

Evaluating the Impact of Government Subsidies and Grants on SME Growth and Financial Sustainability in Zambia

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Abstract:

Small and Medium Enterprises (SMEs) are widely recognised as crucial to Zambia's economic development due to their roles in job creation, poverty reduction, and innovation. To support these enterprises, the Zambian government provides subsidies and grants aimed at enhancing the financial stability and competitiveness of SMEs. However, despite these policy efforts, SMEs continue to face challenges in accessing and effectively utilising financial support, which limits the broader impact of such interventions. The existing literature primarily evaluates the short-term effects of subsidies, with a focus on sectors such as agriculture, using metrics like job creation and temporary productivity increases. In contrast, studies rarely examine the long-term sustainability, cross-sectoral coverage, or institutional factors that influence the effectiveness of financial assistance. This study aims to fill these gaps by evaluating the long-term impact of government subsidies on the growth and financial sustainability of SMEs across the agriculture, construction, and energy sectors in both urban and rural areas of Zambia. The study focused on identifying the challenges of accessing funds, measuring the causal effects of financial support, and determining the institutional and cultural factors that influence outcomes. A mixed-methods concurrent embedded design was used, combining qualitative interviews with quantitative surveys targeting small and medium-sized enterprises (SMEs) in Lusaka and Chipata. Data triangulation was achieved through the use of interview schedules, questionnaires, and document reviews, which enhanced the validity of the findings. The findings indicate that subsidized SMEs experienced a 25% growth in revenue and a 30% increase in employment, compared to only 12% and modest gains among their non-subsidized counterparts. However, significant challenges persist, including bureaucratic delays (reported by 47% of respondents), complex application procedures (53%), and inadequate post-funding mentorship (50%). These barriers hinder the full realization of the intended benefits.

Keywords: Government Subsidies, SMEs growth, Financial sustainability

1. Introduction

SMEs are the backbone of Zambia's economy, contributing approximately 88% of employment and 97% of businesses (ZDA report, 2019), significantly contributing to employment creation,

innovation, and poverty alleviation. According to the ZDA 2022 report, SMEs are defined as businesses that employ between 30 and 250 individuals. These businesses have lower capital investment and a more limited market reach compared to larger corporations (Zambia Development Agency, 2019). Government subsidies and grants are crucial for supporting the growth of SMEs in Zambia. Reflecting this ongoing commitment, the 2025 national budget allocated K851.7 million to the Zambia Credit Guarantee Scheme to expand access to affordable finance for SMEs, particularly those lacking collateral (ZIPAR report, 2024). By offering direct financial assistance, these funding mechanisms help startups and established small businesses expand their operations, adopt new technologies, and improve their competitiveness in local and international markets (Bank of Zambia, 2007).

Government support for SMEs in Zambia focuses on key sectors such as agriculture, construction, and manufacturing (Zulu-Chisanga et al., 2020). In the agricultural sector, SMEs, particularly smallholder farmers, receive significant assistance through initiatives like the Farmer Input Support Programme (FISP) and fertilizer subsidies. These programs aim to reduce production costs and increase productivity, playing a crucial role in stabilizing agricultural output and supporting the livelihoods of rural entrepreneurs (Mason et al., 2019). SMEs in the construction sector benefit from infrastructure-oriented grants and public works programs, which help smaller contractors compete more effectively with larger firms, thus creating employment opportunities within local communities (Phiri et al., 2020). In manufacturing, SMEs receive targeted funding through frameworks established by the Ministry of Commerce, Trade and Industry and the Citizens Economic Empowerment Commission (CEEC). These frameworks are designed to enhance industrial capacity, foster innovation, and improve market competitiveness (Ministry of Commerce, Trade and Industry, 2004). Furthermore, initiatives such as the Youth Empowerment Fund (YEF) and the Constituency Development Fund (CDF) prioritize youth-run and community-based enterprises, encouraging entrepreneurship among younger individuals (Mate, 2020).

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This support creates a solid foundation for increased productivity and growth, especially for businesses struggling to secure funding through traditional means such as commercial banks and private investors. Additionally, subsidies and grants help create a more equitable business environment by lowering barriers for entrepreneurs from underserved communities, thus promoting

inclusive economic development (World Bank, 2018). The effectiveness of subsidies and grants in ensuring long-term financial sustainability for SMEs remains mixed. One major challenge is the limited awareness and understanding of these funding opportunities among business owners (Reardon et. al, 2024).

Despite outreach and educational efforts by the government and agencies like the Citizens Economic Empowerment Commission (CEEC) and the Zambia Development Agency (ZDA), many SMEs still lack clarity on how to access and effectively use these funds. This information gap results in the underutilization of available financial resources and, in some cases, the misallocation of funds, which prevents businesses from reaching their full potential (Mason et al., 2016). Bureaucratic barriers significantly hinder the effectiveness of subsidies and grants intended for the development of small and medium-sized enterprises (SMEs). Lengthy application processes and strict eligibility criteria can discourage smaller businesses that may not have the time, resources, or technical expertise to navigate complicated procedures. Consequently, these funds often end up being accessed primarily by better-established or more formally structured SMEs, leaving truly vulnerable micro or small businesses behind (Ranjan, 2024).

This study seeks to evaluate the effectiveness of government subsidies and grants in fostering SME growth and financial sustainability in Zambia. By analyzing the impact of these financial interventions, success stories, challenges, and policy gaps, the research aims to provide actionable, evidence-based recommendations to enhance the effectiveness of SME financial support programs, improve government policies, and ensure that SMEs can thrive in the long term. The findings of this study will be crucial for policymakers, by guiding policy reforms for SME financing, helping financial institutions improve SME credit and funding models, and SME owners by increasing awareness of financial resources and best practices for fund utilization as they strive to create a more robust and sustainable economic environment.

1.2 Problem Statement

Despite the Zambian government's ongoing efforts to promote the development of small and medium-sized enterprises (SMEs) through initiatives such as the Farmer Input Support Programme (FISP) and the Youth Empowerment Fund (YEF), there is still a significant gap in understanding the persistent challenges these businesses face in accessing finance, expanding markets, and achieving long-term sustainability (Mate, 2020). Many studies (Zulu-Chisanga et al., 2020; Mason et al., 2016) indicate that while policy frameworks like the National Financial Sector Development Policy (2017) and the Constituency Development Fund (CDF) aim to enhance financial inclusion, stringent eligibility requirements, such as formal registration and collateral, often limit the participation of smaller enterprises. Additionally, limited awareness of available programs, misallocation or misuse of

funds due to inadequate financial literacy, and bureaucratic inefficiencies in disbursing subsidies further undermine the effectiveness of these initiatives (Razumovskaia et al., 2020).

