

Exploring Determinants of Financial Access for SMEs in Zambia's Construction Sector

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Abstract

This study explores determinants in accessing finance for Small and Medium Enterprises (SMEs) in the Zambian construction industry, with a specific focus on the impact of financial literacy, collateral requirements, and credit history. The research adopted a survey approach to collect data from 78 SMEs operating in the construction sector. The findings highlight key determinants, including stringent collateral requirements, high interest rates and brief payback periods. Additionally, the study shows a strong positive relationship between financial literacy and financial access, suggesting that SMEs with a higher level of financial knowledge are more likely to secure financing. Moreover, the research identifies collateral requirements and credit history as critical factors influencing access to finance for SMEs in the construction industry. SMEs struggle to provide adequate collateral, leading to challenges in accessing credit from financial institutions. The building industry in Zambia can be improved by negotiating lower loan rates with financial institutions or by starting a construction bank to offer specialised financing and guarantees to financial institutions on behalf of SME owners.

Keywords: Construction SMEs, access to finance, financial literacy, collateral requirements, credit history

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1. Introduction

There is a growing recognition of the important role that Small and Medium Enterprises (SMEs) play in the economic development of Zambia. Worldwide, SMEs contribute about 50% of employment, highlighting their significance in economic empowerment. This calls for sustainable policies and measures to sustain their growth, of which, microfinance has long been seen as a powerful tool for sustainable socio-economic development (Peraza, 2021). With Microfinance Institutions (MFIs) offering microloans to over 200 million clients by 2010, the microcredit market subsector has expanded throughout time, helping more than one billion people in underdeveloped nations (Nuwagaba, 2015).

By the end of 2012, financial institutions had financed SMEs about USD 480 million, of which just USD 20 million were unsecured, according to the 2013 World Bank report for Zambia (Nuwagaba, 2015). This suggests that without the proper loan security, SMEs in the nation continue to have difficulty obtaining loans. It calls for sustainable policies and measures to sustain their growth, of which, microfinance has long been seen as a powerful tool for sustainable socio-economic development (Peraza, 2021).

SME contractors, however, confront many difficulties in spite of their considerable presence in the sector. [Nowotarski and Paslawski \(2015\)](#) claim that the intricacy and dangers of the construction sector have resulted in numerous failures, particularly for small and medium-sized contractors. [Kawimbe \(2024\)](#) concurred that there are difficulties facing SME contractors, listing some of these difficulties as follows: insufficient funding and difficulty obtaining supplier credit; difficulty hiring qualified personnel; poor skills in pricing, tendering, and contract documentation; poor mentoring and fronting for established contractors; lack of entrepreneurial abilities; inadequate training; insufficient resources for large or complex construction projects; lack of technical, financial, contractual, and managerial abilities; and late payment for completed work.

Like many developing nations in Southern Africa and Africa overall, Zambia's construction sector faces a number of challenges. The majority of significant projects are carried out by foreign construction corporations, despite initiatives to liberalise the economy and draw private participation in infrastructure ([M'tewa, 2019](#)). Only 5% and 25% of civil engineering and building projects in Africa are completed by local contractors, respectively, with foreign companies handling 95% and 85% of these projects, according to [M'tewa \(2019\)](#). Over 80 percent of Zambia's main contracts were awarded to foreign contractors, according to NCC (2022). Deficits in the native local contractors, such as a lack of funding, have been heavily blamed for this domination ([Phiri, 2016](#)).

The development and expansion of the local construction sector by the government should be seen as an economic and strategic asset since the building industry is well seen as a catalyst for socioeconomic development ([Aniekwu, 2015](#)). According to [Ofori et al. \(2014\)](#), the expansion and development of lower-grade construction companies is essential for all nations since a robust SME base can create high-quality infrastructure.

The expansion of SMEs in Zambia is also a top priority for the government of Zambia. The Zambian government has made an effort to implement policies that will support the growth of small and medium-sized business contractors in Zambia. Among these measures are the implementation of the 20 percent subcontracting policy in the road sector, which aims to increase the participation of local contractors in the construction industry and thereby aid in capacity building; the preference and reservation schemes, which are enshrined in the procurement act No. 12 of 2009 and the Citizens Economic Empowerment preferential regulations of 2011; the NCC restricted foreign registration to grade One (1) and Two (2) only, and the introduction of Construction Finance Initiatives (CFI) in the road sector was intended to help local contractors access financing. This measure allowed local contractors to compete favourably with one another for contracts that fell into the lower grades (Central Statistics Office, 2017).

Access to financing is still a major barrier to SMEs' expansion, despite their acknowledged significance. According to [Haggai \(2021\)](#), the most frequently mentioned barrier to SMEs' ability to expand their enterprises is access to financing. In a study on the determinants influencing SMEs' access to financing in Zambia, [Kaulu et al. \(2023\)](#) found that financial management regulation, managerial experience, and financial literacy all have a beneficial impact on SMEs' financial access. However, issues including insufficient funding and the inability to obtain credit from suppliers, a shortage of skilled labour, poor pricing and tendering abilities, and late payment for completed work continue to exist ([Muthuswamy, 2022](#)).

