synopsis of the findings, highlighting significant trends and connections discovered during the thematic examination. This method guarantees a strong interpretation of the qualitative data, which advances our knowledge of credit risk management procedures and how they affect SMEs in Botswana's development finance institutions.

The results highlight the critical role that collateral plays in offering DFIs security and highlight the adjustments that DFIs have made to the collateral criteria to accommodate SMEs who are

unable to offer collateral. To mitigate to mitigate risk to decrease defaults and promote financial maturity, regulatory compliance becomes increasingly important. To achieve CEDA's goals, the study emphasizes how important corporate governance is in promoting long-term connections and coordinating with sustainability goals. For improving credit risk management, an efficient approval procedure is identified, with a focus on staff training, comprehensive appraisal tools, and continuous monitoring. The research offers a thorough grasp of DFIs' credit risk management procedures and offers useful recommendations for CEDA, policymakers, SMEs, and academics. In the end, this serves to promote the long-term growth of SMEs in Botswana.

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CHAPTER 1: INTRODUCTION

1.0 Introduction

This chapter begins an investigation into the credit risk management procedures used by Development Finance Institutions (DFIs) and how they affect the efficiency with which SMEs in Botswana are funded. The study acknowledges the contribution that DFIs make to economic development on a national, continental, and global scale and tries to provide insights into credit risk management from a range of perspectives. It addresses why effective credit risk management is essential, especially for DFIs, and the unique challenges and opportunities these businesses encounter. Understanding the country's credit risk environment is a key focus of the study, which is carried out in the framework of Botswana's development goals. To ensure the long-term sustainability of SME funding programs, the chapter presents the problem statement and emphasizes the need to identify and address credit risk management concerns. The research objectives are clearly stated, providing guidance for the analysis of DFIs' credit risk policies in Botswana and their effects on the growth of small and medium-sized businesses. By achieving these objectives, the research seeks to offer valuable data that will influence practices and laws that support the sustainable expansion of SMEs in Botswana.

1.1 Background of The Study

Development Finance Institutions (DFIs) play an essential role in stimulating economic development by giving financial support to crucial sectors, particularly Small Medium Enterprises (SMEs) (Agyeman & Gyimah S, 2019). In Botswana, the success of SME funding by DFIs is dependent upon vigorous credit risk management practices. The economic environment of Botswana is portrayed by a still growing SME sector, making it important for DFIs to manage credit risks efficiently to establish the sustainable growth of these small enterprises (Mbo, 2020). Credit risk management is indispensable for several reasons, playing a pivotal role in sustaining the financial well-being and stability of financial institutions, businesses, and the overall economy (Zia Ur Rehman, 2019). It is widely recognized that SMEs play a crucial role as catalysts for economic development. Facilitating their access to financial resources is crucial because of their capacity for innovation, job creation, and overall economic prosperity (AFDB, 2023). With their responsibility to promote development, DFIs are leading this initiative and directing funding to SMEs to help them realize their full potential for expansion (Agyeman & Gyimah S, 2019). However, small and medium-sized business funding

involves credit risks which require for thoughtful consideration and effective risk management approaches (AnjuArora, 2015).

1.2 Importance of Credit Risk Management

Effective credit risk management ensures the stability of financial institutions by preventing undue exposure to high-risk borrowers (Herring, 1999). For this reason, this contributes to the general stability of the financial system. Additionally, A primary objective of credit risk management is to reduce the risk of borrower default (Ai, Brockett, & Wang, 2016). By assessing the creditworthiness of borrowers, institutions can identify and address potential default risks, thus protecting their financial assets (Saleh, 2020).

According to Herring (1999) Rational credit risk management assists institutions in preserving their capital by steering clear of substantial losses attributed to bad loans. This preservation of capital is vital for sustaining liquidity and meeting regulatory requirements. (Ai, Brockett, & Wang, 2016) Additionally, an exceptionally administered credit risk process enables institutions to partake in responsible lending practices (Nyamongo, 2019). Furthermore, this entails extending credit to borrowers who are more likely to meet their financial obligations, fostering sustainable lending activities (Angilella & Mazzù, 2010). Another importance of credit risk management is that Financial institutions, including Development Finance Institutions (DFIs), are obligated to comply with regulatory frameworks that necessitate effective credit risk management (Agyeman & Gyimah S, 2019). Adhering to these regulations is important for steering clear of penalties, legal complications, and preserving the institution's operational license (Ingves, 2004). Effective credit risk management enables Development Finance Institutions (DFIs) to strike a balance between risk and reward (AFDB, 2004). By identifying and undertaking calculated risks, these organizations can optimize their profitability without exposing themselves to undue financial risk (Saleh, 2020).

International Perspective on Development Finance Institutions (DFIs)

Development Finance Institutions (DFIs) have indeed played a crucial role in facilitating industrialization and post-war reconstruction in various regions, including European countries (Auyezbayeva, 2013).DFIs have at times voiced concerns about the possibility that their proactive environmental and social due diligence practices or their willingness to participate in remedial actions might heighten their exposure to increased legal liability risks (Zia Ur Rehman, 2019). Moreover, while there is Limited legal precedent specifically addressing the

potential legal liability exposure of DFIs, a 2021 study examining liability regimes for commercial lenders in various jurisdictions, including the United Kingdom, the United States, the European Union, and Hong Kong, China, among others, indicates that: (a) liability for environmental and social impacts on the part of lenders is constrained in the jurisdictions studied; and (b) engaging in more comprehensive proactive due diligence is unlikely to heighten liability risks and, in fact, may mitigate them (UN, 2022).

Continental Perspective on Development Finance Institutions (DFIs)-Africa

The credit risk associated with Development Finance Institutions (DFIs) in Africa is a complex issue shaped by various factors (Agyeman & Gyimah S, 2019). These elements include challenges unique to each country, exposure to different sectors, currency risks, regulatory environments, partnerships with local entities, global economic trends, and evaluations of social and environmental impacts (UN, 2020). Basically, comprehending credit risk in the context of African development finance institutions (DFIs) necessitates a thorough examination that takes into account the unique characteristics of various countries, economic sectors, and the larger global and regulatory environment (AFDB, 2004). Furthermore, Development Finance Institutions (DFIs) play a crucial role in promoting sustainable growth, infrastructure development, and poverty alleviation across the African continent by acting as the principal funders for these kinds of projects (Bernouss, 2021). Unfortunately, rather than being acknowledged as essential intermediates in underdeveloped financial environments, the experience with Development Finance Institutions (DFIs) in Africa as a whole has led to the image of DFIs as financially flawed organizations (SADC, 2019) .

Some African countries are coming with ways of controlling the credit industry, the Credit Reporting Act holds significant importance in the financial landscape by providing a legal framework for the regulation of credit reporting activities (Mylenko, 2008). Ghana has passed Credit Reporting Act, 2007 (Act 726) which is the foundation for the establishment of a credit referencing bureau in Ghana (Kessey, 2015). In addition, when it comes to South Africa (SA), Development Finance Institutions (DFIs) additionally bear the responsibility of addressing socio-economic development and transformation challenges stemming from the historical Apartheid system, while concurrently managing credit risks (Fuchs, 2011).

Botswana Perspective on Development Finance Institutions (DFIs) Credit Risk

The Government of Botswana is actively pursuing economic diversification as a fundamental policy objective. A particular focus within this policy agenda is the improvement of the performance of small and micro-enterprises (SMEs) (Okurut & Mangadi, 2020). Moreover, the commercial private finance sector is undergoing rapid changes in the credit landscape, driven by a pursuit of increased returns and a desire for optimized risk acceptance. Conversely, developing countries like Botswana and economies in transition are facing challenges related to issues like public debt and widening fiscal gaps, which are often worsened by ongoing budget deficits (Mbo, 2020). Furthermore, In Botswana just like most developing countries, the existing financial challenges encountered by Development Finance Institutions (DFIs) are rooted in adverse macroeconomic conditions and fluctuations in economic policies (SMEs) (Okurut & Mangadi, 2020). Furthermore, these challenges can be attributed to inappropriate institutional and organizational structures, deficient financial frameworks, insufficient business processes, a shortage of qualified human resources or managerial capabilities, and functions influenced by political mandates (Sentsho, 2009). In the context of Credit risk management, addressing these challenges becomes crucial to enhance the effectiveness of risk mitigation strategies and ensure the overall stability and success of DFIs in Botswana (SADC, 2019).

1.3 Problem Statement

Even though the importance of DFIs in the economic development of Botswana cannot be over emphasized, there is a concerning issue when it comes to the credit risk management practices of DFIs. It is worth noting that, the sustainability and success of SMEs greatly depends on the availability of cost effective funding (Cusmano, 2015). DFIs that do not manage credit risk well run the danger of unfavorable consequences like a rise in non-performing loans, unstable financial markets, and stunted SME sector expansion (Agyeman & Gyimah S, 2019). The credit risk management practices currently employed by Development Finance Institutions (DFIs) in Botswana pose a substantial challenge to the effective mitigation of risks for Small and Medium Enterprises (SMEs) (IMF, 2023). Despite the pivotal role DFIs play in the economic landscape, there is a pressing concern that their existing credit risk management strategies are ineffective in safeguarding SMEs against financial uncertainties (Auyezbayeva, 2013).

The problem at hand extends beyond simple inefficiency; it explores into the critical question of how to ensure the optimal utilization of DFIs (Cusmano, 2015). This encompasses guaranteeing that these institutions not only prevent the deployment of costly policy instruments but also dynamically contribute to providing access to finance for SMEs. This challenge holds particular relevance for Botswana, given the prevalent market failures in finance provision for essential sectors such as infrastructure, agriculture, housing, and SMEs (Sentsho, 2009). To address the urgent need for a more effective framework for credit risk management that is consistent with Botswana's particular economic issues, careful research is needed to understand the between risk mitigation and the active developmental involvement of DFIs (IMF, 2023). According to AFDB (2003) Very few of the smaller DFIs have separate risk management departments or an integrated framework for managing risks.

Table 1 Difficulties SMEs encounter when utilizing the existing business resources

Challenges	Multiple responses	Percentage of cases
	N = 63	
Lack of ethical employees	1	1.6
High costs of production	2	3.2
Scarcity of skilled manpower	9	14.3
Inability to grow beyond local market	2	3.2
Licensing	1	1.6
Transport	1	1.6
Market access	4	6.3
Lack of finance	23	36.5
Competition	6	9.5
Lack of land	4	6.3
Illegal businesses in manufacturing	1	1.6
Importing equipment from outside the country	1	1.6
Low phone network coverage and Internet	2	3.2
Poor management handovers and high turnover	1	1.6
No money in circulation in the economy	1	1.6
Government policies	1	1.6
Rejection of work permits by government	1	1.6
Lack of business knowledge	1	1.6
Lack of working capital and raw materials	1	1.6
Corruption	1	1.6
Late payments by customers and competition	1	1.6

(Mutoko & Kapunda, 2017)

Table 1 lists several of the challenges that Botswana's manufacturing SMMEs experience. Lack of funding was the most frequently mentioned issue among all the difficulties that the manufacturing SMEs highlighted, and it is the primary barrier to SMME expansion. According to SMEs, funding support is required (Mutoko & Kapunda, 2017).

1.4 Objectives

1. Evaluate the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding.
2. Assessing the effectiveness of credit risk management techniques in one DFI Institution in Botswana.
3. Evaluate the impact of good Credit risk management practices in SME funding
4. To make recommendations for improving credit risk management for DFIs in Botswana.

1.5 Expected Outcomes

1. **Enhanced Credit Risk Management**: Deployment of advanced risk assessment models for precise evaluation of SMEs' creditworthiness.
2. **Balanced Collateral Requirements:** Adjusted collateral structure that harmonizes risk management while ensuring practical funding access for SMEs.
3. **Strengthened Risk Mitigation Capacities:** Enhanced resources, education, and proficiency within DFIs to proficiently recognize and alleviate credit risks linked with SME funding.

1.6 Significance of the Study

The relevance of this study lies in its potential to contribute important insights and information to various stakeholders. The research findings are expected to aid various stakeholders in the following ways:

a. Managers of DFIs

Informed Decision-Making: The research offers managers of Development Financial Institutions (DFIs) significant data and analysis to improve their decision-making processes. This includes gaining enlightenment into market trends, identifying risk factors, and narrowing down potential areas for investment or operational improvement.

Optimized Operational Strategies: Managers can utilize the study to refine and optimize operational strategies based on the findings. This may result in more efficient resource allocation, improved credit risk management, and an overall enhancement in performance.

b. Government

Policy Formulation: Government officials can employ the knowledge gained from the study for the formulation or adjustment of policies related to financial institutions, economic development, and support for Small and Medium Enterprises (SMEs).

Regulatory Changes: The study's identification of areas where regulatory changes could be beneficial provides government bodies with information to update or create regulations that align with the goals of DFIs and SMEs.

c. SMEs

Strategic Planning: Small and Medium Enterprises (SMEs) can harness the study to cognize market dynamics, recognize potential challenges, and craft strategic plans. This involves accessing information on financing options and understanding market trends. Effective Credit Risk Management: The study's insights into risk factors affecting SMEs empower them to develop and implement effective Credit risk management strategies, enhancing their resilience and sustainability.

d. Other Researchers:

Basis for Further Research: The research serves as a foundational resource for other researchers, providing a basis for further exploration into related topics. This can contribute to a deeper understanding of the subject matter and the development of more comprehensive theories or models. Comparison and Validation: Researchers can leverage the study's findings as a benchmark for comparison with their own work, validating and strengthening their research hypotheses. This iterative process contributes to the cumulative knowledge in the field.

1.7 Assumptions

It is assumed that participants will provide candid, truthful, and honest responses during the research.It is also assumed that the existing literature is accurate, reliable, and comprehensive, providing a solid foundation for the research.

1.8 Theoretical Research Framework

This research is guided by two theories, Stakeholder Theory, and financial intermediation theory. The two Theories, allows for a comprehensive analysis of the interactions between different stakeholders and financial intermediaries. By integrating these theories, the research aims to offer theoretical insights and practical implications for improving SME funding in Botswana.

Stakeholder Theory

Development finance institutions (DFIs) that fund small and medium-sized enterprises (SMEs) have a primary problem in the modern financial landscape: managing credit risk effectively (Agyeman & Gyimah S, 2019). Additionally, Stakeholder theory integration in this context provides an extensive framework for examining how credit scoring models match the expectations and interests of different stakeholders, thereby enhancing the sustainability of the financial system (Hörisch, Freeman, & Schaltegger, 2014). Moreover, Stakeholder theory is a perspective that helps us understand the complex web of relationships and interests that make up the financial ecosystem (Damak & Pesqueux, 2005). It draws attention to the various and sometimes conflicting expectations that various key players, such as regulatory bodies, small and medium-sized enterprises (SMEs), and development finance institutions (DFIs), hold (Mbo, 2020). Acknowledging and appreciating these divergent viewpoints becomes critical in navigating the complex environment of credit risk management in order to conduct a thorough assessment of the performance of credit scoring models (Parmar, Freeman, Harrison, & Purnell, 2010).In the context of finance, Development Finance Institutions (DFIs) are essential intermediaries between capital sources and SMEs who require funding (Dalberg, 2010). Basically, Stakeholder Theory promotes a careful examination of the ways in which DFIs, SMEs, and regulatory agencies have interests that overlap and occasionally clash (Parmar, Freeman, Harrison, & Purnell, 2010). In order to maintain a careful balance between risk assessment, financial inclusion, and regulatory compliance, credit scoring algorithms must be able to harmonize these disparate expectations (Prabhakar & Weber, 2020).

Financial Intermediation Theory

The Diamond-Dybvig model is an example of Financial Intermediation Theory, which is a fundamental tool for comprehending the operational complexities of Development Finance Institutions (DFIs) (Mayowa, 2020). This theory explains the internal structure of DFIs and emphasizes their crucial function as intermediaries between savers and borrowers in the context of credit risk management (Reiff, Khartit, & Rosenston, 2024). Furthermore, The use of Financial Intermediation Theory to the analysis of DFIs is justified by its capacity to illuminate the ways in which these institutions manage the fine line between maintaining financial stability and efficiently providing funding to small and medium-sized businesses (SMEs) (Scholtens & van Wensveen, 2003).The Financial Intermediation Theory provides additional insight into the critical role DFIs play in the effective distribution of capital to SMEs (Bhatt, Joo, Iqbal, & Ullah, 2023). DFIs can direct funding to initiatives and businesses that offer long-term profits by evaluating the creditworthiness of borrowers (BDB, 2014). The idea emphasizes how important credit risk management is to this process since it makes sure that money is spent wisely, promoting economic growth and lowering default risk (Bhatt, Ahmed, Iqbal, & Ullah, 2023). Stakeholder theory and financial intermediation theory work well together because they acknowledge the different interests of savers, borrowers, and regulatory agencies (Scholtens & van Wensveen, 2003). This theory explains how DFIs can use credit risk management to make sure that their operations meet stakeholder expectations and maintain a careful balance between risk reduction, financial stability, and facilitating SME investment (Bhatt, Joo, Iqbal, & Ullah, 2023).

