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Systemic Risk in South Asian Banks: Key Determinants and Insights

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ABSTRACT

This study focuses on the factors which are influencing a bank's systemic risk, the main variables are size, liquidity ratio, leverage ratio, deposit ratio, asset growth, net interest income ratio, and return on asset ratio. Data was taken from three countries of South Asia ranging from 2003 to 2021. 20 banks from all three economies are considered sample size, whereas data has been collected using various sources such as Annual Reports and Stock Exchange. Panel data is used for estimation purposes. The results show that larger banks with good deposits have very low impact on systematic risk whereas smaller banks with some liquidity issues have an impact on system risk within the banking industry. This also means that banks with good reputation, large deposits and high market share tend to mitigate the system risk. By looking at these insights, the present research recommends policy measures such as increasing liquidity-to-assets ratio , focusing on net interest income, ensure strict measures towards motivating deposit-based financing so that systematic risk can be minimized.

Keywords: Bank capital, Systemic Risk, Assets, Liquidity ratio, Interest

Introduction

Systemic risk in the field of finance refers to a situation where crisis emerges, resulting in the complete breakdown of an entire financial system or market within a certain region, country, or even on a global scale. The 2008 global financial crisis exerted a substantial influence, characterized by its enormous economic destructive power and the subsequent propagation of its effects through a vast chain of interconnected systems. The response towards the dismantling of the financial industry has led to the recognition of systemic risk as a pivotal factor. The concept of "factor" in the context of financial safety. As of the present day, it can be observed that the global economy has not yet achieved complete restoration. There has been a significant amount of influential scholarly research in recent years dedicated to examining systemic financial risks.

This research has encompassed several aspects such as analyzing the financial ecosystem, exploring financial supervision practices, and tracking cross-border capital flows. Nevertheless, it is important to recognize that systematic risk is inherent in contemporary financial systems of significant scale. Consequently, there is a growing interest in utilizing intelligent and automated machine learning techniques to evaluate and identify systemic risk. This is particularly relevant given the escalating complexity of financial networks, the profusion of financial transaction data, and the inclusion of market sentiments and risk preferences in the analysis.

Problem The increase in systemic risk has led to significant financial crises around the world, and it is crucial to know what causes it and what influences it. Bank capital is an essential tool for mitigating systemic risk, and the institutional environment plays a crucial role in shaping the banking sector's risk-taking behavior. However, the association between these factors is not well understood, and there is a need for empirical research to explore this relationship. Therefore, this study will examine the relationship between bank capital, and systemic risk and provide insights into the factors that contribute to the banking industry's systemic risk. Objective of this Study In order to ascertain the elements that influence the systemic risk of banks, it is imperative to conduct a comprehensive analysis. In order to ascertain whether banks in various South Asian countries are exposed to an equivalent level of risk, composed of similar factors, an investigation is required**.**

This study contributes show study conduct in under-developing countries Pakistan, India and Bangladesh where readily data is not available for analysis purpose. Our study makes a significant addition to the vast and growing body of research on the relationship between bank capital and systemic risk.

Research Question

The research question is as follows:

- What are the different elements that influence bank systemic risk?
- Whether the bank systemic risk among different South Asian countries is driven by the same factors?

Literature Review

The consequences of the Global Financial Crisis (GFC) prompted a renewed focus on implementing regulatory reforms and fostering international collaboration as preventive measures against potential future crises. The implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act in the United States and the adoption of the Basel III international banking standards were undertaken with the aim of bolstering financial stability and improving risk management (Tilly, 2011).

Based on the most recent information available as of September 2021, it can be observed that the global landscape continues to exhibit vulnerability to financial crises, primarily attributable to the persistent economic interdependence among nations and the dynamic characteristics of financial markets. Academic scholars strive to adeptly manage subtle manifestations of fragility. Numerous scholarly investigations, including those conducted by (Elsinger et al., 2006; Gauthier et al., 2012), have utilized network analysis as a methodological approach to evaluate the magnitude of distress encountered by financial institutions (Mumtaz et al., 2021). These studies have specifically concentrated on south Asian countries, as well as inter markets.

