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The effect of access to bank loans on the Revenue Performance of SME Sector in Sri Lanka

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ABSTRACT

The SME sector is widely recognized as a vital engine for entrepreneurs, providing various socio-economic benefits such as employment, job empowerment, innovation, and economic development for the country. It is widely accepted that this sector is highly dependent on bank loans for capital financing and accomplishing their growth ambitions. current study attempted to recognize the impact of bank financing on the revenue performance of SME sector using secondary data from 2008 to 2020. The inferential and Descriptive statistics used to analyse the data. Descriptive statistics showed that SMEs' demand for new loans increased steadily throughout the period, with a slight decline in 2010 and 2011, while 60% of the loan disbursements in 2019 were absorbed by them. The results revealed that loans obtained from banks were positively affected on SMEs revenue growth while interest rates offered by the private banks were significantly impact on SME's demand for loans. This study suggests that keeping interest rates in the single digits by both private and state banks is advantageous for the growth of the SME sector. Financial institutions should utilize artificial intelligence models to assess SME borrowings and repayments. Bank loans provided to the SME sector contribute to increasing their overall turnover. Therefore, developing financing strategies to expand and build resilience in the SME sector is crucial at this time.

1. Introduction

The SME sector serves as a crucial incubator for entrepreneurs and offers solutions to issues like unemployment, job creation, innovation, and long-term economic development. The growth of SMEs is a vital part of the economic strategy for many countries and remains highly significant today [10],[48]. There is no universal definition for Small and Medium Enterprises (SMEs); each country determines its own criteria, which can also vary by

industry. For instance, the European Union defines an SME as a business with fewer than 250 employees, while in the United States, it can have up to 1,200 employees. The World Bank categorizes any enterprise with fewer than 99 employees as an SME. Therefore, it is important for Sri Lanka to consider this policy decision carefully. Establishing a clear SME classification would enable the provision of targeted financial assistance

and the identification of specific business sectors. However, the following definition was used for this study in terms of measuring the clarity of values propositions based on the classification considering manufacturing and service sector SME units.

TABLE 1. Definition of Sri Lankan SME

Size	Criteria	Medium	Small
Sector	Annual Turnover	Rs.Mn.251-750	Rs.mn.16-250
	No.of Employees	51-300	11-50
Service	Annual Turnover	Rs.Mn.251-750	Rs.mn.16-250
	No.of Employees	51-200	11-50

Source: Ministry of Industry and Commerce, (2016)

The industrial census survey conducted by the Department of Census and Statistics in 2013/2014 reported that there were 121,426 industries with fewer than 10 employees, providing employment for 285,623 individuals. Additionally, there were 9,961 industries employing 10 or more people, creating a total of 747,823 jobs. Notably, industries with fewer than five employees made up 84.3% of the total number, contributing 7.5% to the overall production value.

The performance and growth of small and medium-sized enterprises (SMEs) globally is of significant interest to development entrepreneurs, economists, financial institutions, governments, venture capital firms, and non-governmental organizations. [09]. Many scholars have studied the significance and SMEs can greatly enhance a country's socio-economic development by creating jobs, increasing business competition, driving innovation, and ensuring a broader distribution of economic wealth and business opportunities. [48] [13]. Table 2 demonstrates the importance of SMEs through their contributions to GDP and employment in various Asian countries.

TABLE 2. SME Contribution by countries

Country	Contribution to Employment (%)	Contribution to GDP (%)	No of Enterprises as % of the total
India	79.9	37.5	95
Korea	89.9	18.8	93
Malaysia	57.5	33.1	97
China	64.7	41.5	95
Thailand	81.0	37.4	95
Indonesia	97.0	60.3	85
Singapore	50.0	70	99
Sri Lanka	55.0	40.0	75

Source: ADB, (2021)

Despite the widely recognized socio-economic significance of the SME sector, it faces significant financial challenges. Holmes et al. (2003) [38] described SME finance as the capital needed to initiate a business and to sustain its operations, including management and investment activities. Garvin (1971) [35] and Bhaird and Lucey (2010) [20] characterized SME financing based on the capital structure of SMEs, which is influenced by factors such as the firm's capital requirements, size, development stage, asset composition, profitability, and other elements. Additionally, Claessens (2006) [25] defined access to finance as the availability of high-quality financial services at reasonable costs. This definition encompasses the key aspects of availability, reliability, flexibility, and continuous access. Similarly, the concept of access to finance as providing reasonably priced funding without obstacles was also highlighted by [30].