Stakeholder theory and financial intermediation theory combined provide a comprehensive method for managing DFI credit risk. It helps DFIs to successfully distribute funding to SMEs while preserving their financial stability, traverse the intricacies of stakeholder interests, and match their operations with ethical considerations. DFIs may create a framework for credit risk management that is robust and sustainable while also catering to the many interests of stakeholders in the contemporary financial environment by utilizing the insights from both theories.

1.9 Conclusion

This chapter provides an overview of the techniques used by Development Finance Institutions (DFIs) to manage credit risk and how they affect the funding that SMEs receive in Botswana. The study aims to offer insights from a variety of perspectives while acknowledging the critical

role DFIs play in economic development at the national, continental, and international levels. Given the special opportunities and problems that DFIs confront, it highlights the importance of efficient credit risk management. The study's objectives are well-defined and serve as a guide for examining credit risk management strategies and how they affect the expansion of small and medium-sized enterprises. To give a thorough grasp of stakeholder interactions and the function of financial intermediaries in credit risk management, the theoretical framework combines financial intermediation theory with stakeholder theory. The research is important since it provides management of DFIs, government officials, SMEs, and scholars with information. Improved risk mitigation capabilities, balanced collateral requirements, and better credit risk management are anticipated results. The study is to optimize DFIs in Botswana, guaranteeing their active contribution to the sustainable expansion of SMEs and general economic success.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Small and medium-sized enterprises (SMEs) are the backbone of economies around the world since they are vital to promoting economic growth, innovation, and job creation (Bayraktar & Algan, 2019). Small and medium-sized enterprises (SMEs) present significant obstacles when trying to obtain sufficient funding, mostly because of the perceived credit risk involved in their business operations (Yoshino & Taghizadeh-Hesary, 2016). This crisis of finances prevents SMEs from reaching their full potential and reduces their capacity to make a significant contribution to economic growth. Development Finance Institutions (DFIs) are becoming increasingly pertinent to helping small and medium-sized firms (SMEs) overcome their financing difficulties as a result of their recognition of the vital role SMEs play in economic ecosystems (Agyeman & Gyimah S, 2019). By enabling the effective flow of finance to SMEs through the application of focused credit risk management procedures, DFIs act as boosters for economic development. These organizations serve as middlemen, bridging the gap that exists between the banking industry and small and medium-sized businesses (SMEs) (Thomas, 2008). They also use creative financial instruments to reduce the inherent risks that come with lending to SMEs.

The goal of the literature review is to acquire understanding of the extensive research on DFIs' credit risk management tactics, with a focus on how SMEs might benefit from them. Through an analysis of the corpus of existing research, this study seeks to provide a comprehensive knowledge of the many approaches, methods, and best practices employed by DFIs to negotiate the challenging landscape of credit risk management in the context of SME finance. It illustrates how well DFIs assist SMEs' financial inclusion and sustained economic growth, which makes an examination of this particular topic vital. Furthermore, by highlighting emerging trends, addressing information gaps, and offering insights, this study aims to assist DFIs in enhancing and optimizing their credit risk management practices in relation to financing small and medium-sized enterprises. It does this by critically examining the body of existing research. In the end, when policymakers, financial institutions, and scholars collaborate to strengthen the financial basis that SMEs may grow upon, a detailed understanding of these tactics is critical.

2.1 Credit Risk Management

Credit risk management is the process of identifying, minimizing, and keeping an eye on the possibility of financial loss if borrowers' default on their agreements (Bhatia, 2005). For financial institutions, credit risk management is critical to maintaining financial stability, profitability, and long-term growth (Bhatt, Ahmed, Iqbal, & Ullah, 2023). Credit risk management in DFIs operates in line with, in keeping with, or in accordance with a systematic approach to identifying, assessing, and mitigating potential risks associated with lending activities (Odonkor, 2018). Furthermore, as noted by the World Bank (2019), financial sector regulators are essential in monitoring and guaranteeing the integrity and stability of the financial system. Additionally, improving credit quality and reducing non-performing loans are significantly impacted by a Development Financial Institution's (DFI) capacity to create and follow credit policies and procedures (Thomas, 2008). By using this strategy, the DFI is able to ensure its long-term viability by engaging in profitable lending activities that stay within the parameters of its approved risk appetite (Odonkor, 2018).

Development Financial Institutions (DFIs) have the option to come up with transparent decision-making processes when considering new guarantees (Ai, Brockett, & Wang, 2016). This entails defining specific eligibility criteria, avoiding certain types of risks, and setting limits to prevent the acceptance of risks beyond predetermined thresholds (Sophie Fuchs, 2021). DFIs frequently exhibit a tendency to design products that facilitate credit flow to target segments. Nonetheless, the lack of proper safeguarding mechanisms, such as adequate governance, robust policies and processes, and a shortage of financial sustainability principles, can lead to losses and jeopardize the long-term sustainability of the institution (Herring, 1999).

The African Development Bank (AfDB) 2004 seminar's insights demonstrate the proactive strategy taken by Development Finance Institutions (DFIs) in actively acquiring and disseminating knowledge regarding credit risk management. Participating institutions had a specialized forum to evaluate and talk about their risk management procedures during the event (AFDB, 2004). This shows that the development finance industry is dedicated to continuous education and growth, especially when it comes to addressing credit risk-related issues (Abor, Adjasi, & Lensink, 2021). By participating in these seminars, DFIs show that they are working together to increase their knowledge of the dynamics of credit risk, exchange effective tactics, and pinpoint areas that require development. This eventually helps to strengthen credit risk management practices in the sector (AFDB, 2004).

2.2 Classification of DFI Risk and Management of Enterprise Risk

To efficiently identify, assess, and manage risks throughout their operations, Development Finance Institutions (DFIs) use risk classification systems and enterprise-wide risk management methodologies.

Table 2 DFI Classification System

Corporate objectives	Strategic risk	Operational risk	Business risk
Development Impact	• Systemic risk		• Development risk • New product risk
Financial Sustainability	• Business model risk • Asset portfolio risk	• Fraud risk • Legal risk	• Credit risk • Market risk • Liquidity risk • Country risk • Sovereign risk
Institutional Capability	• Reputational risk • Human resource risk • Management risk	• Process failure risk • Compliance risk • Business continuity risk • IT system risk • Financial reporting risk	• Project risk

(Kibuuka & Shandu, 2022)

Risks with similar characteristics are categorized using the DFI (Development Finance Institution) risk categorization approach, as shown in ***Table 2***. The purpose of this classification is to enable efficient supervision and control. The system's mission is to categorize risks according to how they affect the organization's development effect, financial sustainability, and institutional capabilities (Kibuuka & Shandu, 2022). DFIs can adopt a comprehensive understanding of the strategic, operational, and business risks encountered across all of their activities by putting into practice an enterprise-wide risk management approach (AFDB, 2023). This holistic approach enables the integration of risk assessment and mitigation into traditional management practices. Additionally, it helps to integrate accountability for reducing risk and vulnerability across all organizational levels.The DFI risk rating system essentially aims to offer an organized framework for for risk management that is in line with the general aims and objectives of the organization (Kibuuka & Shandu, 2022).

Basel Capital Accord

The first international framework for banking regulation was established by the Basel Committee on Banking Supervision and is known as Basel I, or the Basel Capital Accord. When it was first put into effect in 1988, the primary goal was to establish minimum capital requirements for banks in order to lower credit risk and promote financial stability (Jefferis & Tacheba, 2009). Basel I (Bank of Botswana, 2016) represents a standardized process for determining and managing capital adequacy in the banking sector. Credit risk and the application of a simple risk-weighting method to determine capital requirements were the main concerns of Basel I (Settlements, Bank for International, 2001). As a result of the effective risk-based regulatory and supervisory framework the Bank of Botswana has maintained, the banks have been kept from taking on unwarranted risks (Bank of Botswana, 2016). As a result of Botswana's implementation of Basel I capital requirements guidelines, overall capital needs relative to risk-weighted assets have exceeded the minimum globally agreed upon (Keith Jefferis, 2009).

2.3 Risk Management Within Development Financial Institutions (DFIS)

Risk management within Development Financial Institutions (DFIs) involves a in-depth procedure to identifying, assessing, and mitigating different risks that may influence the institution's financial stability, operational efficiency, and ability to achieve its developmental goals (Boiardi, 2021). Furthermore, DFIs generally are given responsibility of fostering economic development, must steer various risks inherent in their lending and investment activities (Thomas, 2008). According to WorldBank (2019) managing various risks, including credit risk is a constant challenge. DFIs need robust risk management strategies to navigate uncertainties. Moreover Fink (2023) states that DFIs engage in a thorough evaluation of the creditworthiness of borrowers, coupled with the implementation of strategies aimed at effectively managing and mitigating the risk associated with potential loan defaults. Within DFIs, risk management is a dynamic, ever-evolving process that takes a comprehensive approach to recognizing, evaluating, and reducing risks in a variety of contexts (GIZ, 2014). It necessitates striking a balance between advancing economic growth and guaranteeing the institution's financial stability (Bernouss, 2021). Proactive monitoring, adherence to governance principles, and ongoing innovation are essential components of successful risk management in DFIs.

Like other financial institutions, Development Financial Institutions (DFIs) operate with a variety of credit risks (AFDB, 2004). These risks stem from the nature of their operations, which include engaging in potentially riskier areas, supporting developmental initiatives, and lending to projects with longer gestation periods (Agyeman & Gyimah S, 2019). The following are some distinct credit risks that DFIs experience:

Default Risk

The likelihood that a borrower will not make their agreed-upon principal and interest repayments constitutes the most basic credit risk (Fink, 2023). DFIs just like all financial institutions experience this common risk. For Development Finance Institutions (DFIs), default risk is a serious concern since it can result in financial losses and make it more difficult for them to achieve their developmental objectives (Horrocks, 2023). Additionally, DFIs may suffer financial losses as a result of defaults, which could compromise their long-term viability (Abor, Adjasi, & Lensink, 2021). These organizations frequently work under the mission of balancing development effect and financial returns (IMF, 2023). Defaults may put a pressure on their funding and capacity to support upcoming initiatives. Moreover, significant default rates may result in DFIs having fewer resources available for future projects (AFDB, 2023). This restricts their ability to provide funding for other projects that would promote economic expansion and the eradication of poverty (Collier, 2021).

Environmental and Social Risk

Development Finance Institutions' (DFIs') activities now heavily rely on the management of social and environmental risks (AFDB, 2015). These risks are related to the possible harm that DFI-financed projects could do to the environment and nearby communities (UN, 2022). In the course of project screening and due diligence procedures, DFIs carry out comprehensive environmental and social impact assessments (ESIAs) (ECOWAS, 2022). This aids in identifying possible consequences and risks prior to financing approval. Moreover, to evaluate potential risks and effects of the proposed project on the environment and society, DFIs carry out in-depth investigations (AFDB, 2015). It must be stressed that it is crucial that DFIs conduct in-depth studies in order to assess the possible hazards and impacts of the proposed project on society and the environment (OECD, 2020). Development Finance Institutions (DFIs) examine potential social impacts during the due diligence process, including effects on indigenous peoples, local communities, and cultural heritage, with the goal of ensuring that the projects

they finance respect the rights and well-being of affected populations and contribute positively to social development (Paula & Patricia, 2016).

Operational Risk

One important component of risk management for Development Finance Institutions (DFIs) is operational risk (Ai, Brockett, & Wang, 2016). It includes the possibility of suffering losses as a result of insufficient or unsuccessful internal procedures, systems, personnel, or outside circumstances (Vicente, 2023). Additionally Operational risk in relation to credit risk encompasses not just borrower behavior but also DFI internal processes (Bound, 2022). It is important that DFIs identify and assess potential weaknesses or vulnerabilities in internal processes and systems that could impact the effective management of credit risk (Kessey, 2015). To reduce the possibility of mistakes or delays, DFIs make sure that the processes for credit approval, monitoring, and reporting are effective and well defined (Abor, Adjasi, & Lensink, 2021). For successful risk reduction and decision-making, it is essential that individuals working in credit risk management at Development Finance Institutions (DFIs) have the requisite training and expertise (Auyezbayeva, 2013). Staff members must get ongoing training in order to stay current on changing credit risk management best practices, industry standards, and regulations (Bank Of Botswana, 2018). It is imperative to be up to date with evolving industry norms, legislation, and best practices to efficiently recognize, evaluate, and reduce credit risks (Auyezbayeva, 2013).

Country Risk Spread

Development Finance Institutions (DFIs) that invest in securities, particularly those with fixed interest rates, must take credit spread risk into account (Bhatt, Ahmed, Iqbal, & Ullah, 2023). The extra yield or interest rate that investors require to keep a bond with credit risk as opposed to a risk-free bond is known as the credit spread (Harper, 2022). It is the payment investors demand in exchange for assuming the increased default risk connected to the issuer (Gant, 2023). DFIs often invest in fixed-interest-rate securities as part of their portfolio. These may include bonds issued by governments, corporations, or other entities (OECD, 2023). These fixed-income securities provide DFIs with a mix of stability, income generation, and risk management (Chilembo, 2021). DFIs may strategically use fixed-income instruments to manage overall portfolio risk. Moreover, DFIs may invest in government bonds, which are considered relatively low-risk due to the backing of the government (OECD, 2023).

2.4 Credit Risk Strategies Implemented By DFIS

Credit risk management is defined by Brown & Moles (2014) as putting policies in place to assess, monitor, and lessen the possibility that borrowers would miss payments on their loans. It's critical to comprehend credit risk in order to comprehend credit risk management; Credit risk is the likelihood that a lender would experience financial loss should a borrower default on a loan or violate other credit-related obligations (Chattejee, 2015). Financial organizations aim to stop borrowers from missing payments or going into default on their loans. (Moles, Brown, 2014). Moreover, Credit risks are measured using a relative scale by current credit risk measuring methods (Bhatia, 2005). These techniques seek to evaluate a borrower's potential for financial loss, credit quality, and default risk. Key techniques for managing credit risk are as follows:

Credit Scoring and Modelling

When it comes to credit evaluation, Development Finance Institutions (DFIs) must strategically apply quantitative models in order to assess borrower creditworthiness in accordance with their overall developmental goals (Dalberg, 2010). These advanced models are invaluable resources for DFIs, empowering them to make well-informed, data-driven decisions based on thorough examination of financial parameters and historical data (World Bank Group, 2021). Credit scoring systems are a methodical way to evaluate a borrower's creditworthiness by the methodical analysis of financial ratios, past performance, and other relevant data (Genriha & Voronova, 2012).

Development finance institutions (DFIs), committed to sustainable development, recognize the importance of credit evaluation in allocating funds to projects that promote social, economic, and environmental objectives (George Marbuah; Dirk Willem te Velde; Samantha Attridge; Alberto Lemma; Jodie Keane, 2022). The borrower's basic information, including a range of financial records, credit reports, payment histories, and other relevant data required for a full examination, must be obtained before this procedure can start (International Finance Corporation, 2012). In an attempt to obtain a thorough understanding and enhance the sophistication of their credit assessment process, DFIs utilize both traditional and nontraditional data sources, such as social media activity and electricity bills (George Marbuah et al, 2022). Additionally, DFIs are aware of the potential benefits of using non-traditional data sources to improve their credit assessment models (World Bank Group, 2021). DFIs can assess

a borrower's creditworthiness more comprehensively by taking into account factors like utility payments and social media usage, which provide them with insights into the larger socioeconomic backdrop (Stephen Spratt;Lily Ryan Collins, 2012). By taking a comprehensive approach, DFIs not only strengthen the credit evaluation process but also guarantee that the funds they provide are allocated to projects that support their objective of promoting sustainable and equitable development (Angilella & Mazzù, 2010).