[Chilembo \(2021\)](#) further emphasizes the challenges faced by SMEs, indicating that lack of collateral assets and high-interest rates are major factors affecting access to finance. The study recommends that SMEs explore alternative sources of finance, such as crowd funding, and improve their business record keeping to attract potential investors. Despite these challenges, SMEs are encouraged to partner with other SMEs to create a critical mass for their operations and enjoy economies of scale. However, [Obaji and Olugu \(2014\)](#) note that the biggest hindrance to SMEs' access to finance is the collateral required by financial institutions, which acts as a constraint to the formation and development of SMEs. Therefore, in light of this challenge, the study seeks to understand some of the specific factors influencing the access of finance by SMEs in the construction industry.

1.2 Problem Statement

Small and Medium Businesses (SMEs) in Zambia suffer difficulties obtaining financing, which impedes their ability to grow and remain sustainable despite their substantial contributions to employment and economic growth. Research has shown that one of the main obstacles facing SMEs is access to financing ([Haggai, 2021](#); [Kaulu et al., 2023](#)). SMEs confront a number of difficulties, including insufficient funding, difficulty obtaining financing, a shortage of skilled personnel, and weak pricing abilities ([M'tewa, 2019](#)). These issues are especially prevalent in the construction industry, which accounts for a sizable portion of SMEs ([Aniekwu, 2015](#)).

Given their vital role in Zambia's economy, these issues highlight how urgent it is to solve the financial limitations encountered by SMEs in the construction sector. SMEs still have difficulty obtaining financing, even with the Zambian government's efforts to assist their expansion and operations, including the implementation of the Construction Finance Initiatives (CFI) and the 20 percent subcontracting policy in the road sector ([Haggai, 2021](#); [Kawimbe, 2024](#)). Additionally, although research on the difficulties SMEs encounter in obtaining financing is already available, little is known

about the precise variables affecting SMEs' ability to obtain financing in Zambia's construction sector. This disparity is crucial since SMEs in the building industry contribute significantly to the nation's economic growth, and their expansion is necessary to reduce poverty and create jobs. In order to increase their access to financing, it is necessary to look at the particular difficulties that SMEs in the construction sector confront and find viable solutions.

By investigating SME opinions of the difficulties, they have in obtaining funding in the construction industry, this study seeks to close this gap. The study will investigate the various funding options available to local contractors and pinpoint the barriers that SMEs face when trying to secure funding from banking institutions. By comprehending these elements, stakeholders and policymakers may create focused interventions and long-term policies to improve SMEs' access to financing, which would support their expansion and advance Zambia's economy.

1.3 Research Objectives and Questions

The aim of the study was to investigate the SME access to finance in order to help bridge the gap for sustainable growth of the local construction industry in Zambia. To achieve this aim, the following objectives were considered:

- i. To explore the relationship between financial literacy and access to finance among SMEs in the Zambian construction industry.
- ii. To investigate the effect of collateral requirements on access to finance for SMEs in the Zambian construction industry.
- iii. To examine the effect of credit history on access to finance among SMEs in the Zambian construction industry.
- iv. To identify the key challenges faced by SMEs in accessing finance in the Zambian construction industry.

And to each objective were attached the following research questions:

- v. What is the relationship between financial literacy and access to finance among SMEs in the Zambian construction industry?
- vi. How do collateral requirements affect access to finance for SMEs in the Zambian construction industry?
- vii. How does credit history affect access to finance among SMEs in the Zambian construction industry?
- viii. What are the key challenges faced by SMEs in accessing finance in the Zambian construction industry?

2. Literature Review

Small and medium-sized businesses (SMEs) have a significant role in reducing poverty, creating jobs, and boosting the economy. SMEs generate half of private employment in the United States of America (USA), and they generate more than half of employment in nations like China, Austria, and Canada (World Bank, 2019; World Trade Organisation, 2016). Additionally, SMEs make a substantial contribution to each nation's Gross Domestic Product (GDP). SMEs comprise 92% of enterprises in Ghana and contribute 70% of the nation's GDP (Adfabeng & Osei, 2022). Similarly, SMEs make up 70 percent of Nigeria's manufacturing sector and 97.5 percent of enterprises in South Africa (Folabi, 2015).

With an average of 90% of the market, SMEs make up the majority of the construction sector in developing nations (Desiree et al., 2023). The building sector in Zambia is indicative of this pattern. For example, of the 7,759 registered contractors in the first quarter of 2023, 7,359 (94.8%) were local SME contractors in grades Three (3) to Six (6), while 161 (2%), Zambian contractors in grades One (1) and Two (2), and foreign contractors in grades One (1) and Two (2) made up the remaining 3% (NCC, 2023).