The analysis primarily relies on the pre-established connections among the mediators. An alternative approach is employed to determine the degree of exposure to systemic risk, which utilizes the available market data on securities returns to gauge the risk exposures of individual financial institutions. The present study examines the utilization of one methodology, namely Marginal Expected

Shortfall (MES). This methodology employ statistical techniques to estimate the underlying probability assumptions based on data from stock market returns. The MES approach, developed by (Acharya et al., 2017).

Research Methodology

Sample

Bank scope provides us with financial data at the bank level from 2003 to 2021, inclusive. 3 For south Asian banks, we utilize stock market data from Global, while for South Asia banks; we use data from stock market respectively. More than 90% of all banking assets in a given nation are covered by the Bank scope database, which provides complete income statement and balance sheet data for both public and private banks. The corporations whose stock prices are provided daily by the Global database represent 98% of the total market capitalizations of the world's stock markets. Moreover, we get data on regulation and supervision at the national scale from the World Bank's Bank Regulation and Supervision Surveys (hereafter referred to as the BRSS). Banks from three distinct nations Pakistan, India and Bangladesh make up our sample.

Sources of Data and Period of Study

The utilization of secondary sources of data is employed in order to carry out this study. Bank level financial information from 2003 to 2021, encompassing South Asian countries, is acquired from Bank Scope. The Bank Scope database offers extensive financial data, including balance sheets and income statements, for both publicly listed and privately owned banks. The South Asian region comprises the countries of Bangladesh, India, and Pakistan.

Table 1: Source of Data

Countries	Stock Exchange/s	Number of Listed Banks
Pakistan	Pakistan Stock Exchange	20
India	National Stock Exchange	20
Bangladesh	Dhaka Stock Exchange	20

The rationale for choosing South Asian countries is rooted in the notable variations in bank supervision, regulation, and information accessibility across nations (Beck et al., 2013).Moreover, these countries demonstrated a relatively lower susceptibility to the impacts of the global financial crises. The level of

monitoring and supervision of financial institutions in these countries is relatively weak; however, they were among the least affected. The objective of this study is to investigate the possible correlation between bank capital and the reduction of systemic risk contributions by individual banks. It utilizes bank data from countries in the South Asian region for analysis.

The Empirical Model

To analyze the connection between capital and systemic risk, we conduct the following fundamental regression analysis.

Systemic risk ijt = β0+ β 1 × capitalijt−1 + β 2 × bank controlsijt−1 + αj×λt+ εij

The focus of our investigation is the extent of systemic risk demonstrated by bank "i" in country "j" during the timeframe "t." The study integrates control variables at the bank level, encompassing factors like bank liquidity, dependency on deposit funding, asset quality, and business model. Moreover, the incorporation of (α×λ) takes into account country-year fixed effects, aiding in the control of time-evolving country-specific factors.

With our focus on systemic stability, our goal is to evaluate systemic risk by measuring how a bank influences the overall risk within the financial system of a particular country. Since bank regulation and supervision are primarily conducted on a national level, it is more relevant to address systemic risk from a policy perspective at the country level, rather than on a global scale.

The Marginal Expected Shortfall (MES) is considered a prominent measure of systemic risk, as outlined in the works of (Acharya et al., 2017). The concept of the Systemic Expected Shortfall (SES) for a financial institution involves quantifying the capital shortfall that the firm could experience during periods of systemic stress. This perspective is based on the premise that a lack of capital presents a substantial risk to an individual firm, and if such a situation aligns with a broader undercapitalization issue within the banking sector, it can become exceedingly perilous for the entire economy. On the other hand, the Marginal Expected Shortfall (MES) of a financial firm pertains to the anticipated loss that an equity investor might incur if there is a significant market downturn. The Market Excess Return (MES) metric quantifies the mean return of firms during periods when the broader market experiences extreme losses.