Although these subsidies can provide short-term relief, they frequently fail to address underlying issues such as inadequate infrastructure, limited market linkages, and insufficient entrepreneurial skills (Surya et al., 2021). However, the existing literature rarely examines how these factors collectively influence the long-term stability of SMEs within government-supported programs. This study, therefore, aims to explore whether these subsidies and grants genuinely promote sustainable development among SMEs, or if more comprehensive reforms, especially in application processes, monitoring, and capacity-building, are necessary to ensure a more meaningful impact.

1.3 Research Questions

Based on the aim of the study, the following are the research questions:

- 1) What challenges do SMEs encounter in the process of accessing and utilizing government financial support?
- 2) How do government subsidies and grants impact SME growth in Zambia?
- 3) What factors contribute to the long-term financial sustainability of SMEs that benefit from government subsidies

2. Literature Review

2.1 SMEs and Their Importance to Zambia

Small and Medium Enterprises (SMEs) are businesses defined by a relatively small number of employees, lower capital investment, and limited market reach compared to large corporations. In Zambia, SMEs are the backbone of the economy, accounting for approximately 97% of all business establishments and employing nearly 88% of the working population. These enterprises range from small retail shops and agro-processing units to medium-sized manufacturing firms and service providers. SMEs are primarily located in both urban and rural areas, with a significant portion operating within the informal sector.

According to the Zambia Revenue Authority Annual Report (2019), there were 110,508 tax-paying micro, small, and medium enterprises in Zambia as of 2019, reflecting a 27% increase since 2012. Among these businesses, nearly half (47%) are involved in wholesale and retail trade, including motor vehicle and motorcycle repairs. The remaining enterprises are distributed across various sectors, such as construction (5%), agriculture/forestry/fishing (4%), manufacturing (2%), professional/scientific/technical services (1.6%), and financial/insurance services (1.1%).

The prevalence of service-based enterprises is largely due to their relatively low startup costs and fewer resource requirements. In contrast, capital-intensive sectors require specialized skills and

higher initial investments, facing challenges such as expensive borrowing and limited access to credit. Geographically, Lusaka Province accounted for the largest share of these enterprises, at 43.5%, followed by Copperbelt Province with 24.2%. Southern Province comprised 7.2%, Central Province 5.7%, Eastern Province 4.8%, North-Western Province 3.9%, Luapula Province 3.4%, Northern Province 2.9%, Western Province 2.3%, and Muchinga Province 2%. Together, Lusaka and the Copperbelt regions accounted for 67.7% of all small and medium enterprises (SMEs). This concentration can be partly attributed to their comparatively better infrastructure, which includes roads, railways, and air links, as well as more extensive market opportunities and easier access to financial services. Data from the National Financial Sector Development Policy (2017) shows that private credit constituted 19% of the GDP. Moreover, 85% of SMEs in rural regions are unbanked, compared to 15% in urban areas. Many enterprises rely on informal financial mechanisms, such as village banking, a trend especially pronounced outside urban centres. Limited access to conventional financing stems from factors like high levels of informality, steep borrowing costs, and stringent collateral requirements.

Most micro, small, and medium enterprises (SMEs) are family-run businesses utilising minimal technology and focusing on local, often informal markets. In the past decade, there has been a rise in the use of digital tools, including social media, for marketing and mobile banking or mobile money for financial transactions. However, the overall adoption of these technologies remains low, especially in rural areas where internet connectivity and digital literacy are limited.

2.2 Role of Government Subsidies and Grants in SME Development

Government subsidies and grants are designed to reduce financial constraints faced by SMEs, thereby promoting their growth and long-term sustainability. In Zambia, the government has actively utilised subsidies in sectors such as agriculture to stabilise incomes and enhance productivity. For instance, the Fertiliser Support Program (FSP) targeted smallholder farmers to increase agricultural productivity, indirectly supporting agro-based SMES through stable input costs. Surya et al. (2021) emphasise the empowerment of SMEs through government policies that enhance productivity and sustainability. Their study highlights that government subsidies are important for providing capital support and strengthening human resource capacity, key elements for SME development. Moreover, they argue that a strategic approach to economic growth, especially through technological innovation, can significantly enhance SME productivity. This finding underscores the importance of government intervention in creating an environment conducive to SME growth in regions such as Makassar City, Indonesia.

Sadiq et al. (2021) explore the role of government spending in facilitating the transition to green technologies among SMEs, especially in Southeast Asia. They assert that government subsidies can catalyse private sector investment in sustainable projects, which is crucial for SME growth in the

context of environmental sustainability. This aligns with the findings of Kumar et al. (2011), who emphasise the importance of government support for SMEs adopting green initiatives in Pakistan, indicating that such financial assistance is vital for long-term sustainability.

The adoption of Fintech solutions by SMEs in Indonesia is significantly influenced by government support, as noted by Nugraha et al. (2022). Their research indicates that government subsidies can help bridge the financial literacy gap among SMEs, enabling them to leverage digital financial products effectively. This is particularly relevant during economic disruptions, such as the COVID-19 pandemic, where traditional economic activities were restricted. Similarly, Ocloo et al. (2020) highlight the positive impact of government assistance on B2B e-commerce adoption among Ghanaian SMEs, reinforcing the notion that government support is crucial for facilitating technological advancements that enhance SME competitiveness.

Alkahtani et al. (2020) examine the relationship between networking structures and SME performance in Pakistan, revealing that government subsidies enhance the connection between networking and sustainable competitive performance. This finding is complemented by Zulu-Chisanga et al. (2020), who suggest that while direct financial support may not yield significant results, fostering inter-firm collaboration can benefit SMEs. Together, these studies illuminate the complex dynamics of government support and its varying impacts on SME development. Despite the positive intentions, challenges remain in the implementation and effectiveness of subsidy programs. A study on fertiliser subsidies revealed that political motivations often influence subsidy allocation, resulting in inefficiencies and a lack of equitable access for targeted SMEs.