Previous research has demonstrated a positive link between access to external finance and business performance [53] [60] [75]. Improved access to finance has led to a rise in SME startups and provided existing SMEs with opportunities to invest in various sectors, enabling them to grow into larger, more dynamic, and productive enterprises

[12] [14]. Beck (2008) [14] [71] also found a positive relationship between SME growth and job creation. Enhanced financial access encourages SMEs to invest in their operations and pursue high-return projects, fostering economic growth, innovation, and employment [19] [60]. Thus, SME finance is crucial not only for business owners but also for policymakers due to its substantial impact on a country's socio-economic development.

It has been established that inadequate financial resources, often due to limited access to funding, is a leading cause of SME failure. Limited financing frequently results in slower growth and, in many cases, business failure. Given the limited internal finance available, SMEs often require additional funding from reliable external sources to thrive and remain competitive [12]. Generally, the formal banking sector serves as a major source of external finance for SMEs in developing nations. However, it has been reported that banks in these regions frequently fail to adequately support the SME sector [38] [62]. Despite the clear need for funding, SMEs often struggle with insufficient bank financing, highlighting a persistent gap in financing options in many developing countries. According to Durst and Gerstlberger (2020), financing programs usually involve financial intermediaries like banks and venture capital firms, rather than direct support from local, regional, or national governments. This lack of access to finance is often seen as a more critical issue for SMEs than other constraints such as regulatory, technical, or marketing challenges.

SMEs frequently face undercapitalization and receive loans from banks that do not align with their specific needs [60]. This discrepancy creates a gap between the financial requirements of SMEs and the funding provided by lenders. There is a lack of comprehensive literature addressing the SME financing gap from both the SME and bank perspectives, highlighting the need for integrating these viewpoints. An International Finance Corporation (IFC) study revealed that while formal SMEs have a credit supply of \$2.12 billion, the unmet demand totals \$13.73 billion, including \$0.43

billion for women-led SMEs. Approximately 35% of formal SMEs reported being completely constrained by finance, while 31% experienced partial constraints. Additionally, informal enterprises, which represent 73% of all firms, have a financing demand of \$14.23 billion. Table 3 illustrates the extent of these financial constraints in selected Asian countries [48].

TABLE 3. Small and Medium size enterprise Finance Gap

No of Enterprises		SME Finance Gap (\$ billion)		
Country	No of SMEs	Current Volume	Potential Demand	Gap
Bangladesh	900000	18.5	54.6	36.1
India	336000	135.1	356.2	221.1
Sri Lanka	81531	2.1	15.8	13.7
Malaysia	148678	69.8	84.7	14.9
Thailand	2646549	111.1	169.8	58.7

Source: International Finance Corporation (2023).

1.2 Research problem

The SME sector in Sri Lanka has expanded significantly over the years, comprising approximately 81,531 establishments. It provides employment for around 916,507 individuals in non-agricultural sectors and contributes about 20.8% to the GDP [31]. While SMEs are typically a key driver of inclusive economic growth and job creation, Sri Lankan SMEs have been encountering significant and unprecedented challenges in recent years, particularly following the pandemic [72]. Access to finance and sources of financing are the biggest constraints that SMEs are facing in this vulnerable situation [73]. Such funding problems delay SMEs competitiveness and further expansion process mainly in times of economic uncertainty. SMEs need financial support throughout their business lifecycle, from startup through growth stages to eventual scaling. According to the Deyshappriya & Maduwanthi, (2020), In Sri Lanka, limited access to formal financing has hindered the expansion and competitiveness of SMEs, resulting in substantial economic losses for both businesses and the

economy. Additionally, most commercial banks rely heavily on central bank and government-funded refinancing schemes for SME loans, with few using their own funds. Despite the potential profitability of SME lending, banks typically limit their exposure to this sector. According to the CBSL Credit Supply Survey 2022 [23], around 87% of SME borrowings come from bank loans, while only 7.5% are sourced from non-bank financial institutions as of the end of 2019. The survey also indicated a significant tightening of credit standards for SMEs. Consequently, nearly one-third of SMEs that applied for bank loans either received no credit or less than they requested. This situation has led to substantial outstanding business loans and a high annual bankruptcy rate among SMEs, often exacerbated by ongoing borrowing that traps them in debt [39]

Given the above status, it is highly inconclusive the nexus between SME growth, performance and the loans in the context of Sri Lanka creating a significant research gap.