Through the application of credit rating models grounded in past performance and pertinent financial indicators, DFIs improve their capacity to recognize and fund projects that make a significant contribution to the betterment of society while upholding a responsible and long-term financial position (Angilella & Mazzù, 2010). DFIs are positioned to play a significant role in building a financial environment that extends beyond profitability to include positive developmental impact thanks to this comprehensive and forward-thinking strategy (AFDB, 2004).

Diversification of Credit Portfolios

Portfolio diversification is a strategic necessity for financial institutions, Development Finance Institutions (DFIs) included, in the larger framework of risk management (Louise & Barbara, 2017). The objective is to avoid over-concentration and mitigate potential losses by distributing credit risk across different markets, industries, and geographical areas. Specifically, DFIs use sector diversification as a risk management strategy, spreading exposure over a range of economic sectors to lessen the impact of recessions in a given area (Huil & Foong, 2020).

The composition of the portfolio is regularly examined to identify and address any undue concentration in particular industries, ensuring the efficacy of this strategy (Kristina, 2010). Limiting the maximum exposure in specific industries provides further protection against excessive risk concentration (Ai, Brockett, & Wang, 2016). During this process, DFIs carefully assess the risks that are inherent to each business in the portfolio, taking into account hazards unique to that industry, legislative changes, and macroeconomic factors that affect the creditworthiness of borrowers (Odonkor, 2018).

Effective Due Diligence

DFIs include efficient due diligence as a critical element in the loan process as they work toward their development objectives (OECD, 2023). This includes doing a thorough study and

assessing market fluctuations, cash flows, hazards, and financial statements (Chilembo, 2021). Prioritizing alignment with the DFI's goal is crucial, with an emphasis on examining the borrower's actions' possible effects on society and the environment (Auyezbayeva, 2013). During due diligence, cash flows—a key sign of financial health—are carefully examined. DFIs examine historical data and anticipated trends to evaluate the consistency and dependability of cash inflows and outflows (FinRegLab, 2019). Insights into the borrower's liquidity position are provided by this detailed study, which guarantees that the proposed loan is in line with their ability to repay debts (Nikolaou, 2009). Another crucial component of due diligence is risk assessment, which includes a thorough examination of any potential risks to the venture's viability (AFDB, 2004). Whether the risks are related to the market, operations, or external causes, DFIs are proactive in recognizing and understanding them in order to execute risk mitigation techniques that protect the interests of all parties involved (UN, 2022).

Alignment with DFI's Mission

A crucial component of the due diligence process that goes beyond the conventional measures of creditworthiness is alignment with the goal of a Development Finance Institution (DFI) (OECD, 2019). This component goes further into an evaluation to make sure the potential borrower is not only sound financially but also fits in with the DFI's larger developmental goals and philosophy (Dalberg, 2010). This alignment primarily examines whether the borrower's planned activities are in line with the development objectives of the DFI (Abor, Adjasi, & Lensink, 2021). It entails a careful analysis of the suggested initiatives or projects that the loan revenues will be used to fund (Kumar, 2014). Through this procedure, the DFI's funding support is guaranteed to be allocated to projects that improve the socioeconomic environment and promote sustainable development and expansion (Louise & Barbara, 2017).

Regarding the environment, the evaluation aims to comprehend the suggested actions' ecological footprint (Kele & Mustafa, 2010). Examining the possible effects on biodiversity, natural resources, and compliance with environmental laws are all part of this (Bekhechi & Merder, 2002). Additionally, DFIs frequently provide preference to initiatives that show a dedication to ecologically conscious methods, encouraging a balance between ecological preservation and economic development (Dalberg, 2010).Given the DFI's commitment to advancing fair and sustainable development, mission alignment is a strategic necessity rather than simply an elective criterion in the financing process (Bernouss, 2021). Development finance institutions (DFIs) can leverage their financial resources to support projects that

advance the common good and foster positive change in the communities they serve by ensuring that borrowers fulfill this obligation (Louise & Barbara, 2017).Ultimately, this alignment strengthens the mutually advantageous relationship between the borrower and the DFI, which goes beyond financial transactions to represent shared values and a shared vision for a more sustainable and equitable future (IMF, 2023).

Engagement with Borrower

Engaging with potential borrowers is seen vital by DFIs in order to get information on the planned projects that the loan proceeds are intended to aid (TUDCN, 2016). When a connection is open and cooperative, transparency and mutual understanding are fostered (Agyeman & Gyimah S, 2019). The engagement process is being started in order to fully comprehend the suggested initiatives that will be supported by the loan monies (Badioli, 2019). Prospective borrowers are urged by DFIs to provide an explanation of their goals, aspirations, and the expected outcomes of the projects they are putting up (Trujano, 2021).In addition, promoting mutual understanding amongst participants is crucial to the engagement process. It is recognized by DFIs that effective cooperation requires a shared comprehension of goals, timelines, and potential risks (AFDB, 2023). The proactive resolution of any concerns or misunderstandings through constructive discussion facilitates a stronger and more cooperative partnership between the borrower and the DFI (Fuchs, 2011).

Independent Verification

Essential to note is that independent verification via third-party audits and verification processes takes center stage in DFI due diligence procedures (Gumel, 2021). By doing this, the assessment of possible borrowers is made more thorough and credible by demonstrating the validity of the data gathered and raising the standard of review (OECD, 2006). DFIs, in line with their goal and supporting sustainable development, are better equipped to make well-informed financing decisions thanks to these interrelated processes (Calice, 2013). As independent verification has a central role in the due diligence framework, it serves to enhance the credibility of the information provided and raises the bar for review in general, which is consistent with the DFI's commitment to openness and sustainable growth (Dickinson, 2008). Additionally, independent verification enhances the due diligence process's overall credibility (Chattejee, 2015). DFIs exhibit their dedication to rigorous evaluation criteria and risk mitigation strategies by exposing borrower data to external examination (Auyezbayeva, 2013).

This strengthens the institution's reputation for diligence and dependability among stakeholders, including investors, partners, and the larger financial community, in addition to fostering confidence in the decision-making process (IMF, 2023).

2.5 The Impact Of Collateral Prerequisites On Funding For Small And Medium-Sized Enterprises (SMEs)

Assets pledged by a borrower to a lender as security for a loan are referred to as collateral (Chilembo, 2021). Requirements for collateral in the context of SMEs can significantly affect their capacity to obtain funding (Agyeman & Gyimah S, 2019).The lender is entitled to take possession of and sell the collateral to recoup the unpaid balance in the event of a borrower default (Angilella & Mazzù, 2010). The majority of SMEs, despite their acknowledged significance, struggle to secure financing from financial institutions (Gumel, 2021). According to Bondinuba, (2012) Collateral is a type of security used by lenders to lessen the risk involved in lending. This means that it might be easier for SMEs to obtain financing from traditional banking institutions if they have a lot of collateral (Abor, Adjasi, & Lensink, 2021).

Development Finance Institutions (DFIs) are essential organizations created with the dual missions of correcting market gaps and promoting economic growth. Facilitating Small and Medium-sized Enterprises' (SMEs) access to financing is a crucial part of this duty, particularly for those SMEs who are having trouble obtaining capital from traditional sources (Agyeman, 2019). What distinguishes DFIs from other types of financial organizations is their capacity to apply cutting-edge risk mitigation strategies that go beyond conventional collateral requirements. This special quality allows for innovative financing options for SMEs while also redefining the function of collateral (UN, 2022). Some DFIs are mindful of what challenges SMEs encounter when supplying traditional collateral (Balkenhol, 2010). To promote the development of small businesses, they might therefore introduce more lenient collateral requirements or provide financing options without collateral (GIZ, 2014). Moreover, DFIs frequently provide SMEs capacity-building initiatives and technical support. In order to lessen the requirement for strict collateral, this support may involve assisting companies in strengthening their governance frameworks, overall creditworthiness, and financial management (Balkenhol, 2010).

UN (2022) report states Financial products that are especially suited to the requirements of SMEs may be created by DFIs. These goods might be venture capital, mezzanine financing, or other financial instruments that take into account the potential growth and impact of the

business rather than depending only on tangible collateral (Agyeman & Gyimah S, 2019). In addition, DFIs largely receive assistance from the government and can offer guarantees for loans to SMEs (OECD, 2020). The government support may be used as collateral to facilitate SMEs' funding applications (Galilee, 2023).To reach SMEs, DFIs frequently work with local financial institutions. In order to better meet the needs of SMEs, DFIs may be able to persuade partner institutions to adopt collateral requirements that are more inclusive and flexible (Boiardi, 2021). For example, The Africa SME Programme under the African Development Bank (AFDB) provides technical support and long-term liquidity (Lines of Credit) to African local Financial Institutions (FIs) so they can successfully finance local small and medium-sized businesses (SMEs) and expand their loan portfolios of high-quality SMEs (AFDB, 2023).

Regulatory Compliance

Development Finance Institutions (DFIs) recognize the critical role that regulatory compliance plays in the complex field of risk management, as it is a fundamental element in guaranteeing the stability and integrity of financial systems (IMF, 2023). Through skillful regulation navigating, DFIs are able to uphold the highest standards of adherence in this constantly shifting regulatory context (DBSA, 2022).The timely and accurate submission of regulatory reports in accordance with supervisory bodies' mandates is a crucial component of this regulatory commitment (Sadiq & Governatori, 2014). DFIs recognize how important it is to have open lines of communication and mutual trust with regulatory agencies in order to ensure transparency in this process (Tokoro, 2007). DFIs fulfill regulatory requirements and foster an accountable and cooperative financial environment by meeting reporting deadlines and submitting accurate information (Rogerson, 2008).

2.6 Effectiveness Of Credit Risk Management Strategies

In the dynamic world of financial institutions, efficient credit risk management is essential to preserving portfolio stability and reducing losses due to borrower defaults (Pyle, 1999). A robust credit risk management system acts as a shield in the dynamic world of financial institutions, where risks and uncertainties are a part of daily existence. It offers tools and strategic insights to help manage the demanding lending business (Ai, Brockett, & Wang, 2016).

Effectiveness Of Credit Scoring and Modelling

Preciseness in Evaluating Creditworthiness; Development Finance Institutions (DFIs) rely on credit scoring and modeling to be accurate in determining potential borrowers' creditworthiness (Dickinson, 2008). Beyond only being financially feasible, these models need to be tailored to explore project-specific elements such as the impacts on society and the environment. The ability of credit scoring and modeling to identify and reduce these particular risks is critical to the success of development programs (Dickinson, 2008).

Effectiveness of diversifying of Credit Portfolios

Building Resilience through Diversification: Diversification's capacity to lower risks, optimize portfolio performance, and comply with development goals is unmistakable proof of its efficacy (Busby, 2023). By retaining a well-diversified credit portfolio, DFIs are able to fulfill their dual objectives of promoting sustainable development and preserving financial sustainability (Eighteen East Capital, 2020). Continuously effective diversification requires ongoing monitoring and assessment in light of a changing work environment.

Effectives of Due Diligence

Encouraging Wise Decision-Making: The efficiency of due diligence in credit risk management is demonstrated by the way it helps with compliance checks that are necessary for legal and regulatory evaluations (Rubix, 2023). Due diligence facilitates responsible decision-making, regulatory compliance, and overall portfolio quality by identifying, assessing, and mitigating risks associated with lending activities (OECD, 2019). The general health of a financial institution's credit operations is enhanced by a comprehensive and well-managed due diligence procedure (Chen, 2023).

Collateral Prerequisites in DFIs

Achieving developmental goals, preserving financial inclusion, and risk management must all be carefully balanced for collateral-free DFIs to be successful (UNCTAD, 2021). The implementation or modification of collateral requirements must be assessed in light of the unique mission, funded projects, and community needs in order for these institutions to be effective (Kibuuka & Shandu, 2022). This approach maximizes the advantages of collateral-free DFIs for sustainable development by making sure that collateral laws are closely matched with the overall goals, values, and socio-economic conditions (Dickinson, 2008).

Effectiveness Of Regulatory Compliance

Regulatory compliance has been found to be effective in many areas, such as legal adherence, risk mitigation, financial stability, consumer protection, data privacy, operational performance, international trade, corporate governance, reputation management, and regulatory change adaptation (OECD, 2019). Establishing trust, managing the complicated regulatory landscape, and realizing long-term success all depend on an extensive and well-managed compliance program (HCCA-OIG, 2017). According to (Boiardi, 2021)The success of credit risk management strategies for Development Finance Institutions (DFIs) is evaluated not solely in financial terms but also in their capacity to advance sustainable development goals. (Thomas, 2008) goes on to stress that the success of Development Finance Institutions (DFIs) depends on the crucial importance of effective credit risk management strategies, which not only uphold their mission but also safeguard financial stability. To explain it further, DFIs frequently operate with a dual mandate, seeking not just financial returns but also aiming for social and economic development impact. The evaluation of credit risk management effectiveness should consider the institution's success in attaining its development goals and fostering positive outcomes in the communities it serves (Marbuah, 2022) . Furthermore, Development Finance Institutions (DFIs) commonly focus on funding projects in specific sectors, such as infrastructure, healthcare, or education. Effectively managing credit risks in these sectors necessitates a profound comprehension of the distinctive risks involved, encompassing regulatory, environmental, and social factors (Trujano, 2021).

Aligning credit risk management strategies with the overarching development goals and policies of the Development Finance Institution (DFI) is important. This alignment ensures that the institution's financial resources are channeled toward projects that actively contribute to

sustainable development and poverty reduction (Boiardi, 2021). It is worth noting that due to their inherent nature, Development Finance Institutions (DFIs) may find it necessary to assume higher risks compared to conventional financial institutions in order to support projects with significant development potential (Dickinson, 2008). Nonetheless, it is crucial to wisely manage risk-taking capacity to prevent undue exposure that could compromise the financial stability of the institution (SADC, 2019).

It is important to remember that Development Finance Institutions (DFIs) are usually in charge of handling the social and environmental risks related to their projects (Dickinson, 2008). Robust frameworks for evaluating and reducing non-financial risks must be incorporated into effective credit risk management (Korth, 2016). Development Finance Institutions (DFIs) may provide technical support and capacity-building assistance to its clients in order to ensure the success of projects they establish (SADC, 2012). Undoubtedly, effective credit risk management involves more than just assessing borrowers' financial standing; it includes helping them improve their own risk management procedures (Odonkor, 2018). To improve the abilities and expertise of its clients, the African Development Bank (AFDB), for instance, offers training courses. Furthermore, the bank hosts seminars and workshops where customers can participate in interactive discussions, share experiences, and learn from professionals in many sectors (Woods, 2012).

2.7 The Impact Of Good Credit Risk Management Practices On DFI Funding

Effective credit risk management techniques have a big effect on lenders as well as debtors. Credit risk is the possibility that a borrower won't pay back their debts, which would cause the lender to suffer financial losses (Saleh, 2020). Good credit risk management is essential to keeping the financial system strong and stable. Furthermore, due to their commitment to funding programs that support economic development, poverty eradication, and sustainable growth, development finance institutions (DFIs), which offer long-term funding for development projects, have a significant impact on effective credit risk management strategies (Trujano, 2021). (Calice, 2013) goes on to further explain that performance is ultimately determined by DFIs capacity to recognize, quantify, track, and manage the risks they face and to assess whether they have sufficient capital to cover those risks. As stated DFI investments frequently involve projects with a higher level of risk than traditional commercial ventures, managing credit risk is especially crucial for them.

Corporate governance

Effective credit risk management procedures are essential to an organization's overall corporate governance (AFDB, 2004). Corporate governance is the framework of policies, procedures, and guidelines that govern how an organization is run (ICAEW, 2023). Establishing a suitable framework in place is crucial for DFIs to ensure that they fulfill their mandate and achieve their goals in an efficient manner, especially considering their role in public policy (Calice, 2013).

Lenders' Financial Stability

Effective credit risk management could lead to Reduced Losses, through the use of efficient credit risk management, financial institutions can reduce the likelihood of loan defaults and losses by identifying and mitigating potential risks. (Zia Ur Rehman, 2019). Moreover, efficient credit risk control strategies enhance capital adequacy. By assigning appropriate capital reserves following a precise credit risk assessment, lenders may make sure they have enough cash on hand to cover potential losses (Ong, 2020). It is imperative to note that by decreasing the likelihood of loan defaults, effective credit risk management safeguards DFIs' financial stability (IMF, 2023). This allows them to carry out their objective and keep funding development projects in the long run.

