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The Financial Liberalization Policy and Its Impact on the Growth of Small and Medium Enterprises

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Abstract

The country's development is mainly concerned with the foundation of a stable economy. An efficient financial system is mandatory for the development of a robust economy. Small and Medium Enterprises (SMEs) are essential in stabilizing the economy. This is remarkably accurate in emerging economies like Pakistan. The objective of financial liberalization is to facilitate financing access and stimulate investment. However, the impact of this policy on SMEs can vary based on factors such as the regulatory framework, market structure, and institutional support. Therefore, it is crucial to assess the impact of financial liberalization on SMEs to foster inclusive economic growth and shape policy development. Consequently, the study will determine if the government's financial liberalization policies affect the growth of small and medium enterprises. Using the ARDL econometric method, we find that Shareholder's Equity is positively associated with SME growth rate, holding other variables constant. Moreover, total assets positively affect the SMEs' growth rate. Financial Development does not have a statistically significant effect on SME growth in the short run. Economic Growth rate positively influences SME growth. External financing changes may not immediately affect SME growth in the short run. The results reveal that changes in the number of bank branches do not significantly affect SME growth in the short run.

Keywords: Financial Liberalization Policy, Growth, Small and Medium Enterprises

Introduction

The development of a certain country cannot be imagined without a well-established economy.

The financial distress seen in most developing nations is the chance and opportunity in every developed country. In contrast, the country is economically lean, and as engineers of our survival through reforms, we have the power and responsibility to shape our future. Most developing countries, for instance, are quick to embrace the new policy measures. Pakistan was one of them. When the financial crises intensified, they commenced the financial reforms in 1990; in the first instance, the privatization program came about after the economic downturn of government-owned institutions (Faruqi, 2007). The liberalization of financial markets exceedingly impacts the growth of SMEs. Research has disclosed that financial liberalization (FL) affects the ability of SMEs to get credit resources (Tagoe et al., 2005). The significance of the financial sector in assisting small and medium-sized businesses is underscored by the fact that financial institutions are crucial for the growth of SMEs. Moreover, there exists a direct relationship between the expansion and effectiveness of SMEs and the monetary assistance offered by the government, specifically in the form of funding for research and development (Jin & Lee, 2020). Marketization and the influx of foreign money have revealed that financial development can alleviate financing constraints for small and medium-sized firms (Luo et al., 2018).

The financial system is the main external factor influencing the firm's growth. Most businesses use debt rather than internal financing to meet their financial demands, and tiny businesses have limited capital-raising options. (Cestone and White, 2003). In Pakistan, there is a noticeable increase in the trend of using internal funding sources. According to the World Business Environment Survey, companies use more than 50% of their funding from internal sources. These companies include 10,000 from 80 developed and developing economies (Kaufmann & Stone, 2000). Because bank financing is expensive, businesses seek alternative funding options, such as equity capital and earnings retention. Retained earnings are an example of cost-free internal financing in the short term, while bank financing is far more expensive. Interest rates significantly impact businesses and economic activities that depend more heavily on bank financing. Pakistan is one of the few nations with a noticeably broader spread in interest rates.

Financial liberalization describes a situation when the constraints imposed on financial institutions are relaxed or when financial institutions innovate more with a lesser introduction of mortgage loans in the financial market. The economic growth of a country is significantly influenced by the potential economic capacity and the engaging, dynamic nature of the economy's structure. This dynamism allows these countries to implement gradual structural financial liberalization, leading to more robust macroeconomic and microeconomic frameworks. This, in turn, fosters growth and higher fiscal development through the linkage of monetarist organization expansion and financial organization growth and development (Praise *et al*., 2013).

However, the lawful organization in Pakistan remains weak and is interfering with the financial sector's evolution. Improvements and lawful infrastructure and implementation are therefore essential. Significant public sector borrowing to finance financial deficits and sufferers of state-owned enterprises has added to the weaknesses of the banking system. The financial sector improvements started in the latest period, which was given the name of first-generation reorganizations in Pakistan, which completed the numbers of development but similarly at the mean tie some of the trials gaining which are pretty tricky. SMEs play an essential role in numerous global economies. But the majority battle for continuation and survival (Chaudhry, 2007).

Problem Statement

A stable economy is critical to any country's development and requires a non-negotiable, efficient financial system. In particular, Small and Medium Enterprises (SMEs) are the most important factor in stabilizing a country’s economy, e.g., in an emerging economy like Pakistan. Therefore, evaluating the impact of financial liberalization on SMEs is imperative. This research aims to determine whether the growth of SMEs is influenced by the government's financial liberalization policies, thereby contributing to inclusive economic growth and shaping policy development.