1.3 Main and specific objectives

The main objective of this research is, to study impact the bank financing provided to SMEs on revenue performance of SME sector and also this study will specifically examine the sectoral performance of bank loans distributed to SMEs and the average demand from this sector. It will also analyse the relationship between the loans disbursed by banks and the performance of SMEs across different sectors.

2 Literature Review

SMEs obtain financing using various type of financial instruments. Banks are the main source of external financing for SMEs in developing countries [74]. understand formal debt financing through the banking system, it's important to review these tools comprehensively. The primary source of funding for SMEs comes from commercial banks in the form of short- and long-term loans. Short-term loans, often utilized by start-ups and small businesses, have maturities of less than a year. Known as 'project loans,' these allow businesses to

invest, expand, increase working capital, and reduce financial uncertainty with lower payment obligations.

There is a increasing body of literature (Aiyagari et al. 2007; [08] Taibut et al. 2000 [70]; Schiffer & Weder 2011) [66] on SME performance and various aspects of performance. In some countries, rigorous statistical analysis of effectiveness of loans or productivity has not been possible due to limited published data for the performance of SMEs. Numerous researchers have discussed the efficiency of SMEs, arguing that this efficiency is essential for driving economic growth, creating jobs, and reducing poverty. Dewatripont and Maskin (1995) [32] highlight the significance of 'loan efficiency' given the financial constraints faced by SMEs. With the exception of Ramcharran, (2017) [61], there has been little empirical investigation into the performance outcomes of bank lending, despite various reports indicating its substantial impact on SME financing [48].

Economic models indicate that credit market imperfections arise due to adverse selection, prompting banks to lend to trustworthy borrowers, thereby benefiting the real economy. Banks establish lending standards based on borrower selection criteria and the credit terms they offer, which vary according to the perceived creditworthiness of the applicants. Research shows that lending standards tighten during economic downturns due to the increased likelihood of delinquencies and defaults [47]. Conversely, more entrepreneurs tend to start businesses during economic booms, though these new firms often exhibit lower productivity, survival rates, and innovation levels compared to those established during downturns [71]. Given that these new businesses are typically constrained by credit and rely heavily on bank loans for financing [65], they form a significant portion of new credit applicants. Consequently, these firms' borrowing decisions are influenced by the existing lending standards.

The consequences of credit limitations on the real economy could adversely affect. Fiscal base-driven economic downturns were shown to be longer and

deeper as investment and employment drop more severely following a credit crunch, than during recessions in which the banking sector is not impaired [42]. By using different methods organizations try to overcome the bad effects of credit restrictions, relationship lending stands out as one of the most prominent [18]. Several studies have shown that repeated personal interactions within lending relationships help lenders acquire soft information, effectively mitigating informational asymmetries. Based on the findings the effectiveness of relationship lending in smoothing fluctuations in credit and in providing liquidity insurance to firms, even during crises, is now well established in several times [68] [21]. Conversely, the degree to which relationship loaning has real impacts, by permitting borrowers with solid connections to keep up with higher speculation and work usage rates than different borrowers during emergencies, is as yet a significant open inquiry. Shaw (1973) [69] and McKinnon (1973) [52] described the supply-leading roles of financial institutions and what functions need to monitor. It included microfinance institutions as well as Banks in the provision of credit facilities that would advance the growth of output. Thus, the study findings concluded that it could reduce poverty by engaging the poor in trying small businesses. Many researchers have studied partly or separately on the association between microfinance bank and medium size enterprises (MSEs). However, there are dilutions in their findings. Moreover, Ojo (2009) [57] examined the impact of microfinance on the entrepreneurial development of SMEs in Lagos State, Nigeria using simple random sampling technique to select 60 respondents. The findings indicated that microfinance institutions did not significantly influence entrepreneurial development. Joseph and Imhanlahimi (2011) [43] examined the impact of microfinance banks on economically active yet impoverished individuals in rural Nigeria. Their study aimed to determine if these individuals were among the intended beneficiaries of microfinance banks, their access to credit, and the effects of these credits or services on their livelihoods and living standards. The results demonstrated that microfinance banks had a minimal effect on improving their lives.