Frame Work

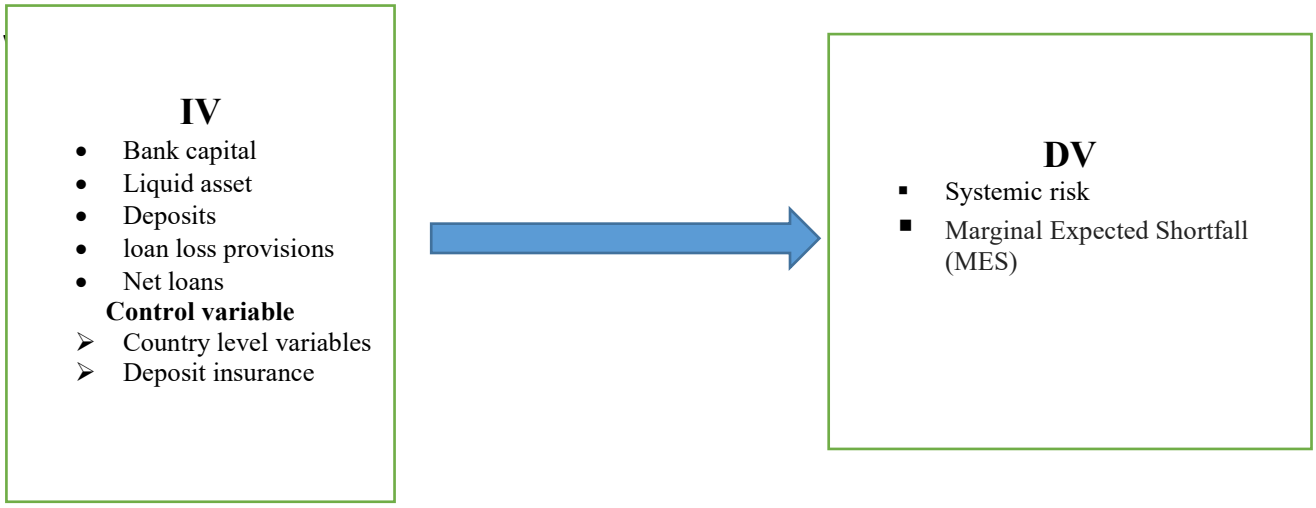

Table 2: Variables

Variable	Definition
Dependent variable	The disparity between a firm's asset value and the nominal value of its debt, normalized by the standard deviation of the firm's asset value, calculated from the (Acharya et al., 2017).
Systemic risk variables	
MES	
Independent Variables	
= Capital Variables Common / T.A	Common equity divided by T. Assets.
= Liquid assets / T.A	Liquid assets divided by T. Assets.
= Deposits / T.A	Total deposits divided by T. Assets.
= Loan loss provisions / T.A	Loan loss provisions divided by T. Assets.
= Net loans / T.A	Net loans divided by T. Assets.
Control Variable	This variable assesses if a country has explicit deposit insurance (coded as 1 for Yes and 0 for No) and whether depositors were fully compensated in the most recent bank failure (coded as 1 for Yes and 0 for No). The variable encompasses a range from 0 to 2
(Deposit insurance)	
Country level variables	

Results and Findings

This Section presents the results of an empirical analysis carried out to investigate the determinants of bank systemic risk in Pakistan, Bangladesh, and India. The study encompasses the time span from 2003 to 2021. The analysis of study data is

conducted using multivariate panel regression. The study findings encompass statistical analysis, correlation analysis, and panel regression analysis. This section encompasses the comprehensive compilation of study tables, including their corresponding results and detailed explanations. The data has been subjected to analysis using the panel methodology.

The statistical analysis portrays the results through various measures, including mean, median, standard deviation, 25th percentile, 75th percentile, minimum, and maximum values. Subsequently, the table provides the mean of the average values extracted from the study data. Similarly, the standard deviation reflects the probability of encountering a few exceptional values. The terms "minimum" and "maximum" denote the lowest and highest values, respectively, within the dataset under examination. In the context of this study, the 25th percentile signifies the value below which 25% of the observed values lie, while the 75th percentile represents the value below which 75% of the observed values fall.

The table presented displays the values of the dependent variable, Marginal Expected Shortfall (MES), in the respective column of the statistical study. The size of the study's independent variable is shown in the second column of the table. Columns three, four, five, six, seven, and eight, on the other hand, present the remaining explanatory variables of the study, namely liquidity ratio (Liq), assets growth (AG), return on assets (ROA), deposit ratio (DR), net interest income ratio (NII), and so forth. In the study, the table presented below displays various statistical measures. Specifically, the first row represents the minimum values (Min), while the second row represents the 25th percentile (P25). The subsequent rows, three to seven, correspond to the mean values, median values (P75), maximum values, and standard deviation values (Study), respectively.