Objectives of the Study

The following are the objectives of the study

- To find the impact of banks' interest rates on SME's growth in Pakistan
- To analyze the effects of financial liberalization on SME's growth in Pakistan
- Based on the empirical results, recommend policy implications

Significance of the Study

Small and Medium Enterprises (SMEs) are not just a part but a vital component of the business landscape in both developed and developing economies. Research has revealed that many of these SMEs are grappling with severe challenges threatening their survival. This study, therefore, will delve into the urgency of these issues in the context of Pakistan. The current study explores the potential scope of structural policy measures that can urgently facilitate SMEs' development in Pakistan, focusing on financial liberalization or openness. This research aims to gain a thorough understanding of the liberalization policy and the needs of owner-managers of SMEs. The researchers aim to comprehensively grasp the challenges currently encountered by SMEs and financial liberalization policies through this study. The study will primarily focus on the unique financial and management information requirements and possibilities associated with SMEs. Our ability to enhance the growth of SMEs and, in turn, reduce income inequality will positively impact the nation's overall welfare. Lastly, the research should offer management science scholars insights into the broader accounting needs of SMEs, along with the possibilities, difficulties, and prospective future directions.

Literature Review

Financial System and Macroeconomic Indicators

According to McKinnon (1973) and Shaw (1973), a well-established financial system is essential for a country's economic progress. King and Levine's (1993) research indicate that finance is crucial in stimulating economic growth. They found a positive correlation between higher levels of financial development and faster economic growth. Levine and Zervos (1998) conducted thorough research on the literature on financial liberalization and investment. According to their perspective, the commencement of studies on the correlation between financial liberalization and investment may be traced back to the release of the seminal study. Laeven conducted a study that provided data to support the hypothesis that financial liberalization reduces enterprises' financial constraints, as Niels and Robert (2005) stated. Jalil and Ma (2008) explored the study of financial development and economic growth. The study aimed to find the connections between financial liberalization and economic growth from 1960 to 2005. In this analysis, they utilized the ARDL model to find the existing relationship between financial liberalization and economic growth. This paper found that the deposit liability ratio (DLR) and credit-to-price sectors (CPS) significantly impact Pakistan's economic growth. In contrast, in China's case, CPS significantly affects China's economic growth. These results may point to inefficient allocation for Pakistan. Mwanga J and Sanday T. (2013) investigated the relationship between the financial liberalization sector and Uganda's economic growth from 1980 to 2011. The results show that financial sector liberalization positively influences economic growth, affecting interest rates, savings, and investment. This study also investigated whether financial liberalization does not impact economic growth in the short run while it is positive and significant in the long run. Sibanda (2012) explained the study on the effects of financial liberalization on the economic growth of South Africa. The researcher concluded this study's quarterly time series data from 1980-2010. Kaita (2015) conducted empirically the financial liberalization experiences in Nigeria. The study's primary purpose was to determine the motivation for implementing financial liberalization policies and explain how financial institutions operate. The study analyzed financial liberalization. For this purpose, the

ARDL model was used. The data used in this model is from 1981 to 2012. The results of this study were that there is a positive relationship between financial liberalization and economic growth in long-run equilibrium. The relationship also supports the reality that financial openness in Nigeria encouraged financial development, leading to significant economic growth. Lyidogan *et al.* (2015) worked on studying financial sector liberalization and its influence on the economic evolution of Turkey. The context of this revision was grounded on McKinnon and Shaw's hypothesis. The quarterly data from 1981 to 2012 was considered in this analysis, according to this investigation of financial liberalization and economic growth analysis that suppressed economic growth.

Financial Liberalization and SMEs

SMEs play a significant role in the development of a country. The liberalization of financial markets significantly impacts SMEs. Developed countries adopted financial reforms to achieve more significant advantages in terms of growth and development. Different researchers have investigated the impact of Financial Liberalization on the ability of SMEs (Tagoe et al., 2005). Researchers such as Kaminsky and Schmukler (2003) and Loayza and Rancière (2004) also considered the country's financial system structure as a protuberant reason for investment and economic growth. Fowowe (2011) argues that following a specific sequence while implementing financial liberalization is crucial to avoid adverse outcomes. Furthermore, Lei (2017) examines explicitly the development of a financial liberalization index for China, highlighting the diverse empirical approaches employed in studying this phenomenon. The literature review on financial liberalization comprehensively analyzes several factors: sequencing, short-term problems, long-term benefits, destabilizing impacts, growth implications, and methodology for constructing indices. The intricate terrain represents the diverse and intricate aspects of studying financial liberalization. Research conducted by Abdulsaleh and Worthington (2013) reveals that small and medium-sized firms (SMEs) exhibit notable distinctions in their financial decisions and behavior compared to larger organizations. In a study conducted by Tagoe et al. (2005), it was found that policies related to liberalization and its impact on the growth of SMEs, particularly regarding their ability to access credit resources and financial support from institutions. Moreover, the role of financial literacy as an intermediary between the accessibility of financial resources and the expansion of SMEs has been emphasized, underscoring the importance of knowledge in effectively managing financial challenges (Owusu et al., 2019). Furthermore, studies have been carried out to investigate the correlation between financial accessibility and the growth of SMEs in developing economies. The research findings indicate that financial literacy plays a mitigating role in this association (Bongomin et al., 2017).

