

Corporate Governance Practices, Operating Environment and Financial Sustainability of Saccos in Greater Mbarara District

¹Gershom Atukunda*, ¹Benjamin Musiita, ¹Johnson Atwiine, ¹Aquilionus Atwine, ²Anthony Moni Olyanga
¹Bishop Stuart University, Faculty of Business, Economics and Governance, Department of Economics, Uganda
²Makerere University Business School, Uganda
*gatukunda@beg.bsu.ac.ug, bmusiita@beg.bsu.ac.ug, jatwiine@beg.bsu.ac.ug, aaquilionus@bsu.ac.ug, aolyanga@mubs.ac.ug

Abstract: This study investigated the link between corporate governance practices, the operating environment, and the financial sustainability of Savings and Credit Cooperatives (SACCOs) in the Greater Mbarara region. It aimed to understand how each factor, and their combined effect, influence SACCO's financial health. The study employed a cross-sectional design and analyzed data from 164 SACCOs (sample size determined using Krejcie and Morgan table (1970)). Statistical analysis revealed that both corporate governance practices and the operating environment have a positive and significant relationship with SACCO's financial sustainability. Additionally, their combined effect was also found to be positive and significant. The results suggest that 42.6% of the variation in financial sustainability can be explained by these two factors, leaving 57.4% to be influenced by other, unexplored aspects. To further improve SACCO's financial health in the region, the study recommends fostering communication with decision-makers, collaborating with governance and environmental experts, and implementing continuous monitoring of governance initiatives and environmental adaptations.

Keywords: *Corporate governance practices, operating environment and financial sustainability, saccos, Greater Mbarara district*

1. Introduction

Financial sustainability is pivotal for SACCOs and financial institutions, gauged through deposit mobilization, institution size, and return on assets (ROA), which collectively reflect resource efficiency and growth potential (Otwoko, 2023). Institution size's importance is evident in Zenith Bank's Nigerian success, expanding its asset base and market presence to solidify long-term financial resilience (Mogaji, 2023). Corporate governance practices and the operating environment significantly influence the financial sustainability of SACCOs (Lennah & Bett, 2023). Effective corporate governance fosters accountability, transparency, and stakeholder engagement, building trust and enhancing the long-term viability of companies (Miano & Gitonga, 2020). By incorporating sustainable practices into their strategies and operations, companies can adapt to the interests of stakeholders and adopt a long-term perspective, promoting resilience and adaptability (Settembre-Blundo et al., 2021). The operating environment, encompassing legal, regulatory, economic, social, and environmental factors, plays a pivotal role in business financial sustainability (Trevlopoulos et al., 2021). Compliance with regulations and industry standards ensures responsible practices, mitigating reputational and financial risks (Ioannou & Serafeim, 2017). Additionally, understanding stakeholder expectations and market opportunities helps businesses align their strategies with social and environmental concerns, fostering sustainable growth. The National Bank of Rwanda has implemented regulations that protect SACCO members and promote financial stability within the sector (Mahembe & Ntaganda, 2019). These regulations ensure that SACCOs operate responsibly and sustainably. By aligning corporate governance practices with a supportive operating environment, Rwanda has achieved positive outcomes in terms of SACCO financial sustainability.

Corporate governance practices and the operating environment are of paramount importance for the financial sustainability of financial institutions, including SACCOs, in developing nations, Africa, and East Africa as a whole. Effective corporate governance ensures accountability, risk management, and member protection. For instance, in Kenya, the SACCO Societies Regulatory Authority (SASRA) emphasizes transparency and accountability in SACCO operations, safeguarding member interests (K'Obonyo, 2018). Moreover, a supportive operating environment which refers to the specific conditions and factors that influence the functioning and long-term viability of a business, includes a well-defined regulatory framework, economic stability, and favorable market conditions is essential. In Rwanda, regulations by the National Bank of Rwanda protect members and promote financial stability for SACCOs (Mahembe & Ntaganda, 2019). Market conditions, such as the growth of mobile banking and digital financial services in Kenya, provide opportunities for SACCOs to

expand their reach and enhance service delivery, thereby contributing to financial sustainability (Kemboi & Ndolo, 2019). By promoting good corporate governance practices and creating favorable operating environments, developing nations in Africa can enhance the financial sustainability of financial institutions like SACCOs.

In Uganda, the financial sustainability of financial institutions, including SACCOs, relies on robust corporate governance practices and a conducive operating environment. The Uganda Cooperative Alliance (UCA) has established corporate governance standards that promote transparency, accountability, and responsible decision-making within SACCOs, safeguarding member savings (Muwanga, 2017). These standards, coupled with a well-defined regulatory framework set by the Bank of Uganda, ensure effective board oversight and member protection, enhancing the financial sustainability of SACCOs (Tibamanya, 2021). Additionally, a stable economic climate further contributes to their financial sustainability by reducing volatility and uncertainties, enabling SACCOs to attract and retain members, generate sustainable returns, and support Uganda's financial inclusion goals (Mugume & Ggoobi, 2021).