2.3 Government Support Mechanisms and Barriers

In Zambia, approximately 97% of businesses are small and medium-sized enterprises (SMEs), many of which operate informally. This informality often makes it challenging for them to access loans and other financial services (Mate, 2020). Although the government provides subsidies and grants to help bridge these funding gaps, the application process can be complicated, and collateral requirements can be high. Consequently, many SMEs, especially those not officially registered, may avoid applying (Mate, 2020). Different governments implement various mechanisms to support SMEs, tailored to local conditions and regulations. Governments provide direct financial assistance to help small and medium-sized enterprises (SMES) start or expand their operations. For instance, in Indonesia, the “Iptekda LIPI” program combines financial aid with a social enterprise approach, addressing business needs while also promoting social welfare (Maksum, Rahayu, & Kusumawardhani, 2020). Some programs specifically focus on funding new ideas and products, encouraging SMEs to innovate. In China, the Innovation Fund for Small and Medium Technology-based Firms (Innofund) has supported firms in producing more patents, boosting sales of new

products, and increasing exports (Guo et al., 2016). The effectiveness of Innofund improved even further when it shifted from a centralized to a decentralized structure.

Governments play a significant role in promoting eco-friendly practices by providing incentives and funding for businesses to adopt greener methods. Sadiq et al. (2021) highlight that this support not only benefits the environment but also enhances the competitive position of small and medium-sized enterprises (SMEs), as both customers and regulators increasingly demand sustainable products. In addition to financial assistance, governments often offer training, mentorship, and advisory services. Yang et al. (2018) demonstrate that such support in Pakistan helps SMEs strengthen their capabilities and overcome resource limitations. Similarly, Nakku et al. (2020) emphasize that targeted programs for agro-based SMEs foster entrepreneurship and improve overall performance. Governments can create or modify policies to support small and medium-sized enterprises (SMEs) during difficult times. Razumovskaia et al. (2020) detail how Russia provided assistance to its SMEs during the COVID-19 pandemic. By swiftly implementing support measures, the government helped these businesses maintain stability despite economic uncertainty.

2.4 The Impact of Subsidies and Grants on SME Growth

Subsidies and grants have played a crucial role in promoting business growth, especially in capital-intensive sectors like agriculture and construction. Research shows that financial support through subsidies helps small and medium-sized enterprises (SMEs) lower their production costs, which in turn enhances profitability and financial stability. For example, construction SMEs that receive grants have reported improvements in infrastructure development and an increased capacity to create jobs, thereby contributing to Zambia's sustainable growth agenda. According to ZIPAR, Report 2024, The 2025 National Budget highlighted the Zambian government's ongoing commitment to supporting the development of small and medium-sized enterprises (SMEs) through increased financial allocations. Notably, funding for the Zambia Credit Guarantee Scheme has been raised by 121%, increasing from K386 million in 2024 to K851.7 million in 2025. This increase aims to improve access to affordable financing for micro, small, and medium enterprises, particularly in the agriculture and energy sectors that have been affected by drought. Additionally, the Bank of Zambia has introduced a new concessional loan facility specifically targeting micro, small, and medium enterprises (MSMEs) to enhance their resilience. This initiative aligns with global trends in post-disaster economic recovery. These measures represent a positive shift towards providing long-term structural support for SMEs, addressing the financing gaps that have historically hindered their growth.

2.5 Challenges and Limitations of Subsidies and Grants

Despite the positive impacts, several challenges undermine the effectiveness of government financial interventions. The process of accessing grants is often complex and time-consuming. SMEs report difficulties in fulfilling documentation requirements, leading to low uptake among informal businesses. The allocation of subsidies, especially in the agricultural sector, is frequently driven by political considerations rather than economic need. This has led to regional disparities and unequal support for SMEs. Many SME owners lack the knowledge and skills to navigate grant applications and effectively utilize funds for business expansion. Some subsidies are poorly targeted and do not translate into long-term financial sustainability. Temporary relief often fails to address the structural financial challenges faced by SMEs.

Limited Access to Affordable Finance

A significant barrier for many SMEs is their difficulty in obtaining financing at reasonable rates. This challenge largely stems from high lending costs and strict collateral requirements. While the Zambia Credit Guarantee Scheme aims to alleviate these issues, a lack of adequate funding limits its ability to assist all eligible businesses. The impact of the COVID-19 pandemic on SMEs further underscores the urgency of addressing financing challenges. Du et al. (2022) found that the pandemic exacerbated existing financial difficulties, highlighting a critical need for external funding to support SME recovery and innovation.

Lack of Innovation and Poor Uptake of Technological Solutions

Numerous programs and initiatives aimed at enhancing innovation and technological capacity among small and medium-sized enterprises (SMEs) have been introduced; however, they have not resulted in significant improvements. Limited funding for these efforts, along with weak collaboration among industry players, academia, and public agencies, continues to hinder progress. As a result, SMEs face challenges in adopting new technologies and developing innovative products and processes, which undermines their competitiveness and long-term viability. Effective business strategies are crucial for enhancing the competitiveness of SMEs, particularly through innovation. Farida and Setiawan (2022) argue that without integrating innovation into business strategies, SMEs may struggle to maintain a competitive edge. Their findings emphasize the necessity for SMEs to improve their innovation capabilities in order to leverage business strategies effectively. This highlights the critical relationship between innovation and strategy, suggesting that a lack of innovation can impede the successful implementation of business strategies and, consequently, the adoption of technological solutions.

Weak Entrepreneurial Culture

Fostering an entrepreneurial mindset is essential for the growth of micro, small, and medium enterprises (MSMEs). This mindset involves a combination of values, behaviors, and goals that promote sustainability and innovative thinking within businesses. However, global data reveals that most new businesses fail within their first five years, with only about 5–10% reaching maturity. One primary reason for these low survival rates is the lack of entrepreneurial skills. To improve long-term success, it is crucial to strengthen capacity in this area through dedicated training tailored to the specific needs of different MSME categories. Institutions such as Cooperatives College, the Citizens Economic Empowerment Commission (CEEC), the Zambia Development Agency (ZDA), and the Technical Education, Vocational, and Entrepreneurship Training Authority (TEVETA) run programs to enhance entrepreneurship. Entrepreneurship Education and Training (EET) is integrated into curricula at various educational levels, but at universities, it is often limited to business-related programs. Expanding these offerings to all students can help build a broader culture of innovation and enterprise.

