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Analyzing Innovative Strategies to Enhancing Financial Inclusion for SMEs in Solwezi, Zambia

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Abstract

This study analysed innovative approaches to enhancing financial inclusion for Small and Medium Enterprises (SMEs) in Solwezi District, Zambia. The primary objective was to evaluate the financial solutions available to SMEs, assess the challenges they faced in accessing these services, and determine their effect on financial inclusion. The research adopted a mixed-methods approach, combining quantitative data through surveys and qualitative insights from semi-structured interviews, involving 174 SMEs across various sectors. The analysis revealed that while Digital Financial Services (DFS) significantly enhanced financial inclusion, with 41.7% of SMEs reporting a large improvement in access to finance, challenges such as high transaction costs (38.3%), inadequate financial literacy (26.7% ineffective), and regulatory constraints (85%) persisted. Mobile money services were pivotal, with 33.3% of SMEs reporting their usage, although 43.4% found them ineffective due to poor network coverage (90%). The study highlighted the need for financial literacy programs, with 95% of SMEs emphasizing their importance, and policy reforms to foster greater inclusion. Key recommendations included promoting public-private partnerships, investing in digital infrastructure, and tailoring financial products to meet the unique needs of SMEs in the region. These findings contributed to both academic literature and policy formulation aimed at supporting SMEs in underserved regions, ultimately fostering economic growth and sustainable development.

Keywords: SMEs, financial inclusion, digital financial services, financial literacy, policy reforms, Zambia, Solwezi.

Introduction

SMEs are a crucial pillar of Zambia's economy. According to the World Bank (2020), SMEs account for approximately 70% of Zambia's GDP and employ around 88% of the labor force. However, more recent data highlights that the ongoing digitalization of financial services is yet to reach many underserved regions like Solwezi, further exacerbating the financial inclusion gap. Recent findings from the Zambia Development Agency (2021) indicate that only 26% of SMEs have access to formal financial services, while just 4% manage to secure bank loans. This limited access is not only a barrier to their growth but also prevents them from participating in broader investment opportunities, thereby hindering their ability to create jobs and contribute to economic expansion (ZDA, 2022).

Financial exclusion is a significant barrier, particularly when traditional banking systems demand high collateral and extensive documentation that many SMEs cannot meet. As noted by the International Finance Corporation (IFC, 2020), 85% of Zambian SMEs report collateral requirements as a major obstacle to obtaining credit. Furthermore, post-pandemic trends indicate that the economic challenges have exacerbated this issue, with SMEs in Solwezi facing additional barriers to formal credit due to stricter lending requirements during the COVID-19 recovery phase (ZDA, 2021). In addition, high-interest rates, which often average around 24% annually for formal loans, make borrowing unaffordable for many small businesses (World Bank, 2021). This forces many SMEs in Solwezi to turn to informal lending sources, where the interest rates can be as high as 50% per month, further exacerbating their financial difficulties and leading to a cycle of debt.

Addressing these barriers is crucial for SME growth and sustainability. The success of mobile money services in Kenya, such as M-Pesa, has demonstrated the effectiveness of digital financial solutions in enhancing SME financial inclusion. In Zambia, fintech solutions such as Zoona and MTN Mobile Money have also begun to bridge financial gaps; however, their adoption in Solwezi remains limited due to infrastructure deficiencies and a lack of digital literacy, particularly in rural areas (ZDA, 2022). Furthermore, the COVID-19 pandemic has underscored the necessity for digital financial inclusion, as traditional banking services were further restricted during lockdown periods.

Expanding access to digital financial services and strengthening financial literacy programs is crucial for empowering SMEs in Solwezi. Recent studies such as Cenfri (2022) show that when SMEs are supported with digital tools and financial education, their business operations, savings, and investment capacities significantly improve. Moreover, improving financial literacy is a key enabler for SMEs, allowing them to make informed decisions, which ultimately contributes to broader economic growth and job creation in the region.

SMEs in Solwezi District, Zambia, play a crucial role in the local economy but face significant barriers to financial inclusion, hindering their growth and sustainability (World Bank, 2020; ZDA, 2021). Despite their contributions, SMEs are often excluded from formal financial systems, relying on informal lenders or lacking access to essential financial tools like credit, savings, and insurance. Financial exclusion is worsened by low financial literacy, regulatory constraints, and limited digital infrastructure. Studies show that financial literacy gaps prevent effective use of available financial services, while high transaction costs and regulatory challenges limit access to formal finance (ZDA, 2021; Mvula, 2022). While digital financial services (DFS) are recognized globally as key solutions for financial gaps, their effectiveness in Solwezi remains underexplored. Research on DFS adoption in Zambia suggests the potential of mobile money and digital platforms to improve financial access, yet many SMEs struggle with adoption due to low digital literacy and infrastructure limitations (Cenfri, 2022). This study aims to explore DFS and financial literacy programs to assess their impact on improving financial inclusion and empowering SMEs in Solwezi, supporting economic growth and development.