In India, Rajamani et al. (2022) looked into the difficulties MSMEs had getting financing. They found that the firm's characteristics, the sources of funding, and the stage of an MSME's life cycle all had a big impact on how easily they were able to get financing. On the other hand, it was discovered that financial barriers had a detrimental effect. According to Hussain et al. (2018), financial literacy is essential for reducing information asymmetry and collateral deficiencies in loan applications for small and medium-sized businesses (SMEs) in the UK.

They recommend incorporating financial literacy into the curriculum to improve SMEs' access to financing, lower monitoring costs, and help SMEs optimise their capital structure. Financial management knowledge is identified as a key resource that aids SME owners in making effective decisions. Other challenge Following this line of reasoning, Msomi and Olarewaju (2021) recommended seminars, training, and workshops to raise SME owners' financial literacy and their capacity to use accounting and budgeting techniques efficiently. SME owners are better able to obtain funding for projects when they are exposed to the loan requirements and conditions set forth by financial institutions. For SMEs in Ghana, financing availability is a major barrier that affects how they operate and their ability to expand. Governments therefore take proactive steps to foster a climate that is supportive to SMEs, such as opening up financing channels and improving access to financial resources (Quaidoo and Nyanzu, 2018).

In the Zambian context, majority of owners of MSMEs primarily use cash and mobile money services for their business transactions and not all were accessing and utilizing the available financial services. Zaloumis and Foya (2022)

recommended investing in robust financial literacy programs, promoting digital banking, and establishing various funds and financial services tailored for their empowerment. [Bwembya \(2022\)](#) established the connection between SMEs' ability to acquire new technology and enhance their performance, which ensures their survival, sustainability, and growth. Appropriate SME management also affects operations, profitability, and loan repayment capabilities. Accessing financial assistance from organisations such as banks and microfinance institutions is difficult for SMEs in Zambia. [Chilembo's \(2021\)](#) recommended that SMEs explore practical and unconventional alternative sources of finance, such as crowdfunding, including "Village Banking" and collaborative partnerships among SMEs to handle some of these challenges and enhance operational scale and efficiency.

There are numerous reasons why Zambian construction enterprises are unable to easily obtain credit from the nation's financial institutions, or banks. [Ofori \(2009\)](#) ascribed this reason to the tiny portfolios of these enterprises, the perceived high-risk nature of these SMEs, and the significant transaction costs that banks incur while doing credit appraisals on them prior to extending credit to these SMEs in the construction industry. In their study of the factors influencing the difficulties in funding SMEs in the construction industry, [Robert and Avaial \(2006\)](#) ascribed some of the causes to the lending infrastructure of the countries. For them, it has an impact on the viability and financial gain of utilising various lending technologies for financing SMEs. [Chewe \(2020\)](#) identified several factors that hinder the sustainable growth of SMEs in Zambia, including competition from Multi-National Enterprises (MNEs), corruption, high tax rates, financing challenges, employee-related issues, and a lack of institutional support. The study also found that simple practices, such as improving business record-keeping practices, would attract potential finance sources, such as angel and venture capital investors.

2.1. Gap Analysis

The empirical review offers a thorough summary of the body of research on the difficulties SMEs encounter in obtaining financing, based on the study's goals. The review highlights studies carried out in a number of nations, including India, Ghana, the UK, Lesotho, South Africa, and Zambia, and it covers global, regional, and local contexts.

However, despite the breadth of the literature, there are several gaps that remain to be addressed. First off, although the evaluation mentions the difficulties SMEs encounter in obtaining financing, it pays little attention to how SMEs specifically see these difficulties. Understanding SMEs' perspectives is crucial as it can provide insights into the unique barriers they face and inform targeted interventions to address these challenges effectively.

Secondly, the review identifies factors such as financial literacy, credit history, and collateral requirements as hindrances to SMEs obtaining funds from financial institutions. While these factors are important, there is a need for further research to delve deeper into how these factors specifically impact SMEs in the local context of Zambia.

Finally, while the review briefly touches on the different sources of funding for local contractors, there is a need for more detailed analysis in the Zambian context. Understanding the diverse sources of funding available to local contractors, beyond traditional financial institutions, could provide valuable insights into alternative financing mechanisms that could support SME growth and development in Zambia.

In conclusion, even though the empirical evaluation offers a strong basis for comprehending the difficulties SMEs encounter when trying to obtain financing, more study is required to fill in the specific gaps observed. By focusing on SME perceptions, exploring the impact of key factors, and examining alternative funding sources, future studies can provide more targeted and context-specific recommendations to support SMEs in Zambia.

2.2. Theoretical Framework

Resource Based Theory

The Resource-Based View (RBV) theory, initially proposed by [Penrose \(1959\)](#) and further developed by [Wernerfelt \(1984\)](#) and [Barney \(1991\)](#), emphasizes that a firm's competitive advantage and performance are driven by its unique resources and capabilities ([Bertram & Bertram, 2016](#)). RBV posits that firms with valuable, rare, and difficult-to-imitate resources can achieve sustainable competitive advantages.