Despite the existing literature emphasizing the importance of financial sustainability for SACCOs and the role of corporate governance practices and the operating environment in achieving it, there is a significant research gap in examining the relationship between these variables specifically in the context of the Greater Mbarara districts. Previous studies have cited examples from Kenya and Rwanda, but the context of SACCOs in the Greater Mbarara District has not been adequately explored. Despite the efforts made, SACCOs in greater Mbarara face challenges in terms of financial sustainability, as indicated by a growth rate of only 7% and fluctuating financial performance ranging from -5% to 10%. This instability often leads to the closure of certain SACCOs that are unable to sustain themselves (Micro Finance Support Centre annual report, 2022). A study conducted by AMFI (2022) reveals that 23.5% of SACCOs in greater Mbarara fail to reach their fifth anniversary, based on data analyzed from 2015 to 2022. Existing literature commonly links the financial unsustainability of SACCOs to poor corporate governance practices, including issues such as a lack of transparency and accountability (Solomon, 2020; Wasdi, 2023; Agati, 2006; Nwagbara & Ugwoji, 2015).

This research aims to fill this knowledge gap by investigating the relationship between corporate governance practices, the operating environment, and the financial sustainability of SACCOs in the districts comprising Greater Mbarara. The findings from this study will provide valuable insights into how corporate governance practices and the operating environment influence the financial sustainability of SACCOs in this specific geographical area.

2. Review of literature

Theoretical Review

The Agency Theory: The Agency Theory, by Jensen and Meckling (1976), is a prominent theoretical framework that centers on the principal-agent dynamics within organizations. This theory acknowledges the inherent conflicts of interest between shareholders (principals) and managers (agents) and emphasizes the necessity of aligning their interests to foster robust corporate governance. At its core, the Agency Theory posits that managers, acting as agents, may pursue self-interests that could deviate from the objectives of shareholders, who represent the ultimate owners of the firm (Jensen & Meckling, 1976). To mitigate agency problems and promote effective corporate governance, the Agency Theory proposes the adoption of various mechanisms. These mechanisms encompass the implementation of independent boards, the design of executive compensation contracts, and the encouragement of shareholder activism, all of which play pivotal roles in monitoring and controlling managerial conduct (Jensen & Meckling, 1976). Independent boards consist of directors who are not directly involved in the day-to-day operations of the firm, thereby enabling them to provide impartial oversight and decision-making (Fama, 1980). Executive compensation contracts, on the other hand, can be structured to align the interests of managers with those of shareholders through the inclusion of performance-based incentives (Jensen & Murphy, 1990). Furthermore, shareholder activism pertains to the active engagement of shareholders in influencing corporate decisions and strategies to safeguard their interests (Brav et al., 2008). Numerous studies have endeavored to apply the Agency Theory, shedding light on its implications and assessing the efficacy of governance mechanisms in ameliorating agency problems.

In a comprehensive examination, Bebchuk, Cohen, and Wang (2017) investigated the impact of CEO pay ratio disclosure on corporate governance and firm performance. Analyzing a sample of U.S. public companies after the introduction of the CEO pay ratio disclosure rule mandated by the Dodd-Frank Act, the findings revealed that enhanced transparency regarding CEO pay ratios facilitated improved corporate governance practices, such as augmented board independence and heightened shareholder engagement. Moreover, firms with higher CEO pay ratios experienced a decline in their market value, indicating that the disclosure of pay disparities can assist in aligning managerial incentives with shareholder interests (Bebchuk et al., 2017).

Despite its contributions to the comprehension of agency relationships, the Agency Theory possesses certain limitations. Firstly, the theory rests on simplified assumptions, assuming rational behavior and homogeneous preferences among shareholders and managers. This simplification may not fully encapsulate the intricacies of real-world agency relationships (Jensen & Meckling, 1976). Secondly, the effectiveness of specific corporate governance mechanisms may vary across industries, countries, and organizational contexts, thereby limiting the establishment of universal prescriptions (Jensen & Meckling, 1976). Finally, agency problems can persist even with the presence of governance mechanisms, as managers may find ways to circumvent controls and act in their self-interests (Bebchuk & Fried, 2003).

In conclusion, the Agency Theory provides valuable insights into the principal-agent relationship within organizations and underscores the need for aligning the interests of shareholders and managers. Corporate governance mechanisms, such as independent boards, executive compensation contracts, and shareholder activism, can aid in reducing agency problems and enhancing accountability. However, future research should strive to overcome the limitations of the theory and explore diverse contexts to offer a more comprehensive understanding of agency relationships and effective governance mechanisms.

Institutional Theory: Institutional Theory, developed by DiMaggio and Powell (1983), emphasizes the role of formal and informal institutions in shaping organizational behavior. It suggests that organizations conform to prevailing rules, norms, and societal expectations to gain legitimacy and ensure survival. The operating environment, consisting of legal frameworks, cultural values, and socio-political factors, acts as a set of institutional pressures that influence business practices. Understanding and responding to these pressures enable organizations to navigate external constraints and align their strategies with institutional expectations. Numerous studies conducted after 2017 have further explored the concepts and implications of Institutional Theory. One such study by Greenwood, Raynard, Kodeih, Micelotta, and Lounsbury (2011) investigated the diffusion of corporate social responsibility (CSR) practices across organizations. By examining the influence of institutional factors, such as inter-organizational networks and regulatory contexts, the researchers highlighted how CSR practices spread within industries and regions (Greenwood et al., 2011). Their findings emphasized the role of institutional pressures in shaping CSR adoption and diffusion.

Additionally, Lawrence, Suddaby, and Leca (2013) conducted a study on institutional work, which refers to the purposeful actions undertaken by individuals and organizations to create, maintain, and disrupt institutions. Their research sheds light on the strategies employed by actors to shape institutional arrangements and influence organizational behavior (Lawrence et al., 2013). The study highlighted the importance of understanding institutional work as a means to navigate and respond to institutional pressures.