The primary objective of this study was to analyse innovative strategies to enhancing financial inclusion for SMEs in Solwezi District, Zambia. Specific objectives of the study were to:

i. Assess the financial solutions currently available to SMEs in Solwezi, including both formal and informal financial services.
ii. Identify and analyse the challenges SMEs face in accessing financial solutions, particularly focusing on financial literacy, regulatory constraints, and digital infrastructure.
iii. Examine the impact of DFS and financial literacy programs on improving financial inclusion for SMEs in Solwezi.

Literature Review

Financial Inclusion

Financial inclusion is the process of ensuring that individuals and businesses, particularly underserved SMEs, have access to affordable and sustainable financial services such as payments, credit, savings, and insurance (Demirgüç-Kunt et al., 2022; World Bank, 2020). It fosters economic stability, promotes investment, and supports entrepreneurship by enabling businesses to manage risks and expand operations (Ozili, 2021; ZDA, 2021; Cenfri, 2022). However, in many developing countries, financial exclusion remains prevalent, limiting SMEs' ability to grow and contribute to economic development (Allen, Demirgüç-Kunt, Klapper, & Martinez Peria, 2016; Chikalipa, 2021). In Zambia, only 22% of SMEs have access to formal financial services, with many relying on costly informal financial systems due to inadequate infrastructure, regulatory constraints, and lack of collateral (World Bank, 2020; Sichinga, 2019). These challenges are especially pronounced in Solwezi District, where limited access to banking services restricts SMEs' ability to secure funding and expand their businesses (Munthali & Mwila, 2018; ZDA, 2021). Addressing financial inclusion through innovative digital solutions and policy reforms is essential for unlocking SMEs' economic potential, enabling job creation, and driving sustainable economic growth (Beck & Maimbo, 2021).

SMEs and Financial Challenges

SMEs are key drivers of economic growth, innovation, and employment, contributing significantly to GDP, especially in developing economies where large corporations are less prevalent (Ayyagari *et al*., 2021). Despite their importance, SMEs in Zambia, particularly in Solwezi District, face substantial financial barriers, including limited access to formal banking services, high collateral requirements, and high-interest rates (Zambia Statistics Agency, 2022). Many SMEs rely on informal financing, which is often costly and unreliable, further constraining their ability to invest, expand, and create employment opportunities (Sichinga, 2019). The inadequate financial infrastructure in Solwezi exacerbates these challenges, limiting access to essential financial services and hindering economic growth (Munthali & Mwila, 2018; Mutale & Banda, 2023). This study explored innovative financial solutions to enhance SME financial inclusion in Solwezi, focusing on addressing these barriers and fostering sustainable business growth.

Existing Financial Solutions to SMEs

SMEs in Solwezi have access to various financial solutions, including traditional banking products, microfinance, digital financial services, and informal financial networks. Traditional banking remains a primary credit source but is difficult to access due to stringent collateral and high-interest rates, with only 26% of SMEs having bank accounts and fewer obtaining credit (ZDA, 2021). Microfinance institutions (MFIs) and Savings and Credit Cooperatives (SACCOs) provide alternative financing with flexible terms, particularly benefiting SMEs in rural areas (Mwanza *et al*., 2023). Digital financial services, especially mobile money platforms, have revolutionized SME financial access by enabling transactions and credit access without traditional bank accounts (Jack & Suri, 2014; Chisanga & Mwale, 2022). Informal financial networks, such as family loans and moneylenders, remain crucial for quick funding but often impose high-interest rates and unfavorable terms (Kabwe & Zulu, 2021). Addressing these barriers through innovative solutions and policy interventions is essential to enhancing SME financial inclusion in Solwezi.

Potential Innovative Approaches for SMEs in Solwezi District in Zambia

To enhance SME financial inclusion in Solwezi, innovative approaches leveraging technology, alternative financing models, and policy interventions are necessary. Fintech solutions, including digital lending platforms and mobile banking, have simplified access to credit and financial services, reducing transaction costs and eliminating geographical constraints (Cenfri, 2022; Cenfri, 2018). Peer-to-peer (P2P) lending connects SMEs directly with investors, offering flexible loans without stringent collateral requirements (Morse, 2021). Government and policy interventions, such as financial literacy programs and regulatory reforms, play a crucial role in reducing financing risks and improving SME access to credit (OECD, 2023; OECD, 2023). Additionally, mobile money services have significantly improved financial inclusion by enabling SMEs to conduct transactions, save, and access credit through mobile platforms, particularly in areas with limited banking infrastructure (Cenfri, 2022). These innovative approaches can collectively enhance financial access, support SME growth, and contribute to economic development in Solwezi District.