Enhancement of Decision-Making

According to (Odonkor, 2018) good credit risk management encourages knowledgeable lending decisions, a detailed examination and evaluation of the creditworthiness of borrowers is necessary for effective credit risk management. (Fink, 2023) goes on to further explain that, based on risk profiles, lenders can decide more intelligently when granting credit, establishing reasonable limits, and customizing loan terms. Moreover, sound credit risk improves Portfolio diversification, to lessen the impact of economic downturns on their entire portfolio, lenders can diversify their loan portfolios by evaluating and managing credit risk across several industries and sectors (Odi, 2011). Additionally effective credit risk management significantly enhances Development Finance Institutions' (DFIs') ability to make decisions (UN, 2022). It guarantees that DFIs are able to allocate resources and finance projects in a strategic and informed manner.

2.8 Promoting Sustainable Development Through Effective Credit Risk Management

Development Finance Institutions (DFIs) can direct resources toward projects with strong financial viability and a high chance of success when they implement effective credit risk management, which is essential for encouraging consistent investments (Woods, 2012). Strategic risk assessment and investment choices work together to protect the financial system and advance sustainable development initiatives in the social, environmental, and economic domains (Auyezbayeva, 2013).

Consistent Investments

Mitigating Risks for Financial Viability: When credit risk management is done well, DFIs are certain to make well-informed investment choices and select projects with solid financial backing (OECD, 2023). Through methodical risk assessment and mitigation, development finance institutions (DFIs) can uphold a steady stream of funding towards financially viable and sustainable development goals activities (Calice, 2013).

Supporting Sustainable Development

Balancing Social, Environmental, and Economic Impact: By promoting investments in initiatives that have positive impacts on social, environmental, and economic dimensions, the dedication to efficient credit risk management naturally promotes sustainable developmen (Abuatwan, 2023). DFIs play a critical role in supporting programs that alleviate poverty, advance environmental sustainability, and benefit local communities (UN, 2022).

Accordance with Development Goals

Targeted Effect for More General Goals: Development finance institutions (DFIs) can achieve a specific and impactful outcome that is in line with wider development goals on a national and global scale by implementing efficient credit risk management (Hehenberger, 2022). DFIs play an active role in promoting the achievement of overall development goals by focusing on initiatives that have a significant impact on poverty alleviation, environmental sustainability, and local communities (Isa-Olatinwo, 2021).The strategic alignment of investments with broader developmental objectives demonstrates the relationship between good credit risk management and sustainable development, to sum up (UN, 2018). By virtue of their dedication to responsible risk management, DFIs protect investors' money while also serving as agents of

positive social, environmental, and economic change, paving the way for a more inclusive and sustainable future (Agyeman & Gyimah S, 2019).

2.9 Summary

The purpose of this literature review is to examine how, via efficient risk management, Development Finance Institutions (DFIs) support the financial inclusion and economic growth of small and medium-sized firms (SMEs). It explores the several approaches to credit risk management that DFIs use, including regulatory compliance, independent verification, purpose alignment, and credit scoring. The review highlights how crucial these tactics are to attaining goals related to development and financial stability. Moreover, it emphasizes how good credit risk management affects financial stability, corporate governance, decision-making, and the advancement of sustainable development. Effective credit risk management ultimately enables development finance organizations to make well-informed investments that align with larger, more progressive objectives.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

The Methodology chapter provides an outline for examining how Development Finance Institutions (DFIs) handle credit risk and how it affects the funding efficiency of Small and Medium-sized Enterprises (SMEs) in Botswana. It acknowledges that DFIs play a critical role in economic development, especially when it comes to helping SMEs. The objectives involve analyzing credit risk management methodologies, comprehending their influence on small and medium-sized enterprises, and identifying challenges and opportunities. The chapter begins with an explanation of why a qualitative research design, with questionnaires serving as the main mode of data gathering, is appropriate. It provides an organized framework for a methodical investigation of credit risk management in the given environment by outlining the sampling techniques and ethical issues. All things considered, the methodology chapter establishes the framework for a comprehensive and focused analysis.

3.1 Research Approach

According to Asper and Corte (2019), the methodological approach of qualitative research involves looking into and understanding the underlying meanings, patterns, and intricacies of human behaviors, experiences, and occurrences. This study uses a qualitative research methodology to give readers a thorough understanding of the context in which Development Finance Institutions (DFIs) implement credit risk management practices and how those practices impact the efficiency of funding for small and medium-sized enterprises (SMEs) in Botswana. Qualitative research is appropriate for this investigation since it may look at and assess the intricacies and subjective components present in the field of credit risk management.

Justification for using qualitative research

The choice to use a qualitative research approach for this study comes from the specific research questions and the goal of examining the complex dynamics of credit risk management in the context of Small and Medium-sized Enterprises (SMEs) in Botswana and Development Finance Institutions (DFIs). Furthermore, the potential of qualitative research to investigate the breadth and complexity of credit risk management strategies in the unique context of DFIs and SMEs in Botswana essentially justifies the use of this type of study (Austin, 2015). It is worth

stressing that using qualitative techniques, this research attempts to provide a comprehensive picture of the variables impacting credit risk decisions by producing insights that go beyond statistical patterns (Moradi, 2019). Henceforth, Exploring the complex nature of credit risk management in development finance institutions requires the use of qualitative research (Aspers & Corte, 2019). When qualitative research is used comprehensive insights into organizational and human dynamics are provided, which are helpful for well-informed decision-making and strategy planning (Mack, Woodsong, Macqueen, Greg, & Namey, 2005).

In-depth Investigation

The positive aspect about Qualitative research is that it makes it possible to thoroughly investigate the viewpoints of the various stakeholders involved in credit risk management in DFIs, including borrowers, lenders, regulators, and internal staff (Odonkor, 2018). This is proved by the various techniques that is uses such as Focus groups, interviews, and open-ended questionnaires that may be utilized to gather the diverse viewpoints, worries, and expectations of various stakeholders (Kabir, 2016). Garcia, Giménez, & Guijarro (2015) goes on to further state that through the use of qualitative methodologies, researchers can examine how DFIs make decisions about credit risk. Understanding risk assessments, loan approval standards, and the variables affecting risk mitigation techniques may all be necessary to achieve this (Odonkor, 2018). Additionally, by using qualitative approaches, researchers can investigate the credit risk decision-making processes of DFIs (Mbah, 2023).

Moreover, Qualitative research can help uncover difficulties that DFIs encounter while managing credit risk, including internal operational problems, economic situations, and regulatory limitations (Mekdessi & Makdissi, 2014). It also goes to further aid in finding possibilities for innovation or improvement in credit risk management procedures (Bhatt, Ahmed, Iqbal, & Ullah, 2023). One of the reasons why Qualitative research is preferred over Quantitative is that it helps to comprehend how those who work in credit risk management behave (Rahman, 2017). It further Explores behavioral characteristics including decision-making biases, risk perception, and the impact of past experiences on risk-taking behaviors are all made possible by qualitative approaches (Garcia, Giménez, & Guijarro,2015).To validate this further, Genriha & Voronova (2012) emphasize how important it is to understand the conduct of those who work in credit risk management. After weighing the types of research methods, it was decided that Qualitative techniques are the best for this type of study as they allow for the investigation of behavioral traits such as decision-making biases, perception of

risk, and the influence of prior experiences on risk-taking behaviors (Collins & Stockton, 2018).

3.2 Contextual Understanding

The goal of the research is to fully understand credit risk management procedures in the unique institutional and socioeconomic framework of Botswana. Therefore, Qualitative methods such as interviews can be used to examine contextual factors that may influence decisions about credit risk (Tenny, Brannan, & Grace, 2022).Furthermore, this study may provide a thorough understanding of credit risk management in Botswana that considers the unique institutional and socioeconomic factors that influence this region through the use of qualitative approaches like in-depth interviews. The information acquired can be used to develop more specific and effective credit risk management practices within Botswana's particular framework.One way to learn about important stakeholders' viewpoints on credit risk management is to conduct interviews with representatives of financial institutions, regulatory agencies, and DFIs based in Botswana (IMF, 2023). When it comes to qualitative research, understanding the objectives, challenges, and experiences of the many stakeholders in relation to the community is essential for success in gaining their perspective (Austin, 2015).

Complexity of Credit Risk Management

It is worth noting that managing credit risk is a dynamic, diverse process that is influenced by a number of different elements even when it comes to DFIs (Badioli, 2019). In comparison to using quantitative methods, qualitative research offers a more thorough knowledge by allowing for greater flexibility in identifying and interpreting the distinctions of these elements (Moradi, 2019).Additionally, Qualitative research has the ability of capturing the human element, including personal judgment, decision-making procedures, and how company culture affects risk perceptions (Aspers & Corte, 2019).

Moreover, behavioural components that quantitative models usually ignore include risk perception, risk tolerance, and decision biases (Ahmed, Rasool, Saleem, Khan, & Kanwal, 2018). Whereas through qualitative research, these behavioural components can be examined in order to gain a better understanding of credit risk management approaches (Mekdessi & Makdissi, 2014).Since a detailed analysis ought to be conducted, Credit risk management makes use of a wide range of information sources, and qualitative methods make it possible to analyse unstructured data like stories, narratives, and qualitative input from stakeholders

(Sajjad, 2016). The qualitative method is ideal for this research since it allows for the examination of different points of view from different stakeholders (AFDB, 2004). Through the examination of various risk perceptions held by stakeholders, qualitative methodologies enable important insights into potential conflicts or inconsistencies in risk management strategies (Bhatt, Ahmed, Iqbal, & Ullah, 2023).

Participant Perspectives

Understanding participant perspectives in the context of credit risk management is made possible by directly interacting with important stakeholders through qualitative methods, especially in Development Finance Institutions (DFIs) and Small and Medium-Sized Enterprises (SMEs). This makes it possible for the study to gather information about a range of viewpoints, personal incentives, and the social context of credit risk management techniques (AnjuArora, 2015). Moreover, Researchers can interact with DFI representatives directly through qualitative methods including in-depth interviews. These interviews can probe the viewpoints of DFI decision-makers, examining their incentives, tolerance for risk, and institutional elements affecting credit risk management techniques (Bhatt, Joo, Iqbal, & Ullah, 2023). Moreover, one-on-one interviews with SME owners enable a more thorough comprehension of their individual motivations and credit risk decision-making procedures (Chakabva & Tengeh, 2023). It facilitates the discovery of SMEs' risk perceptions, risk-reduction tactics, and the effects of credit risk management on day-to-day operations (Hiebl, 2015). This goes to prove that the best approach is qualitative research since it can examine the social and economic conditions that enable small and medium-sized enterprises to operate (Chinyere & Eze Val, 2023).

3.3 Flexibility in Data gathering

Throughout the research process, qualitative research offers flexibility in gathering information, enabling modifications and the examination of new themes (Busetto, Wick, & Gumbinger, 2020). Exploring credit risk management within Development Finance Institutions (DFIs) and its effects on Small and Medium Enterprises (SMEs) is a particularly useful application of the flexibility that qualitative research offers (Angilella & Mazzù, 2010). Furthermore, by focusing on development, researchers might modify their investigations to investigate how DFIs handle credit risk management and how this may vary from traditional financial institutions (Gyima & Agyem, 2019). By applying Open-ended questions and an

iterative design, it allows the study to investigate how DFIs strike a balance between their developmental aims and financial sustainability, as well as how credit risk management fits into these double agendas (UN, 2023). Moreover, because qualitative research offers various techniques to data gathering, the evidence supporting it also shows that it is possible to investigate the links between DFIs and SMEs (Rahman, 2017).

3.4 Disadvantages Of Using The Qualitative Research Method

Subjectivity and Bias

Subjectivity and bias are two major criticism raised towards qualitative research (Busetto, Wick, & Gumbinger, 2020). Researchers actively participate in the process of gathering and interpreting data, therefore their individual viewpoints, experiences, and opinions may have an impact on the results (Collins & Stockton, 2018). Additionally, Researchers' attitudes, experiences, and histories can affect how they approach and interpret data (Taherdoost, 2022). For example, a researcher with training in finance may view credit risk differently than a researcher with training in developmental economics (Kwashie, Tawiah, & Kojo, 2022). When interpreting the responses from DFIs and SMEs, the researcher's personal biases and viewpoints could affect how the results are interpreted overall. (Moradi, 2019).

Restricted Generalizability

As per Aspers and Corte (2019), qualitative research typically involves a smaller sample size and results that are often context-specific. According to Collins and Stockton (2018), it could be challenging to extrapolate the study's results to a broader population or to make predictions outside of its confines. When it comes to research, qualitative studies usually employ smaller sample sizes than quantitative studies (Austin, 2015). Thus, while studying credit risk management, a limited set of DFIs, SMEs, or stakeholders may make up the sample. This small sample size limits extrapolating the findings to a broader population (Aspers & Corte, 2019). Results from the study may not be as applicable to a larger landscape as they might be based on the practices and experiences of a small number of DFIs and SMEs (Acharya, Prakash, Saxena, & Nigam, 2013).

Time-Consuming

It can take a lot of time to gather, record, and analyze qualitative data, especially when using techniques like theme analysis and in-depth interviews (Rutledge & Hogg, 2020). Techniques

for gathering qualitative data, like focus groups, participant observations, and in-depth interviews, frequently call for large time commitments (Kabir, 2016). The time of data collection can be extended by interacting with important players in DFIs and SMEs, developing a connection with them, and enabling in-depth conversations (Austin, 2015).Organizing focus groups or interviews with important stakeholders, such as DFI and SMEs representatives, can take a lot of time. Longer timelines are a result of scheduling sessions according to participants' availability and making sure they actively participate in the study process (USAID, 2008).

In order to obtain extensive and specific understanding, the study on credit risk management within Development Finance Institutions (DFIs) and its impact on Small and Medium Enterprises (SMEs) used qualitative research methodologies. Qualitative techniques, such as interviews and Focus groups, provide flexibility in the collection of data and allow for a thorough examination of participant viewpoints, behavioral characteristics, and environmental elements. While acknowledging the time-consuming nature of qualitative research, the study highlights the importance of this approach in capturing the intricate details of credit risk management within the unique institutional and socioeconomic context of SMEs and DFIs. In recognition of the limited generalizability inherent in qualitative research, the approach places an emphasis on context-specific findings and stresses the significance of participant engagement and collaboration throughout the entire research process. Overall, the study's goals are met by the qualitative research approach, which attempts to offer a thorough and genuine examination of the various aspects influencing credit risk decisions in this particular financial and developmental environment.

3.5 Sampling & Sample Procedure

In qualitative research, the process of selecting participants for sampling is crucial in order to obtain insightful and valuable data about credit risk management in Development Finance Institutions (DFIs) and its effects on Small and Medium Enterprises (SMEs) (Aspers & Corte, 2019). A sample in research is a subset of a larger population that is used to make inferences about the population from the features seen in the sample (Verma, Gautam, Pandey, & Mishra, 2017). The necessity for a sample stems from realistic concerns, limitations in resources, and the aim of drawing significant conclusions about a broader group without exhaustively examining each member or component within that group (Memon, Ting, Hwa, & Ramayah, 2020). In research, a sample is required for the following reasons:

Budget and time constraints are common when conducting thesis research. Using a sample guarantees that the study is still feasible within these restrictions, enabling a thorough analysis of credit risk management without being overly reliant on resources (Ai, Brockett, & Wang, 2016). Analyzing credit risk management in DFIs and SMEs requires an emphasis on time efficiency. The financial landscapes in which these organizations operate are frequently dynamic and swiftly changing (BDB, 2014). By using sample subsets of data, sampling enables researchers to gather information quickly and effectively, providing insights into credit risk management strategies without the delays that come with researching the full population (Bhardwaj, 2019).By using a sample, researchers can obtain valuable insights without incurring the costly expenses of investigating the full population (Acharya, Prakash, Saxena, & Nigam, 2013). This strategy makes the best use of the money that is available for research. Budgets for thesis projects are usually limited (Mwaguni, Mbugua, & Rambo, 2020).

DFIs and SMEs in Botswana are very different from one another in terms of their operational structures, industry, and geographic locations. The importance of Sampling, is that it makes a study more logistically feasible by enabling researchers to concentrate on particular subsets, resolving issues with a variety of places, and guaranteeing that the investigation stays viable (Jacobson, Crofoot, Perry, & Hench, 2023).The comprehensive data collection from all DFIs and SMEs may pose logistical and practical challenges (Gyima & Agyem, 2019). A carefully chosen sample ensures the feasibility of data collection, allowing researchers to obtain meaningful insights without overwhelming the institutions and businesses being studied (Memon et al., 2020).