Furthermore, Lounsbury and Crumley (2007) examined the influence of institutional logic on organizational practices. They argued that organizations are embedded in multiple institutional contexts and may be subject to conflicting logic. The study explored how organizations reconcile these competing logics and the implications for their behavior and strategies (Lounsbury & Crumley, 2007). By analyzing the interplay between institutional logic and organizational practices, the researchers deepened our understanding of the dynamics within institutional environments.

While Institutional Theory provides valuable insights, it is important to acknowledge its limitations. One limitation is the challenge of distinguishing between institutional isomorphism (conformity to institutional pressures) and strategic adaptation (purposeful deviation from institutional expectations) in organizational behavior. Additionally, the theory tends to focus more on macro-level institutional forces, potentially overlooking the agency and actions of individuals within organizations.

In conclusion, Institutional Theory highlights the significance of formal and informal institutions in shaping organizational behavior. Recent studies have explored the diffusion of practices, the role of institutional work, and the influence of institutional logic on organizational behavior. However, challenges exist in distinguishing between conformity and strategic adaptation, as well as considering individual agency within organizations. Understanding and responding to institutional pressures are crucial for organizations to gain legitimacy and align their strategies with societal expectations.

Relationship between the study variables

The relationship between corporate governance practices and business financial sustainability:

Corporate governance practices and business financial sustainability have garnered significant attention in the global business landscape (Chen, Wang, & Huang, 2018; Jones & Ratliff, 2019). Corporate governance encompasses the system of rules, practices, and processes by which companies are directed and controlled (Chen et al., 2018). It focuses on the relationships between stakeholders, such as shareholders, management, and the board of directors, to ensure transparency, accountability, and ethical behavior within organizations. Business financial sustainability, on the other hand, involves integrating social, environmental, and economic considerations into business operations to create long-term value while minimizing adverse impacts.

Numerous studies conducted worldwide have explored the relationship between corporate governance practices and business financial sustainability (Sjöström, Johansson, & Kallifatides, 2020). Understanding how corporate governance practices influence business financial sustainability is crucial for organizations seeking to adopt effective governance mechanisms and promote sustainable practices aligned with global goals like the United Nations Sustainable Development Goals (SDGs) (Mafini, King, & Okeahalam, 2020). Examining the existing literature allows us to gain insights into the findings and trends related to this relationship across diverse regions.

This literature review aims to explore the relationship between corporate governance practices and business financial sustainability through the review of ten studies conducted in various parts of the world. The selected studies include two conducted in Asia (Wong, Wong, & Wong, 2017), two in North America (Martinez-Ferrero, 2018), two in Europe (Sjöström et al., 2020), two in South America (de Almeida, Ribeiro, & Godoy, 2019), and two in Africa (Mafini et al., 2020). Analyzing the findings from these studies will provide a comprehensive understanding of how corporate governance practices influence business financial sustainability in diverse contexts. Furthermore, this review will shed light on the implications of effective governance mechanisms for promoting sustainable business practices and enhancing overall firm performance.

In a study conducted by Chen, Wang, and Huang (2018) in Taiwan, a quantitative research design was employed to investigate the impact of corporate governance on firm performance. The study focused on a sample of publicly listed companies in Asian countries. The findings revealed a positive relationship between corporate governance practices and firm performance, indicating that effective governance mechanisms enhance business financial sustainability in Asia.

Jones and Ratliff (2019) conducted a qualitative study in the United States to explore the association between corporate governance and corporate social responsibility (CSR) in North America. Using case analysis of North American companies, the researchers found that companies with better governance exhibited a stronger commitment to sustainable business practices, suggesting a positive relationship between governance and CSR initiatives in the region.

Sjöström, Johansson, and Kallifatides (2020) conducted a mixed-methods study in Sweden to examine the relationship between corporate governance and financial sustainability reporting in European companies. The research design incorporated survey data and content analysis of financial sustainability reports. The study demonstrated that stronger corporate governance practices were associated with higher quality and more comprehensive financial sustainability reporting, indicating a positive link between governance and business financial sustainability in Europe.

In Brazil, de Almeida, Ribeiro, and Godoy (2019) conducted a quantitative study focusing on listed companies in South America to investigate the relationship between corporate governance mechanisms and

environmental disclosure practices. The findings indicated that firms with stronger governance mechanisms were more likely to engage in environmental disclosure, suggesting a positive relationship between governance and sustainable environmental performance in South America. Mafini, King, and Okeahalam (2020) conducted a qualitative study in South Africa, employing interviews and case studies, to explore the role of corporate governance in promoting sustainable business practices in Africa. The study highlighted the importance of effective governance mechanisms in influencing social and environmental performance, emphasizing the positive impact of governance on business financial sustainability in African countries.

Wong, Wong, and Wong (2017) conducted a quantitative study in Hong Kong, focusing on the influence of board independence on firm financial sustainability in Asian countries. Utilizing panel data from Asian companies, the researchers found that board independence, as a corporate governance characteristic, positively affected firm financial sustainability. The study underscored the significance of independent boards in driving sustainable business practices in Asia.

Martinez-Ferrero (2018) conducted a quantitative comparative analysis study in Canada and the United States to examine the relationship between corporate governance and corporate environmental performance in North America. The findings demonstrated a positive relationship between governance practices and environmental performance in both countries, highlighting the contribution of effective governance to sustainable business practices in North America.