Jegade, Kehinde, and Akinlabi (2011) [41] examined the relationship between poverty alleviation and microfinance loan disbursement using t-test, chi-square test, and f-test statistical tools. Their findings clearly highlighted that the fiscal institutions had significant role in easing pressure on the balance sheet by changing business conditions and increasing income of firms. Furthermore, it was also different for firms using microfinance institutions and those who did not have an experience of using it. The study further revealed that fiscal institution was a great strategy for increasing the growth of firms. Yaqub et al. (2012) [75] analysed the effect of microcredit on the development of welfare of SMEs in Alimosho local government of Lagos State. The researcher used and tested the chi-square test with 95 microentrepreneurs. Microcredit impacted on the welfare of the small-scale entrepreneurs considerably. Thus, the study recommended the reasonable interest rate charged by microfinance banks should be implemented when disbursing loans. The formal banks may introduce some grace period before repaying the loan started. Thus, the beneficiaries could invest the loan for a longer period. Olusanya, Sufian, and Temi (2014) [59] investigated the influence of microfinance banks on SMEs in Nigeria and how microfinance policies impact employment opportunities in the country. Using 100 structured questionnaires and Spearman correlation analysis, they found that microfinance banks significantly contributed to the development of the SME sector and that microfinance policies had a notable effect on employment opportunities in Nigeria. Abdussalam and Tukur (2014) [01] explored the effect of microfinance on the performance of SME industry in Sokoto State, Nigeria. multiple regression was used to analysed the relationship and 120 SMEs were selected for the sample. The findings of the study indicated that access to microcredit had a positive relationship with value of physical assets of the firms. Moreover, they also found access to microcredit affected employment generation positively. Therefore, they recommended that microfinance banks should increase the size of loan offered to SMEs. Thus, they had enough funds to run their operations. Cook and Nixon (2020) [26] studied that, "It is notwithstanding the recognition of the role of

SMEs in development process in many developing countries, SMEs development is always constrained by the limited availability of financial resources to meet a variety of operational and investment needs". The main problem that SMEs had to encounter is access to credit facilities. Akingunola et al. (2018) [06] highlighted that inadequate initial capital and inaccessible loan facilities were the biggest constraints in the business. Long run development institutional credit was known not to be accessible to SMEs because they are mostly considered high loan risks by financial institutions. A significant consideration is that the deposit money banks (which should be the major financiers of SMEs) are not adequately giving assistance to new economic initiatives, particularly to the business cycle expansion of SMEs. Kuzilwa (2005) [45] clearly established the relationship between credit and expansion of business, thereby supporting the need for credit for entrepreneurial activity. Small enterprises often operate on short term cycle and that is why there is need for short-term loan in small amounts for them. In order to run their businesses, they require sufficient amount of capital constantly and on time.

Various scholars have also examined SMEs and their financing within the Sri Lankan market. Dasanayaka et al. (2011) [28] explored the challenges faced by Small and Medium Enterprises (SMEs) in Sri Lanka, noting that the SME sector, compared to larger enterprises, is less dynamic and underdeveloped, which has been pinpointed as a critical factor for economic progress. Common issues identified globally include financial constraints, technological transfer problems, and market orientation challenges. Despite the banking sector being the primary avenue for SME financing, SMEs encounter significant obstacles in securing bank loans. In Sri Lanka, specific barriers include lack of collateral, complicated loan application procedures, and high interest rates. Financial institutions often view SME financing as risky, with high transaction costs and low returns on investment, making them reluctant to lend to potential SMEs [34].