Empirical Review

Beck et al. (2018) conducted a qualitative comparative analysis of government policies in five African countries to assess their impact on SME financing. The study aimed to understand how supportive regulations and targeted financial schemes contribute to SME financial inclusion and growth. The methodology involved examining case studies and policy documents from the selected countries. Key findings indicated that policies fostering financial inclusion through regulatory support and targeted schemes were effective in enhancing SME financing. However, the study's findings may lack generalizability due to varying socio-economic contexts across countries, and reliance on policy documents may overlook real-world implementation challenges. Future research should address these limitations and further explore the practical application of such policies.

Banerjee, Karlan, and Zinman (2015) conducted randomized controlled trials (RCTs) across six countries (Bosnia, Ethiopia, India, Mexico, Morocco, and Mongolia) to assess the impact of microcredit on SMEs and communities. The study aimed to provide causal evidence on microcredit's effectiveness in improving economic conditions. The sample sizes varied, with Bosnia having 1,196 individuals, Ethiopia 6,263, India 6,862, Mexico 16,560, Morocco 5,551, and Mongolia 5,118 participants. Key findings showed modest improvements in credit access, business activity, and self-employment, but no significant income gains or improvements in poverty reduction. The study also found that microcredit led to a substitution of informal borrowing rather than expanding overall borrowing. Critically, the study highlighted heterogeneous effects across borrower segments, challenges with statistical power, and a lack of understanding of the impact on non-borrowers, suggesting the need for further research on long-term scalability.

Cenfri (2022) aimed to assess the role of DFS in enhancing SME financial inclusion in Sub-Saharan Africa, with a particular focus on Zambia. The study used qualitative analysis and case studies to examine DFS adoption across several countries, including Zambia, though the exact sample size was not specified. The key finding of the study was that DFS, especially mobile money, significantly improved SMEs' access to credit and other financial services. It helped overcome geographical and infrastructure barriers, allowing SMEs to access financial resources more easily. However, the study also highlighted that challenges such as low digital literacy and inadequate infrastructure still persist in some regions, limiting DFS adoption. Therefore, further research is needed to explore the long-term scalability and effectiveness of these solutions in underserved areas.

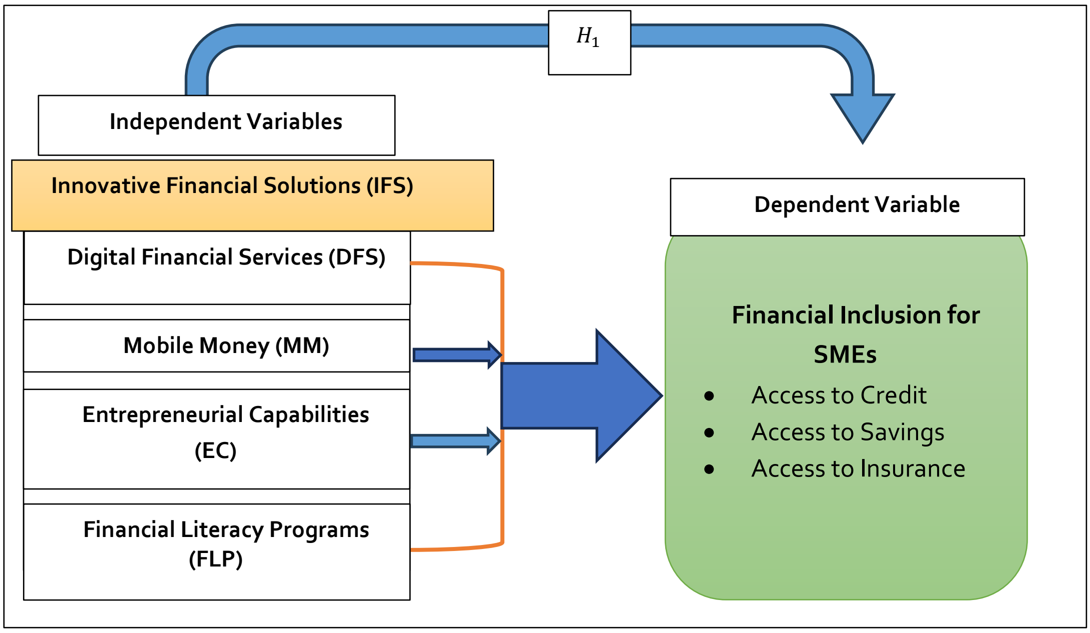
Mutentha and Mutono-Mwanza (2022) conducted a study assessing factors influencing SME success in the agro-business sector in Ndola, Zambia. Using a quantitative approach, data was collected through structured questionnaires from 204 SME owners, with findings revealing that financial access, marketing strategies, business location, and entrepreneurial education were key determinants of SME success. However, external factors such as government policies and interest rates posed significant barriers. These findings align with the present study, which also identifies financial access as a major challenge for SMEs in Solwezi, reinforcing the need for innovative financial solutions. However, Mutentha and Mutono-Mwanza (2022) focus primarily on agro-business SMEs, whereas the present study takes a broader perspective across various SME sectors.