Inadequate Decentralization of Support Services

Under the National Decentralization Policy, government responsibilities are being transferred from central to local administrations to ensure more efficient service delivery. SMEs depend on local-level services such as business registration, licensing, and other support. However, some agencies, including licensing bodies in key sectors like tourism, lack representation outside major urban centers. Consequently, SMEs may be forced to travel long distances to obtain the necessary services, increasing their operational costs. The absence of a comprehensive MSME Management Information System further complicates the planning and provision of these services.

The role of Micro, Small, and Medium Enterprises (SMEs) in economic development is well-documented. Agyapong (2010) emphasizes that adequate support services are crucial for MSME growth, as they facilitate access to essential resources such as credit and non-financial business support. Centralized support structures may not effectively cater to the diverse needs of SMEs across various sectors, leading to inefficiencies in resource allocation and hindering their ability to compete in the market. Taiwo et al. (2013) support this assertion by identifying inadequate financial support and lack of training as significant barriers to SME growth in Nigeria. They suggest that centralized support mechanisms fail to address the unique challenges faced by SMEs in different localities. This underscores the necessity for decentralized support systems that can provide tailored financial assistance and training opportunities, thereby enhancing the competitiveness of SMEs.

Despite the wealth of research on the importance of decentralised support services for SMES, several knowledge gaps remain. First, there is limited empirical research exploring the specific mechanisms through which decentralized support can be effectively implemented in various

contexts. Future studies could investigate case studies of successful decentralized support models in different regions and sectors. Second, while the literature emphasizes financial and training support, more research is needed on non-financial support services and their impact on SME growth. Understanding how these services can be effectively decentralized and tailored to meet local needs remains an area ripe for exploration.

Weak Coordination of MSME Empowerment Initiatives

Various ministries oversee various empowerment programs, including the Youth Empowerment Fund, the Constituency Development Fund (CDF), the Farmer Input Support Programme (FISP), and the Citizens Economic Empowerment Fund. Since these initiatives often overlap and target similar beneficiaries, there is limited synergy and instances of duplicated efforts. A more coordinated approach would effectively leverage resources and create a greater overall impact.

The literature indicates several critical determinants that influence the effectiveness of SME empowerment initiatives. Government policies are frequently cited as essential in shaping the business environment for SMEs. Research shows that supportive government interventions, including policies that promote capital support and human resource development, significantly enhance SME productivity (Surya et al., 2021). These policies create a conducive environment for SMEs to innovate and grow, reinforcing the notion that strategic governmental support is vital for SME empowerment. Additionally, access to financial resources is highlighted as a key factor in facilitating SME growth. The importance of financial literacy, technical know-how, and access to finance is underscored in studies focusing on women's empowerment in entrepreneurship (Digan et al., 2019). These findings suggest that targeted interventions that improve financial access and education can significantly enhance women's participation in the SME sector, contributing to broader economic development. Despite the progress in understanding SMEs empowerment initiatives, several knowledge gaps remain. First, while the literature emphasizes the importance of government policies and financial access, there is limited research on the specific types of policies that are most effective in different contexts. Future studies could investigate the impact of tailored government interventions on SME performance across diverse regions and sectors.

2.5 Literature gap

While government subsidies and grants are often evaluated for their role in promoting the growth and financial resilience of SMEs, understanding of their long-term impact and reach across different sectors is still incomplete. Using Miles's (2017) taxonomy as a framework, this literature gap highlights issues related to population, empirical evidence, and methodology. It highlights the need for a thorough review of previous studies encompassing the full spectrum of SME activities.

Empirical Gap

Current evaluations of various SME (Small and Medium Enterprises) initiatives mainly focus on short-term metrics, such as job creation numbers, temporary boosts in productivity, or one-time adoption of green technologies. However, these assessments often fall short because they usually do not extend beyond the first one- or two-years following implementation. This limited approach creates a significant gap in understanding, as there is a lack of data tracking critical factors such as organization survival rates, long-term profitability, and the ability of these companies to scale their operations over time. As a result, policymakers are left without the necessary insights to determine whether the initial positive outcomes of these initiatives are sustainable or merely temporary. This distinction is crucial, as it can significantly influence future investments and policy decisions.

Methodological Gap

The primary methods used in this field are qualitative case studies and basic before-and-after comparisons. Unfortunately, there is a significant lack of precise methodologies, such as experimental designs, which effectively account for factors like self-selection biases and macroeconomic shocks. To accurately assess the true impact of subsidies, it is crucial to use research designs that can differentiate the causal effects of these subsidies from the influence of broader economic trends and structural changes. Without these robust methodologies, the ability to reach definitive conclusions about the effectiveness of subsidies remains limited.

Evidence Gap

Information available to the public regarding the criteria for allocation, the methods of monitoring, and the outcomes of various initiatives is limited and often inadequate. This lack of transparency has led to lingering suspicions that the distribution of resources may be influenced by political motivations, although these concerns remain mainly anecdotal without solid evidence. To ensure fairness and equity in these processes, it is essential to establish clear and transparent evidence that can effectively identify any instances of inequity or misuse. By doing so, stakeholders can better understand the dynamics at play and work towards redesigning allocation schemes based on fair, data-driven principles that prioritize equity and impartiality in distribution.

3. Research Methodology

3.1 Philosophy, approach, design, sample size and data sources

The study adopted a specific approach based on its objectives, which aimed to examine how government subsidies and grants (independent variables) impact the growth and financial sustainability of SMEs across the agriculture, construction, and energy sectors in urban Lusaka and rural Chipata. A concurrent embedded mixed-methods design was utilized, combining both

quantitative and qualitative methodologies. Quantitative data were collected from 77 purposively sampled SME owners, consultants, and financial institution officers, focusing on indicators such as revenue growth, changes in employment, and improvements in capital structure. This data was analyzed using a propensity-score-matched difference-in-differences (PSM-DID) method to isolate causal impacts. On the qualitative side, in-depth interviews were conducted with 23 regulators, subsidy program managers, and lenders. The insights gathered from these interviews were thematically analyzed to provide context and identify barriers such as bureaucratic delays, complex application processes, and inadequate mentorship. This comprehensive evaluation aims to assess the effectiveness of subsidy programs in Zambia.