RBV is significant because it refocuses attention on internal resources and competencies as determinants of business performance, rather than external factors like market conditions ([Bari, Chimhundu, & Chan, 2022](#)). It implies that in order to obtain a competitive edge, businesses should cultivate and utilise their distinctive assets. Over time, the theory has changed as researchers have improved its ideas and uses. Recent research, for instance, has highlighted the dynamic nature of capabilities and resources, emphasising how crucial it is for businesses to continuously build and refresh new resources in order to maintain competitive advantages in dynamic contexts ([Ferreira, Coelho, & Mourinho, 2020](#)).

RBV can offer important insights in the current study on the difficulties SMEs in Zambia's construction sector have

obtaining financing. RBV's emphasis on resources and capabilities is in line with the study's goals, which include analysing the impact of credit history on financing, examining the relationship between financial literacy and financing, and examining the impact of collateral requirements on financing.

RBV does inform the study by guiding the analysis of how SMEs' internal resources, such as financial literacy, collateral, and credit history, influence their ability to access finance. By understanding how these resources contribute to competitive advantages or disadvantages in accessing finance, policymakers and practitioners can develop more effective strategies to support SMEs in the construction industry.

Transaction Cost Economics (TCE) Theory

The study of the costs involved in transactions within an economic system is the focus of Transaction Cost Economics (TCE), which was first proposed by Coase in 1937 and expanded upon by Williamson in 1975 and 1985 (Rindfleisch, 2019). According to TCE, businesses exist because they can lower transaction costs when compared to market exchanges. Search and information costs, negotiating and decision costs, and police and enforcement expenses are all included in transaction costs.

Because it offers a framework for comprehending why businesses select particular governance structures—like outsourcing or vertical integration—based on the associated transaction costs, TCE is significant. It implies that businesses will select the governance structure that reduces transaction costs overall, including costs associated with internal and external transactions.

TCE has evolved over time, with scholars applying its concepts to various fields, including organizational theory, strategic management, and public policy (Neves, Hamacher, & Scavarda, 2014). Recent developments in TCE have focused on understanding how digital technologies and globalization impact transaction costs and governance structures.

TCE can shed light on the transaction expenses associated with acquiring financing in the framework of the ongoing study on the difficulties SMEs have when trying to secure financing in Zambia's construction sector. The study's objectives, which include identifying key challenges in accessing finance, align with TCE's focus on transaction costs. TCE informs the study by guiding the analysis of how transaction costs, such as information asymmetry, bargaining costs, and enforcement costs, affect SMEs' ability to access finance. Policymakers and practitioners can create plans to lower obstacles and enhance SMEs' access to financing in the construction sector by comprehending these transaction costs.

Institutional Theory

Meyer and Rowan (1977) and DiMaggio and Powell (1983) established the Institutional Theory, which focusses on how institutions, including laws, rules, and conventions, impact organisations and their behaviour (David, Tolbert, & Boghossian, 2019). It posits that organizations conform to institutional pressures to gain legitimacy and resources. The significance of normative, coercive, and mimetic isomorphism in influencing organisational conduct is emphasised by institutional theory.

Institutional theory is important because it helps explain why organizations adopt certain structures, practices, and behaviors, even when these may not be the most efficient or rational choices (Diogo, Carvalho, & Amaral, 2015). It highlights the influence of institutional environments on organizational decision-making and strategies (Scott, 2014). Institutional theory has evolved over time, with researchers applying its concepts to various contexts, including organizational change, corporate social responsibility, and global business.

Recent developments in institutional theory have focused on understanding how organizations can navigate institutional pressures and create more sustainable and resilient structures (Scott, 2014). Institutional Theory can provide light on the institutional factors affecting SMEs' access to financing in the current study on the difficulties SMEs have in obtaining financing in Zambia's construction sector. The study's goals, which include examining the connection between financial literacy and financing availability as well as the impact of credit history and collateral requirements on financing availability, are consistent with Institutional Theory's emphasis on how institutions influence organisational behaviour.

Institutional Theory informs the study by guiding the analysis of how institutional pressures, such as regulatory requirements, industry norms, and cultural expectations, affect SMEs' ability to access finance. By understanding these institutional pressures, policymakers and practitioners can develop strategies to create more supportive institutional environments for SMEs in the construction industry, thereby improving their access to finance.

2.3. Conceptual Framework

A review of the literature led to the creation of the conceptual framework. The study on some of the common elements influencing access to finance in various situations was informed by both the theoretical and empirical literature. Consequently, the study's conceptual framework is as follows:

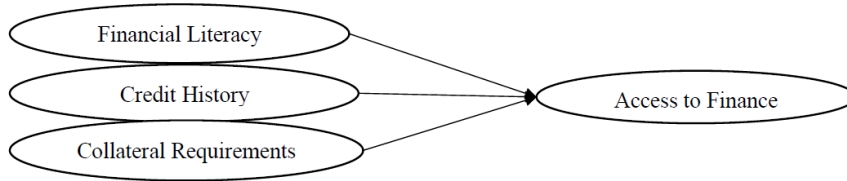


Figure 1: Conceptual Framework

Figure 1: Conceptual Framework

The following criteria were tested as determinants of SMEs' access to financing in Zambia, according to the literature review summary.