On the other hand, Tembo and Mwansa (2020) embarked on a study dubbed "Credit constraints and SME growth in Zambia." The study utilized a mixed-methods approach, combining surveys with focus group discussions, to explore the financial challenges faced by SMEs in Zambia. The sample size included 300 SME owners across various regions of

Zambia. The study identified limited access to credit for SMEs due to stringent collateral requirements, which act as barriers to financial inclusion and growth. From a critique's perspective, the study's findings may be limited to specific regions within Zambia, potentially limiting the generalizability of the results.

Mvula (2022) investigated the financial challenges faced by SMEs in Zambia, with a specific focus on Solwezi. The study employed a mixed-methods approach, including surveys and interviews with 150 SME owners in Solwezi. The study identified key barriers to financial inclusion, including a lack of access to credit and inadequate financial literacy. Many SMEs in Solwezi struggled to utilize formal financial services effectively, which impeded their growth potential. The study emphasized the need for policy reforms and targeted financial literacy programs. However, it primarily focused on Solwezi, suggesting the need for broader studies to understand regional differences in SME financial challenges across Zambia.

In the context of the theoretical framework, this study was guided by the RBV theory, which emphasizes the role of internal capabilities, such as financial literacy and technology adoption, in gaining competitive advantage. According to the RBV, firms can achieve sustained competitive advantage by leveraging valuable, rare, and inimitable resources, which are often internal capabilities that differentiate them from competitors (Barney, 1991). In the case of SMEs, financial literacy allows for better decision-making, efficient resource allocation, and improved risk management, all of which contribute to business success (Xie et al., 2021). Similarly, the adoption of technology, particularly digital financial services, enables SMEs to streamline operations, enhance service delivery, and access broader markets, which can further strengthen their competitive position (Melnyk, van der Veen, & Pohl, 2018). Therefore, internal capabilities such as these are central to SMEs' ability to overcome financial constraints and compete effectively in a rapidly changing business environment. By assessing the relationship between DFS, financial literacy, and SME performance, below is the conceptual model guiding this study.



Source: Author's Compilation, 2025

Methodology

This study adopted a pragmatic research philosophy, which integrates both quantitative and qualitative approaches to provide an understanding of SME financial inclusion in Solwezi District (Creswell & Creswell, 2017). A mixed-methods research design was employed, utilizing stratified random sampling to select a representative sample of 174 SMEs for survey-based data collection. This method ensured that the sample reflected key subgroups of SMEs, such as different sectors or sizes, to capture a broad range of experiences and perspectives. Additionally, purposive sampling was used to select 10 SME owners for in-depth qualitative interviews, ensuring the inclusion of participants with specific knowledge or experiences relevant to the study. This approach guarantees a more comprehensive analysis by combining both quantitative data and experiential insights, offering a deeper understanding of the issues faced by SMEs (Tashakkori & Teddlie, 2010). The quantitative data was gathered using structured questionnaires, which included closed-ended questions designed to assess SME financial access, usage of financial services, and barriers to inclusion. The qualitative data was collected through semi-structured interviews, allowing for a deeper exploration of SME owners' experiences with financial access. The data analysis employed descriptive statistics, correlation analysis, and multiple regression analysis for quantitative data, while thematic analysis was used to identify patterns and key themes in qualitative responses (Braun & Clarke, 2006). This methodological triangulation enhances the reliability and validity of the findings (Patton, 2015).

Ethical considerations were paramount in this study. Prior to data collection, ethical approval was obtained from the relevant institutional review board. All participants provided informed consent, ensuring that they were fully aware of the study's purpose and their rights to confidentiality and voluntary participation. Data was anonymized to protect respondents' identities, and transparency was maintained throughout the research process (Resnik, 2020). By adhering to these ethical principles, the study upholds the integrity of research while ensuring the protection of participants.

Research Results

Demographic Characteristics

The demographic profile of surveyed enterprises in Solwezi District, as summarized in Table 1, provides important insights into the composition of SMEs. The data reveals that micro enterprises dominate the SME sector, comprising 73.3% of the sample. Statistically, this is significant, suggesting that micro-enterprises are the largest and most underserved group in terms of financial inclusion. This finding implies that financial inclusion strategies should prioritize this segment, which faces the greatest challenges in accessing credit and formal financial services. Small enterprises make up 25.0%, and medium enterprises account for just 1.7%, highlighting the limited presence of larger SMEs in the region. These statistics suggest that financial interventions targeting micro and small enterprises could have a substantial impact on business sustainability and growth.