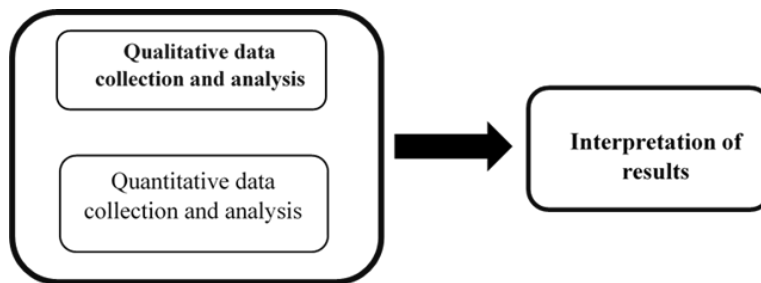


Figure 1: Concurrent Embedded design illustration

3.2 Data Analysis

The study utilized a mixed-methods approach, analyzing qualitative and quantitative data separately before integrating the findings. For qualitative data, interview responses were manually transcribed using the constant comparative method to identify recurring themes and patterns. In the quantitative analysis, Microsoft Excel was used to code questionnaire responses and generate descriptive statistics. A linear Ordinary Least Squares (OLS) regression model was used to analyse the relationship between revenue growth and employment growth among SMEs. The model formulation defined using equation 1.

$$y_i = \beta_0 + \beta_1 x_i + \varepsilon_i \quad (1)$$

Where:

y_i represents employment growth,

x_i is revenue growth,

β_0 is the intercept,

β_1 is the slope coefficient indicating how employment growth responds to changes in revenue growth, and

ε_i represents the random error term.

For a more comprehensive comparative analysis, a combined model incorporating an interaction term was also used as described in equation 2.

$$y_i = \beta_0 + \beta_1 x_i + \beta_2 G_i + \beta_3 (x_i G_i) + \varepsilon_i \quad (2)$$

In equation 2, G_i is a dummy variable indicating whether the SME received government grants ($G_i=1$) or not ($G_i=0$). The coefficient β_3 specifically measures whether receiving grants significantly alters the relationship between revenue growth and employment growth. Model validation was conducted by examining the R-squared (R^2), which indicates the goodness of fit, and by assessing the statistical significance of coefficients using p-values derived from t-tests.

4. Results and Discussion

4.1 Distribution of SME based on the number of years in business

The distribution of SME owners based on the number of years their businesses have been operating is presented in Figure 2. A significant portion of SMEs, 37.5%, have been in operation for 3 to 5 years, while 32.5% have been active for 1 to 2 years. This shows that most SMEs are in the early or growth stages of development and are more likely to depend on external financial support, such as government subsidies, to achieve stability and promote growth. In contrast, 20.0% of SMEs have been operating for 6 to 8 years, indicating moderate experience, while only 10.0% have been in business for 8 to 10 years, representing more established enterprises.

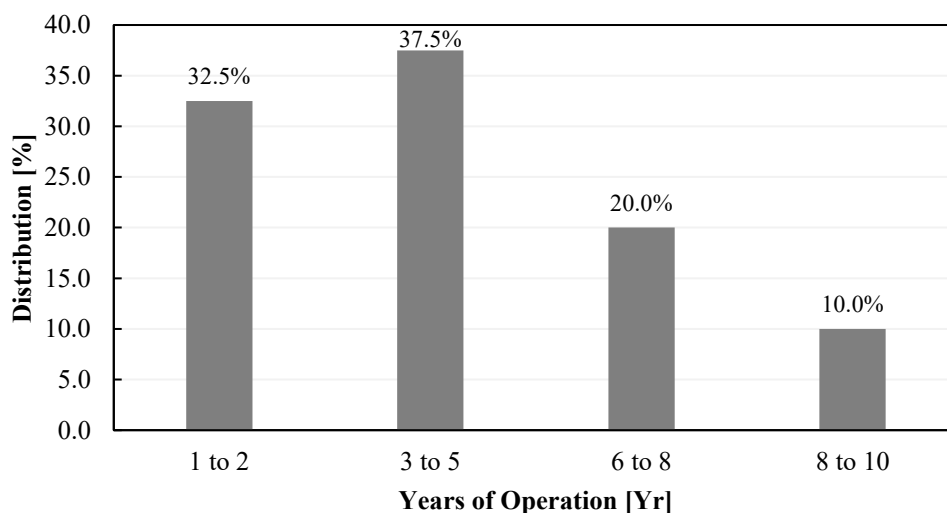


Figure 2. Distribution of SME owners based on the number of years in business

The need for subsidies varies with business maturity as newer SMEs require foundational financial support, while more established businesses may benefit from targeted incentives focused on

innovation, expansion, and workforce development. Business owners with 1 to 2 years of experience expressed uncertainty about how to prepare a subsidy application. However, they express concerns about their financial literacy, stating they struggle to project cash flow needs beyond the first cycle.

4.2 Sector and Location Breakdown

The distribution of SMEs in urban and rural areas of Zambia is presented in Figure 3, specifically comparing Lusaka (urban) and Chipata (rural). The chart indicates that a large proportion, which is 61.7% of SMEs, are situated in urban areas. This is due to better access to infrastructure, markets, financial services, and business support systems. Urban environments provide a more favourable ecosystem for entrepreneurship, including access to skilled labour and government services. In contrast, the 38.3% representation of SMEs from rural areas like Chipata reflects a significant, but smaller presence.

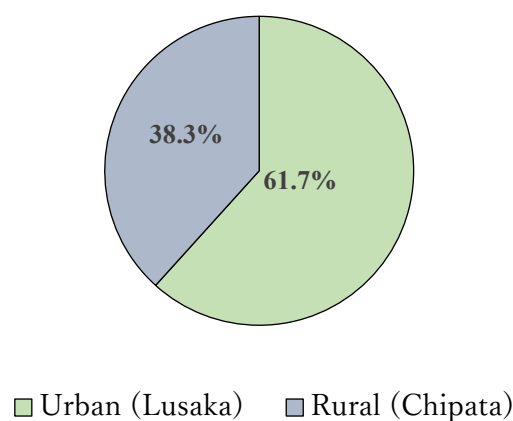


Figure 3. Distribution of SMEs in urban and rural areas of Zambia

These businesses often face greater challenges, such as limited access to capital, technology, and transportation networks. Consequently, government subsidies and development programs aimed at promoting SME growth may need to be tailored to address these differences: focusing on improving infrastructure and accessibility in rural areas, while fostering innovation and scaling in urban regions.