In conclusion, while the existing literature has explored the relationship between corporate governance practices and business financial sustainability in various regions worldwide, there remains a notable geographic and contextual gap in the context of SACCOs (Savings and Credit Cooperative Organizations) in the Greater Mbarara District. The selected studies in this literature review have primarily focused on larger corporations in Asia, North America, Europe, South America, and Africa, with limited emphasis on SACCOs in specific geographic areas. Therefore, the study gap lies in the need for research that specifically investigates the relationship between corporate governance practices, the operating environment, and the financial sustainability of SACCOs in the Greater Mbarara District. Such a study would provide valuable insights into the unique challenges and opportunities faced by SACCOs in this specific geographic and contextual setting, contributing to a more comprehensive understanding of how governance practices impact the financial sustainability of these important financial institutions.

The relationship between the operating environment and business financial sustainability: The operating environment plays a crucial role in shaping the financial sustainability of businesses. The operating environment encompasses the external factors and conditions in which businesses operate, including economic, social, political, legal, technological, and environmental aspects (Hitt et al., 2021). Business financial sustainability, on the other hand, involves the integration of social, environmental, and economic considerations into business strategies and practices to ensure long-term viability and success (Molina-Azorín et al., 2021). Understanding the relationship between the operating environment and business financial sustainability is essential for organizations seeking to thrive in dynamic and complex business landscapes. This literature review aims to explore the existing body of knowledge on the relationship between the operating environment and business financial sustainability, highlighting key findings and trends identified in studies conducted worldwide.

The economic factors within the operating environment significantly influence business financial sustainability. In a study by Acemoglu, Akcigit, and Kerr (2016), the authors examined the relationship between economic institutions and innovation. They found that countries with more inclusive economic institutions, characterized by strong property rights and low corruption, fostered innovation and long-term business financial sustainability. The presence of stable economic institutions encourages businesses to invest in research and development, leading to the development of sustainable practices and the creation of competitive advantages. Similarly, Holtbrügge and Baron (2017) investigated the impact of economic globalization on corporate financial sustainability strategies. Their findings revealed that businesses operating in highly globalized economies were more likely to adopt financial sustainability practices to enhance their competitiveness and reputation. Globalization opens up opportunities for businesses to access new markets, collaborate with international partners, and tap into diverse resources. To stay relevant in the global marketplace, organizations

recognize the importance of integrating financial sustainability into their business strategies, enabling them to meet the growing demands of environmentally conscious consumers and investors.

In a study by Marques, Ferreira, and Santos (2020), the researchers explored the relationship between economic recessions and financial sustainability practices in organizations. They found that during economic downturns, firms faced significant challenges in maintaining their financial sustainability initiatives due to financial constraints and resource scarcity. However, resilient organizations strategically prioritized financial sustainability efforts, viewing them as long-term investments that would enhance their competitiveness and resilience in the post-recession period. By investing in sustainable practices even during economic hardships, businesses can position themselves for future growth and financial sustainability.

Furthermore, Wang and Sarkis (2018) conducted a study on the relationship between economic development and corporate environmental performance. Their research indicated that as economies grow and develop, businesses tend to allocate more resources towards environmental improvement and sustainable practices. Higher economic development provides companies with greater financial capacity to invest in clean technologies, environmental management systems, and employee training, leading to improved environmental performance and enhanced business financial sustainability.

In summary, economic factors within the operating environment have a significant impact on business financial sustainability. Inclusive economic institutions, economic globalization, the influence of economic recessions, and economic development all play crucial roles in shaping organizations' adoption of sustainable practices. Understanding and navigating these economic factors is essential for businesses seeking to align their strategies with financial sustainability goals and ensure long-term success in a dynamic and competitive economic landscape.

Social factors in the operating environment also play a vital role in shaping business financial sustainability. In a study by Rivera-Camino, Medina-Molina, and Ruiz (2018), the researchers explored the influence of social capital on the financial sustainability performance of firms. They found a positive relationship between social capital, characterized by trust, cooperation, and shared values, and the adoption of sustainable practices. Organizations with strong social capital networks, including relationships with employees, customers, suppliers, and local communities, are more likely to engage in sustainable business practices. These relationships foster collaboration, knowledge-sharing, and mutual support, enabling businesses to address financial sustainability challenges effectively.

Furthermore, Luo and Bhattacharya (2021) examined the effect of consumer awareness and demand for sustainable products on business financial sustainability. Their findings indicated that businesses responding to consumer demand for financial sustainability were more likely to achieve long-term success. As consumers become more environmentally and socially conscious, they seek out products and services from companies that align with their values. Organizations that proactively address consumer demands for sustainable products and adopt responsible business practices can enhance their brand reputation, attract a loyal customer base, and ultimately improve their business's financial sustainability.

In another study, Orlitzky, Siegel, and Waldman (2011) investigated the impact of corporate social responsibility (CSR) on financial performance. Their meta-analysis of over two hundred studies revealed a positive relationship between CSR and financial outcomes. Organizations that actively engage in CSR initiatives, such as philanthropy, employee well-being programs, and community involvement, tend to enjoy better financial performance. This suggests that businesses that prioritize social responsibility and integrate it into their core operations are more likely to achieve long-term financial sustainability.

Moreover, Hong, Zhang, and Zhou (2013) conducted a study on the influence of employee engagement on sustainable organizational performance. Their research demonstrated that organizations with high levels of employee engagement had better financial sustainability outcomes. Engaged employees exhibit higher levels of commitment, productivity, and innovation, leading to improved business financial sustainability. By fostering a supportive and inclusive work environment, organizations can enhance employee engagement and unlock their potential as drivers of sustainable practices.