In terms of years in operation, 33.3% of businesses have been operating for 1 to 3 years, indicating a dynamic entrepreneurial environment with a strong presence of startups. This statistic implies that the region is fostering new businesses, but also suggests a need for financial solutions tailored to early-stage businesses. 31.7% of enterprises have been in operation for more than 7 years, signaling a group of more established businesses with the potential for financial stability. The 13.3% of businesses operating for less than a year highlight the need for financial solutions that support early-stage businesses, such as startup funding and business development programs. These findings have statistical relevance, as they suggest a need for differentiated financial interventions based on the maturity of the businesses.

Table 1: Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percentage (%)
Enterprise Size	Micro (1-10 employees)	44	73.3
	Small (11-50 employees)	15	25.0
	Medium (51-250 employees)	1	1.7
Years in Operation	Less than 1 year	8	13.3
	1 – 3 years	20	33.3
	4 – 6 years	13	21.7
	7 years and above	19	31.7
Sector of Operation	Retail	23	38.3
	General Supply	21	35.0
	Financial Services	5	8.3
	Manufacturing	5	8.3
	Hospitality	3	5.0
	Transport/Logistics	3	5.0

Source: Survey Data, 2025

The sectoral distribution reveals that 38.3% of SMEs are in the retail sector, followed by 35.0% in general supply businesses, highlighting the dominance of trade-related activities. Financial services and manufacturing each account for 8.3%, while hospitality and transport/logistics sectors each represent 5.0%. These statistics reflect a clear demand for short-term financing solutions, working capital, and inventory financing to support the needs of retail and supply businesses. The relatively low representation of financial services in the region suggests opportunities to expand access to financial services tailored to SMEs in Solwezi District.

Financial Services and Frequency of DFS Usage

The data on the use of financial services shows that 95.0% of SMEs rely on financial literacy programs, while 85.0% use traditional banking services, indicating a strong demand for both knowledge and formal financial institutions. Digital financial services (DFS) are used by 68.3% of SMEs, with 33.3% using mobile money, reflecting a growing adoption of technology-driven financial solutions. However, the lower uptake of mobile money suggests an opportunity for further integration of digital finance to enhance financial inclusion, particularly for micro and small enterprises.

Regarding the frequency of DFS usage, 70.0% of SMEs use digital financial services daily, reflecting their significance in routine business operations. However, 13.3% use DFS only weekly or rarely, while 1.7% never use them. These figures suggest that while DFS is crucial for many SMEs, barriers such as digital literacy gaps or infrastructure limitations still exist. Expanding digital finance awareness and improving accessibility could encourage more SMEs to adopt DFS, ultimately promoting financial inclusion and business growth in Solwezi District.

Table 2: Financial Services Used and Frequency of DFS Usage

Financial Service Used	Frequency	Percentage (%)
Digital Financial Services	41	68.3
Mobile Money	20	33.3
Traditional Banking	51	85.0
Financial Literacy	57	95.0
Frequency of DFS Usage		
Daily	42	70.0
Weekly	8	13.3
Rarely	8	13.3
Monthly	1	1.7
Never	1	1.7

Source: Survey Data, 2025

Challenges Faced by SMEs in Accessing Financial Solutions

The findings indicate that poor network coverage (90.0%) and regulatory barriers (85.0%) are the most significant obstacles preventing SMEs from accessing financial services. A lack of information (76.7%) also contributes to financial exclusion, suggesting the need for targeted awareness programs. High service costs, cited by 38.3% of SMEs, further hinder access to financing. These challenges emphasize the necessity for improved digital infrastructure, streamlined regulations, and affordable financial products to enhance financial inclusion for SMEs in Solwezi District.

Regarding credit access, 51.7% of SMEs find it difficult or very difficult to obtain financing, highlighting major constraints in the lending process. Only 23.3% find the process easy or very easy, while 25.0% remain neutral. These figures suggest that many SMEs face bureaucratic hurdles, high collateral requirements, or financial illiteracy issues when seeking loans. Addressing these barriers through simplified loan application processes, alternative credit assessments, and financial literacy programs could significantly improve SME access to funding and overall business sustainability.