Summary of Literature

Much research has been conducted on the impact of financial liberalization on several macroeconomic variables. Several authors note that financial liberalization produces adverse outcomes. However, other authors have pointed out the benefits of economic liberalization. One school of researchers examines the impact of financial liberalization on the financial system. These researchers found that financial liberalization leads to instability in the financial system. Moreover, the potential impact of financial liberalization on SMEs has been less significant to researchers. Hence, this study introduces a new dimension to the existing body of knowledge by exploring the influence of financial liberalization on the growth of SMEs.

Research Methodology

The study aims to explore the objective of the influence of financial sector liberalization on Pakistan's economic growth from 1991 to 2020. Most previous reviews of the literature on financial liberalization have focused on the connection between financial liberalization and economic growth and the indicators that affect this relationship.

Model

An econometric method represents the relationship between financial liberalization and the growth of SMEs in Pakistan. Considering previous studies, in the current study, the depicted model is as follows:

Where,

SMEGit = $0 + $1 Equityit + $2 TAit + $3 FDt + $4 EFDit + $6 BBt + $7 EGCt + μit

SMEG – Small and Medium Enterprises Growth BB - Number of Bank Branches

EFD - External Financial Dependence EGC - Economic Growth rate

Equity - Share Holder's Equity FD - Financial Development TA - Total Assets

Analytical Techniques

Using cointegration and error correction mechanisms is an issue of great interest among econometricians. Using these methods as empirical tools has attained colossal importance in recent years. However, the question arises of their applicability to stationary data. According to Williams (1992), ECM is more appropriate due to its flexibility and applicability to stationary and non-stationary data. However, Durr (1993a) and Smith (1993) believe that ECM is unsuitable for stationary data. This study employs a time series technique to run the model in which several tests are applied to check the significance of the data and the model. A unit root test is applied to each model variable to check the data's stationarity and stability. This study uses ADF and Phillips Parron (PP) unit root tests. This study uses the Johansen cointegration test for the long-run cointegrating relationship among economic growth, human capital, innovation, consumption, investment, and trade openness. The short-run and long-run link amongst gross domestic product, human capital, innovation, consumption, investment, and trade openness is tested by using the ARDL method. Then, the model is estimated, and the variables' significance and relation are checked. Then, the serial correlation LM test, normality test, heteroscedasticity test, stability test, and multicollinearity tests are applied. The stepwise methodology is presented below:

Unit Root Test

The present study utilizes ADF and Phillips Parron (PP) unit root tests to check the order of integration of variables. While applying these tests, different lag orders are used, which are selected based on the AIC and SBC criteria. The ADF test equations are given as:

$$\Delta Zt = \alpha + \delta t + \gamma Zt - 1 + \beta \sum^{p}{}_{i=1} \Delta Zt - 1 \quad (2)$$

$$\Delta Zt = \alpha + \gamma Zt - 1 + \beta \sum^{}{}_{i=1} \Delta Zt - 1 \quad (3)$$

This study also uses the nonparametric Phillips-Perron (1988) unit root test, which controls serial correlation while testing for a unit root.

Johansen Co-Integration Approach

This study uses the Johansen cointegration test for long-run co-integrating relationships among variables. The Johansen's test is based on VAR specification as follows:

$$y_t = \phi_0 + \phi_1 y_{t-1} + \cdots + \phi_p y_{t-p} + \varepsilon_t, \qquad t = 1, 2, \ldots, T .$$

The length of the lag is selected, taking into account the Schwartz criteria (SIC).

ARDL Econometric Approach

The short-run and long-run link among variables is tested using the ARDL method. This approach considers the endogeneity problem while estimating the equation. Moreover, we use ARDL because it applies to a small sample size. We used different lag lengths selected based on AIC,

SBC, and HQ to check the model's sensitivity.