In summary, social factors within the operating environment significantly impact business financial sustainability. Strong social capital networks, consumer demand for financial sustainability, corporate social responsibility, and employee engagement all contribute to the adoption and success of sustainable practices. Understanding and effectively managing these social factors is crucial for organizations seeking to enhance their social and environmental performance, build stakeholder trust, and ensure long-term business financial sustainability.

Political and legal factors within the operating environment have significant implications for business financial sustainability. In a study by Zhu, Sarkis, and Lai (2018), the researchers investigated the impact of government regulations on the environmental financial sustainability practices of manufacturing firms. They found that stringent environmental regulations prompted businesses to adopt sustainable practices and improve their environmental performance. The presence of strict regulations acts as a catalyst for organizations to invest in cleaner technologies, implement waste management systems, and reduce their carbon footprint. Government regulations provide clear guidelines and incentives for businesses to align their operations with environmental financial sustainability goals.

Additionally, Zhang, Hu, and Fan (2017) examined the role of political connections in corporate environmental performance. Their research revealed that firms with stronger political connections were more likely to engage in sustainable practices due to access to resources and favorable regulatory treatment. Political connections can provide businesses with valuable opportunities, including access to information, financial support, and favorable policy considerations. Organizations with political connections are more likely to receive support and incentives from governments to adopt sustainable practices, leading to improved environmental performance and enhanced business financial sustainability.

In another study, Hahn and Pinkse (2014) investigated the impact of voluntary environmental agreements (VEAs) on the financial sustainability performance of firms. VEAs are agreements between governments and businesses that aim to encourage and support voluntary adoption of sustainable practices. The researchers found that firms participating in VEAs exhibited better financial sustainability performance compared to non-participating firms. By voluntarily committing to sustainable practices, businesses demonstrate their proactive approach and commitment to environmental stewardship, which positively affects their reputation, stakeholder relationships, and overall business financial sustainability.

Moreover, Kolk, Kourula, and Pisani (2017) conducted a study on the influence of international institutions and agreements on corporate financial sustainability practices. Their research revealed that businesses operating in countries that have ratified international financial sustainability agreements tend to exhibit stronger financial sustainability performance. International agreements, such as the United Nations Global Compact and the Paris Agreement, set global financial sustainability standards and expectations. Businesses that operate in countries that actively endorse and implement these agreements are more likely to incorporate financial sustainability practices into their operations, supply chains, and reporting, thereby enhancing their overall business financial sustainability.

In summary, political and legal factors within the operating environment have significant implications for business financial sustainability. Strict government regulations, the role of political connections, voluntary environmental agreements, and international financial sustainability agreements all shape the adoption and implementation of sustainable practices. Understanding and navigating these political and legal factors are essential for organizations seeking to align their operations with regulatory requirements, gain access to resources, and enhance their overall financial sustainability performance.

Technological advancements and innovations in the operating environment have transformative effects on business financial sustainability. In a study by Bocken, Short, Rana, and Evans (2017), the authors explored the role of digital technologies in enabling sustainable business models. They found that digital technologies, such as the Internet of Things (IoT) and data analytics, facilitated resource efficiency, collaboration, and new revenue streams, thereby enhancing business financial sustainability. Through the integration of IoT devices and sensors, businesses can monitor and optimize resource consumption, reduce waste, and improve overall operational efficiency. Data analytics enable organizations to analyze large volumes of data to gain insights,

identify opportunities for improvement, and make informed decisions that support financial sustainability objectives. These digital technologies provide businesses with tools and capabilities to optimize processes, reduce environmental impacts, and drive long-term financial sustainability.

Moreover, Pagoropoulos, Pantelidis, and Koritos (2017) investigated the impact of renewable energy technologies on business financial sustainability. Their research highlighted that the adoption of renewable energy technologies contributed to environmental financial sustainability, cost savings, and improved competitiveness. With the increasing availability and decreasing costs of renewable energy sources such as solar and wind, businesses can reduce their reliance on fossil fuels and transition towards more sustainable energy alternatives. The adoption of renewable energy technologies not only lowers greenhouse gas emissions but also provides economic benefits through reduced energy costs and enhanced brand reputation as an environmentally responsible organization.

In another study, Boiral, Heras-Saizarbitoria, and Talbot (2017) examined the role of eco-design practices and eco-innovation in driving sustainable product development. They found that businesses that integrate eco-design principles into their product development processes can achieve higher levels of financial sustainability performance. Eco-design involves considering the environmental impacts of products throughout their lifecycle, from design and raw material selection to manufacturing, use, and disposal. By incorporating eco-design practices, organizations can minimize resource consumption, reduce waste, and develop products with improved environmental performance. Eco-innovation, on the other hand, focuses on developing new technologies, materials, and processes that contribute to environmental financial sustainability. The adoption of eco-design and eco-innovation practices allows businesses to differentiate themselves in the market, attract environmentally conscious customers, and improve their overall financial sustainability performance.

Furthermore, Shi, Sun, and Yang (2019) conducted a study on the influence of blockchain technology on supply chain financial sustainability. They found that blockchain technology enhances transparency, traceability, and accountability in supply chains, thereby supporting sustainable practices. By utilizing blockchain, businesses can improve supply chain visibility, track the origin and financial sustainability credentials of products, and ensure ethical sourcing practices. The increased transparency and trust facilitated by blockchain technology enable organizations to address social and environmental challenges in their supply chains and enhance overall supply chain financial sustainability.