3. Methodology

3.1. Research Philosophy

Pragmatism is particularly relevant in this study as it allows for the exploration of both objective financial constraints faced by SMEs and the subjective experiences and perceptions of SME owners and financial institutions. This approach acknowledges that the research problem is multifaceted and requires a comprehensive understanding that goes beyond a single research paradigm (Kelly & Cordeiro, 2020). By embracing pragmatism, this study seeks to bridge the gap between theory and practice, providing actionable recommendations that can benefit SMEs and financial institutions in the construction sector.

Furthermore, pragmatism highlights the significance of context in research, acknowledging that the difficulties SMEs encounter in obtaining financing may differ depending on the industry and locality. By considering the specific context of the construction sector in this study, the research can provide targeted and relevant insights that can inform policy and practice in the industry. Overall, pragmatism provides a robust framework for conducting this study, allowing for a nuanced and holistic understanding of the challenges and potential solutions related to SME financing in the construction sector.

3.2. Research Approach

This study used a mixed methods approach to fully understand the obstacles SMEs experience while trying to obtain financing. This study is especially well-suited to the mixed methods approach since it allows for the investigation of both the qualitative and quantitative facets of SME financing, including the influence of financing constraints on business operations and growth, as well as the quantitative aspects, like loan approval rates and collateral requirements. This study offers a more thorough and in-depth examination of the difficulties SMEs encounter when trying to obtain financing in the construction industry by integrating these two methodologies.

The investigation of intricate connections and interplays among various factors, such as the relationship among financial literacy, credit history, and collateral requirements and their influence on SMEs' capacity to secure funding from financial institutions, is also made possible by the mixed methods approach. By using this method, the study is able to capture the complexity of SME funding issues and offer more detailed, situation-specific suggestions for resolving them.

3.3. Research Design

The study utilized a convergent research design, collecting and analysing both quantitative and qualitative data concurrently. The convergent design allows for the merging of quantitative data on financial constraints with qualitative data on the experiences and perceptions of SMEs in the construction sector (Creswell J. , 2014). This design was chosen because it enables a deeper exploration of the challenges faced by SMEs in accessing finance, combining statistical analysis of financial constraints with thematic analysis of qualitative data on SME experiences (Creswell & Plano, 2011). The convergent research design enhances the robustness of the study findings and provides a more complete understanding of the SME financing landscape in the construction sector.

3.4. Target Populations

According to NCC (2022) the number of SME contractors across the country is about 7,345 out of which about 3,634 are based in Lusaka being the capital city of Zambia and constituted the targeted population.

3.5. Sample Size and Sampling Technics

The sample size was calculated using the Raosoft calculator, and the formula is given as follows:

$$n = \frac{N}{1 + N(e^2)}$$

Where $N = 3,634$ which is the study's population, and $e = 0.1$ (10%), the study's selected margin of error. The resulting calculated sample size, n , came to 97 contractors. However, the data collection process yielded only 78 responses, which resulted in an 80.4% response rate for the study. To create a representative sample of SMEs, the probability sampling method—more especially, the simple random sampling technique—was applied. It improves validity and lowers the possibility of sample bias (Tromp, 2006). Because each unit in the population had an equal chance of being chosen, subjectivity and human error were eliminated from the process.

3.6. Data Analysis

Questionnaire survey was used to collect data. For the quantitative analysis, descriptive statistics, correlation, and regression analyses was used to examine the relationships between various factors influencing SME financing. Descriptive statistics were used to summarize the characteristics of the sample and provide a basic description of the data. Correlation analysis was employed to determine the strength and direction of relationships between variables (Field, 2013). Finally, regression analysis was used to identify significant predictors of SME financing.

4. Result and Discussions

4.1. Descriptive Statistics

The distribution of respondents by SME characteristics is displayed in Table 4.1. According to the data, 47 out of the 78 SMEs who replied had between one and forty employees. In addition, 49 SME managers held undergraduate degrees, which was the bulk of their educational background. Last but not least, the SMEs surveyed had between one and five years of experience.

Table 1: SME Characteristics

Variables	Description	Frequency	Percent
Firm Size	1 - 40 Employees	47	60.3
	40-80 Employees	25	32.1
	Above 80 employees	5	6.4
Education Level of Manager	Certificate/Diploma	3	3.8
	Undergraduate Degree	49	62.8
	Postgraduate Degree	26	33.3
Experience	Less than 1 year	10	12.8
	1 - 5 years	34	43.6
	6 - 10 years	16	20.5
	11 - 15 years	15	19.2
	More than 15 years	3	3.8

Source: field data

Of the 78 respondents, 53.8% had limited liability company registrations for their firms. As indicated in table 2 below, the remainder are registered as partnerships, sole proprietorships, and family-owned businesses.