3 Materials and Methods

The study utilized secondary data sources to determine the relationship between SME loans

disbursed by banks and SME performance. Data were collected over a 13-year period from research articles, annual reports (DCS, CBSL, and Ministry of Finance), journals, various publications, and web information. The processed data were analyzed using descriptive and inferential statistical methods. Descriptive analysis included tabulations, tables, graphs, and measures of central tendency, while correlation and regression analysis were performed using SPSS 26.0

3.1 Conceptual framework

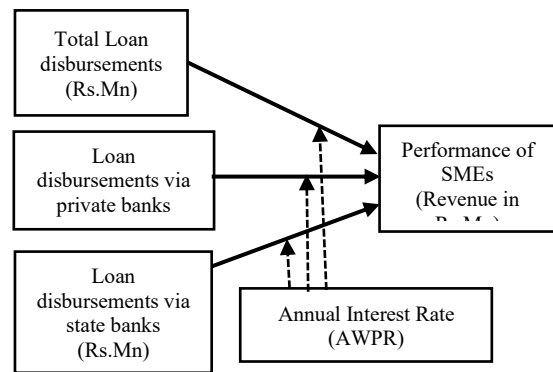


Figure 01. Conceptual Framework

3.2. Hypotheses Development

The following hypotheses were developed in line with the objectives of the study:

H1: There is a positive relationship between total loans granted to SMEs and performance of SMEs in Sri Lanka.

H2: There is a positive relationship between private bank loans granted to SMEs and performance of SMEs in Sri Lanka.

H3: There is a positive relationship between state bank loans granted to SMEs and performance of SMEs in Sri Lanka.

H4: Annual Interest rate (AWPR) moderates the relationship between total loan disbursement and performance of SMEs in Sri Lanka.

H5: Annual Interest rate (AWPR) moderates the relationship between private bank loans granted to SMEs and performance of SMEs in Sri Lanka.

H6: Annual Interest rate (AWPR) moderates the relationship between state bank loans granted to SMEs and performance of SMEs in Sri Lanka.

4 Results and Discussion

SMEs secure funding through various financial instruments. Although this paper primarily examines a subset of these instruments, focusing on formal debt financing through bank loans, it is helpful to provide an overview of SME sector development and loan disbursement statistics. Data from after 2012 were considered and analysed, as the period from 2007 to 2011 exhibited significant data fluctuations and instability.

TABLE 4: Sri Lankan SMEs bank loan demand and SMEs Performance from 2012 to 2020

Factor	Min	Max	Mean
Total revenue of SEM sector (Rs.Mn)	1,495,660.08	3,739,089.01	2,913,569.52
Annual interest rate (AWPR)	6.79	13.29	9.52
Total loan disbursements to SME(Rs.Mn)	67,674.06	827,898.00	539,059.78
Total loan disbursements provided by private banks to SME (Rs.Mn)	33,427.97	732,771.00	459,066.37
Total loan disbursements provided by state banks to SME (Rs.Mn)	34,091.14	168,066.38	86,220.41

Source: Compiled by the author based on the survey data of DCS, CBSL, MOF, 2023

Table 4 demonstrates that the SME sector has made a substantial contribution to the Sri Lankan economy, averaging Rs. 2,913,569 million over the past nine years, with a contribution of Rs. 3,739,089 million in 2019 alone. This indicates a 12% overall growth in the SME industry within the Sri Lankan

economy. Regarding the loan market, there was a noticeable shift from state banks to private banks in 2012. Overall, the loan market experienced a 14% growth during this period, with over 60% of the loan volume allocated to the SME sector by both private and state banks. Additionally, state banks have introduced more flexible credit policies tailored to SMEs, resulting in an overall growth of 18%.