In summary, technological advancements and innovations have transformative effects on business financial sustainability. Digital technologies enable resource efficiency, collaboration, and new revenue streams, while renewable energy technologies contribute to environmental financial sustainability and cost savings. Eco-design and eco-innovation practices drive sustainable product development, and blockchain technology enhances supply chain financial sustainability. Embracing and leveraging these technological factors enables organizations to enhance their environmental performance, reduce costs, and strengthen their overall business financial sustainability.

The natural environment, including climate change and resource scarcity, poses critical challenges and provides opportunities for businesses striving for financial sustainability. Extensive research has been conducted to understand the relationship between the natural environment and business financial sustainability, shedding light on various aspects and implications. For instance, Burbano, Delmas, & Cobo (2022) explored the connection between climate change strategies and financial performance. Their study revealed that companies implementing proactive climate change strategies not only contribute to environmental financial sustainability but also experience improved financial performance. This finding highlights the potential for businesses to achieve economic success while addressing climate change.

Furthermore, Pinkse (2019) conducted a study on corporate responses to climate change, uncovering how businesses can enhance financial sustainability through their actions. Their research emphasized that companies adopting climate change mitigation and adaptation strategies can drive operational efficiency, cost savings, and reputational gains. These findings underscore the importance of integrating climate change considerations into business strategies and operations to achieve long-term financial sustainability.

Moreover, Lüdeke-Freund, Froese & Schaltegger (2019) explored the relationship between corporate financial sustainability and resource efficiency. Their study demonstrated that businesses implementing resource-efficient practices, such as waste reduction, energy efficiency, and water conservation, can achieve positive financial outcomes while minimizing their environmental impact. Resource efficiency not only contributes to cost savings but also supports sustainable development by reducing resource consumption and waste generation.

In addition to climate change and resource efficiency, other aspects of the natural environment, such as resource scarcity, have also been investigated about business financial sustainability. Nevárez (2021) focused on the impact of resource scarcity on financial sustainability practices. Their research emphasized the need for businesses to adopt innovative strategies to address resource scarcity challenges, such as implementing sustainable resource management practices and exploring alternative sources. By doing so, companies can ensure their long-term financial sustainability and resilience in the face of resource limitations.

Furthermore, Chabowski, Mena, and Gonzalez-Padron (2011) examined the influence of environmental regulations on business financial sustainability. Their study highlighted the positive association between environmental regulation compliance and improved environmental performance. Adhering to environmental regulations not only helps businesses avoid legal and reputational risks but also drives them to adopt sustainable practices and technologies. This emphasizes the importance of regulatory frameworks in incentivizing businesses to integrate financial sustainability into their operations.

Overall, the natural environment presents both challenges and opportunities for business financial sustainability. By proactively addressing climate change, embracing resource efficiency practices, considering resource scarcity, and complying with environmental regulations, businesses can contribute to environmental preservation while achieving financial success. The findings from these studies highlight the significance of integrating financial sustainability considerations into business strategies, ultimately leading to long-term viability, enhanced reputation, and stakeholder value creation.

In conclusion, the existing literature on the operating environment, and financial sustainability of SACCOs in the Greater Mbarara District reveals a significant research gap. While studies have explored these topics in broader contexts, there is a dearth of research specifically focused on SACCOs operating in this geographic area. Further investigation is necessary to understand the unique challenges and opportunities faced by SACCOs in the district and to develop tailored strategies and policies that support their long-term financial sustainability. Bridging this study gap will provide valuable insights and recommendations for practitioners, policymakers, and stakeholders, ultimately enhancing the financial sustainability practices and overall performance of SACCOs in the Greater Mbarara District.

In conclusion, the combined effect of corporate governance and the operating environment on business financial sustainability is a multifaceted relationship. Effective corporate governance practices, in conjunction with a supportive operating environment, can enhance financial sustainability outcomes for organizations. Understanding the reciprocal influences between corporate governance and the operating environment is crucial for developing strategies and policies that promote sustainable business practices. Further research in this area should continue to explore the intricate interactions between corporate governance, the operating environment, and their impact on business financial sustainability. However, there is a study gap concerning the relationship between the variables in the context of SACCOs in the great Mbarara district. Therefore, this study will fill this gap.

3. Methodology

Research Design

This study employed a cross-sectional research design to examine the relationship between corporate governance practices, the operating environment, and the financial sustainability of SACCOs (Savings and Credit Cooperative Organizations) in the Greater Mbarara District. Cross-sectional study design is a type of observational study design. In a cross-sectional study, the investigator measures the outcome and the exposures of the study participants at the same time (Thomas, 2010).

Study Population and Sample Size

The research focused on Savings and Credit Cooperative Organizations (SACCOs) in the Greater Mbarara districts, totaling 164 SACCOs. SACCOs were chosen due to their role in financial services and community-level financial inclusion. Out of these, 116 SACCOs were selected based on the Krejcie and Morgan Table (1970). The study involved 348 respondents, three from each selected SACCO, comprising managers, board committee heads, and operations heads, who provided information on the study variables. simple random sampling was applied to select SACCOs from each district. Stratified sampling helped to ensure that each SACCO from each district is fully presented and simple random helps to avoid selection bias (Taherdoost, 2016).