Table 2 shows that the majority of respondents who work for construction companies are private limited liability companies. They made up 45 of the 78 responders, or 53.8% of the total. None of the responses were public limited liability corporations, and 15 of them, or 19.2% of the total, were sole proprietors. In addition, 13 respondents (16.7%) were partners, while the remaining 10.3% of SMEs that responded were family-owned enterprises. As a result, as table 2 and table 3 demonstrate, the SME's questioned operate in all sectors of the Zambian economy and have an average monthly turnover that ranges from as low as K10,000 to a high of almost K40,000.

Table 2: Frequency Distribution of Forms of Participants SMEs

Form	Frequency	Percent %
Private limited company	42	53.8
Public limited company	0	0.0
Partnership	13	16.7
Sole proprietorship	15	19.2
Family-owned business	8	10.3
Total	78	100.0

Source: field data

Table 3: Frequency Distribution of Average Monthly Turnover of Respondents

Amounts (ZMK)	Frequency	Percentage %
Less than 10,000	3	3.8
0,000 to 20,000	15	19.2
20,000 to 30,000	17	21.8
30,000 to 40,000	19	24.4
Above 40,000	24	30.8
Total	78	100.0

Source: field data

Twenty-four (24) of these SMEs recorded an average turnover of around K40,000 and higher, accounting for 30.8% of the total respondents. Table 3 shows the average monthly turnover for the seventy-eight (78) respondents. At 24.4%, the second-highest SME had a turnover between K30,000 and K40,000, while 21.8% had a turnover between K20,000 and K30,000. Only 3.8%, or three (3) respondents, reported a monthly turnover of less than K10,000, compared to 19.2% for the full K10,000–K20,000 range. According to the definition, which states that a local construction company is essentially an industry with fewer than 100 employees and total assets of less than US\$1 million, excluding land and buildings, it is clear from the statistics above that all of the respondents were SMEs.

4.2. Factors Contributing to SME's Failure to Access Finance

The inability to provide the necessary security or collateral for the loans or credits being requested, as well as the fact that the company's asset-backed collateral is typically rated at the lowest value, are the reasons given by 65.5% of the 78 respondents sampled for their inability to obtain bank credit or loans.

The frequencies of the different obstacles preventing SMEs in the construction industry from obtaining loans for their operations are shown in table 5.

Table 4: Major Constraints to accessing Finance for SMEs in Construction

Factors	Frequency	Percent%
Default on previous loan	4	5.1
No security/ collateral	48	61.5
Small equity base	13	16.7
Lack of management experience	6	7.7
Other	5	6.4
Total	78	100.0

Source: field data

The findings indicate that 48 respondents, or 61.5% of the 78 total, cited a lack of collateral as the main obstacle keeping them from obtaining loans from financial institutions. Just 13 people, or 16.7%, said that having a tiny equity basis affected their ability to get financing. Six, or 7.7%, of the respondents said that they lacked managerial expertise. Six percent believed that other reasons, like their inability to submit audited financial statements, were keeping them from obtaining credit, while five percent linked their difficulty to obtain credit to a prior loan default.

Furthermore, the interest rates that the various banks imposed on the loan facilities were exorbitant and unappealing to the majority of SMEs, in addition to the collateral and other considerations mentioned above, which make it extremely difficult for SMEs to obtain the funds for various expansion projects. Nearly all of the respondents thought that the interest rates that financial institutions charged on facilities were very high, but some also thought that the rates were high, as table 6 illustrates.

Table 5: Frequency distribution of the level of interest rates on loans

Measure	Frequency	Percentage (%)
Extremely high	51	65.4
High	20	25.6
Acceptable	7	9.0
Low	0	0.0
Total	78	100.0

Source: field data

The respondents' opinions regarding the amount of interest rates applied to bank and nonbank financial institution loans are shown in table 6 above. Of the participants' comments, 51 out of 78 thought that loan interest rates were quite high. Just 9.0% of respondents said the rates were tolerable, but 20 or 25.6% of respondents believed the rates were exorbitant. This accounted for 65.4% of all comments.

One noteworthy finding is that none of the respondents thought the interest rates on the financial institutions' loans were low. The high default rates linked to SMEs in the construction industry may be the reason for the high interest rates that the banks are demanding from the local construction enterprises.

Nonetheless, it should be noted that nearly all of the respondents (100%) said that SME contractors in Zambia had no trouble obtaining financing. When questioned further about how financial access issues impacted their performance, they said that it was challenging for SME contractors to buy the right equipment and that it also made it harder for them to fulfil some of their contractual duties, like bid and performance bonds.

4.3. Correlation Analysis

To investigate the connections between different factors pertaining to SMEs' access to financing, a correlation analysis was carried out. The variables examined include Access to Finance, Firm Size, Education Level, Experience, Financial Literacy, Collateral Requirements, and Credit History. Pearson correlation coefficients were generated from SPSS, indicating the strength and direction of the relationships between these variables. The findings are as shown in table 7.