The present investigation Table 3 presents the comprehensive statistical analysis encompassing all variables examined in this study, spanning the time frame from 2003 to 2021. The present study Table 3 presents the results of the statistical analysis conducted on the three selected countries, namely Bangladesh, India, and Pakistan. The study focuses on the dependent variable of systemic risk. The study incorporates explanatory variables such as size, return on assets, liquidity ratio, leverage ratio, net interest income ratio, assets growth, and deposit ratio. The

statistical analysis provides a summary of the responses obtained from a specific set of commercial banks in selected countries, which were included in the study's analysis.

Table 3 displays the Marginal Expected Shortfall (MES) values for the selected countries of India, Bangladesh, and Pakistan. The table displays various statistical measures for the variable under consideration. The minimum value (MES) is recorded as -0.0700, while the 25th percentile (P25) is observed to be -0.0429. The mean value is calculated as -0.0313, and the median value is found to be -0.0302. The 75th percentile (P75) is determined to be -0.0199, and the maximum value is recorded as 0.0020. The standard deviation (Study) is calculated to be 0.0161. The data presented in Table 3 demonstrates various statistical measures for the variable "size." The minimum value is observed to be 17.0243, while the 25th percentile (P25) is found to be 19.1861. The mean value is calculated as -20.9523, and the median value is determined to be -20.3031. Additionally, the 75th percentile (P75) is recorded as 21.8988, and the maximum value is observed to be 26.7519. The standard deviation (Study) is calculated to be 2.5921.

Table 3 presents the liquidity ratio (Liq) with various statistical measures. The minimum value is observed to be 0.0166, while the 25th percentile (P25) is found to be 0.0726. The mean value is calculated as 0.1089, and the median value is determined to be 0.0955. Additionally, the 75th percentile (P75) is reported to have a value of 0.1373. The maximum value recorded in this dataset is 0.2882, and the standard deviation (Study) is computed as 0.0548. Table 3 presents the findings regarding the leverage ratio (Lev). The minimum value observed is 0.0000, while the 25th percentile (P25) is recorded at 11.3791. The mean value is calculated to be 14.8427, with the median value (14.9785) falling close to the mean. The 75th percentile (P75) is found to be 18.2825, and the maximum value observed is 33.1515. The standard deviation (Study) is calculated to be 5.9523.

Table 3 presents the values for assets growth (AG) metrics. The minimum value is -2.9342, the 25th percentile (P25) is -0.6672, the mean is -0.1544, the median is 0.0090, the 75th percentile (P75) is 0.2368, the maximum value is 2.5799, and the standard deviation (Study) is 0.9167. The table presented displays the values of various statistical measures for the return on assets (ROA). The minimum value

observed for ROA is -0.0207, while the 25th percentile (P25) is found to be 0.0041. The mean value is calculated to be 0.0079, with the median value at 0.0083. The 75th percentile (P75) is determined to be 0.0130, and the maximum value recorded for ROA is 0.0362. Lastly, the standard deviation (Study) is computed to be 0.0101.

The table presented displays the deposit ratio (DR) with various statistical measures. The minimum value observed for the deposit ratio is -0.1001. The 25th percentile (P25) is recorded at 0.7370, while the mean is calculated to be 0.7736. The median value is found to be 0.8078, and the 75th percentile (P75) is measured at 0.0130. The maximum value observed for the deposit ratio is 0.8943, and the standard deviation (Study) is calculated to be 0.1301. The table presented below displays the net interest income ratio (NII) for a given dataset. The minimum value observed is 0.0803, the 25th percentile (P25) is 0.6511, the mean is 0.7357, the median is 0.7686, the 75th percentile (P75) is 0.8779, the maximum value is 0.9901, and the standard deviation (Study) is 0.1716.