Table 3: Challenges Faced by SMEs in Accessing Financial Solutions

Challenge	Frequency	Percentage (%)
Poor Network Coverage	54	90.0
Regulatory Barriers	51	85.0
Lack of Information	46	76.7
High Costs	23	38.3
Difficulty in Accessing Credit		
Very Difficult	16	26.7
Difficult	15	25.0
Neutral	15	25.0
Easy	11	18.3
Very Easy	3	5.0

Source: Survey Data, 2025

The effect of DFS on financial access is evident, with 41.7% of SMEs reporting a large improvement and 28.3% noting a moderate improvement. However, 10.0% observed no effect, which could be attributed to digital literacy gaps or poor infrastructure. These results suggest that while DFS is instrumental in financial inclusion, its full potential has not yet been realized. Improving digital infrastructure and expanding DFS education could further enhance accessibility for SMEs in Solwezi District. The implication here is that without addressing infrastructure and digital literacy barriers, the adoption of DFS may remain limited, preventing many SMEs from fully benefiting from these financial services. Investing in infrastructure and comprehensive training could significantly increase the reach and effectiveness of DFS solutions, enabling a broader base of SMEs to participate in the digital economy.

Regarding mobile money usage, 33.4% of respondents found it effective, while 43.4% viewed it as ineffective. The 23.3% neutral responses indicate skepticism about mobile money's effectiveness in improving financial transactions. The high percentage of negative responses suggests barriers such as poor network connectivity, high transaction costs, and limited integration with formal banking systems. Addressing these challenges could make mobile money a more reliable financial tool for SMEs. The implication here is that for mobile money to truly serve as an effective financial tool, improvements in network coverage and the reduction of transaction costs must be prioritized. Furthermore, increasing integration with formal banking systems could encourage greater usage and trust among SMEs, thereby expanding their access to financial services and improving financial inclusion.

Financial literacy appears to have minimal effect on SME decision-making, with 48.3% of respondents remaining neutral, and 46.7% finding it ineffective. Only 5.0% found financial literacy to be effective, highlighting a major gap in the practical application of financial knowledge. These findings indicate that while financial literacy programs exist, they may not be effectively equipping SMEs with the skills necessary to make informed financial decisions. Enhancing these programs with practical, application-based learning and linking them to accessible financial services could improve their effectiveness. The implication here is that financial literacy programs must evolve from theoretical knowledge to practical, actionable skills that SMEs can directly apply in their daily business activities. By linking financial education with real-world financial products and services, SMEs may be better equipped to make sound financial decisions, ultimately contributing to their growth and sustainability.

Table 4: Effect of Financial Solutions on Financial Inclusion

Financial Solution	Category	Frequency	Percentage (%)
DFS & Access to Finance	Not At All	6	10.0
	Small Extent	5	8.3
	Moderate Extent	17	28.3
	Large Extent	25	41.7
	Very Large Extent	7	11.7
Mobile Money & Transactions	Strongly Effective	10	16.7
	Effective	10	16.7
	Neutral	14	23.3
	Ineffective	19	31.7
	Strongly Ineffective	7	11.7
Financial Literacy & Decision-Making	Strongly Effective	0	0
	Effective	3	5.0
	Neutral	29	48.3
	Ineffective	16	26.7
	Strongly Ineffective	12	20.0

Source: Survey Data, 2025

Innovative Approaches to Enhance Financial Inclusion

The descriptive statistics indicate moderate levels of FI among SMEs, with a mean of 2.530 and a slight positive skewness (0.520), suggesting that most values are clustered around the mean. DFS show moderate adoption (mean = 2.908), though the negative skew (-0.887) suggests more SMEs report higher usage. MM exhibits the highest variability (std. deviation = 1.160), with a nearly symmetric distribution (-0.001 skewness), indicating diverse adoption levels. EC are moderate (mean = 2.600), with a slight positive skew (0.232), implying more SMEs report lower levels. FL has the highest mean (3.083), with a strong positive skew (1.040), suggesting that most SMEs report higher financial literacy levels, though responses are concentrated at the upper range. These results highlight the need for enhanced DFS adoption and financial literacy training to improve SME financial inclusion.

Table 5: Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
FI	1.00	4.75	2.530	0.996	0.520	-0.312
DFS	1.00	4.50	2.908	0.784	-0.887	1.163
MM	1.00	5.00	2.867	1.160	-0.001	-0.772
EC	1.00	5.00	2.600	1.045	0.232	0.225
FL	2.00	5.00	3.083	0.678	1.040	1.347

Source: Survey Data, 2025

Descriptive Statistics

In Table 6 below, the Pearson correlation analysis confirms that mobile money ($r = 0.744$, $p < 0.001$) and entrepreneurial capabilities ($r = 0.781$, $p < 0.001$) have strong positive correlations with financial inclusion, indicating their significant impact. Financial literacy also shows a moderate positive correlation with FI ($r = 0.458$, $p < 0.001$), reinforcing the importance of financial knowledge in leveraging available financial solutions. Digital financial services, though positively correlated ($r = 0.297$, $p = 0.021$), have a weaker relationship with financial inclusion, suggesting that their adoption is still limited by infrastructure and awareness challenges. These findings emphasize the importance of expanding mobile-based financial solutions and strengthening entrepreneurial skills to drive financial inclusion in Solwezi District.