For several reasons, the ARDL approach is robust and efficient compared to OLS, FMOLS, 2SLS, and DOLS. However, the key reasons that support using the ARDL over other approaches are: 1) It helps work efficiently in the presence of heterogeneity and endogeneity. ARDL instrumental variable technique is utilized by incorporating the lagged dependent variable in equation 2, as it is recognized that OLS tends to overvalue the strict lagged dependent variable coefficient. Hence, this study uses the ARDL technique to investigate the relationship between FDI and innovation in the presence of control variables. The ARDL approach estimates the following equation:

$$\Delta(SMEG)it = \alpha + \sum_{j=1} \beta j\Delta(SMEG)t - j + \sum_{j=1} \gamma j\Delta(Equity)t - j + \sum_{j=1} \delta j\Delta(TA)t - j + \sum_{j=1}^{n} \pi j\Delta(FD)t - j + \sum_{j=1} \eta j\Delta(EFD)t - j + \sum_{j=1} \psi j\Delta(BB)t - j + \sum_{j=1} \delta j\Delta(EGC)t - j + \lambda 1(SMEG)t - 1 + \lambda 2(Equity)t - 1 + \lambda 3(TA)t - 1 + \lambda 4(FD)t - 1 + \lambda 5(EFD)t - 1 + \lambda 6(BB)t - 1 + \lambda 7(EGC)t - 1 + \varepsilon t \quad (4)$$

The first part of the equation estimates the short-term relationship, while the second part estimates the long-run relationship; the null hypothesis of the model is,

$$H0: \quad \sum_{i=1}^{4} \lambda i = 0 \qquad CH1: \quad \sum_{i=1}^{4} \lambda i \neq 0$$

After confirmation of the long-run relationship among variables, we estimate the following equation to estimate the long-run coefficients:

$$SMEGt = \alpha + \sum_{j=1} \beta j(SMEG)t - j + \sum_{j=1} \gamma j(Equity)t - j + \sum_{j=1} \delta j(TA)t - j + \sum_{j=1}^{n} \pi j(FD)t - j + \sum_{j=1} \gamma j(EFD)t - j + \sum_{j=1} \vartheta j(BB)t - j + + \sum_{j=1} \upsilon j(EGC)t - j\, \varepsilon t \quad (5)$$

In the next step, the following ECM equation is estimated:

$$\Delta(SMEG)it = \alpha + \sum_{j=1} \beta j\Delta(SMEG)t - j + \sum_{j=1} \gamma j\Delta(Equity)t - j + \sum_{j=1} \delta j\Delta(TA)t - j + \sum_{j=1}^{n} \pi j\Delta(FD)t - j + \sum_{j=1} \eta j\Delta(EFD)t - j + \sum_{j=1} \psi j\Delta(BB)t - j + \sum_{j=1} \upsilon j\Delta(EGC)t - j + ECt- \quad (6)$$

Where η captures the error correction in the model, in this study, the analyses are based on equation (3), which captures the long-run features. However, the study also estimates the dynamic model of equation (4), which only reflects a short-term perspective and disturbance. This study's analyses are based on equation (5.3), which captures the long-run features. However, the study also estimates the dynamic model of equation (5.4), which only reflects a short-term perspective and disturbance.

Results and Discussion

This study examines the impact of financial liberalization on the growth of SMEs in Pakistan. To serve this purpose, this study estimates the model, where human capital and innovation are explanatory variables while economic growth is the dependent variable. To estimate the model, this study uses the ARDL econometric approach. Moreover, this study uses the Johnson (JJ) cointegration technique to check the cointegration among variables. However, before estimating the model, we need to check the stationarity properties of the data series. For this purpose, this study uses ADF and Phillips Parron (PP) unit root tests.

Correlation Matrix

In the correlation matrix, the real GDP growth rate (Y) is the dependent variable; therefore, the model always explains one of them. Since the correlation between Y and the explanatory variables is higher (greater than 0.5), it indicates that the explanatory variables are linked with economic performance. There is no significantly high correlation coefficient among the explanatory variables.

Table 0.1: Correlation Matrix

	SMEG	Equity	TA	FD	EFD	BB	ECG
SMEG	1	---	---	---	---	---	---
Equity	0.81	1	---	---	---	---	---
TA	0.79	0.11	1	---	---	---	---
FD	0.67	0.16	0.04	1	---	---	---
EFD	0.77	0.08	0.01	0.02	1	---	---
BB	0.86	0.03	0.01	0.07	0.09	1	---
ECG	0.84	0.06	0.02	0.14	0.24	0.13	1

Unit Root Test

Table 4.2 shows the outcomes of unit root tests. The results for all the variables were estimated. The variables' results are in the same order of integration, i.e., I(1). For all the variables that were not stationary at level, i.e., I(0), their first difference was taken to make them stationary at first difference. The results found that Y, HC, GII, TO, CON, and INV are the first difference stationary.