Variables Definitions and Measurement Levels

Table 1: Operationalization and measurement of variable

Variable	Measures	Operationalization	Dimension	Source
Corporate Governance	Structure and Composition	Perceived effectiveness of board structure in terms of independence, expertise, diversity, and composition	Board composition	Adams, R. B., & Ferreira, D. (2009); Daily, C. M., Dalton, D. R., & Canella, A. A. (2003)
Corporate Governance	Transparency	The extent of disclosure of governance-related information to stakeholders, including financial and non-financial disclosures	Information disclosure on a 5-point Likert scale will be adopted	Gillan, S. L., & Starks, L. T. (2007); Ioannou, I., & Serafeim, G. (2017)
Corporate Governance	Risk Management	Implementation of risk management practices, including identification, assessment, and mitigation of risks	Risk management practices. a 5-point Likert scale will be adopted	Jensen, M. C. (2003); Judge, W. Q., & Zeithaml, C. P. (1992)
Corporate Governance	Stakeholder Engagement	Level of involvement and communication with stakeholders, such as shareholders, employees, customers, and the community	Stakeholder engagement. a 5-point Likert scale will be adopted	Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997); Freeman, R. E. (1984)
Operating Environment	Political environment	Stringency and effectiveness of regulatory requirements impacting business operations, including compliance measures	Regulatory compliance. a 5-point Likert scale will be adopted	Vogel, D. (2008); Schuler, R. S., & Jackson, S. E. (2005)
Operating Environment	Technological environment	Intensity of competition and market concentration affecting business performance and strategy	Market competition. a 5-point Likert scale will be adopted	Porter, M. E. (1979); Barney, J. B. (1991)
Operating Environment	Socio-economic Factors	Influence of Economic stability, Social Development, and Cultural Factors on Business Operations and Financial Sustainability	Socio-economic context. a 5-point Likert scale will be adopted	Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003); Carroll, A. B. (1991)
Operating Environment	Responsiveness	Ability to adapt and respond to changing market conditions and customer needs	Market responsiveness. a 5-point Likert scale will be adopted	Fornell, C., & Wernerfelt, B. (1987); Narver, J.

Business Financial sustainability	Deposit mobilization	Assessment of the amount of deposits made by the clients.	Financial performance. A 5- point Likert scale will be adopted	C., & Slater, S. F. (1990) Eccles, R. G., & Krzus, M. P. (2010); Ittner, C. D., & Larcker, D. F. (1997)
Business Financial sustainability	Size	Analysis of business growth metrics, including market share, expansion into new markets, and product diversification	Growth and expansion. a 5- point Likert scale will be adopted	Barney, J. B. (1991); Zahra, S. A., & Covin, J. G. (
	Return on Assets	Assessment of the amount of profit registered as return from the SACCOS assets.	Financial sustainability. A 5- point Likert scale will be adopted	Zahra, S. A., & Covin, J. G. (

Data Processing and Analysis

Data obtained from the questionnaires were coded, entered into a statistical software package, and analyzed using appropriate statistical techniques. Descriptive statistics, such as means and percentages, were used to summarize the data. Inferential statistics, including correlation analysis and regression analysis, were conducted to examine the relationships between variables.

4. Results of the study

Demographic characteristics of the respondents.

The demographics of the managers, head of the board committee and head of operations of SACCOS were distributed as indicated in Table 2.

Table 2: Demographic characteristics for the respondents that is managers, head of board committee and head of operations of SACCOS

Category	Item	Frequency	Percent
Age	26-35 years	35	10.9
	36- 45 years	153	47.5
	46-55 years	127	39.4
	56 years and above	7	2.2
Gender	male	252	78.3
	female	70	21.7
Education	Diploma/ Certificate	28	8.7
	Bachelors Degree	166	51.5
	Masters Degree	128	39.8
	Total	322	100

Primary Source Data 2023

The results in Table 2 indicate that In terms of age distribution, a notable 47.5% of the respondents fall within the 36-45 age bracket, indicating a substantial presence of mid-career professionals in these leadership roles. Those aged 46-55 years constitute 39.4%, suggesting a significant representation of experienced individuals in senior positions. The 26-35 age group comprises 10.9%, indicating a smaller percentage of younger individuals, while those aged 56 and above contribute 2.2%, representing a minority of senior executives.

Gender representation among these SACCO leaders shows a distinct imbalance, with males constituting the majority at 78.3%, while females make up only 21.7%. This gender disparity underscores an industry trend where men hold a predominant share of leadership positions within SACCOs.

Educationally, the respondents exhibit a high level of formal education. Those with a diploma or certificate constitute 8.7%, indicating a limited presence of individuals with lower-level formal education. A significant 51.5% hold a bachelor's degree, signifying a majority with undergraduate qualifications. Furthermore, a substantial 39.8% have pursued a master's degree, suggesting a well-educated cohort in leadership roles within SACCOs. This educational profile aligns with the complex financial and managerial demands of SACCOs, emphasizing the importance of advanced education in these leadership positions.

Demographic characteristics of the Saccos.

The demographics of the SACCOs were distributed as indicated in Table 3.

Table 3: Demographic characteristics of the Saccos

Age of Sacco	Less than 1 year	2	1.9
	1-3 years	17	15.9
	4-6 years	54	50.4
	7-10 years	29	27.1
	More than 10 years	5	4.7
Total		107	100

The distribution of the Saccos is based on the age of the Sacco, which reveals that the majority, 50.4%, have been in existence for 4-6 years. 7-10 years and 1-3 years follow closely, constituting 27.1% and 15.9% of the sample, respectively. A smaller proportion, 4.7%, have been in existence for more than 10 years, while less than 1-year accounts for 1.9 % of the Saccos.

Pearson Correlation Matrix

Pearson's Correlation analysis was conducted to measure the strength of linear associations between the study variables and is denoted by r.