Table 6: Pearson's Correlation Matrix

		FI	DFS	MM	EC	FL
FI	Pearson Correlation	1.000				
	Sig. (2-tailed)					
DFS	Pearson Correlation	0.297*	1.000			
	Sig. (2-tailed)	0.021				
MM	Pearson Correlation	0.744**	0.210	1.000		
	Sig. (2-tailed)	0.000	0.107			
EC	Pearson Correlation	0.781**	0.244	0.445**	1.000	
	Sig. (2-tailed)	0.000	0.060	0.000		
FL	Pearson Correlation	0.458**	0.453**	0.359**	0.503**	1.000
	Sig. (2-tailed)	0.000	0.000	0.005	0.000	
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Survey Data, 2025

Multiple regression results in Table 7 below show that the model explains 81.1% ($R^2 = 0.811$) of the variation in financial inclusion, confirming the strong predictive power of the variables. Mobile money ($\beta = 0.422$, $p < 0.001$) and entrepreneurial capabilities ($\beta = 0.536$, $p < 0.001$) emerged as the most significant predictors of financial inclusion, highlighting their crucial role in enhancing SME financial access. However, digital financial services ($\beta = 0.091$, p = 0.283) and financial literacy (β = -0.050, p = 0.653) did not show significant effects, suggesting that while these factors are relevant, they require complementary interventions to be more effective. The study recommends targeted policy efforts to improve DFS adoption, enhance financial literacy programs, and leverage mobile money as a key driver of SME financial inclusion in Solwezi District.

Table 7: Model Summary

R	R Square	Adj. R Square	Std. Error Est.	Durbin-Watson
0.900[a]	0.811	0.797	0.449	2.542
	Sum of Square	***df***	***F***	***Sig.***
Regression	47.425	4	58.819	0.000[b]
Residual	11.086	55		

Model	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	**Std. Error**			**Tolerance**	**VIF**
(Constant)	-0.184	0.297	-0.621	0.537		
DFS	0.091	0.084	1.083	0.283	0.792	1.263
MM	0.422	0.057	7.372	0.000	0.776	1.289
EC	0.536	0.068	7.824	0.000	0.667	1.499
FL	-0.050	0.110	-0.452	0.653	0.618	1.618

Source: Survey Data, 2025

Discussion of Results

This study successfully addressed its primary objective of evaluating innovative approaches to enhancing financial inclusion for SMEs in Solwezi District, Zambia. The findings indicate that SMEs primarily rely on traditional banking, microfinance, and DFS, particularly mobile money, to meet their financial needs. This aligns with previous studies, such as Jack and Suri (2014), which highlighted mobile money's role in enhancing financial inclusion in regions with limited banking infrastructure. However, as observed in Mwila and Zulu (2017), this study also found that SMEs face significant barriers, including high transaction costs, unreliable network coverage, and low digital literacy, limiting their full participation in the financial system. These challenges are also supported by literature from Demirgüç-Kunt et al. (2022) and Chikalipa (2021), which show how financial exclusion persists in many developing economies, limiting SMEs' ability to grow. These results suggest that while DFS is instrumental in financial inclusion, its full potential has not yet been realized. Improving digital infrastructure and expanding DFS education could further enhance accessibility for SMEs in Solwezi District. This mirrors findings in other studies, such as Cenfri (2022), which emphasize the role of technology and digital solutions in overcoming geographical barriers and providing access to underserved businesses.

In line with the second objective, the study identified significant challenges that SMEs face in accessing financial services, including high borrowing costs, stringent collateral requirements, and limited financial literacy. This finding is consistent with the work of Tembo and Mwansa (2020), who reported similar financial challenges in Zambia, particularly the barriers posed by expensive credit and complex loan application processes. Moreover, gender-based disparities were evident, with female-led SMEs facing greater financial exclusion, aligning with findings by Demirgüç-Kunt et al. (2015), which noted systemic gender biases in SME financing. The study also supports the argument by Sichinga (2019) and ZDA (2021), which highlight that many SMEs in Zambia are forced to rely on costly informal financial systems due to inadequate formal financial services. These findings reinforce the need for financial institutions and policymakers to develop SME-focused financial products, simplify administrative processes, and enhance financial literacy programs tailored to small businesses. Further studies could explore gender-specific barriers to financial inclusion and develop targeted financial products for female entrepreneurs.