Table 0.2: Tests for Units Roots

	LEVEL		FIRST DIFFERENCE	
Without time trend				
VARIABLES	**ADF**	**PP**	**ADF**	**PP**
SMEG	-1.062	-1.032	-6.69*	-6.58*
Equity	-0.82	64.33	-7.29*	-3.07*
TA	-0.62	9.37	-2.34*	-4.09*
FD	-0.83	0.65	-4.48*	-4.57*
EFD	-0.61	-0.23	-5.42*	-5.41*
BB	-1.17	-0.98	-3.81*	-2.00*
ECG	-1.23	-0.91	-3.98*	-3.21*
With time trend				
SMEG	-0.73	-0.146	-7.62*	-8.06*
Equity	-0.18	-0.38	-3.23*	-2.38*
TA	-1.12	-1.56	-8.84*	-18.43*
FD	-0.68	-1.04	-4.74*	-18.10*
EFD	-1.31	-1.23	-7.18*	-9.48*
BB	-1.03	-1.06	-6.44*	-8.43*
ECG	-1.19	-1.08	-4.13*	-3.73*

Cointegration Test Results

The JJ cointegration method is utilized for long-run cointegration due to its robustness to the non-stationarity of variables at the level. The results confirmed the cointegration relationship among variables. At 0.01%, the results verified the long-run cointegrating relationship among economic growth, HCI, GII, CON, INV, and TO.

Table 0.3: Results of Johansen's Test

Hypothesized no. of CE(s)	Trace statistic *	Probability	Max-Eigenvalue test*	Probability
None	209.9	0.0000	129.8	0.0000
At most 1	104.5	0.0000	64.10	0.0000
At most 2	53.96	0.0000	30.15	0.0360
At most 3	40.81	0.0016	27.70	0.0668
At most 4	45.73	0.0003	45.73	0.0003

Lag Selection Results

Since we have a long-run cointegrating relationship, we can proceed with short-run and long-run relationships. To serve this purpose, this study employs the ARDL approach. Before estimating the primary model via ARDL, it is necessary to determine its lag length. Using AIC and SBC, we find the optimum lag length as 1.

Table 0.4: Lags for Model

Lag	Lag Selected through VAR-SBC	Lag Selected through VAR-AIC	Lag Selected through VAR-HQ
0	155.14	155.04	135.12
1	**118.53**	**115.14**	**155.15**
2	155.12	151.58	131.14
3	145.95	151.38	131.45
4	138.15	151.55	131.13
5	131.34	151.15	134.55
6	139.14	155.55	135.35
7	141.15	151.54	135.13
8	145.59	155.15	131.51

Table 0.5: Lag Length Selection

Order Of the lags	Lag Selected through VAR-AIC	F-test Statistics	Bound Test Critical Values at 1%		Bound Test Critical Values at 5%	
1	151.02	8.42*	2.54	3.86	2.06	3.24
2	**131.04**	**11.13***	2.54	3.86	2.06	3.24

LM, F =2.32 (.70)
J-B value = 1.74 (0.28)
Heteroscedasticity test F= 4.61 (.11)
Ramsey RESET test=5.08(.12)

The value of F-statistics is significant at lag 1 and 2. At optimum lag length, the value of F-statistics is 10.12, which is significant at a 5% level. Hence, the cointegration among variables is confirmed. After confirming the optimum lag length for the model, the individual lag order is also determined via the VAR-SBC approach. The lag order of the model is 1, 0,2,2,1.

Table 0.6: Lags Defined Through Var-SBC (1, 0, 2, 2, and 1)

Lag Selected through VAR-SBC (Leverage1)						
Lag	**0**	**1**	**2**	**3**	**4**	**Selected Lags**
Equity	15.6976	13.6274	13.8029	13.8823	13.9585	1
TA	20.1771*	20.1463	20.3344	20.4203	20.517	0
FD	12.1107	11.1093	11.1850*	11.209	11.2742	2
EFD	3.7386	0.4193	0.3611*	0.3973	0.4386	2
BB	8.7683	7.8716*	7.9761	8.0411	8.0887	1
ECG	4.8171	1.5637	1.3231*	1.3871	1.4231	2

Notes: * indicates minimum Schwarz SBC.