Although a subset of DFIs and SMEs are being studied, the objective is to guarantee sample representativeness in order to improve the generalizability of the results. Thorough sampling techniques link to the wider applicability of research findings, enabling the study's conclusions to be legitimately extended to comparable DFIs and SMEs outside of the sampled firms (Taherdoost, Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research, 2016). Complex data is used in credit risk management (Bhatt et al., 2023). It could be too much to analyze data from all DFIs and SMEs. By ensuring a manageable data analysis procedure, sampling enables researchers to apply rigorous analytical techniques and make significant findings that are relevant to the study (Jacobson et al., 2023).

Justification for Sample selection

Stratification

This sample selection the researcher will use in this research is Stratification. Stratification it is a sampling technique that includes breaking a population up into distinct subgroups or strata according to particular traits or qualities that are pertinent to the study (Hayes, 2023). Within each stratum, a subsequent random sampling is carried out separately. By ensuring that every subgroup is represented in the final sample, this method makes it possible to analyze population diversity in a more thorough manner (Lauren, 2023).

Advantages of Stratification

Tailored Research Focus; The relationship between DFIs and SMEs can be complex, involving various factors such as industry sectors, geographical locations, and credit histories. Stratification allows for a tailored exploration of credit risk management within specific segments of SMEs that engage with DFIs (Agyeman & Gyimah S, 2019).Precision in DFI-SME Interactions; Using stratification makes it possible to analyze credit risk management procedures more precisely across various SMEs' strata (Namosunge, Sindani, & Sakwa, 2016). Comparative Analysis with DFIs; Using stratification, the study compares the credit risk management strategies of SMEs and DFIs, ensuring a sufficiently diversified sample of SMEs (Taghizadeh-Hesary, Yoshino, Charoensivakorn, & Niraula, 2018). Because of this diversity, it is possible to do insightful comparisons that reveal how differently different SME demographic categories handle credit risk. (Abor, Adjasi, & Lensink, 2021). Policy Implications for DFIs; Within SME subgroups, stratification offers a structured method for identifying particular credit risk management successes or issues. For DFIs, this data may have immediate policy consequences, enabling them to customize their risk management and support plans for various SME categories (Buganova, Hudáková, Šimíčková, & Mošková, 2023).

Disadvantages of Stratification

Complexity in Defining Strata; Defining relevant strata for the DFI-SME context might be difficult because of the complexity of the interactions, which have numerous aspects. But in order to make sure that the sampling adequately represents the variation found in the DFI-SME connection, precision in stratum identification is essential (Thomas, Lauren, 2022).Difficulties with Data Availability; It can be difficult to find reliable information regarding SMEs,

particularly when it comes to credit histories and industry-specific information (Ai, Brockett, & Wang, 2016). It is crucial that data availability concerns are resolved in order to preserve the stratification process' effectiveness. (Hayes, 2023)

Generalizability Concerns: Although stratification offers in-depth insights, there might be issues with how the results apply to the larger DFI-SME environment. Stratified sampling takes into account the need to strike a balance between the results' wider application and the requirement for precision (Golzar, Tajik, & Noor, 2022).

Adaptability for Emerging Patterns: If emerging dynamics or patterns in the DFI-SME interaction are not sufficiently captured, the stated stratum may restrict adaptability (Franczak & Weinzimmer, 2022). Throughout the course of the study, stratum definitions may need to be reviewed and adjusted on a regular basis (Hayes, 2023.

The advantages of Stratified outweigh the disadvantages when adopting a stratified sampling strategy in a study on credit risk management between Development Finance Institutions (DFIs) and Small and Medium Enterprises (SMEs). Through stratification, credit risk behaviors within particular SME segments can be explored in a customized way, leading to a more complex understanding of the interaction between DFIs and SME. The approach facilitates insightful comparisons, gives DFIs obvious policy consequences, and offers insight on various credit risk management techniques. The accuracy and applicability of the study are improved by sector-specific insights, greater representativeness, and a customized research focus. The strategic benefits of stratification support a more thorough and contextually rich analysis of credit risk dynamics in the DFI-SME setting, despite obstacles including potential data availability problems and complexity in creating strata.

3.6 Data Collection Procedure

Research instruments

Data collection will be done through Qualitative questionnaires. The purpose of these questionnaires is to get comprehensive feedback on credit risk management procedures, SME funding requirements, obstacles encountered, and recommendations for enhancement. The reason why this method has been chosen is because Participants are able express their viewpoints and experiences using this approach in their own words (Lindemann, 2023). It guarantees that the study accurately reflects the wide range of perspectives, judgments, and

difficulties that participants in the credit risk management and SME finance landscape encounter (Stahl & King, 2020).

Questionnaire Description

The researcher will administer two questionnaires, one for the identified DFI (CEDA) and one for SMEs that were funded by CEDA. With regard to Small and Medium Enterprises (SME) funding in particular, the questionnaire is intended to collect data and insights from participants about their experiences and viewpoints on credit risk management practices at the Development Finance Institution (DFI) , CEDA (Citizen Entrepreneurial Development Agency) in Botswana.

Questionnaire for CEDA

The questionnaire is divided into 5 sections.

Professional Background and Demographic Questions

This section gathers basic data regarding the participant's role in credit risk management, years of experience, and position at CEDA. It also aims to determine how frequently participants interact with SMEs and how successful CEDA's credit risk management procedures are currently seen to be. The purpose of this section is to gather crucial information regarding the participant's experience, position at CEDA (Community Economic Development Agency), and professional background in credit risk management.

Evaluate the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding

This section aims to gather insights into the effectiveness of credit risk management strategies employed by DFIs, focusing on Credit Scoring and Modelling, and the role of Due Diligence in reducing default rates. It also explores how CEDA ensures diversity in its credit portfolio across various industries. The assessment continues with suggestions for enhancing credit risk management techniques in DFIs, particularly with regard to SME finance, after taking into account best practices, feedback systems, and regulatory compliance.

Assessing the effectiveness of credit risk management techniques in CEDA

This section explores into the influence of Collateral Prerequisites on a business's chance of qualifying and how regulatory compliance helps in reducing SME defaults. In particular, the researcher looks at how Collateral Prerequisites affect a business's likelihood of qualifying and how regulatory compliance helps lower the number of SME defaults.

Evaluate the impact of good Credit risk management practices in SME funding.

This section explores how CEDA's corporate governance increases SME funding, how effective credit risk management enhances decision-making processes, and the influence of sustainability considerations on SME funding. The researcher specifically look at how CEDA's corporate governance influences SME funding, how credit risk management works to improve decision-making, and how sustainability factors affect SME funding.

To make recommendations for improving credit risk management for CEDA

The final section seeks participants' recommendations for improving credit risk management strategies at CEDA, focusing on approval procedures, staff training, and tracking initiatives. The researcher asks participants to provide important recommendations aimed at improving credit risk management strategies at CEDA (Community Economic Development Agency). Focusing on approval procedures, staff training, and tracking initiatives, your insights will contribute to refining and strengthening CEDA's credit risk management framework.

Questionnaire for SMEs

The purpose of the questionnaire is to collect information and perspectives from participants being small and medium-sized businesses (SMEs) funded by CEDA. The main aim is to comprehend their perspectives and experiences with credit risk management strategies, particularly in relation to Development Finance Institutions (DFIs). Moreover it aims to gather information about the participants experiences, challenges, and recommendations related to credit risk management.

Professional Background and Demographic Questions:

This section gathers basic data regarding the participant's role in credit risk management, years of experience, years of position within their SME, and educational background. Additionally, it aims at determining how well the participant believes CEDA’s present credit risk

management procedures are working and how frequently they interact with CEDA. The evaluation of CEDA's credit risk management processes by the participant offers an insightful viewpoint on the effectiveness of the measures in use today. Determining how frequently SMEs interact with CEDA provides insight into the extent of SMEs' engagement with the agency, which is essential information for assessing the practical implications of credit risk management.

Evaluate the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding

This section explores the participants' views on the impact of good credit scoring or credit assessment on acquiring and repaying loans. It further examines how financial stability, business plans, management capabilities, and compliance with regulations contribute to the readiness to receive funding. To comprehend the experiences of the participants, it is essential to look at how having good credit scores or credit assessments affects loan acquisition and repayment. Complex insights into the complex nature of credit risk management are provided by the examination of the effects of strong financial stability, well-thought-out company plans, efficient management skills, and regulatory compliance on funding readiness.

Assessing the effectiveness of credit risk management techniques in CEDA

This section focuses on Collateral Prerequisites and regulatory compliance, examining how these factors influence a business's chance of qualifying for funding and how regulatory compliance helps reduce SME defaults. Examining regulatory compliance and collateral requirements in the framework of CEDA allows for a detailed assessment of the agency's credit risk management strategies. This analysis offers a basis for evaluating the ways in which these components influence the qualifying procedure and support a sustainable lending environment.

Section D: Evaluate the impact of good Credit risk management practices in SME funding

This section inquires about the participants' awareness of corporate governance strategies at CEDA and how these strategies can improve funding. It also assesses the effectiveness of CEDA's decision-making processes in the context of acquiring funding. This section offers insight on how successful credit risk management techniques can be converted into real benefits for SMEs looking for finance by examining the participant's opinions on corporate

governance and decision-making at CEDA. For credit risk management to be in line with more general organizational strategies, this knowledge is essential.

To make recommendations for improving credit risk management for CEDA

This section seeks participants' recommendations for improving CEDA's credit risk management strategies, with a focus on approval procedures, training for SMEs, and tracking initiatives.

3.6 Procedure for data collection

Definition of Research Objectives and Scope

The researcher started by describing the research questions that the data collection aims to address, focusing on credit risk management methods within an identified DFI, which is CEDA, as well as the experiences of SMEs in Botswana. This includes a thorough examination of the DFI's policies, strategies, and procedures used to successfully reduce credit risks.The researcher will define the scope of the study, specifying the areas of credit risk management within DFIs, CEDA and the specific difficulties and opportunities encountered by SMEs in Botswana.

3.7 Below is the description of the research Objectives

Evaluate Current Credit Risk Management Strategies

Objective: To evaluate the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding. Recognizing the systems, guidelines, and procedures that DFIs now use to control the credit risks related to financing SME enterprises.

Assess Effectiveness of Credit Risk Management Techniques in a DFI Institution

Objective: To Assess the effectiveness of credit risk management techniques in one DFI Institution in Botswana. Evaluating a given DFI's application of credit risk management techniques to determine its advantages and disadvantages while taking risk assessment models, monitoring systems, and mitigation techniques into account.

Evaluate Impact of Good Credit Risk Management Practices on SME Funding

Objective: To examine the impact of sound credit risk management practices on the funding and financial health of SMEs in Botswana. Analyzing the relationship between the success,

growth, and viability of SMEs obtaining financing from DFIs and the implementation of sound credit risk management techniques.

Make Recommendations for Improving Credit Risk Management for DFIs in Botswana

Objective: The development of practical suggestions for improving credit risk management procedures in Botswana's DFIs. Enhancing the overall framework for credit risk management, especially with regard to finance for small and medium-sized enterprises (SMEs), by offering practical ideas and strategic recommendations based on an assessment of existing practices.

3.8 Identification of Population

The two major DFIs that make up the identified population is Citizen Entrepreneurial Development Agency (CEDA). As well as a list of Small and Medium-Sized Businesses (SMEs) that have been funded by with these DFIs.

Citizen Entrepreneurial Development Agency (CEDA)

CEDA is identified as a primary DFIs in the study, playing a crucial role in providing funding and support to Small and Medium-sized Enterprises (SMEs) in Botswana. Founded with the goal of promoting economic growth and entrepreneurship, CEDA is a key player in the country's small- and medium-sized enterprise (SMEs) support system, offering financial resources and comprehensive assistance.

Small and Medium Enterprises (SMEs)

SMEs that have engaged with either CEDA for funding or support. The identified population consists of an extensive list of SMEs that have benefited directly from CEDA funding or assistance. These SMEs show the variety of industries that CEDA has an impact on. Diverse representation in terms of industry sectors, geographic locations, and credit histories.

Develop Data Collection Instruments

Before developing any data collection tools, the researcher will conduct an in-depth review of the literature, the researcher will make sure that the questions are relevant to the goals of the research. The researcher will create questionnaires that are open-ended to get information about credit risk management procedures used by CEDA, as well as to gather SMEs' opinions on funding procedures and challenges.

3.9 Participant Selection

The study will identify key DFI stakeholders. CEDA has been selected to represent DFIs and plays a significant role in credit risk management. SMEs that get CEDA funding included. By adding SMEs that get funding from CEDA, the alliance is completed and a thorough and detailed knowledge of the mutually beneficial connection between DFIs and SMEs can be guaranteed.

3.10 Data Collection

The researcher will send out electronic questionnaires via physically, email or an online survey platform to CEDAs and SMEs. The researcher will Provide participants with clear instructions on how to fill out the questionnaires stressing the value of giving thorough and considered answers. The SMEs and CEDA participants will get detailed instructions on how to fill out the surveys. The importance of thoughtful and comprehensive answers will be emphasized, highlighting the role that their insights have in determining the study's conclusions.

Quality Assurance

To guarantee consistency and quality, the researcher will keep a watchful eye on the data collection procedure, and will resolve any problems as soon as possible to preserve data integrity. The data gathering process will be closely monitored by to ensure that it proceeds smoothly. Constant observation guarantees the integrity of the gathered data by enabling prompt resolution of any problems.

3.11 Data Analysis

Thematic Analysis

The researcher will analyze qualitative data using thematic analysis, identifying patterns and themes related to credit risk management practices and SME perspectives on funding. Thematic analysis is used to find, examine, and summarize themes or patterns in a dataset (Braun, Clarke, & Hayfield, 2006). Furthermore, Researchers can explore and comprehend the rich complexities and meanings contained in textual or visual data by using the flexible and methodical approach of thematic analysis (Lorelli S. Nowell, Norris, White, & Moules, 2007).

Advantages of Thematic Analysis

Thematic analysis is a qualitative research method known for its versatility and flexibility, it provides a comprehensive way to explore the complexities of human experiences (Cynthia & Osanloo, 2016). The versatility of thematic analysis is shown in how well it adapts to many data formats, including textual, visual, and audio, and may be used to address a wide range of research issues and methodologies (Braun, Clarke, & Hayfield, 2006). Moreover, its versatility makes it a useful tool for researchers with a range of goals since it guarantees its applicability in exploratory, descriptive, or hypothesis-driven research (Kiger & Varpio, 2020). Additionally, Thematic analysis goes beyond making basic observations, it provides a thorough and comprehensive understanding of the events being studied (Cynthia & Osanloo, 2016). Researcher insights into participant experiences, viewpoints, and underlying meanings can be obtained through systematically identifying and examining themes within the dataset (Maguire & Delahunt, 2017).

Moreover, Thematic analysis differs from techniques that concentrate on single variables in that it takes a comprehensive approach to data analysis (Kiger & Varpio, 2020). This method captures the richness and context of the phenomenon, encouraging researchers to think about the complete dataset and promoting a thorough investigation (Braun, Clarke, & Hayfield, 2006). Another important benefit is scalability, since Thematic analysis can handle datasets of different sizes. Its versatility across many research contexts is highlighted by its application to both large-scale, multifaceted inquiries and small-scale exploratory efforts (Maguire & Delahunt, 2017). One other benefit of thematic analysis is that it requires transparency and reproducibility (Lorelli et, al. 2007). Research credibility is enhanced, and repeatability is facilitated by the method's dedication to a clear and methodical approach to coding and theme creation, as well as recorded analysis techniques (Braun, Clarke, & Hayfield, 2006).

Reporting:The researcher will examine the results in relation to the objectives and inquiries of the study. Provide a comprehensive study report that discusses the implications and recommendations for Botswana's DFIs based on the findings. The researcher will use statistical tests to compare means across different groups, such as varying levels of credit risk management practices or different types of SMEs.

Data Interpretation and Reporting: The researcher will interpret the qualitative findings in the context of the research questions and provide a clear and concise summary of the results, highlighting key patterns and relationships.