TABLE 5: Relationship between loans disbursements and SME sector performance

Sources of Finncing				
	Total revenue of SEM sector (Rs.Mn)	Total loan disbursements (Rs.Mn)	Annual interest rate (AWP R)	Total loan from private banks (Rs.M n)
Total loan disbursements to SME	.909**			
Annual interest rate (AWPR)		-.566*		
Total loan disbursements provided by private banks to SME	.863**	.961**	.573*	
Total loan disbursements provided by state banks to SME	.599*	.624*	-.247	.385

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

Source: Authors (2023)

Based on the above output (Table 5), shows that the Pearson's Correlation $r = 0.909$ computed for relationship between Total Loan disbursement by banks to SME and business expansions with p -value = 0.000. In other words, Total Loan disbursement by banks to SME is 91% positively correlated with SME performance and the variable relationship is statistically significant. This finding is in accordance with Abiola, et al (2012) [02]; Chiyah and Forchu, (2010) [24]; Olowe (2013) [58] that loan financing by banks is key to SMEs growth. Moreover, it indicates that SME business performance is 55% negatively correlated with bank annual interest rate which means Interest rate being charged by formal banks, the result obtained shows as negative correlation with SMEs loan demand. This is confirmed by Olowe et al. (2013) conducted in Nigeria SME sector, High annual interest rate hinders the SME business growth rate. The results further indicates that high annual interest rate slows down the demand for SME loans.

TABLE 6: Overall effect of Bank loan disbursed to SME on Business performance

Coefficients ^a					
Model		Beta		t	Sig.
		B			
1	(Constant)	1046652.		4.606	.001
	2				
	Total loan disbursements to SME by banks (Rs.Mn)	3.144	.909	7.233	.000

a. Dependent Variable: Total revenue of SEM sector (Rs.Mn)
 R Square = .826
 Durbin-Watson = 1.548
 Sig. = .000

Source: Authors (2023)

The model's R-Squared value of 0.826 indicates a high level of explanatory power, with about 83% of the changes in SME sector

performance being accounted for by the explanatory variables. The Durbin-Watson statistic suggests no autocorrelation in the model. The study demonstrates that the selected variables effectively explain the increase in loan disbursement volume within the SME sector, though 17% of the variation may be due to other factors not included in this analysis. The research reveals a significant correlation between bank loans and SME performance, showing that loans from the banking industry positively influence SME growth in Sri Lanka ($P < .000$). Additionally, the findings underscore that SMEs often depend on grant assistance during their early stages to generate sufficient profit and achieve long-term sustainability. These grants help mitigate revenue-expense imbalances, fostering a supportive environment for SME establishment in the manufacturing sector [50]. This result aligns with the findings of Maruthi (2011) [51]; Abiola et al. (2012) [02]; who identified bank loans as a key driver of SME growth globally. Furthermore, a study by Ramcharran (2017) [61], using data from 2007–2014 in Thailand, confirmed a relationship between SME output per unit and output per Baht loan.

4.2 Moderating Effect of Annual Interest Rate on Bank Loans and SME Performance

In this final result section, we examine how the loans granted to SME is impacted by the type of banks and moderating effect of annual interest rate charge by state and private banks.

TABLE 7: Effect of annual interest rate on the demand of loans and SME growth.

Model Summary ^c					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.91	.828	.793	483754.6	
2	.91	.834	.779	500940.6	1.36

a. Predictors: (Constant), Total loan disbursements provided by state banks to SME (Rs.Mn), Total loan disbursements provided by private banks to SME (Rs.Mn)

b. Predictors: (Constant), Total loan disbursements provided by state banks to SME (Rs.Mn), Total loan disbursements provided by private banks to SME (Rs.Mn), Annual interest rate(AWPR)
c. Dependent Variable: Total revenue of SEM sector (Rs.Mn)

Sources: Authors (2023)

The analysis in Table 7, the R-Squared (0,828) of the first model shows that the explanatory variables explain about 82.8% of changes in SME business growth without the moderating effect (Annual interest rate charged by private and state banks). Once the moderating effect is taken in to consideration, The R-Squared (0,834), overall explainability of the second model shows that the explanatory variables explain about 83.4% of changes in SME business growth slightly going up. Impliedly, the findings of the study indicates that the chosen variables are strong in explaining the improvement in the volume SMEs turnover. Further it indicates that annual interest rate charged by banks play a significant contribution to determine the market behavior.