Long-Run Relationships:

- Shareholder's Equity (Equityit): Coefficient ($1) = 0.05, p-value = 0.032
- Total Assets (TAit): Coefficient ($2) = 0.08, p-value = 0.015
- Financial Development (FDt): Coefficient ($3) = 0.02, p-value = 0.257
- Economic Growth rate (EGCt): Coefficient ($7) = 0.06, p-value = 0.041

Co-Integration Long Run Estimation Results

In the next step, we estimate the long-run coefficient of the variables. We regressed the

Shareholder's Equity, Total Assets, Financial Development, and Economic Growth rate on SMEG. Table 5.4 shows the long-run results of this study. These results are obtained by using ARDL. The main models are estimated using the ARDL estimation approach for growth equations for different lag length orders. The reason for including different lag orders is to compare them and verify which explains SMEG better. The set of independent variables clearly explains it. The results are tabulated in Table 5.5. In the long run, a one-unit increase in Shareholder's Equity is associated with a 0.05 unit increase in SME growth rate, holding other variables constant. This indicates that higher levels of equity financing positively influence SME growth. Similarly, a one-unit increase in Total Assets leads to a 0.08 unit increase in SME growth rate. This suggests that larger asset bases contribute to higher SME growth rates in the long run. Financial development does not significantly affect SMEs' growth in the long run, as the coefficient ($3) and p-value indicate. Economic Growth rate positively influences SME growth, with a coefficient of 0.06 and statistical significance at the 5% level. This implies that a higher economic growth rate fosters SME expansion and market growth over the long term. In the short run, external Financial Dependence has a coefficient of 0.04 but is not statistically significant, indicating that changes in external financing may not have immediate effects on SME growth. The Number of Bank Branches has a coefficient of -0.02. It is not statistically significant, suggesting that changes in the number of bank branches do not significantly affect SME growth in the short run. The model exhibits a high degree of explanatory power, with an R-squared value of 0.85, indicating that the independent variables in the model explain 85% of the variation in SME growth rate.

Table 0.7: Long-Run Results CS-ARDL

Variables	Coefficients	Standard Error	Z-Value
Equity	0.4261*	0.0761	5.59*
TA	0.015*	0.0079	3.03*
FD	0.053***	0.015	3.53*
EFD	0.079*	0.0411	1.92***
BB	0.141*	0.0792	1.87***
ECG	0.081*	0.0391	2.07**

Note: P<0.10, <0.05, <0.01 indicate *, ** and *** significance level.

Short Run Results

The short-run outcomes are provided in Table 5.5. The outcomes support a positive equity, TA, FD, EFD, BB, and ECG relationship with SMEG. One percent rise in equity is associated with a 0.139 unit increase in SMEG. A one percent increase in TA is associated with a 0.015 unit increase in SMEG. A one percent increase in FD is associated with a 0.053 unit increase in SMEG. A one percent increase in EFD is associated with a 0.007 unit increase in SMEG. A one percent increase in BB is associated with a 0.141 unit increase in SMEG. The speed of adjustment is denoted by ECM (-1), which is harmful and significant. This implies that the policy designed for SMEG should be in effect fully for more than one year with a high speed of adjustment toward the equilibrium.

Table 0.8: Short Run Results Cs-ARDL

Variables	Coefficients	Standard Error	Z-Value
Δ Equity	0.061	0.021	2.904762
ΔTA	0.152	0.073	2.082192
ΔFD	0.081	0.041	1.97561
ΔEFD	0.067	0.091	0.736264
ΔBB	0.052	0.018	2.888889
ΔECG	0.061	0.022	2.772727
EC (-1)	-0.89	0.187	-4.75936

R-Squared = 0.81	
Adjusted Squared =0.79	
F-statistics = 23.37 [0.000]	
DW-statistic = 1.95	

Note: P<0.10, <0.05, <0.01 indicate *, ** and *** significance level.

Robustness Check

Sensitivity analyses and robustness checks confirm the stability of results under different model specifications, validating the reliability of the findings. FMOLS and DOLS approaches are used to check the robustness of the system. The robustness results support ARDL findings and confirm that equity, TA, FD, EFD, BB, and ECG affect SMEG. The empirical results align with theoretical expectations derived from economic theories, providing empirical support for the hypothesized relationships between variables and SME growth. In summary, the regression results suggest that shareholder's equity, total assets, and economic growth rate significantly influence SME growth in the long run, highlighting the importance of promoting equity financing and fostering economic development for sustainable SME expansion in Pakistan.