Table 3. Descriptive Statistics of the Commercial Banks of South Asian Countries (Bangladesh, India and Pakistan)

All	MES	Size	Liq.	Lev.	AG	ROA	DR	II
Minimum	-0.0700	17.0243	0.0166	0.0000	-2.9342	-0.0207	0.1001	0.0803
P25	-0.0429	19.1861	0.0726	11.3791	-0.6672	0.0041	0.7370	0.6511
Mean	-0.0313	20.9523	0.1089	14.8427	-0.1544	0.0079	0.7736	0.7357
Median	-0.0302	20.3031	0.0955	14.9785	-0.0090	0.0083	0.8078	0.7686
P75	-0.0199	21.8988	0.1373	18.2825	0.2368	0.0130	0.8569	0.8779
Maximum	0.0020	26.7519	0.2882	33.1515	2.5799	0.0362	0.8943	0.9901
Study	0.0161	2.5921	0.0542	5.9523	0.9167	0.0101	0.1301	0.1716

Correlation Analysis

The present study's correlation analysis demonstrates the subsequent findings. Table 4 is presented in the following section. The correlation analysis presented in Table 4 examines the relationships between each variable. The correlation analysis in this study examines the relationships between the variables. Table 4 presents the varying relationships among the study variables, with some relationships being significant and others being insignificant.

The correlation analysis study presented in Table 4 examines the relationship between various variables. Column 1 represents asset growth (AG), column 2 represents deposit ratio (DR), column 3 represents net interest income ratio (NII), column 4 represents leverage ratio (LEV), column 5 represents liquidity ratio (LIQ), and column 6 represents marginal expected shortfall (MES). The study considers MES as the dependent variable. Table 4 displays the return on assets ratio (ROA) in column 7, while the size (log of total assets) is presented in the last column, column 8.In a similar vein,

Table 4 demonstrates the relationship between the probability of asset growth and the corresponding values in row 1. In row 3, the data demonstrates the relationship to probability. Row 4 presents the deposit ratio, while row 5 exhibits the probability. Row 6 showcases the net interest income ratio, followed by row 7 which displays the probability. Row 8 illustrates the leverage ratio, and row 9 in the subsequent table indicates the probability. Row 10 pertains to the liquidity ratio, while row 11 denotes the probability. Row 12 showcases the marginal expected shortfall, and row 13 presents the probability. Row 14 demonstrates the return on assets ratio, with row 15 indicating the probability. Row 16 highlights the size, and finally, row 17 in the following table signifies the probability.

Table 4 displays the outcomes of the correlation analysis performed in this study, which seeks to investigate the association between the dependent and explanatory variables used. The correlation values assess the degree of association between variables. The study presented in Table 4 provides an overview of the dependent and independent study variables, presenting their respective measures and describing the relationship between them.

Table 4. Correlation Matrix

Probability	**AG**	**DR**	**II**	**LEV**	**LIQ**	**MES**	**ROA**	**SIZE**
AG	1							
Prob.	-----							
	-							
DR	0.0205	1						
Prob.	0.6441	-----						
	-							
II	0.0070	0.3463	1					
Prob.	0.8748	0.0000	-----					
	-							
LEV	0.1223	0.3423	0.0166	1				
Prob.	0.0056	0.0000	0.7079	-----				
		-	-	-				
LIQ	0.0987	0.1424	0.2049	0.1163	1			
Prob.	0.0255	0.0012	0.0000	0.0084	-----			
	-	-	-	-	-			
MES	0.1427	0.0580	0.0585	0.0168	0.1386	1		
Prob.	0.0012	0.1898	0.1866	0.7053	0.0017	-----		
		-		-	-	0.0927		
ROA	0.1884	0.1415	0.1185	0.3418	0.0662	7	1	
						0.0359		
Prob.	0.0000	0.0013	0.0072	0.0000	0.1347	9	-----	
	-	-	-		-	0.2482	0.1119	
SIZE	0.1424	0.2176	0.2944	0.0514	0.1145	2	9	1
						0.0000	0.0113	
Prob.	0.0012	0.0000	0.0000	0.2456	0.0095	0	3	-----

Please take note of the following abbreviations and their corresponding definitions: assets growth (AG), deposit ratio (DR), net interest income ratio (NII), leverage ratio (LEV), liquidity ratio (LIQ), marginal expected ratio (MES), return on

assets ratio (ROA), and SIZE (log of total assets).The relationship between the growth of assets (AG) and the deposit ratio (DR) is characterized by an inverse connection.

Statistical analysis suggests that there is no substantial evidence to support a significant relationship between these two variables. Similarly, a negative correlation is observed between the growth of assets (AG) and the net interest income ratio (NII). However, the statistical analysis indicates that there is no significant relationship between the growth of assets and the net interest income ratio (NII). Conversely, the growth of assets (AG) and the leverage ratio (LEV) exhibit a negative correlation, and statistical analysis confirms a significant relationship between these two factors. On the other hand, a positive correlation exists between the growth of assets (AG) and the liquidity ratio (LIQ).