Then, the next analysis is regarding whether annual interest rate charged banks effects on the demand of SME loans in Sri lankan market. Figure 8 shows that both models (With moderating effect and without moderating effect) have a statistically significance impact on loan disbursement and the volume of MSEs turnover. Similar study conducted in Ogun State to evaluate impact of loan disbursement on the volume of MSEs in Ogun State using ordinary least square. It evaluates the impact of loan disbursement on the volume of MSEs and annual interest rate plays a significant role in Ogun State confirmed the above result. [64]

TABLE 8: Overall Impact

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig .
1	Regression	1125622393	2	562811196	24.0	.00
	Residual	4434.570	10	7217.285	50	0b
	Total	2340185161	12	234018516		
2	Regression	1133793538	3	377931179	15.0	.00
	Residual	7393.184	9	5797.728	61	1c
	Total	2258473708	12	250941523		
		118.978		124.331		
		1359640909		5512.160		

a. Dependent Variable: Total revenue of SEM sector (Rs.Mn)

b. Predictors: (Constant), Total loan disbursements provided by state banks to SME (Rs.Mn), Total loan disbursements provided by private banks to SME (Rs.Mn)

c. Predictors: (Constant), Total loans provided by state banks to SME (Rs.Mn), Total loan disbursements provided by private banks to SME (Rs.Mn), Annual interest rate(AWPR)

Source: Authors (2023)

In this final results section, we explore how the extent and type of SME lending vary by bank ownership type. Some country case studies suggest that foreign banks are hesitant to engage in SME lending due to their reliance on arm's length lending technologies and centralized, hierarchical organizational structures [54] [36] [67]. Conversely, more recent studies propose a new paradigm for SME finance, suggesting that foreign banks can be just as engaged in SME lending as domestic banks, albeit with differences in lending technologies and organizational structures [19] [29].

Regarding government-owned banks, existing evidence indicates that, while they tend to charge lower interest rates than domestic private

banks, they are more likely to lend to large firms and often for political motives [17]. Additionally, research has shown that nations with a high market share of government-owned banks have less SME credit availability (Beck et al. 2008 [14], Berger et al. 2004 [17]), and these large shares of government bank ownership are typically associated with negative macroeconomic outcomes and less developed financial and economic systems [17]. When it comes to Sri Lankan SME sector, Annual interest rate charged by each banking sector was examined.

TABLE 9: Overall Impact by factors of access to loans

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
		1	(Constant)	1040638.002			238050.836	
	Total private banks Loans (Rs.Mn)	3.033	.581	.742	5.22	.000	.852	1.17
	Total state banks Loans (Rs.Mn)	3.630	1.649	.313	2.20	.052	.852	1.17
2	(Constant)	1468366.871	789065.4		1.86	.096		
	Total private banks Loans (Rs.Mn)	2.816	.712	.689	3.95	.003	.608	1.64
	Total state banks Loans (Rs.Mn)	3.596	1.709	.310	2.10	.065	.851	1.17
	Annual interest rate(AWPR)	-30182	52893	-.095	-.57	.582	.670	1.49

a. Dependent Variable: Total revenue of SEM sector (Rs.Mn)

Source: Authors (2023)

The analysis in Table 9, shows that required prerequisites multicollinearity and singularity, rule of thumbs are not violating. Hence the study revealed that annual interest rate charged by private banking sector is significantly affecting on the demand of SME loans. The finding is in line with some past

studies. The banks are the main sources of external financing for SMEs in developing countries. It is therefore reported that the banking sector in developing economies underserves and private banks are charging higher interest rate and document charges [38] [62]. Ramlee and Berma (2013) indicated that despite SME's genuine need of financing, bank financing is significantly unavailable to SME sector resulting in the issue of financing lacuna, a perennial issue in many developing countries. Levy's (1993) study on SMEs in Sri Lanka and Tanzania reported the lack of access to finance as the most pressing issue faced by SMEs in comparison to other constraining factors such as regulatory, technical and marketing constraints. Most of the times, SMEs remain under capitalized with mismatched loans from the banks not suiting their needs [60]. This creates a disparity between the financial needs of SMEs and the financing provided by lenders. Recent literature on the SME financing gap, from both the SME and banking perspectives, is insufficient, highlighting the need for an integrated approach. Evidence clearly indicates that the interest rates charged by banks are crucial in addressing the SME financing gap, as SMEs heavily consider these rates when seeking funds.