Table 4: Correlation Results

	1	2	3	4	5	6	7	8	9	10	11	12
Structure and Composition-1	1											
Stakeholder Engagement-2	.129*	1										
Corporate governance practices 3	.774**	.728**	1									
Political environment 4	.181**	.319**	.329**	1								
Social environment 5	.198**	.606**	.524**	.375**	1							
Technological environment 6	.333**	0.082	.283**	.183**	.112*	1						
Economic environment 7	.036	.525**	.360**	.285**	.463**	.134	1					
Operating Environment-8	.270**	.589**	.563**	.716**	.720**	.458**	.709**	1				
Return on Assets-9	.313**	.178**	.330**	.387**	.430**	.249**	.176**	.461**	1			
Organizational size-10	.424**	.173**	.403**	.144**	.153**	.164**	.207**	.258**	.165**	1		
Deposit Mobilization-11	.538**	.368**	.607**	.246**	.240**	0.052	.458**	.400**	0.032	.597**	1	
Financial sustainability-12	.598**	.347**	.635**	.325**	.338**	.178**	.415**	.488**	.391**	.844**	.864**	1

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

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

Relationship between corporate governance practices and SACCO financial sustainability in the Greater Mbarara region.

The results in Table 4 indicate that there is a positive significant relationship between corporate governance practices and SACCO financial sustainability in the Greater Mbarara region ($r=.635, p<.01$). This implies that any positive change in corporate governance practices will result in a positive change in SACCO financial sustainability in the Greater Mbarara region.

The relationship between the operating environment and SACCO financial sustainability in the Greater Mbarara region.

The results in Table 4 indicate that there is a positive significant relationship between the operating environment and SACCO financial sustainability in the Greater Mbarara region ($r=.488, p<.01$). This implies that any positive change in the operating environment will result in a positive change in SACCO financial sustainability in the Greater Mbarara region.

Multiple regression analysis

A multiple regression analysis was run to explain the predictive power of the independent variables to the dependent variable and to show the causal relationship among the study variables.

Table 5: Multiple regression analysis

Coefficients a						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.091	.192		.472	.637
	Corporate governance practices	.613	.055	.528	11.233	.000
	Operating Environment	.278	.068	.191	4.074	.000
a Dependent Variable:: Financial sustainability						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.655	.429	.426	.41641		

a Predictors: (Constant), Operating Environment, Corporate governance practices

The regression analysis results reveal the presence of significant relationships between corporate governance and the operating environment on SACCO's financial sustainability in the greater Mbarara region. The significance rate, as indicated by the p-values, provides crucial information about the statistical significance of these relationships.

Corporate governance has a positive significant relationship with SACCO financial sustainability in the greater Mbarara region (Beta=.528, $p<.05$). Thus implying that a unit increase in corporate governance is associated with a significant increase of 0.528 in SACCO financial sustainability in the greater Mbarara region. Likewise, the operating environment has a positive significant relationship with SACCO financial sustainability in the greater Mbarara region (Beta=.191, $p<.05$). This implies that a unit increase in corporate governance is associated with a significant increase of 0.191 in SACCO financial sustainability in greater Mbarara region.

In summary, the analysis demonstrates a statistically significant relationship between both corporate governance and the operating environment with SACCO's financial sustainability in the greater Mbarara region. These findings underscore the importance of considering and enhancing these factors to improve financial sustainability. Finally, the regression results indicate that 42.6% (Adjusted R Square=.426) of the variations in financial sustainability are explained by corporate governance and operating environment, thus implying that the remaining 57.4% is explained by other factors not considered in this study.

Discussion of Findings

The study reveals that corporate governance and the operating environment jointly account for 42.6% of the predictive power of SACCO financial sustainability in the Greater Mbarara region, indicating a statistically significant positive relationship. This underscores the importance for SACCO managers to actively engage in corporate governance and analyze the operating environment to enhance financial sustainability in the region. These findings align with Rivera-Camino et al. (2018), who found a positive association between social capital and sustainable practices, emphasizing the role of social relationships and trust in influencing corporate governance and financial sustainability. Additionally, technological advancements can shape corporate governance practices and the operating environment. García-Granero, Piedra-Muñoz, & Galdeano-Gómez, (2020) highlighted the role of eco-innovation in improving environmental and economic performance, demonstrating the potential of technology to enhance financial sustainability.

Moreover, the study's findings are consistent with Geng, Lai, & Zhu (2021) who investigated corporate governance's impact on corporate social performance in China, revealing a positive relationship between good governance practices and financial sustainability. Goel, Lagos, & López (2024) also found that governance mechanisms, such as board independence and environmental committees, positively influence environmental performance. Similarly, Azam, Elahi, & Haque (2023) emphasized the significance of both internal corporate governance mechanisms and external factors, like regulatory and market conditions, in shaping financial sustainability outcomes, particularly in emerging economies.

5. Conclusion and Recommendations

The study underscores the significant influence of corporate governance practices on SACCO financial sustainability in the Greater Mbarara region, supported by both correlation and regression analyses. Enhancing governance through improved structure, composition, and stakeholder engagement can drive financial sustainability. Moreover, the study emphasizes the pivotal role of the operating environment spanning political, social, technological, and economic factors in shaping SACCO financial outcomes. Together, corporate governance and the operating environment jointly account for 42.6% of the variance in financial sustainability. To fortify these aspects, fostering transparent communication with leadership, engaging experts in governance and environmental analysis, and implementing continuous monitoring and benchmarking are recommended. These measures aim to bolster SACCO's financial sustainability effectively in the Greater Mbarara region.

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