3.12 Ethical Considerations

The researcher has carefully considered a number of important ethical issues in the context of the study on the credit risk management procedures of the Citizen Entrepreneurial Development Agency (CEDA) and enhancing the effectiveness of SME funding in Botswana. Informed Consent: Informed consent is the foundation of ethical research, the researcher has prepared a detailed document that outlines the objectives and benefits of the research, and has provided CEDA staff members and representatives of small and medium-sized enterprises, with the opportunity to carefully review and discuss their participation. The dynamic informed consent method promotes ongoing discussions and clarifications by emphasizing the voluntary nature of involvement and the distinct ability to withdraw at any time (Dankar, et al., 2020).

Confidentiality: It is crucial to ensure participant confidentiality, particularly when working with financial data (Bos, 2020). CEDA officials and SME representatives, are reassured by a strict methodology that their information will be kept private and available only to the researcher for analysis. To foster cooperation, earn trust, and preserve the integrity of the research process, a commitment to participant anonymity is essential (Kang & Hwang, 2023).

Ethical Approval: Receiving approval from CEDA officials was a fundamental component of our ethical system. The CEDA officials carefully examined the research proposal, and the letter confirming that I am a student at University. Strict adherence to accepted ethical norms and procedures was verified by this thorough evaluation procedure (Williaam, 2016). Prior to starting data collecting, the researcher obtained ethical permission from CEDA officials.

Limitations of the research questionnaire

The goal of the study is to conduct a thorough analysis of the credit risk management strategies used by Botswana's Development Finance Institutions (DFIs) in relation to lending for small and medium-sized enterprises (SMEs). Even though the objectives are clear and crucial, it is critical to acknowledge some study limitations that could affect the reliability and generalizability of the results.

Sample Size and Representativeness; The size and representativeness of the selected sample determine how reliable the study is. This research will only be focusing on one DFI which is CEDA. The results might not be generally relevant to all DFIs in Botswana because only one DFI is being researched. It could be easier to apply the results to the larger DFI landscape in Botswana if the sample was diversified and included of several different DFIs. Nonetheless, the researcher will make sure the chosen DFI and SMEs fairly reflect the diversity in the industry is crucial. Because CEDA represents the greater DFI landscape in Botswana, it was selected as the DFI. CEDA was chosen because it represents the diversity of the industry and is important and relevant to SME finance.

Data Collection Methodology; The research's validity and accuracy are largely dependent on the techniques employed for gathering data. It could affect the validity of the findings if the qualitative questionnaire employed for data collection in this study is not reliable or if response bias is a possibility. To find and fix any biases or ambiguities, the questionnaire underwent extensive pre-testing. The validity of the research was improved by guaranteeing transparency in the data collection procedure.

Time Constraints ; Due to time constraints, the study may only analyze credit risk management techniques briefly. A longer time frame for data collection, processing, and interpretation could be necessary to have an in-depth understanding of the issue. The researcher was aware of time constraints, but made the most of them by giving critical components of credit risk management top priority for in-depth investigation.

Availability of Historical Data; Historical data must be accessed in order to evaluate the long-term effects of credit risk management procedures. It may be difficult to reach significant conclusions regarding the long-term efficacy of these procedures if historical evidence is limited or missing. The researcher communicates with key parties who may have institutional knowledge of the historical context and can offer insightful Credit risk information.

Subjectivity in Assessing Effectiveness; Subjective assessments are necessary to assess the efficacy of credit risk management procedures. There is subjectivity involved that should be carefully evaluated since different stakeholders may have different ideas about what makes for good credit risk management. In order to deal with subjectivity, the researcher used a multi-stakeholder method, collecting viewpoints from a range of parties involved in CEDA's credit risk management, such as officials and various SME representatives. The research offers a

more thorough and impartial evaluation of the effectiveness of credit risk management techniques by combining the perspectives different parties.

3.13 Conclusion

The methodology chapter provides a thorough approach for examining how Development Finance Institutions (DFIs) handle credit risk and how it affects Small and Medium-sized Enterprises (SMEs) in Botswana. The key components include the justifications for qualitative inquiry based on specific inquiries and the necessity of comprehensive exploration. Additionally, the chapter covers the subjectivity and prejudice that may arise, the flexibility of qualitative approaches, and the difficulties in generalizing. Its precise analysis and customized emphasis make the stratified sampling strategy justifiable. In order to obtain thorough input on credit risk management practices and SME finance, qualitative questionnaires were selected as the study instrument. Limitations are noted, including the possible lack of generalizability resulting from concentrating on a single DFI (CEDA), and ethical considerations, such as informed permission, are stressed. In general, the methodology chapter provides a comprehensive framework for investigating credit risk management in SMEs and DFIs, guaranteeing a defined and thorough understanding of the topic.

CHAPTER 4: RESULTS AND DISCUSSION

4.0 Introduction

This section provides an in-depth analysis of the findings and a thorough discussion of the credit risk management strategies used by Development Finance Institutions (DFIs) and how they affect Botswana's Small and Medium Enterprises (SME) lending program. This study aims to clarify the complexities of credit risk management in the context of development finance institutions (DFIs) and investigate the ways in which these practices facilitate and enhance the funding of SMEs in Botswana's financial sector. With the use of a qualitative research approach, the data for this study were carefully gathered. Vital qualitative insights were obtained through questionnaires with important CEDA and SMEs participants.

Positions at CEDA include Associate Credit Analyst, Customer Advisor, Business Support Officer, and Micro Finance Officer and SME owners. Educational backgrounds range from high school diplomas to postgraduate degrees. Experience in current roles varies, with a mix of less than 1 year to more than 10 years. Roles in credit risk management vary, with some directly involved, indirectly involved, or not involved at all. Ratings of the current effectiveness of credit risk management practices at CEDA vary among respondents.

4.1 Evaluating the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding.

1. How does Credit Scoring and Modelling/ Credit assessment help mitigate risk?

Table 3 Credit Scoring and Modelling

PARTICIPANTS	ANSWERS
Participant 1	It helps assess a potential clients creditworthiness based of various factors which assists the agency to evaluate the risk associated with lending money. It does this by predicting the probability of timely payment as a result the agency can make informed decisions which reduces the chances of default.

Participant 2	All measures and necessary aspects are thoroughly assessed or considered before making decisions.
Participant 4	Helps in assessing client's creditworthiness when evaluating risk associated with money lending.
Participant 5	It helps DFIs to assess ability to repay loan thereby enabling/assisting DFIs to make good investment i.e. lend to companies that will be able to repay.

The above table indicates that credit scoring and modeling help financial firms assess prospective customers' creditworthiness so they may make educated judgments. Thus, there is less chance of lending money to people or businesses that might not make their payments as promised. Making wise decisions and reducing related financial risks are the ultimate objectives of the process, which include evaluating a number of variables. Participant 4 aligns with Participant 1 in emphasizing the role of credit assessment in understanding

All the participants in ***Table 4 (appendix)*** emphasize that due diligence in risk management is preventive and proactive. In the process of making decisions, it is regarded as a crucial stage for financial institutions since it offers a thorough grasp of possible risks and makes information verification possible prior to lending. According to Participant 2, CEDA gains insights into and comprehend the company or business's background, encompassing its financial status and overall performance, which includes aspects such as debtors, creditors, taxes, returns, and more. According to OECD (2023) Conducting due diligence contributes to the evaluation of risks.

According to **Table 5 (appendix)** Special industries including manufacturing and agribusinesses can take advantage of cheap lending rates offered by CEDA. Identifies possible business prospects by conducting surveys for needs assessments. Participant 5 acknowledges the use of dashboards for tracking and stresses the value of constant reporting to monitor portfolio diversification in line with risk management guidelines. Consistent with the results of the literature research, the portfolio composition is regularly examined (Kristina, 2010). The

objective of this strategy approach is to detect and correct any excessive focus on particular industries.

4.2 Assessing the effectiveness of credit risk management techniques in CEDA.

1. Does requiring Collateral Prerequisites influence a business's chance of qualifying?

Table 4 Collateral Prerequisites

PARTICIPANTS	ANSWERS
Participant 1	Collateral can enhance a business's chances of qualifying for a loan by providing security for the agency. However, lending is primarily based on viability, specifically cash flow. The new guidelines allow citizens to submit applications without collateral.
Participant 2	Collateral increases the chances of securing a loan, as it demonstrates commitment and confidence towards the project.
Participant 3	Collateral may not be necessary, considering that the qualification chances are primarily based on the viability and sustainability of the project. The need for collateral depends on the assessed level of risk for each application.
Participant 4	Yes, it does; providing collateral can enhance the likelihood of securing funding by offering the agency a sense of security. This, in turn, provides a level of assurance or surety, particularly in terms of recovering any lost funding.
Participant 5	Yes, it does influence the chances of qualifying. Some businesses, despite being profitable, can carry high risks. Consequently, having collateral can reassure Development Finance Institutions (DFIs), providing them with the confidence that they will recover their funds if things do not work out as planned.

According to the participants Collateral can increase the likelihood of loan qualifying by offering security and confidence. Participant 5 states that "Yes, it does influence the chances of qualifying. Some businesses, despite being profitable, can carry high risks. Consequently,

having collateral can reassure Development Finance Institutions (DFIs), providing them with the confidence that they will recover their funds if things do not work out as planned.” According to Agyeman and Gyimah S. (2019), In the case of SMEs, collateral requirements can have a big impact on their ability to get credit. Additionally, according to Participant 3, collateral might not always be required. They contend that the project's sustainability and viability determine qualifying prospects mainly, with the requirement for collateral dependent on the degree of risk evaluated for each application. Kibuuka & Shandu (2022) supports this by stating that in order for DFIs to function effectively, it is essential that the adoption or adjustment of collateral requirements be assessed in light of the particular mission, financed projects, and community needs.

4.3 How regulatory compliance help reduce the number of SMEs that default?

The participants in **Table 7(Appendix)**, emphasize better creditworthiness, fewer defaults, and improved business procedures as ways that regulatory compliance benefits SMEs. It also emphasizes how crucial it is to prevent fines through accurate paperwork, dedication, financial maturity, and watchfulness. Participant 3 states, "It ensures that, at the very least, the correct documentation/licenses are available, enabling seamless business processes." DFIs contribute to maintaining a compliant and collaborative financial environment by adhering to regulatory requirements, meeting reporting deadlines, and submitting precise information, as emphasized by (Rogerson, 2008).

4.4 Impact of good Credit risk management practices in SME funding

1. How does CEDA's corporate governance increase SME funding?

Table 5 Corporate Governance

PARTICIPANTS	ANSWERS
Participant 1	Our core mandate is to finance sustainable SMEs with a focus on creating employment and fostering development. Therefore, our corporate governance is tailored to guide the agency toward this goal, resulting in the funding of more SMEs.

Participant 2	With corporate governance, CEDA is able to effectively manage the business, aiming to maximize long-term value while simultaneously safeguarding the interests of all stakeholders.
Participant 4	One of our objectives is to fund citizen-owned businesses that align with the goals of economic diversification, employment creation, citizen economic empowerment, and poverty eradication. This is achieved through the development of sustainable citizen enterprises.

The participants emphasize how important corporate governance is in helping CEDA achieve their goals and fundamental missions. A tool for efficient company management and connection with developmental objectives is corporate governance. In order to support efficient business management, maximize value, and protect stakeholder interests, participants 1 and 2 emphasize the significance of corporate governance. Calice (2013) emphasizes that Development Finance Institutions (DFIs) must have an efficient structure in place in order to carry out their mandate and effectively achieve their goals, especially considering their engagement in public policy.

How does effective credit risk management enhance decision-making processes within CEDA?

Table 6 Effective Risk Management

PARTICIPANTS	ANSWERS
Participant 1	Effective credit risk management equips CEDA with the necessary tools and information to make informed decisions, contributing to the overall health and sustainability of the lending portfolio. This approach aims to strike a balance between the need for profitability and prudent risk management.
Participant 2	The primary goal of credit risk management is to optimize the company's cash flow and minimize the risk of bad debts, a critical factor in decision-making processes within CEDA. This enables the agency to establish a comprehensive financial understanding of the business before making any decisions related to it.

Participant 4	It equips CEDA with the necessary tools to make informed decisions. The government encourages CEDA to sustain its financial support over an extended period, thereby fostering employment and contributing to national priorities.
Participant 5	Facilitates quicker decision-making on project funding, thereby enhancing service delivery efficiency.

Participant 4 Connects CEDA's activities to broader national priorities, such as employment. This is supported by (Dalberg, 2010). Participant 2 states that states that reducing the risk of bad debts and maximizing cash flow are the main objectives of credit risk management. Reducing the likelihood of borrower default is one of credit risk management's main goals (Ai, Brockett, & Wang, 2016). In addition to protecting CEDA from potential financial risks, the responses indicate that efficient credit risk management is essential to the organization's mission, sustainability, and alignment with larger governmental objectives.

How does CEDA sustainability considerations influence SME funding?

Table 7 Sustainability Considerations

PARTICIPANTS	ANSWERS
Participant 1	It influences SME funding by affecting access to financing, interest rates, risk assessment, and overall reputation. SMEs that prioritize sustainability may find it advantageous in securing funding and building long-term partnerships with the agency.
Participant 3	In accordance with CEDA's perspective, sustainability considerations encompass ensuring that personnel or human capital is well-trained for the operations of the business.
Participant 4	It provides CEDA with the tools to make informed decisions. The government encourages us to fund citizens in the long run, thereby facilitating employment and contributing to national priorities.
Participant 5	Yes, it influences SME funding. The government urges CEDA to provide financial support to projects and industries capable of sustaining longevity,

	consequently fostering long-term employment and contributing to national priorities.

Participant 1 suggests that SMEs prioritizing sustainability may gain advantages in securing funding and establishing long-term partnerships with CEDA. According to the UN (2022) Development Finance Institutions (DFIs) play a critical role in supporting programs aimed at alleviating poverty, advancing environmental sustainability, and benefiting local communities. DFIs promote sustainable development by encouraging investments with positive impacts on social, environmental, and economic dimensions (Abuatwan, 2023)

Make recommendations for improving credit risk management for CEDA

1. How can CEDA improve credit risk management strategies? Answer in terms of approval procedure, training staff and tracking it initiatives.

Table 8 Improving Credit Risk Management

<table>
<tr><th>PARTICIPANTS</th><th>ANSWERS</th></tr>
<tr><td>Participant 1</td><td>Regarding the approval procedure, the agency can implement the following steps:

Enhance Due Diligence:

• Strengthen due diligence processes to ensure a thorough assessment of potential projects.

Implement Credit Scoring Models:

• Diversify data sources for a comprehensive evaluation.
• Establish clear approval criteria using credit scoring models.

Training Staff:

• Conduct continuous training programs for staff members.
• Encourage cross-functional collaboration.
• Provide technology training to keep staff updated.
• Offer ethics and compliance training to ensure adherence to guidelines.

Tracking Initiatives:

• Establish key performance indicators (KPIs) for measuring success.
• Implement portfolio monitoring for ongoing assessment.
• Conduct regular audits and reviews to ensure compliance and effectiveness.</td></tr>
<tr><td>Participant 3</td><td>Training staff to enhance operational efficiency and effectiveness</td></tr>
<tr><td>Participant 5</td><td>Implementing less intensive appraisal tools and providing staff training across different sectors are essential steps to enable proper and adequate appraisal within the agency.</td></tr>
</table>

The participants jointly emphasize the significance of ongoing monitoring and assessment, the necessity of comprehensive appraisal tools, and the critical role that staff training plays in guaranteeing an effective and efficient approval system within the agency. This is also stressed by (OECD, 2023). Participants 1 also stresses key performance indicators (KPIs) for measuring success must be established To measure the values that CEDA uses to evaluate and monitor their effectiveness in reaching specific objectives and goals.

The transcripts of the questionnaire offer valuable insights into the views, responsibilities, and professional experiences of those working in credit risk management at the Citizen Entrepreneurial Development Agency (CEDA) in Botswana. The responses address a number of topics, such as an assessment of the effectiveness of the credit risk management techniques now in use as well as suggestions for enhancement.

4.5 Discussion of Findings

Current credit risk management strategies implemented by DFIs in Botswana regarding SME funding.