The probability values provide strong evidence of a significant relationship between the growth of assets and the liquidity ratio. In contrast, a negative correlation is evident between the growth of assets (AG) and the marginal expected shortfall (MES). However, the statistical analysis shows that there is indeed a significant relationship between the growth of assets and the marginal expected shortfall. Furthermore, Table 5 presents the correlations among different variables for reference.

Regressions Analysis

The provided table in column 1 displays the study variables, which include size, liquidity ratio, deposit ratio, assets growth, net interest income ratio, leverage ratio, and return on assets ratio. In a similar manner, the provided table displays the coefficients of the study variables in column 2, while columns 3 and 4 represent the T-statistics and probability values, respectively. The provided study table also illustrates the inclusion of fixed dummy variables in the cross-sectional analysis.

The provided Table presents the empirical regression outcomes concerning the systemic risk of banks. The study examines the explicit determinants of the study bank and employs a multivariate empirical regression analysis to investigate the dependent variable. The presented Table displays the coefficient value of size as 0.0105, with a standard error of 0.0295. The t-statistic value is reported as 7.7744, and the corresponding P-value is 0.000.

The size of banks is positively associated with systemic risk, indicating that larger

banks generally exhibit a greater degree of systemic risk.(Galetzka et al., 2015) this reveals that there is a direct correlation between systemic risk and size. The study conducted by(Anghelache et al., 2016), the research delves into the determinants of systemic risk in Romanian commercial banks, with the results pointing to a positive connection between the size of the bank and its systemic risk level. Moreover, our study contradicts the findings of (Cheng et al., 2019) as well as (Kleinow & Nell, 2015) as it suggests that there is a there is an inverse correlation between bank size and systemic risk. The presented Table displays the coefficient value of the liquidity ratio, which is -0.0433. The standard error is reported as 0.0013, and the t-statistic value is -2.3169. Additionally, the P-value is recorded as 0.0210.

The liquidity ratio is found to have a noteworthy negative influence on systemic risk within the banking sector, as indicated by statistical significance. When the liquidity ratio decreases across countries, there is a corresponding reduction in bank systemic risk. In Table, the Deposit ratio coefficient stands at 0.0208, with a t-statistic value of 1.7688. The standard error is 0.0187, and the P-value is 0.0777, presenting these crucial values for reference. The table displays the coefficient value of assets growth (AG) as 0.0009, with a standard error of 0.0007 and a t-statistic value of 1.2965. Additionally, the P-value is reported as 0.1956.

The expansion of assets (AG) significantly and positively contributes to the systemic risk observed between asset growth and systemic risk. The study clearly shows that asset growth has a positive effect on net bank systemic risk, confirming alignment with the initial hypothesis. The provided table displays the coefficient value of Net Interest Income (NII) as 0.0101, the standard error as 0.0079, the t-statistic value as 1.2741, and the P-value as 0.2034. The net interest income (NII) has a substantial and positive effect on the level of systemic risk within banks. Consistent with prior research,(Dash et al., 2019) discovered a positive association between the net interest income ratio and systemic risk.

The provided Table displays the coefficient value of return on assets (ROA) as 0.0425, with a corresponding standard error of 0.0946. The t-statistic value is reported as 0.4490, and the associated P-value is 0.6537. The empirical regression results of the study conducted by Espinosa et al. (2013) seem to contradict the inverse relationship between return on assets and systemic risk. In another study

that provides literature support, it was discovered that a noteworthy correlation exists between return on assets and systemic risk. According to(Galetzka et al., 2015) A study conducted revealed that the return on assets has a significant effect on systemic risk. According to (Dash et al., 2019).

The table displays the coefficient value of the leverage ratio (LEV) as 0.0000, with a standard error of 0.0002 and a t-statistic value of -0.1849. The corresponding p-value is 0.8534.The empirical regression analysis conducted in this study reveals that there is no significant relationship between the leverage ratio and systemic risk. In a similar vein,(Kleinow & Nell, 2015) conducted a study that yielded results consistent with the aforementioned finding, indicating that the leverage ratio has an insignificant impact on systemic risk.