The distribution of SMEs across three key sectors of operation in Zambia is presented in Figure 4, which includes Agriculture, Construction, and Energy. This highlights how SMEs' activities are spread across these industries. Agriculture accounts for the largest share of SMEs at 43.3%, reflecting its dominant role in Zambia's economy and its importance for livelihoods, particularly in rural areas. This suggests that government subsidies and support programs should prioritise agricultural inputs, training, and market access for SMEs in this sector. Construction accounts for 33.3%, highlighting the relevance of the sector due to ongoing infrastructure and housing

development. The energy sector represents the smallest share at 23.4%, despite Zambia facing challenges in energy access. This sectoral distribution highlights the need for targeted support mechanisms that cater to the distinct needs of each sector, with a particular focus on agriculture, facilitating construction-related enterprises, and promoting innovation and investment in the energy sector.

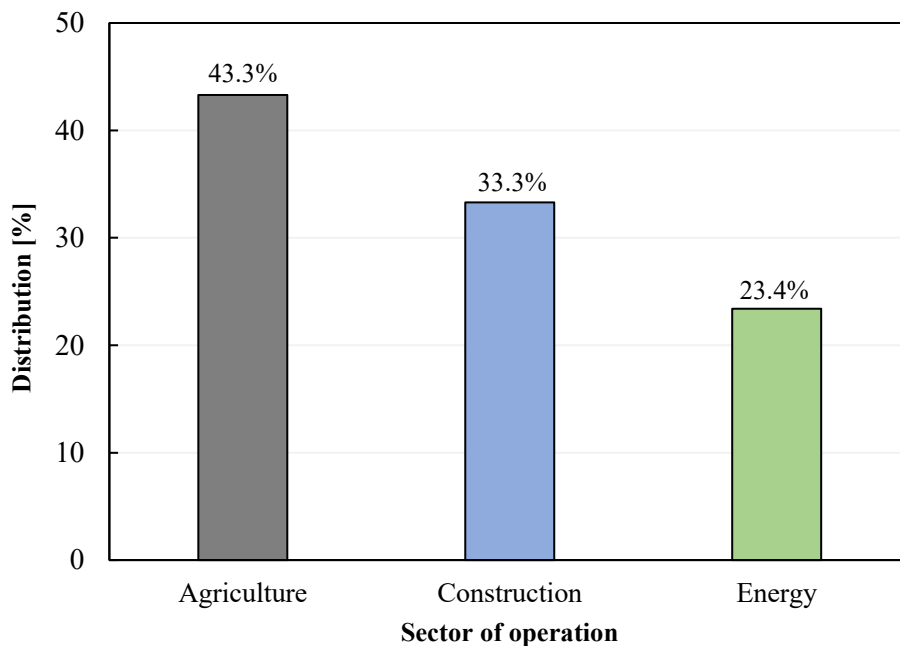


Figure 4. Distribution of SMEs across three (3) key sectors of operations in Zambia

4.3 Types of Government Support Accessed

The distribution of government support mechanisms accessed by SMEs is presented in Figure 5. The figure highlights three main types of support, which are the CEEC grants (cash or equipment), sector-specific subsidies (such as the Farmer Input Support Programme, or FISP), and blended-finance facilities (loans). The largest segment, comprising 50%, represents SMEs that rely on CEEC grants. This indicates that non-repayable support is the most preferred and accessible form of government assistance, particularly for marginalised or priority groups. Blended-finance facilities account for 33.3%, suggesting that many SMEs are open to loan-based support due to greater capital needs or ambitions for scalability. Sector-specific subsidies, such as the FISP, account for the smallest share at 16.7%, indicating that support is narrowly focused within specific industries, particularly agriculture. This distribution highlights the necessity for diverse and inclusive financing mechanisms that address the varying needs of SMEs. Policymakers can leverage this information to expand grant accessibility, improve loan affordability, and diversify sector-specific programs beyond agriculture to support a broader range of business sectors.

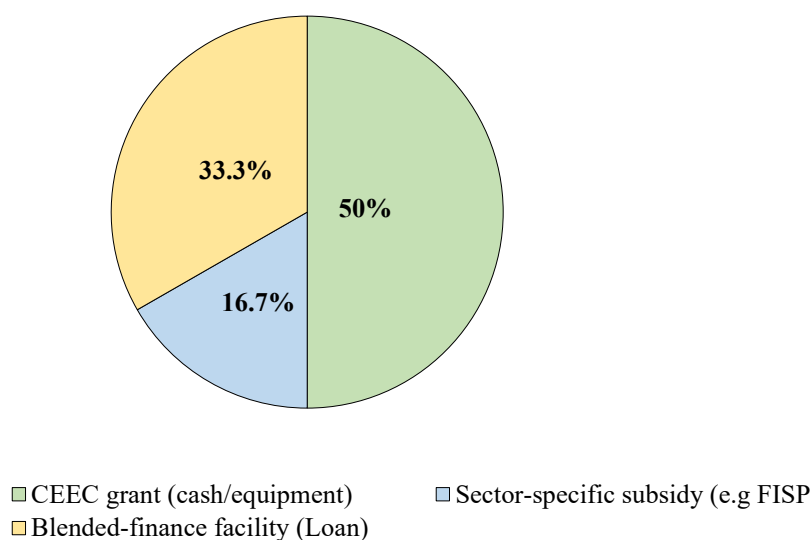


Figure 5. Distribution of government support mechanisms accessed by SMEs

CEEC grants received widespread praise as transformative solutions, particularly among sole proprietors, because they provided funding without the burden of repayment obligations. Many recipients, however, found themselves in challenging circumstances and admitted to reallocating their grant funds, which were initially meant for purchasing equipment, to cover essential working capital expenses instead. This diversion was often necessary just to maintain their business operations and stay financially afloat in a tough economic climate. On the other hand, users of blended finance appreciated the structured discipline that came with scheduled repayments.

4.4 Impact on Financial Performance

The average annual revenue growth of SMEs, based on their annual reports, comparing those who received government support, such as grants or subsidies, against those that did not, is presented in Figure 6. The chart shows that Grant/Subsidy Recipients experienced an average annual revenue growth of 25%, while non-recipients recorded an increase of only 12%. This indicates that SMEs receiving government financial support grew at a rate more than twice that of those that did not receive any assistance. The significant difference highlights the positive impact of public funding on SME performance, with grants providing crucial working capital that many small businesses would otherwise struggle to secure through traditional financing channels, such as banks. Overall, the chart reinforces the qualitative findings that public support mechanisms can act as a catalyst for business expansion and sustainability within the SME sector.