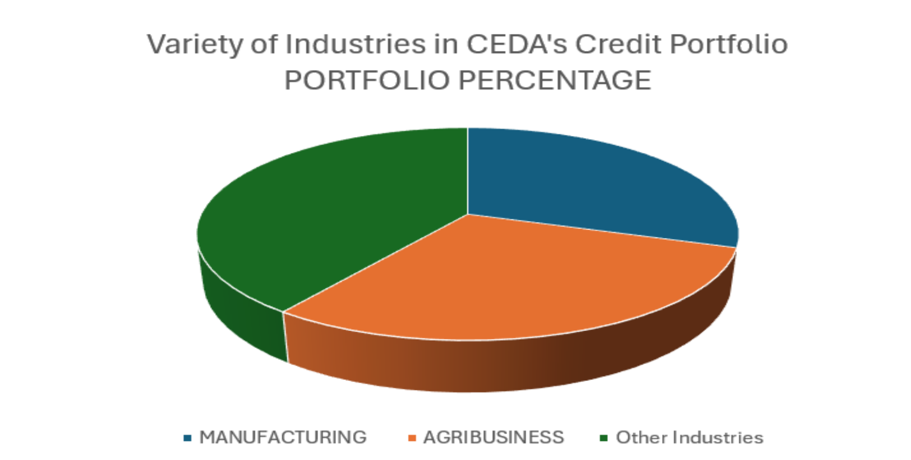
The participants presented their perspectives on how, in the context of SME funding, credit scoring, modelling, or credit assessment helps reduce risk. Participants emphasize how modeling and credit scoring help determine a client's creditworthiness, which helps with risk assessment and lowers default risks. They stress how crucial it is to forecast timely payments in order to make well-informed lending decisions and make sure that investments are made in businesses that can repay debt.This is in agreement with (Genriha & Voronova, 2012) who also highlighted the the significance of modeling and credit scoring in assessing a client's creditworthiness, aiding in risk evaluation and reducing the likelihood of defaults.

The need for verification and due diligence procedures is emphasized as a factor in lowering the default rate. According to participants by offering an organized and thorough method for evaluating risks, these procedures help DFIs make wise choices and put in place the necessary protections. It concurs with the (Nikolaou, 2009), which notes that cash flows are closely scrutinized as part of due diligence because they are a crucial indicator of financial soundness. According to FinRegLab (2019), DFIs assess the reliability and consistency of cash inflows and outflows by looking at past data as well as projected patterns.

Huil & Foong (2020) emphasizes the value of portfolio diversification as a risk-reduction tactic, with the goal of distributing exposure across various markets, sectors, and geographies.

CEDA actively use dashboards and monthly reports to track the diversification of their credit portfolios. Furthermore, A dedication to ongoing credit portfolio monitoring and assessment is demonstrated by the usage of dashboards and monthly reports. (Odonkor, 2018) By states that Development Financial Institutions (DFIs) carefully assess the underlying risks connected to every company in the portfolio during this process. This involves taking into account risks unique to a given business, alterations to the law, and macroeconomic variables that affect borrowers' creditworthiness.

Figure 1 Credit Portfolio Percentage



The industries

A diverse strategy to supporting various sectors is indicated by the data on the range of industries in CEDA's loan portfolio. This approach is in accordance with the organization's goals of economic diversification, employment creation, citizen economic empowerment, and poverty eradication.

With 30% of CEDA's credit portfolio going toward manufacturing, the sector is important. The focus on manufacturing communicates a dedication to promoting industrial growth and promoting economic diversification. Agribusiness also employs approximately 30% of the credit portfolio. In line with the objectives of economic diversification and citizen economic empowerment, offering low credit rates to agribusinesses is a calculated move to help the agriculture industry. Other industries such as Transport and tourism industries account for 40%

of the remaining credit portfolio, this diversification across multiple industries demonstrates a thorough approach to assisting a broad spectrum of enterprises, which may aid in the creation of jobs and economic empowerment.

Manufacturing, agriculture, and other industries are distributed in a way that is consistent with the declared goals of economic diversification, employment creation, citizen economic empowerment, and poverty elimination. Low lending rates for manufacturers and agribusinesses suggest a deliberate attempt to encourage and foster expansion in these industries. The emphasis on the "special sector" points to a calculated strategy of providing support to those industries that are considered essential to accomplishing the goals of CEDA. (Eighteen East Capital, 2020) agrees that DFIs can achieve their dual goals of maintaining their economic viability and advancing sustainable development by maintaining a well-diversified credit portfolio. Furthermore, a proactive approach to spotting possible business prospects is demonstrated by the conduct of needs assessment surveys as alluded by the Participant 4. A commitment to corporate governance principles in credit risk management is further reinforced by Participant 1, who emphasizes that CEDA employs the use of dashboards and monthly reports to promote transparency by providing stakeholders with clear insights into the organization's investment activities. Effective credit risk management procedures are essential to establishing an organization's overall corporate governance (AFDB, 2004)

CEDA DIVERSIFICATION PORTFOLIO

Figure 2 Portfolio Diversification

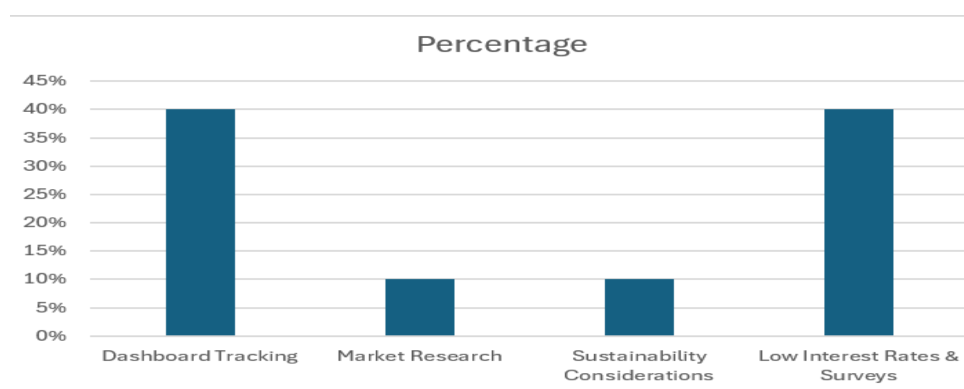


Figure 2 depicts The findings about portfolio diversification strategies at CEDA . Dashboard Tracking (40%) Allows for continuous monitoring for timely decision-making. Offers real-time visibility into investment levels across various industries. Furthermore, Market Research

(10%) encourages well-informed decision-making based on market insights. Understands industry trends and opportunities pro-actively. Sustainability Considerations (10%) shows a dedication to long-term company strategies. Low Interest Rates & Surveys (40%) encourages involvement in certain industries with reduced rates. Potential opportunities can be found through needs assessments surveys.

4.6 Assessing the effectiveness of credit risk management techniques in CEDA

The participants agree that Collateral requirements affect a company's likelihood of qualifying. Participants 4 states that increasing the likelihood of securing funding is achievable by providing collateral, which offers the agency a sense of security. This, in turn, ensures a level of assurance, especially in terms of recovering any lost funding. Additionally, Participant 1 states that "The new guidelines allow citizens to submit applications without collateral". Implementing or changing collateral criteria must be considered in the context of the institution's specific mission, financed initiatives, and community needs in order for these institutions to function effectively (Kibuuka & Shandu, 2022)

Perspectives on Collateral Prerequisites for Business Loan Qualification

Table 9 Collateral Prerequisites

Theme	Description
Role of Collateral	Collateral is seen as a significant factor in enhancing the chances of qualifying for a loan, providing security.
Emphasis on Viability and Cash Flow	Lending decisions are primarily based on the viability of the business, specifically its cash flow.
New Guidelines and Flexibility	New guidelines allow citizens to submit applications without collateral, indicating flexibility in the loan process.
Demonstration of Commitment	Collateral is viewed as a demonstration of commitment and confidence towards the project, increasing chances of approval.
Viability and Sustainability as Alternatives	Collateral may not be necessary if the project's viability and sustainability are strong, suggesting alternative criteria.
Assurance and Recovery	Collateral enhances the likelihood of securing funding by providing a sense of security, ensuring assurance and recovery
Risk Mitigation for DFIs	Collateral reassures Development Finance Institutions (DFIs) by providing confidence in fund recovery, especially in high-risk scenarios
Subjectivity and Case-by-Case Assessment	The necessity for collateral depends on the assessed level of risk for each application, indicating a case-by-case evaluation

Participants 1, 2, and 4 agree that having collateral increases one's chances of being approved for a loan. It is regarded as a type of security that gives the lending organization confidence (Chilembo, 2021). Additionally, Participant 1 emphasizes that the viability of the company,

particularly its cash flow, is the main factor taken into consideration when making loan choices. This indicates that the project's sustainability and financial stability should be prioritized. Moreover, Participant 1 points out that there is some flexibility in the loan application procedure since new standards permit citizens to submit applications without collateral. According to GIZ(2014) in order to support the advancement of small businesses, there could be a consideration to ease collateral requirements or introduce financing options that don't mandate collateral (GIZ, 2014).

Collateral is viewed as a commitment signal as well as a financial security measure, according to Participant 2, who highlights that having collateral increases the likelihood of getting a loan because it shows confidence and dedication to the project. According to participant number 3, if the project has good viability and sustainability, collateral might not be required. This suggests that several criteria for qualification are being considered. Assurance and Recovery**;** According to Participant 4, collateral increases the possibility of receiving money by giving lenders a sense of security. The guarantee or security it provides is also covered by this theme, especially with regard to reclaiming any lost funding. Participant 5 emphasizes that collateral gives Development Finance Institutions (DFIs) peace of mind by demonstrating assurance over the recovery of funds, particularly in circumstances where firms may be exposed to significant risk. Subjectivity and Case-by-Case Assessment; Participant 3 presents the idea that each application's evaluated level of risk determines whether collateral is required. Rather than advocating a one-size-fits-all strategy, this idea advocates evaluating each instance individually.

Participant 4 states that "Collateral may not be necessary, considering that the qualification chances are primarily based on the viability and sustainability of the project". This supports (Thomas, 2008)'s view that this strategy optimizes the benefits of collateral-free Development Financial Institutions (DFIs) in promoting sustainable development by carefully coordinating collateral restrictions with fundamental goals, values, and socioeconomic conditions. The participants collectively highlight that regulatory compliance is integral to SMEs' success. Beyond meeting legal requirements, it contributes to improved business practices, creditworthiness, and transparency. The emphasis on avoiding fines and reducing defaults underscores the financial and operational benefits of aligning with regulatory standards. According to (IMF, 2023) regulatory compliance is a fundamental component that guarantees the integrity and stability of financial systems.

To enhance the approval process, the participants emphasize the importance of implementing a range of approaches. The use of credit rating algorithms, regular staff training, strengthening due diligence, and dependable tracking systems are essential components. Given the emphasis on ethical and compliance training in addition to technology training, staff members need to be well-rounded in their skill set. These strategies are in keeping with best practices documented in the literature and emphasize the significance of an extensive and adaptable approval process in agencies, particularly those associated with Development.

Table 10 Effective Credit Risk Management

	Perspectives on How Effective Credit Risk Management Enhances Decision-Making at CEDA
Participant	**Description**
1	Overall health and sustainability of the lending portfolio, balancing profitability and prudent risk management.
2	Optimizing cash flow and minimizing the risk of bad debts, critical for decision-making related to comprehensive financial understanding
4	Equipping CEDA with necessary tools for informed decisions, sustaining financial support for employment and national priorities
5	Facilitating quicker decision-making on project funding, enhancing service delivery efficiency

The responses received from the participants offer insightful information on how CEDA's decision-making processes are thought to be improved by efficient credit risk management. According to Participant 1 "Effective credit risk management equips CEDA with the necessary tools and information to make informed decisions, contributing to the overall health and sustainability of the lending portfolio". To do this, profitability and responsible risk management must be carefully balanced (Agyeman & Gyimah S, 2019). Optimizing cash flow and reducing the risk of bad debts are the main objectives of credit risk management, according to Participant 2.

Ensuring a thorough understanding of the financial components of the firm is considered crucial when considering this issue in decision-making processes (Bhatt, Joo, Iqbal, & Ullah, 2023). As pointed out by Participant 4, CEDA is better able to make informed decisions when credit risk is effectively managed. To contribute to employment and national priorities, this involves sustaining financial support for a prolonged duration in line with government

requirements. In relation to project funding in particular, participant 5 concentrates on the practical side of accelerating decision-making. Managing credit risk effectively is the key to increasing the effectiveness of service delivery.

In credit risk management for SME finance, participant 6 recognizes the importance of multiple elements. In their view, management skills guarantee effective operations, financial stability is a sign of commitment, regulatory compliance is a sign of financial providers' trust, and business plans serve as crucial blueprints. A comprehensive business plan enables lenders to recognize possible risks related to the operations, market dynamics, and strategic choices of the company. Effective risk management depends on this early detection. Participant 6 expresses the view that the CEDA process lacks technical expertise, suggesting a need for the requesting entity to lead in implementation and provide more guidance on financial management.

Participant 6, also recommends that CEDA should collaboratively conduct research on businesses seeking funds, seeking professional advice on technical aspects. Additionally, the participant emphasizes a practical approach over a theoretical one, expressing concern about the current leaning towards theoretical considerations. The emphasis on practicality suggests a desire for strategies that are more aligned with real-world applications.

4.7 Integrated Theoretical Framework: Harmonizing Stakeholder Dynamics and Financial Intermediation in Credit Risk Management for SME Funding

In Development Finance Institutions (DFIs) like CEDA, a complete framework for controlling credit risk is provided by the integration of financial intermediation and stakeholder theory. This integrated approach proves invaluable in managing conflicting interests, coordinating operations with stakeholder expectations, and guaranteeing financial stability by comprehending the intricate web of relationships and interests within the financial ecosystem, as highlighted in stakeholder theory (Damak & Pesqueux, 2005). By emphasizing the interdependence of financial intermediation and stakeholder dynamics, this comprehensive approach makes it easier to allocate funding to Small and Medium-Sized Enterprises (SMEs) and helps DFIs manage credit risk.

Stakeholder theory and financial intermediation form a strong theoretical basis for understanding and enhancing credit risk management in the context of Development Finance Institutions (DFIs) funding Small and Medium Enterprises (SMEs) in Botswana. A potential client's creditworthiness, the likelihood of on-time payments, and the ability to make informed

decisions to reduce default risk are all determined by the credit evaluation, as participants emphasize. This perfectly conforms to the principles of stakeholder theory, which underscores the vital need of understanding the expectations of the different stakeholders in the credit assessment process(Damak & Pesqueux, 2005).

Furthermore, by including Stakeholder theory into this framework, it becomes possible to examine how credit scoring models correspond with the expectations and concerns of various stakeholders. Hörisch, Freeman, and Schaltegger (2014) have pointed out that this integration strengthens the sustainability of the financial system while also supporting the principles of stakeholder theory. Credit evaluation and credit scoring model use both place a strong emphasis on knowing and meeting stakeholder expectations. This highlights how these theories work together to create a comprehensive approach to credit risk management for DFIs supporting SMEs in Botswana.

Stakeholder theory and financial intermediation form a strong theoretical basis for understanding and enhancing credit risk management in the context of Development Finance Institutions (DFIs) funding Small and Medium Enterprises (SMEs) in Botswana. A potential client's creditworthiness, the likelihood of on-time payments, and the ability to make informed decisions to reduce default risk are all determined by the credit evaluation, as participants emphasize. This perfectly conforms to the principles of stakeholder theory, which underscores the vital need of understanding the expectations of the different stakeholders in the credit assessment process.

Participants also go into detail about how CEDA uses dashboards, special sector incentives, and market research to guarantee credit portfolio diversification. Stakeholder theory and financial intermediation are closely related to credit portfolio diversification because diversity satisfies stakeholder expectations and follows rules for effective capital allocation. According to Dalberg (2010), DFIs are vital in the financial environment since they act as a link between capital sources and SMEs looking for funding. Parmar, Freeman, Harrison, and Purnell (2010) outlined the Stakeholder Theory, which emphasizes the significance of closely analyzing the overlapping and sometimes competing interests of DFIs, SMEs, and regulatory authorities. In order to preserve a careful balance between risk assessment, financial inclusion, and regulatory compliance, this monitoring becomes essential. As Prabhakar and Weber (2020) point out, credit scoring systems are essential for balancing these conflicting expectations. Stakeholder theory, in its simplest form, encourages a careful analysis of the ways in which the interests of

regulatory bodies, SMEs, and DFIs overlap and occasionally divide. In the context of Development Finance Institutions, risk assessment, financial inclusion, and regulatory compliance must be carefully balanced, and this is demonstrated by the need for credit scoring algorithms to negotiate and balance these differing demands.