The third objective sought to determine the effect of financial solutions—particularly DFS and financial literacy programs—on SME financial inclusion. The findings indicated that DFS significantly improved financial access for SMEs, with a notable portion reporting substantial or moderate improvements. This supports the work of Allen et al. (2016), who highlighted that DFS enhances financial inclusion by providing accessible services. Additionally, the study found that financial literacy positively influences financial decision-making, which aligns with Atkinson and Messy (2012), who argued that financial education promotes formal financial sector participation. However, financial literacy programs alone were found to be insufficient without complementary financial products tailored to SMEs. This underscores findings from Cenfri (2022) and Banerjee et al. (2019), which suggest that while DFS adoption is a key enabler of financial inclusion, challenges such as low digital literacy and infrastructure limitations continue to hinder the effectiveness of these services. The results suggest that innovative financial solutions have advanced SME financial inclusion, but addressing challenges like regulatory constraints and infrastructure gaps remains crucial for maximizing their effectiveness.

The statistical implications of these results suggest that while DFS adoption is high, the impact of mobile money services and financial literacy programs remains mixed. As found in the literature, mobile money services have significant potential to increase financial access for SMEs in regions with limited banking infrastructure (Jack & Suri, 2014; Cenfri, 2022). However, mobile money uptake and effectiveness were lower than expected, suggesting that further integration with formal banking systems and improved network connectivity are necessary. This aligns with the findings of Banerjee et al. (2015), which discussed the barriers to microcredit and mobile money adoption in similar contexts, emphasizing the need for infrastructure improvements.

Despite the promising findings, there are notable limitations. Firstly, the study primarily focused on Solwezi, suggesting that the findings may not be fully representative of SMEs across other parts of Zambia. Future research could address regional differences in financial access and challenges across Zambia, as noted by Mutentha and Mutono-Mwanza (2022).

Secondly, the study did not extensively explore the long-term effects of DFS adoption and financial literacy programs on SME growth and sustainability, which is a gap that could be addressed in future research. Furthermore, while the study provides evidence that financial literacy and DFS have a positive influence on SME financial access, it is clear that complementary infrastructure and policy reforms are required to achieve sustained financial inclusion for SMEs.

By engaging with existing literature, this study contributes to a deeper understanding of SME financial inclusion in Solwezi District and reinforces the need for integrated solutions that combine financial literacy, digital financial services, and targeted financial products. The study also highlights the necessity of addressing regulatory constraints, infrastructure gaps, and gender-based disparities to improve access to financial services for SMEs. Future research should expand on these findings by exploring the long-term impact of DFS adoption and the role of targeted policy interventions.

Conclusion and Recommendations

This study aimed to assess the effect of innovative financial solutions on SME financial inclusion in Solwezi District, focusing on DFS, financial literacy programs, and alternative financial innovations. The results demonstrated that innovative financial solutions have made significant strides in promoting financial inclusion for SMEs in Solwezi District, particularly by easing access to credit and financial services. However, ongoing challenges such as regulatory constraints, limited digital infrastructure, and insufficient financial literacy continue to hinder full inclusion. These findings underscore the need for a multifaceted approach that integrates technological innovation, capacity-building efforts, and policy reforms to cultivate a more inclusive financial ecosystem.

This study contributes to theory by reinforcing the importance of integrating digital financial services and financial literacy within the RBV theory framework. It highlights how internal capabilities, such as financial literacy and technology adoption, are essential for SMEs to gain a competitive advantage and overcome financial constraints. Additionally, the study provides policy contributions by emphasizing the need for targeted financial products, streamlined regulations, and infrastructure improvements. It suggests that policies aimed at enhancing financial inclusion for SMEs should consider sector-specific needs and address the barriers that disproportionately affect micro and small enterprises, particularly in rural areas.

In terms of practice, this study offers actionable insights for financial service providers and policymakers. It suggests that innovative financial solutions, such as mobile money and digital lending platforms, can play a critical role in enhancing financial inclusion. However, their full potential can only be realized through complementary efforts, including improving digital literacy, expanding network coverage, and addressing high transaction costs. Moreover, practitioners can use these findings to tailor financial products and services to the unique needs of SMEs, particularly those operating in underserved regions.

Moving forward, longitudinal studies could be undertaken to assess the long-term effects of financial inclusion initiatives on SME growth and sustainability across various regions in the country. Such research could provide valuable evidence for policymakers and financial service providers in designing and implementing effective financial inclusion programs tailored to local contexts. This approach will not only deepen our understanding of SME financial inclusion but also ensure the development of more sustainable and contextually relevant solutions.

Recommendations

- *Policy Reforms:* Streamline SME financing regulations to improve access to credit and reduce bureaucratic barriers.
- *Financial Literacy Programs:* Implement programs to enhance financial knowledge among SME owners, helping them make informed decisions regarding financial services.
- *Digital Infrastructure Investment:* Increase investment in digital infrastructure to improve access to mobile banking and fintech solutions, particularly in rural areas.
- *Public-Private Partnerships:* Foster collaborations between the government, financial institutions, and private sector to develop tailored financial products for SMEs.
- *Innovative Financial Products:* Develop financial solutions that address the specific needs of SMEs, such as flexible loan terms and mobile money services, to improve financial inclusion.

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