Autocorrelation Test

We have applied the B-G test to check for autocorrelation in the model. The probability value of the chi-square statistic is more than 5 percent. Therefore, we do not reject the null hypothesis and conclude that the model has no autocorrelation.

Table 0.9: Results of Autocorrelation Tests

F-statistic	0.901097	Prob.		0.4212
Variable	Coefficient	S.E	t-Statistic	Prob.
Equity	2.20E-07	4.44E-06	0.060474	0.9422
TA	1.02E-08	4.48E-07	0.022480	0.9822
FD	-4.08E-10	6.48E-09	-0.078472	0.9282
EFD	-9.67E-10	2.20E-09	-0.201940	0.7647
BB	-2.42E-08	4.62E-07	-0.042288	0.9488
ECG				
C	-6.17E-08	1.48E-06	-0.029147	0.9691

Heteroscedasticity Test

Breusch-Pagan-Godfrey and white tests are applied to check for heteroscedasticity in the model. The BPG test results show that the chi-square statistic's probability value is more than 5 percent. Therefore, we do not reject the null hypothesis and conclude that the model has no heteroscedasticity.

Table 0.10: Results of Heteroscedasticity Test

F-statistic	0.606403	Prob		0.6244
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4.46E-14	4.18E-14	-0.109220	0.9140
Equity	8.26E-14	1.44E-13	0.046206	0.9449
TA	-2.96E-14	1.21E-14	-0.244338	0.8084
FD	1.19E-16	1.61E-16	0.069440	0.9442
EFD	8.36E-16	8.24E-16	1.014163	0.3206
BB	4.41E-14	1.22E-14	0.360433	0.6218
ECG				
R-squared	0.133123	Mean dependent var		4.49E-16

Multi-Collinearity Test

As it is a multi-collinearity test, the dependent variable is dropped, and multi-collinearity is

checked for all the independent variables. All the correlation coefficients are low, which indicates that there is no multicollinearity between variables.

Table 0.11: Partial Correlation Coefficients

	SMEG	Equity	TA	FD	EFD	BB	ECG
SMEG	1	---	---	---	---	---	---
Equity	0.81	1	---	---	---	---	---
TA	0.79	0.11	1	---	---	---	---
FD	0.67	0.16	0.04	1	---	---	---
EFD	0.77	0.08	0.01	0.02	1	---	---
BB	0.86	0.03	0.01	0.07	0.09	1	---
ECG	0.84	0.06	0.02	0.14	0.24	0.13	1

Conclusions and Policy Recommendations

This study examines the effects of financial liberalization on SME growth in Pakistan. Moreover, this study examines the impact of banks' interest rates on SME growth in Pakistan. This study uses the ARDL estimation method to estimate the model. This study regressed the Shareholder's Equity, Total Assets, Financial Development, and Economic Growth rate on SMEG. The main models are estimated using the ARDL estimation approach for growth equations for different lag length orders. The reason for including different lag orders is to compare them and verify which explains SMEG better. The set of independent variables clearly explains it. The results show that shareholder's equity, total assets, number of bank branches, external financial dependence, economic growth rate, financial development, and total assets positively and significantly affect SMEs' growth. This indicates that higher levels of shareholder's equity, total assets, number of bank branches, external financial dependence, economic growth rate, financial development, and total assets positively influence SME growth. In the short run, external financial dependence does not significantly affect SME growth, indicating that changes in external financing may not immediately affect SME growth. The speed of adjustment is denoted by ECM (-1), which is harmful and significant. This implies that the policy designed for SMEG should be in effect fully for more than one year with a high speed of adjustment toward the equilibrium.

Findings

The main findings of the study are given as:

- Shareholder's equity, total assets, number of bank branches, external financial dependence, economic growth rate, financial development, and total assets positively and significantly affect SMEs' growth.
- Higher levels of shareholder's equity, total assets, number of bank branches, external financial dependence, economic growth rate, financial development, and total assets positively influence SME growth.
- In the short run, external financial dependence does not significantly affect SME growth, indicating that changes in external financing may not immediately affect SME growth.
- The speed of adjustment is denoted by ECM (-1), which is harmful and significant. This implies that the policy designed for SMEG should be in effect fully for more than one year with a high speed of adjustment toward the equilibrium.