Table 6: Correlation Analysis

#	Variables	Mean	Std. Dev.	1	2	3	4	5	6	7
1	Access_to_Finance	3.554	0.924	--						
2	FirmSize	1.455	0.619	-0.115	--					
3	EducationLevel	2.295	0.537	0.017	-0.097	--				
4	Experience	2.577	1.063	-0.062	.768**	-0.120	--			
5	Financial_Literacy	3.660	0.862	.573**	-.373**	-.230*	-.315**	--		
6	Collateral_Requirements	3.552	0.797	.585**	-.349**	-0.049	-0.220	.604**	--	
7	Credit_History	3.490	0.834	.607**	-.303**	-0.102	-.224*	.717**	.605**	--

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Several interesting trends can be seen in the results. First, the strong positive correlation between financial literacy and finance access ($r = 0.573$, $p < 0.01$) suggests that SMEs with higher levels of financial literacy are probably going to have easier access to funding. This finding highlights the importance of financial education in assisting SMEs in obtaining funding.

Second, there is a significant positive correlation between Access to Finance and Credit History ($r = 0.607$, $p < 0.01$) and Collateral Requirements ($r = 0.585$, $p < 0.01$), suggesting that SMEs with a positive credit history and higher collateral requirements are more likely to obtain financing. These results demonstrate the impact of financial institutions' risk assessment criteria on SMEs' funding access.

Furthermore, although these correlations are not statistically significant, the correlation analysis shows a negative relationship between Access to Finance and Firm Size ($r = -0.115$, $p > 0.05$) and Experience ($r = -0.062$, $p > 0.05$). Additionally, there is no discernible link between SME owners' educational attainment and their capacity to obtain financing, as the connection between access to finance and education level is not statistically significant ($r = 0.017$, $p > 0.05$).

All things considered; the correlation study offers insightful information about the variables affecting SMEs' ability to obtain financing. It emphasises how crucial credit history, collateral needs, financial literacy, and maybe firm size and experience are in deciding whether SMEs are successful in obtaining finance from financial institutions. These results can help stakeholders and policymakers create plans to increase SMEs' access to capital and foster their expansion.

4.4. Regression Analysis

The link between the dependent variable (access to finance) and the control variables (credit history, collateral requirements, and financial literacy) among SMEs in the construction industry was investigated using hierarchical regression analysis. This was done in an effort to identify some of the elements that impact and impede a SME's capacity to obtain financing. In order to evaluate the individual and combined effects of the various sets of factors on financial access, the study was carried out in four steps.

Only the control variables (Firm Size, Education Level, and Experience) were included in the model in the first step. The findings suggested that these factors have a limited effect on SMEs' capacity to obtain financing because taken together, they only explained a very small percentage of the variance in access to financing ($R^2 = 0.014$, $p > 0.05$). The control variables' beta coefficients in the first model were not statistically significant, suggesting that they had no discernible effect on SMEs' ability to obtain financing in the construction industry.

Table.7: Hierarchical Regression Analysis

Control Variables	Beta	SE1	Beta	SE2	Beta	SE3	Beta	SE4
Firm Size	-0.234	0.272	0.099	0.223	0.250	0.211	0.261	0.205
Education Level	0.008	0.201	0.326	0.168	0.270	0.156	0.247	0.152
Experience	0.046	0.158	0.104	0.126	0.045	0.118	0.036	0.115
Independent Variables								
Financial_Literacy			0.732***	0.112	0.487***	0.124	0.308*	0.143
Collateral_Requirements					0.457**	0.128	0.368**	0.130
Credit_History							0.325*	0.140
F		0.357		11.138***		12.884***		12.306***
F Change		0.357		42.865***		12.657**		5.410*
R		0.120		0.618		0.690		0.716
R Square		0.014		0.382		0.476		0.513
Adjusted R Square		-0.026		0.348		0.439		0.472
R Square Change		0.014		0.368		0.093		0.038
***sig<0.001 (0.1 percent) **sig<0.01 (1 percent) *Sig<0.05(5 percent)								

The methodology was expanded to include financial literacy in the second level. According to the findings, the model's explanatory power significantly improved ($R^2 = 0.382$, $p < 0.01$), suggesting that financial literacy significantly predicts SMEs in the construction industry's ability to obtain financing. When all other factors are held constant, a one-unit increase in financial literacy is linked to a 0.732-unit increase in access to financing, according to the statistically significant beta coefficient for financial literacy ($Beta = 0.732$, $p < 0.01$).

In the third step, Collateral Requirements were added and the results showed a further improvement in the model's explanatory power ($R^2 = 0.476$, $p < 0.01$), suggesting that Collateral Requirements also play a significant role in determining SMEs' access to finance. In the third step, the beta coefficient for Collateral Requirements was statistically significant ($Beta = 0.457$, $p < 0.01$), indicating that a one-unit increase in Collateral Requirements is associated with a 0.457-unit increase in access to finance, holding all other variables constant.