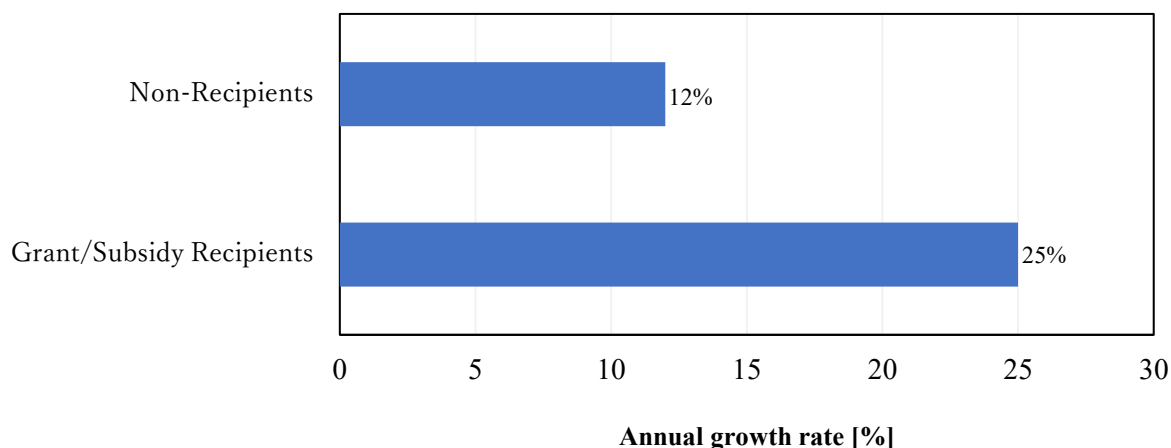


Figure 6. Average revenue growth of SMEs that received government support and those that did not.

Figure 6 presents a graph illustrating the relationship between revenue growth (%) and employment growth (%) for two groups of SMEs, those that received grants or support and those that did not. The graph indicates a stronger employment response among recipients, as shown by the steeper employment growth curve. This suggests that each additional unit of revenue growth leads to a larger increase in employment for grant recipients compared to non-recipients. For example, with a 25% revenue growth, grant recipients demonstrate approximately 30% employment growth, while non-recipients show only 12%. The regression analysis indicates strong explanatory results. For SMEs that received grants, the regression model described in equation 3.

$$y = 1.2x \quad (3)$$

The with an R2 value of 1.0, indicating a perfect fit due to the linearity of the data points. On the other hand, SMEs without grants had a regression model described in equation 4.

$$y = 0.5x \quad (4)$$

with an R2 value of 1.0. In the combined model, the interaction term had a highly significant p-value of $P=4.9 \times 10^{-20}$ confirming a statistically significant difference in the slope between the grant recipients and non-recipients.

This finding highlights the greater efficiency in job creation among supported SMEs, indicating that grants and government assistance not only enhance revenue but also significantly improve their capacity to generate employment. The graph clearly illustrates a difference between supported and unsupported SMEs, demonstrating that financial support boosts both revenue growth and the efficiency of employment generation.

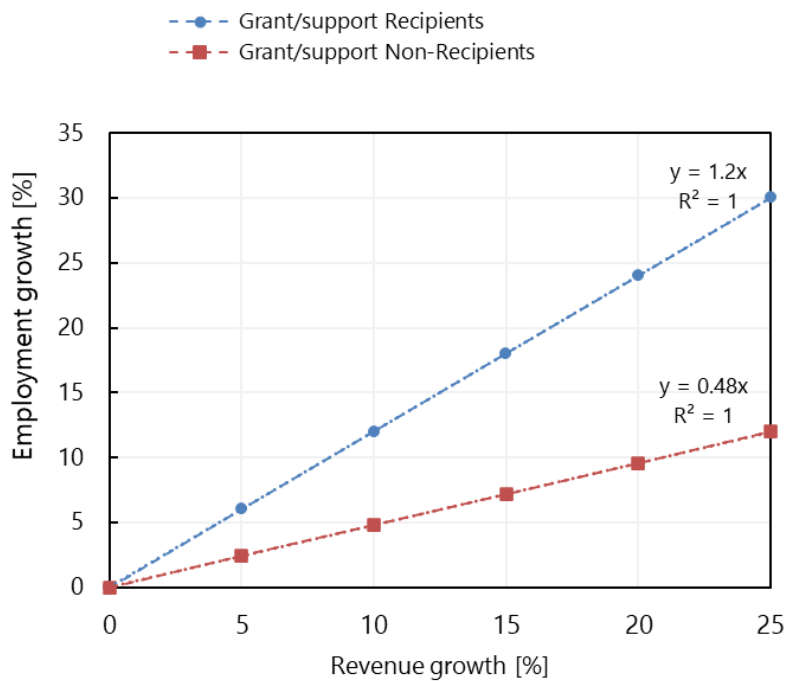


Figure 7: Relationship between revenue growth and employment growth for SMEs with and without support

Table 1 presents insights into the main challenges that SMEs in Lusaka and Chipata, Zambia, face when trying to access and utilise government financial support. Based on a sample of 40 SMEs business owners, the data indicates several structural and procedural barriers that limit the effectiveness and accessibility of funding mechanisms such as grants or subsidies. The top challenge, cited by 53% of respondents, is the burdensome application process, which includes lengthy forms with repetitive questions and language that is hard to understand for those without formal education or training. SME owners also expressed frustration with paperwork that often requires repetitive information already submitted to statutory bodies, such as the Patents and Companies Registration Agency (PACRA) and the Zambia Revenue Authority (ZRA). This not only consumes valuable time but also imposes an unnecessary administrative burden on resource-constrained entrepreneurs. Following closely is the lack of adequate mentoring or advisory support, noted by 50% of respondents. Many SME owners reported feeling abandoned after receiving financial support, as they lacked the guidance needed to manage or scale their operations effectively. Another significant concern is the long delays in approval or disbursement, cited by 47% of respondents. These delays can disrupt operational planning and lead to missed business opportunities, particularly in time-sensitive industries such as agriculture and construction. Additionally, 40% of SME owners

indicated that the sizes of grants are too small to support their growth plans. This issue is pronounced among agro processors, who require over ZMW 1 million to upgrade their production facilities. Yet, the average grant from the Citizens Economic Empowerment Commission (CEEC) seldom exceeds ZMW 400,000. This discrepancy limits the potential for transformative growth among SMEs seeking to scale. Limited post-grant follow-up and monitoring and evaluation (M&E) were reported as challenges by 38% of respondents, indicating a lack of accountability and impact assessment from funding agencies. This can lead to inefficiencies or misuse of funds without strategic guidance or performance tracking. Furthermore, 25% of respondents pointed out that the timing of disbursements is often misaligned with business cycles or agricultural seasons.