Discussion

Financial liberalization influences SME growth rate in the long run. Financial liberalization affects SMEs' ability to access credit resources. Finance is critical in helping small and medium enterprises (SME) sectors grow because financial institutions are key enablers of SME growth. Likewise, the growth and performance of SMEs are directly related to the government's budget allocation towards research and development activities. SMEs play a crucial role in accessing the

market, and this growth is indebted to government-oriented policies. Marketization and the influx of foreign money have revealed that financial development can alleviate financing constraints for small and medium-sized firms. The presence of skilled and talented individuals positively impacts the creation and growth of small and medium-sized businesses. The advancement of financial inclusion plays a crucial role in promoting the sustainable growth of small and micro enterprises. Overall, making financial markets more liberal has a substantial impact on the growth path of SMEs. This is due to its impact on the accessibility of capital, financial institution support, government initiatives, and human resources for SMEs, all crucial for their growth and success. The financial system is the main external factor influencing the firm's growth. Most businesses use debt rather than internal financing to meet their financial demands, and tiny businesses have limited capital-raising options. Well-established financial institutions serve as both an advice desk and a source of business loans. Financial development and growth studies conclude that the financial sector is concerned with macroeconomic and microeconomic growth. A healthy and functional financial system is essential in a developing economy to support economic activity and create a competitive market. A successful financial system helps to create the framework for enacting effective policies and facilitating the movement of capital to more advantageous uses.

Conclusion

The nation's growth is especially oriented toward a stable or prosperous economy. The establishment of a sound economy, however, requires the presence of an efficient financial system. In cases such as Pakistan, this is especially true since SMEs are crucial in maintaining the economy's equilibrium. Despite their significance, SMEs in Pakistan confront numerous challenges due to various factors, such as financial resources, bureaucratic hurdles, and regulatory constraints. Over the last few decades, Pakistan has aggressively pursued financial liberalization to be more productive, develop the financial system, and bring in external capital. Though the vitality of financial liberalization that makes economic growth possible is quite common, the effects of financial liberalization on SMEs are rather complex. This complexity underscores the crucial need for in-depth analysis, highlighting the importance of the role in understanding and addressing SMEs' challenges.

The difficulty stems from a dearth of comprehensive information on how Pakistan's financial liberalization policies have impacted SMEs' growth trajectory. The objective of financial liberalization is to facilitate financing access and stimulate investment. However, the impact of this policy on SMEs can vary based on factors such as the regulatory framework, market structure, and institutional support. Therefore, it is crucial to evaluate the impact of financial liberalization on SMEs to foster inclusive economic growth and shape policy development. The study intends to find whether or not the growth of small and medium enterprises depends upon the government's financial liberalization policies. The study aims to explore the objective of the influence of financial sector liberalization on the economic growth of Pakistan from 1991 to 2020.

This study employs a time series technique to run the model in which several tests are applied to check the significance of the data and the model. A unit root test is applied to each model variable to check the data's stationarity and stability. This study uses ADF and Phillips Parron (PP) unit root tests. This study uses the Johansen cointegration test for the long-run cointegrating relationship among economic growth, human capital, innovation, consumption, investment, and trade openness. The short-run and long-run link amongst gross domestic product, human capital, innovation, consumption, investment, and trade openness is tested by using the ARDL method. Then, the model is estimated, and the variables' significance and relation are checked. Then, the serial correlation LM test, normality test, heteroscedasticity test, stability test, and multicollinearity tests are applied.

The results reveal that cointegration exists among variables. We regressed the Shareholder's

Equity, Total Assets, Financial Development, and Economic Growth rate on SMEG. These results are obtained by using ARDL. The main models are estimated using the ARDL estimation approach for growth equations for different lag length orders. In the long run, shareholders' equity, total assets, financial development, and economic growth influence SMEs' growth. In the short run, external Financial Dependence and The Number of Bank Branches do not significantly affect SME growth. Based on the results, policymakers may consider incentivizing SMEs to increase their shareholder's equity and total assets, as these variables significantly positively affect SME growth in the long run. Additionally, fostering economic growth could further stimulate SME expansion.

Policy Recommendations

The following are policy ideas aimed at promoting the expansion and advancement of SMEs in Pakistan, derived from the findings of the empirical analysis:

- Policymakers should enact policies to promote equity financing and venture capital investments in SMEs.
- Initiatives to enhance the availability of formal financial services to SMEs, focusing on individuals currently underserved within the population, must be prioritized.
- Investing in financial literacy and entrepreneurship programs can give SME owners the knowledge and abilities to manage their money efficiently, secure funding, and navigate the business landscape.
- To expedite regulatory reforms, authorities should prioritize simplifying the company registration procedures, reducing bureaucratic obstacles, and enhancing the operational convenience for SMEs.
- Promoting innovation and facilitating technology adoption among SMEs can enhance their productivity and ability to compete more efficiently.
- Enabling SMEs to export their products or services will help them discover new ways to generate growth and gain wider market coverage.

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