5. Conclusions

It is widely recognized that SMEs often depend on grant assistance to achieve profitability during their initial stages and to sustain themselves in the long term. In developing countries, banks are the main source of external financing for SMEs. This study explored the effect of bank loans disbursed to the SME sector on SME growth in Sri Lanka. The demand for new loans by SMEs generally increased throughout the analysed period, with a minor decline in 2010 and 2011. The findings revealed that loans from the formal banking sector significantly and positively influence SME growth in Sri Lanka. Several studies have been concluded the same findings [51] [02] [24] [61]. The results further revealed that high interest rate can cripple the expansion of SME sector and SMEs are

highly considering the annual interest rate given by private banks when they are in need finance for their businesses.

There is a notable discrepancy between the supply of loans provided by banks to the SME sector and the demand from this sector. According to Madestam, (2014) [49], most SMEs face significant credit constraints, with their high demand for credit seldom being fully met by bank loans. Literature indicates that the banking sector is often hesitant to grant the full amount of loans requested by SMEs. Additionally, many banks rely on traditional post-evaluation and monitoring methods rather than the artificial intelligence models used by foreign banks, which are also present in the Sri Lankan banking sector. The operating costs for SMEs are typically disproportionately high compared to their revenues due to their lack of scale, putting them in a vulnerable position regarding further capital expenditure. Grants provide some protection to SMEs against the revenue-expenses imbalance, especially during the early stages of operation, thereby fostering a more favorable environment for SME establishment in the manufacturing sector [50]. This study found that more than 60% of loans disbursed to the local economy are absorbed by the SME sector, supporting theoretical predictions. Interestingly, this relationship becomes complementary during a credit crunch. Unlike bank loans, which are based on collateral, informal loans rely on personal relationships and mutual trust. During times of bank credit distress, an SME's ability to secure a bank loan serves as an important indicator of its creditworthiness, encouraging informal creditors to lend more. Given that most SMEs are heavily credit-constrained, addressing their excess demand is crucial to mitigating the credit shortage in the market during a crisis.

6. Recommendation

Growth in the SME sector contributes to higher incomes and increased employment opportunities for a significant portion of the population. In Sri Lanka, SMEs face challenges in accessing the capital market, as they are often

structured as sole proprietorships, partnerships, or private limited companies. The country lacks a developed venture capital industry and an equity market tailored for SMEs, which is essential for expanding their business capabilities.

The Institute of Chartered Accountants of Sri Lanka has introduced a specific accounting standard for SMEs to ensure uniform financial reporting and enhance transparency. Despite this, compliance with these standards among SMEs remains limited. Establishing a dedicated regulatory body could help address the inconsistencies and bridge the gap between banks and SMEs. Banks should also consider promoting their loan products more effectively, informing SMEs about the available options, associated costs, and required collateral. Additionally, holding regular meetings between banks and SME clients can help better understand their needs and concerns, leading to the development of customized financial products. An Artificial intelligence model can be implemented to monitor and evaluate the post investment pattern of the SME. Maintaining a Single digit annual interest rate enable to expand the demand for SME loans

Sri Lanka does not utilize risk-based pricing of loans. Banks lend to local corporates based on negative pledges and mortgage over receivables. Central bank of Sri Lanka can play a significant role to formulate the untapped areas.

7. Limitations and Future studies

The primary challenge encountered in this study was the lack of available data due to the absence of an official central database for SMEs in Sri Lanka. As a result, the study could only utilize a panel dataset covering 13 years. Additionally, data on the total amount of loans disbursed to the SME sector in 2019 remains uncertain.

The research limitations of the study pave the way for future research opportunities. This study mainly focused on the bank loans and SME performance. Hence a separate study can be conducted how bank loans granted to SME impact on the bank profitability and is it short term loans or Long term loans is yet to study. In most of studies revealed that

the transaction cost in administering SME loans was insignificant. Moreover, studying on the investment pattern of SMEs after obtaining loans is also very interesting and productive area.

Future research should expand the sample size to include a broader range of SME owners and bank credit officers to gather more substantial data and improve the generalizability of findings regarding debt financing accessibility for the entire SME sector. Additionally, future studies could employ both quantitative and qualitative approaches to provide a more comprehensive understanding of the issues, leveraging the full potential of mixed methodologies for a more complete analysis

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