Our research findings may differ from other scholarly works that propose contrasting viewpoints. These studies, such as the one conducted in (year), also reveal that the leverage ratio exerts a positive influence on systemic risk. (Aleem et al., 2018) conducted a study. The coefficient of determination, denoted as R squared, has a value of 0.4137.

The table displays the value of 0.0126 for the S.E Regression. The F-statistic in Table F has a value of 3.9854. The probability (p-value) associated with the F-statistic in the provided table is 0.0000. The mean of the dependent variable is 0.0287. Calculating the mean of the dependent variable. The dependent variable, denoted as S.D., exhibits a value of 0.0152. The Akaike Information Criterion (AIC) is reported to have a value of 5.7710 in Table 5. The provided table displays the calculated values of the Schwarz criterion, Hannan-Quinn criterion, and Durbin Watson statistic, which are -5.1379, -5.5220, and 1.9512, respectively.

Table 5 Regressions Analysis of Commercial Banks in South Asian Countries

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.2632	0.0295	-8.9252	0.0000
SIZE	0.0105	0.0013	7.7744	0.0000
LIQ	-0.0433	0.0187	-2.3169	0.0210
DR	0.0208	0.0118	1.7688	0.0777
AG	0.0009	0.0007	1.2965	0.1956

II	0.0101	0.0079	1.2741	0.2034
ROA	0.0425	0.0946	0.4490	0.6537
LEV	0.0000	0.0002	-0.1849	0.8534
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.4137	Mean dependent var		-0.0287
Adjusted R-squared	0.3099	S.D. dependent var		0.0152
S.E. of regression	0.0126	Akaike info criterion		-5.7710
Sum squared resid	0.0637	Schwarz criterion		-5.1379
Log likelihood	1436.85	Hannan-Quinn criter.		-5.5220
F-statistic	3.9854	Durbin-Watson stat		1.9512
Prob(F-statistic)	0.0000			
Hausman Prob.	0.0000			

Conclusion

This research seeks to discern the influences underlying the systemic peril amidst the monetary frameworks of South Asian nations. It illuminates how specific banks contribute unevenly to the economic system's danger, with some playing a more noteworthy part than others. Through illustrative measurements, connection investigation, and backslide strategies, we inspected the determinants of systemic peril. Banks with outsized resources regularly posture heightened dangers in times of money related pressure. The investigation recognized banks whose deficiency could seriously affect the entire framework because of their size. Those financial balances similarly huge stores of business advances and unfilled contractual workers are especially pivotal amid liquidity emergencies. By scrutinizing an assortment of

danger markers, this examination intends to recognize powerless regions and propose changes to build strength.

The findings of the research reveal that larger banks are likely to reduce systemic risk, while more liquid banks may inadvertently increase it. Furthermore, deposit-dependent banks with relatively higher net interest income generation and greater returns on assets contribute less towards systemic risk. The study sheds light on the dynamics of risk contribution among banks in South Asia, explaining why some institutions turn out to be riskier than others.

Implications and Limitations

This research provides valuable insights for policymakers and regulators in designing more effective banking policies. For example, by improving liquidity management, enhancing the reliance on deposits, and encouraging a focus on net interest income, systemic risk can be better mitigated. The disruption of the smooth functioning of the banking sector can be particularly threatened by systemic risk. This study is more relevant for South Asian countries, a region where the research on systemic risk has remained relatively underexplored. It underlines the significance of tailoring risk management strategies to the unique financial structures and challenges of this region. However, any research has its limitations. This study focuses mainly on selected South Asian countries and a specific set of determinants, leaving room for further exploration.

Future Research Directions

Future research should, therefore, focus on building robust methodologies to measure systemic risk, especially in a country like Pakistan, whose banking systems are uniquely faced with problems. Policymakers and regulatory authorities need to understand that different determinants of systemic risk can vary in their contribution to it. Special attention should, therefore, be given to systemically important banks as they need targeted strategies in the management of their risk contributions. In conclusion, addressing systemic risk is critical for ensuring the stability of the banking sector. Effective policies and key factors identified in this study can be focused upon by regulatory authorities to take proactive steps toward safeguarding financial systems in South Asia.

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