Table 1. Challenges faced by SMEs in accessing and utilizing financial support

Challenge	SME Owners Citing (n = 40)	Share %
Burdensome application paperwork	21	53%
Long approval/disbursement delays	19	47%
The grant size is too small for the planned upgrades	16	40%
Limited post-grant follow-up & M&E	15	38%
Disbursement timing is misaligned with the season	10	25%
Inadequate mentoring / advisory support	20	50%

5. Discussions, Conclusions and recommendations

5.1 Discussion of Results

The findings from the survey and reports reveal that SMEs that received government assistance, including grants and subsidies, experienced a significant boost in their average annual revenue growth, with an impressive rate of 25%. In contrast, those SMEs that did not receive such support reported a much lower growth rate of only 12%. This difference highlights the crucial role that financial capital plays in enabling SMEs to overcome their resource limitations. Financial assistance serves as a vital resource for SMEs, empowering them to acquire the essential tools, technology, and human capital needed to enhance their operational efficiency and productivity (Noch et al., 2003). Furthermore, the addition or receipt of funds enables these enterprises to expand their market reach and enhance their competitive positioning in both local and international markets. SMEs that received grants demonstrated a notably higher employment elasticity of revenue, with a slope of 1.2, compared to a slope of 0.5 for those that did not receive grants. This indicates that government financial assistance greatly enhances the potential for job growth linked to revenue increases, indicating that grants can serve as a powerful catalyst for sustainable economic development and

job creation. For SMEs, these findings suggest that actively seeking and effectively utilizing government grants could substantially enhance their growth potential. From a policy perspective, the results advocate for the strategic allocation of grants to SMEs that show clear prospects for revenue growth, ensuring the best outcomes for employment. Policymakers should consider structuring grant programs to target SMEs with proven revenue growth potential, thereby maximizing job creation and promoting financial sustainability.

The results also indicate that SMEs that receive financial support have substantial socio-economic impacts. These impacts include significant job creation, which is critical for reducing unemployment rates, as well as contributing to poverty alleviation in communities where these enterprises operate. The evidence indicates that when governments invest in SMEs through financial support, they not only bolster the economy but also foster significant social improvements. The results also reveal that SMEs in Lusaka and Chipata face challenges, particularly cumbersome application processes, which are reported by 53% of SME owners. Previous research studies have shown that administrative complexities often hinder SMEs' ability to access financial support effectively. This issue affects smaller enterprises due to their limited resources and administrative capacity (ILO, 2020). The inadequacy of mentoring and advisory support post-grant disbursement, affecting 50% of respondents, similarly resonates with broader research. SMEs typically require substantial mentoring to optimise resource use, manage growth effectively, and ensure long-term viability (ILO, 2020). This gap highlights the need for comprehensive financial and advisory packages that incorporate strategic mentorship programs. Additionally, long delays in approval and disbursement (47% of respondents) significantly undermine the effectiveness of economic support mechanisms. Other studies highlight the importance of timely disbursement for SMEs, particularly in the agriculture and construction sectors, where operational timelines closely align with seasonal cycles or project deadlines (World Bank, 2018).

The analysis of sectoral distribution highlights the importance of three key sectors in Zambia's economic landscape: agriculture, construction, and energy. Agriculture stands out as the most significant sector, accounting for 43.3% of the focus for targeted financial support. This emphasis reflects the crucial role that agriculture plays in providing not only food security but also sustaining livelihoods and supporting rural development throughout the country. In addition, the construction sector, which accounts for 33.3% of the targeted support, is vital for infrastructure development and urbanisation, thereby contributing to overall economic growth and job creation. Lastly, the energy sector, representing 23.4% of financial focus, is essential for ensuring reliable access to electricity and promoting sustainable energy practices, which aligns with both national development priorities and broader global sustainability objectives.

5.2 Conclusions

Based on the research objectives, the following conclusions are drawn:

- i. Government subsidies and grants substantially enhance SME revenue growth, confirming their effectiveness in stimulating SME development and expansion.
- ii. The majority of SMEs receiving government financial support experience pronounced positive effects, notably increased employment generation, underscoring the importance of subsidies as vital instruments for economic stimulation and job creation.
- iii. Notable challenges persist, including inadequate grant sizes and misaligned disbursement timing, necessitating policy improvements to align financial support with actual SME requirements and operational realities.

5.3 Recommendations

This study recommends conducting further research on the long-term effects of government subsidies and grants on the financial stability and employment growth of small and medium-sized enterprises (SMEs). These studies involve collecting data over an extended period, which allows researchers to observe trends and changes that can occur as a result of economic interventions. By tracking SMEs over several years, researchers can gain valuable insights into how these financial aids support business development, influence job creation, and contribute to overall economic resilience. Additionally, studies can help identify fluctuations in the effectiveness of subsidies and grants, revealing whether these programs yield lasting benefits or provide only temporary relief. Such comprehensive research is crucial for policymakers seeking to design and implement effective, yet sustainable, economic interventions in the long run.

Additionally, comparative evaluations of various financial support mechanisms, such as grants, subsidies, and loan facilities, would be highly beneficial. These analyses could help clarify which types of support are most suitable and effective for different sectors, taking into account the diverse financial needs, operational challenges, and growth objectives of SMEs in industries like agriculture, construction, and energy.

Furthermore, more studies should explore how the performance of budget execution affects the growth of small and medium-sized enterprises (SMEs), placing particular emphasis on disbursement timelines and the efficiency of fund utilization. Additionally, it would be beneficial to examine how digital financial infrastructure, such as the Smart Invoicing System, designed to enhance VAT compliance, can be used for real-time tracking of the Central Development Fund (CDF) and improve SME access to funding. Exploring how technology and digital platforms can streamline processes related to applications, disbursements, and monitoring could help tackle the significant administrative challenges identified in this study.

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