In their different perspectives on how collateral affects business qualification, participants highlight commitment, viability, and risk reassurance as critical elements. This connection highlights similarities between the careful balancing emphasized by Stakeholder Theory and the cautious preservation of financial stability supported by Financial Intermediation Theory. Participants also claim that a focus on regulatory compliance results in a reduction in SME defaults, an improvement in creditworthiness, and an overall improvement in company practices. Financial Intermediation Theory, which holds that regulatory compliance is a shared interest among stakeholders and promotes financial stability, is consistent with this.In agreement with the ideas stressed by both theories, participants credit efficient credit risk management for better cash flow, quicker project funding decisions, and well-informed decision-making.

Stakeholder theory emphasizes striking a balance between risk management and profitability, while financial intermediation theory focuses on guaranteeing financial stability. Both theories are essential for directing how operations should be coordinated with the interests of stakeholders, encouraging long-term sustainability, and assisting SMEs with corporate governance procedures. The crucial part that Development Finance Institutions (DFIs) play in the effective distribution of capital to SMEs is further illuminated by the Financial Intermediation Theory. DFIs can allocate funds to projects and companies that have long-term profitability by assessing creditworthiness, as demonstrated by (Bhatt, Joo, Iqbal, and Ullah ,2023). This highlights how crucial credit risk management is to prudent expenditure, stimulating the economy, and lowering default risks. Scholtens and van Wensveen (2003) add even more emphasis to the convergence of financial intermediation theory and stakeholder theory, stating that both theories take into account the different interests of lenders, savers, and regulators. In order to maintain a careful balance between risk reduction, financial stability, and promoting SME investment, DFIs can match their operations with stakeholder expectations thanks to credit risk management, which is acknowledged by the integrated approach.

4.8 Summary

This section provides the findings and discussions on the credit risk management techniques used by Development Finance Institutions (DFIs) and how they affect Botswana's small and medium-sized businesses (SMEs). Utilizing questionnaires with participants from CEDA and SMEs, the study makes use of qualitative approaches. The results show that credit scoring and modeling are essential for determining a customer's creditworthiness and lowering the possibility of making a loan to an unreliable individual.

Moreover, Collateral is a component affecting loan eligibility that gives DFIs security and assurance. To lower SME default rates, guarantee correct paperwork, and advance financial maturity, regulatory compliance is prioritized. With an emphasis on sustainability to help SMEs get funding and form long-term relationships, the study highlights the significance of corporate governance in accomplishing CEDA's objectives. An effective approval system places a strong emphasis on staff training, thorough appraisal tools, and ongoing monitoring. The report also further addresses how CEDA's credit portfolio is diversified across different industries in order to support both citizen empowerment and economic objectives. In terms of data analysis, the study makes use of questionnaires to collect information about CEDA's credit risk management procedures. The study concludes with a presentation of an integrated theoretical framework that combines financial intermediation and stakeholder theory for effective credit risk management in supporting SMEs.

Chapter 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The research focuses on analysing the credit risk management practices of Development Finance Institutions (DFIs) and their impact on Small and Medium Enterprises (SME) funding in Botswana. The results were examined and discussed in Chapter 4, which also included an analysis of how DFIs handle corporate governance, collateral requirements, credit scoring, and due diligence. Chapter 5 discusses the summary of the findings, implications of the research, conclusions and recommendations. The data analysis provides findings, which are then supported by citations to previous study findings and relevant literature. .In order to improve credit risk management inside DFIs and maximize funding for SMEs, the chapter also makes recommendations, with a focus on future-focused tactics. In addition to providing a thorough overview of credit risk management techniques and their role in fostering sustainable SME development in Botswana, the chapter unifies the study's varied aspects.

5.2 Summary of Findings

This section covers the summary of findings arranged according to objectives. The first objective is to evaluate the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding. The study emphasizes how important credit scoring and modeling are for determining a potential customer's creditworthiness. DFIs like CEDA can make well-informed decisions and lower the risk of lending to SMEs that might experience payment defaults through using these methods. The ultimate objective is to analyze several factors that contribute to a thorough understanding of a borrower's financial situation to make informed decisions and reduce associated financial risks.

Additionally, as stressed by the participants, proactive and preventive due diligence is an essential part of effective credit risk management. Financial institutions may gain comprehensive information on the history of SMEs looking for financing at this crucial decision-making stage. Making well-informed choices and minimizing risk can be facilitated by having a thorough understanding of financial state, performance measures, and possible risks before lending. The research also provides insight into CEDA's approach to specific industries, which includes providing affordable loan rates to areas like manufacturing an agribusiness. Portfolio diversification is also thought to be essential, systems such as dashboards and ongoing reporting guarantee that risk management policies are followed. A

diversified strategy to risk is advocated by literature study and stressed by participants. Furthermore, regular portfolio structure evaluation helps identify and correct any overemphasis on specific industries.

The second objective is to assess the effectiveness of credit risk management techniques in one DFI Institution in Botswana, A crucial factor that affects the chance of loan approval is collateral. Participants emphasis how collateral assists DFIs feel secure and confident by ensuring fund recovery in the event of unforeseen circumstances. Interestingly, the study shows an enhanced strategy to collateral needs, with qualification criteria based not so much on a generic strategy instead on the sustainability and the viability of the project. Additionally, one the most significant factor affecting SMEs' increased creditworthiness, lower default rates, and enhanced business practices is regulatory compliance. The research underscores how crucial corporate governance is to accomplishing CEDA's objectives and aligning credit risk management with more important national issues like employment and development.

The third objective is to evaluate the impact of good Credit risk management practices in SME funding. The important role corporate governance plays in achieving CEDA's goals is emphasized by CEDA employees. When used in line with developmental goals, corporate governance is a useful instrument for efficient business leadership. The employees highlight the value of corporate governance and its support for effective business management, value maximization, and stakeholder interests protection. A focus on sustainability, according to CEDA staff, may help SMEs secure funding and form enduring collaborations with CEDA. Programs that promote community benefit, environmental sustainability, and poverty alleviation are greatly aided by Development Finance Institutions (DFIs) like CEDA. Investments that have a good influence on social, environmental, and economic aspects are encouraged by DFIs, which helps to promote sustainable development.

5.3 Implications

Significant implications of the research findings for theory, policy, practice, and future research are indicated. The findings of this study have the potential to enhance approaches, progress techniques for managing risks, and synchronize credit activities with the goals of national development by DFIs. Our understanding of the constantly changing subject of credit risk management in development finance institutions is enhanced by the study's useful information

and ability to spark new research. The need of decision-makers adopting a holistic strategy to credit risk management is emphasized by the findings.

Moreover, the study underscores the significance of DFIs adopting advanced credit scoring and modeling methodologies. This adoption is crucial as it empowers DFIs to make more informed loan decisions, subsequently reducing the probability of defaults by facilitating accurate risk assessments. Moreover, the findings show a shift towards flexible collateral criteria determined by the sustainability of the project. By embracing this strategy, DFIs can support SME finance without compromising the integrity of their risk management procedures. The findings encourage continued research in the subject matter and informs current procedures, encouraging innovation and continual development in credit risk management inside DFIs.

Another implication of this research is that it gives the government important knowledge. The government's main responsibility is to promote and advance national development, and one advantageous resource it uses to accomplish this goal is the use of Development Finance Institutions (DFIs). These specialist finance organizations are essential to the encouragement and energizing of many developmental projects. Research helps the government carry out in-depth risk analyses related to DFI initiatives. This entails assessing risks related to funds, society, and the environment. The government can guarantee the viability and success of projects supported by DFIs by putting risk management techniques into place and being aware of potential obstacles. Additionally, Research assists the government in developing policies that are in line with national priorities and developmental goals. It gives rise to an awareness of specific challenges and problems that DFIs may solve, enabling the government to formulate regulations that maximize the benefits of DFI interventions.

5.4 Conclusion

Credit risk management strategies are critical to the success of any funding organization, particularly Development Finance Institutions (DFIs). DFIs are unique in that they have a particular obligation to promote development. DFIs are crucial in providing finance to Small and Medium-Sized Enterprises (SMEs) in order to achieve the dual goals of promoting national development and growth and preserving profitability in order to continue providing funding for many different kinds of businesses. Notably, the challenge for DFIs lies in adapting credit risk management strategies distinct from those employed by traditional entities like banks. To reduce SME defaults, DFIs must carefully manage risks even while employing these strategies with a high tolerance for risk. In order to support upcoming SMEs, DFIs must strike a balance

between generating profits, maintaining exclusivity in their risk management techniques, and promoting SME funding. This strategy is essential for promoting growth, creating jobs, and upholding DFIs' main objective.

5.5 Recommendations

To guarantee the viability and longevity of initiatives it supports, DFIs should concentrate on enhancing its due diligence procedures. This involves assessing the market, operational, and financial traits of SMEs looking for investment. Furthermore, Credit Scoring and Modeling approaches are recommended for DFIs to implement. To improve loan assessment this involves establishing unique approval criteria and broadening the range of data sources used. These steps help to provide a solid evaluation of creditworthiness.

It is imperative that DFIs personnel actively participate in ongoing training programs in order to maintain an informed and competent workforce. This involves staying informed about developments in technology, comprehending ethics, and being compliant with regulations. Additionally, Key Performance Indicators (KPIs) should be set up by DFIs for regulatory compliance and ongoing improvement. By allowing for the regular assessment and analysis of credit risk management procedures, these KPIs will facilitate the tracking of initiative development.

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I. APPENDIX

2. How does Due Diligence / verification reduce the rate of defaults?

Table 11 Due Diligence

PARTICIPANTS	ANSWERS
Participant 1	Due Diligence provides a structured and comprehensive approach to risk assessment allowing CEDA to make informed decisions, mitigate potential risk, and set up appropriate safeguards which ultimately reduces the rate of defaults in financial transactions.
Participant 2	You learn and understand the background including financial state of the company /business. its overall performance (debtors &creditors, tax, returns etc)
Participant 4	Helps identify risks before initial investments in businesses and give CEDA a chance to validate information provided by clients.
Participant 5	Help DFIs to identify potential risks before investing in certain businesses/industries, and gives DFIs opportunity to validate information provided by SMEs

3. How does CEDA make sure its credit portfolio includes a variety of industries?

Table 12 Credit Portfolio

PARTICIPANTS	ANSWERS
Participant 1	The agency has dashboards which track the level of investment in the different industries and on a monthly basis reports are generated and shares internally as such we can monitor and ensure that our portfolio is diversified.
Participant 2	Through thorough market research, we diversify the portfolio to spread the risk across different assets.
Participant 3	According to CEDA's view, sustainability considerations include ensuring that personnel or human capital is well-trained for the operations of the business.
Participant 4	As CEDA we provide low interest rates for those that are in the special sector i.e. agribusinesses and manufacturing. We also conduct needs assessments surveys to identify potential business opportunities that Batswana can benefit from.
Participant 5	The agency utilizes dashboards to track the level of investment in different industries. On a monthly basis, reports are generated and shared internally. This approach allows us to monitor and ensure that our portfolio is diversified.

PARTICIPANTS	ANSWERS
Participant 1	When SMEs adhere to regulatory requirements, it enhances their overall business practices, improves their creditworthiness, and reduces the likelihood of defaults. This, in turn, contributes to a healthier and more sustainable business environment.
Participant 2	Contribution lightens the loan burden and also demonstrates commitment. Maturing involves closely observing how funds have been allocated and keeping track of the business's performance.

Participant 3	It ensures that, at the very least, the correct documentation/licenses are available, enabling seamless business processes.
Participant 4	Improves accountability and overall business practices, enhancing client creditworthiness.
Participant 5	This helps improve transparency and accountability. Following these procedures correctly is crucial to avoid fines by regulatory bodies, ultimately leading to fewer defaults as officers become more vigilant.

Table 13 Regulatory Compliance

Evaluate the current credit risk management strategies implemented by DFIs in Botswana regarding SME funding.

How does the following help improve your readiness to receive funding? Financial stability, business plans, management capabilities, and compliance with regulations.

Participants	Answers
Participant 6	Financial stability**;** A sign of commitment and motivation to the financial providers. Business plans; A blue print of the business Management capabilities; Assurance in proper and professional business operations Compliance with regulations; A sign of trust to the financial provider.

Table 14 Credit Risk Management Strategies

The impact of good Credit risk management practices in SME funding

How can the above corporate governance strategies help improve funding?

Participants	Answers
Participant 6	They will provide guidelines for the funding model as well as the management and monitoring strategies of the funded business."

How effective are CEDA's decision making processes? (processes of acquiring funding)

Participants	Answers
Participant 6	The CEDA process lacks technical expertise; instead, they should engage the requesting entity to take the lead in implementation and provide more guidance on financial management.

Table 15 Decision Making Process

Recommendations for improving credit risk management for CEDA

How can CEDA improve credit risk management strategies? Answer in terms of approval procedure, training SMEs and tracking it initiatives?

Participants	Answers
Participant 6	They should collaboratively conduct research on the business presented by the entity requesting funds and seek professional advice on technical aspects. In doing so, it is advisable to incorporate stages of the approval process during the research. Emphasizing a practical approach over a theoretical one is recommended. The current approach leans towards theoretical

	considerations rather than practical aspects, potentially affecting the implementation and success of funded SME

Table 16 Recommendations

II. APPENDIX

	QUESTIONNAIRE GUIDE -DFI (CEDA
1	**Participant Profile**
1.1	Position/Role within the Organisation
1.2	How many years of experience do you have in your current role at CEDA?
1.3	What is your educational background?
1.4	How would you describe your role in credit risk management at CEDA?
1.5	How would you rate the current effectiveness of credit risk management practices at CEDA?
1.6	How often do you engage with SMEs as part of your role at CEDA?
2	**Current credit risk management**
2.1	How does Credit Scoring and Modelling help mitigate risk?
2.2	How does Due Diligence reduce the rate of defaults?
2.3	How does CEDA make sure its credit portfolio includes a variety of industries?
3	**Effectiveness of credit risk management techniques**
3.1	Does requiring Collateral Prerequisites influence a business's chance of qualifying?
3.2	How regulatory compliance help reduce the number of SMEs that default?
4	**Impact of good Credit risk management**
4.1	How does CEDA's corporate governance increase SME funding?
4.2	How does effective credit risk management enhance decision-making processes within CEDA?
4.3	How does CEDA sustainability considerations influence SME funding?
5	**Recommendations for improving credit risk management**
5.1	How can CEDA improve credit risk management strategies? Answer in terms of approval procedure, training staff and tracking its initiatives

Table 17 QUESTIONNAIRE FOR CEDA EMPLOYEES

III. APPENDIX

	QUESTIONNAIRE GUIDE- SMEs FUNDED BY CEDA
1	**Participant Profile**
1.1	What is your position within your SME?
1.2	How many years of experience do you have in your current role within your SME?
1.3	What is your educational background?
1.4	How would you describe your role in credit risk management within your SME?
1.5	How would you rate the current effectiveness of credit risk management practices within your SME?
1.6	How often does your SME engage with other SMEs or CEDA as part of its operations?
2	**Current credit risk management strategies**
2.1	Does a good Credit scoring/ credit assessment help improve chances of acquiring and paying back loans?
2.2	How does the following help improve your readiness to receive funding?
	financial stability, business plans, management capabilities, and compliance with regulations.
2.3	Effectiveness of credit risk management techniques
3	**Effectiveness of credit risk management techniques**
3.1	Does requiring Collateral Prerequisites influence a business's chance of qualifying?
3.2	How does regulatory compliance help reduce the number of SMEs that default?
4	Good Credit risk management practices
4.1	Are you aware of any corporate governance strategies that CEDA has?
4.2	How can the above corporate governance strategies help improve funding?
4.3	How effective are CEDA's decision making processes? (processes of acquiring funding)
5	Recommendations for improving credit risk management
5.1	How can CEDA improve credit risk management strategies? Answer in terms of approval procedure, training SMEs and tracking it initiatives?

Table 18 QUESTIONNAIRE FOR SMEs

STATUTORY DECLARATION

I hereby declare that this Master’s Thesis is all my own work. I have

only used the sources or resources I have explicitly referenced. I have attributed all direct and indirect quotations.

Gaborone, Botswana on the March 01 , 2024

Amuchilani Mpha