The fourth and final step, that drew the study's conclusions, included all six variables (Experience, Education Level, Firm Size, Financial Literacy, Collateral Requirements, and Credit History). The regression analysis revealed important insights into the factors influencing access to finance among SMEs in the construction sector. It demonstrated a moderate explanatory power, with an R Square value of 0.513, indicating that approximately 51.3% of the variance in access to finance can be explained by the included variables.

Even after controlling for the number of predictors, the model's goodness of fit appears to be stable, as indicated by the Adjusted R Square value of 0.472. This suggests that the link between the independent variables and financial access is fairly accurately represented by the assumption. Furthermore, a p-value of 0.000 is linked to the F Statistic of 12.306, suggesting that the regression model as a whole is statistically significant. This indicates that among SMEs in the construction industry, access to financing is significantly predicted by at least one of the independent variables.

Among the individual predictors, Financial Literacy, Collateral Requirements, and Credit History emerged as statistically significant. Financial Literacy had a positive beta coefficient of 0.308 ($p = 0.035$), indicating that higher levels of financial literacy are associated with better access to finance. Similarly, Collateral Requirements and Credit History also showed positive relationships with access to finance, with beta coefficients of 0.368 ($p = 0.006$) and 0.325 ($p = 0.023$) respectively. Overall, the final regression assumption provides valuable insights into the factors influencing access to finance among SMEs in the construction sector. The findings suggest that improving financial literacy, addressing collateral requirements, and maintaining a positive credit history are key strategies that could enhance SMEs' access to finance, thereby supporting their growth and sustainability.

4.5. Discussion of Findings

Relationship between financial literacy and access to finance among SMEs in the Zambian construction industry

According to the current study, one important element affecting SMEs' access to financing in Zambia's construction sector is financial literacy. The significance of company characteristics, funding sources, and the stage of Micro, Small, and Medium-Sized Enterprises' (MSMEs) life cycle in influencing their access to financing was emphasised by [Ramani et al. \(2022\)](#). This implies that MSMEs who possess a greater degree of financial literacy would be more capable of navigating these elements and obtaining funding for their enterprises. Financial literacy plays a crucial role in reducing information asymmetry and collateral deficits when applying for loans among SMEs supporting the notion that SMEs with higher

financial literacy are more likely to succeed in accessing finance (Hussain et al. 2018). This underscores the importance of financial literacy in enhancing SMEs' ability to utilize financial resources effectively, thereby improving their competitiveness and sustainability.

In summary, the results of this study on the importance of financial literacy align with previous research by Chowdhury and Alam (2017) and Bwembya (2022). Enhancing SME owners' financial literacy may help them better grasp financial concepts, increase their access to financing, and eventually support the expansion and sustainability of SMEs in Zambia's construction sector.

The effect of collateral requirements on access to finance for SMEs in the Zambian construction industry

The current study found that collateral requirements are significant in influencing access to finance among SMEs in the Zambian construction industry. Collateral requirements by banks hindered SMEs' access to finance, which ultimately affected their competitive performance (Amadasun and Mutezo, 2023). This suggests that reducing collateral requirements could improve SMEs' access to finance and enhance their competitiveness. Addressing, high collateral requirements, could improve SMEs' access to finance and enhance their growth and sustainability.

The relationship between loan availability and the operations of SMEs in Ghana was also examined by Fredrick and Nyanzu (2017), who discovered that SMEs faced major obstacles in obtaining financing, with collateral requirements being a crucial component. In summary, the study's conclusions about the importance of collateral requirements for SMEs in Zambia's construction sector seeking financing are in line with previous research.

Effect of credit history on access to finance among SMEs in the Zambian construction industry

The significance of credit history reflects the importance of financial reputation and past financial behaviour in accessing finance for SMEs and due to this situation, banks have considered SME contractors to be highly risky. A positive credit history, plays a crucial role in mitigating information asymmetry and collateral deficits when applying for loans. It also reflects that financial literacy and responsible financial management, can improve SMEs' access to finance. The relationship with financial institutions as one of the determinants of trade credit accessibility, indicates that the ability to repay loans determined by the positive credit history is equally crucial for SMEs in accessing finance (Balogun et al. 2016). The significance of credit history in accessing finance for SMEs in the Zambian construction industry demonstrate that a positive credit history is crucial for SMEs to access finance. Results also highlighting the importance of maintaining good financial reputation and responsible financial behaviour.

5. Conclusions

The study investigated determinants of SMEs in accessing finance in the Zambian construction industry, focusing on financial literacy, collateral requirements and credit history. The results showed that short-term repayment periods, excessive interest rates, and insufficient collateral are some of the reasons why SMEs have trouble obtaining financing. These difficulties show how actions, such training in financial literacy, lowering collateral requirements, and providing better loan terms, are needed to increase SMEs' access to financing. Supporting the expansion and development of SMEs in Zambia's construction sector, which is vital to the nation's economy, requires addressing these factors.

Conflict of Interest

The authors had no financial or personal relationship(s) that may have inappropriately influenced them in writing this article. The authors declare no conflict of interest.

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Ethical considerations

The article followed all ethical standards appropriate for this kind of research.

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