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Factors Influencing Capital Structure of Islamic Banks: A Case from the SAARC Region

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Abstract

The main aim of this study is to determine the elements that have an impact on the capital structure of Islamic banks in the SAARC region. Islamic banks are unique since they operate under the oversight of financial regulatory organizations such as state banks and Shari'ah compliance which are governing their financial activities and expected to influence Islamic banks' capital structure decisions in comparison to their conventional counterparts. For this study, we built an empirical model to account for the interplay between our independent variables and leverage. From 2011–2021, 17 Islamic banks (IBs) in the SAARC area were used to evaluate the empirical model utilizing a panel data approach and GLS regression analysis with correlated disturbance. This study's empirical findings indicate that the leverage ratio of IBs is positively insignificant when controlling for profitability and non-debt tax shields. The leverage ratio of IBs is positively impacted by tangibility, liquidity, and the size of the bank. However, GDP per capita and growth are negatively insignificant to the leverage ratio. Future studies are suggested in certain ways, in terms of samples other regions and countries could be considered and it is also recommended to take into consideration other financial and non-financial institutes to check their capital structure decisions. Another suggestion is to explore other variables such as; artificial intelligence and corporate governance. Specifically targeting Islamic banks in the SAARC area, this research contributes to the current body of knowledge by offering empirical proof of the critical variables impacting the capital structure of these institutions.

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Introduction

The beginning of the twenty-first century saw the spread of Islamic banking practices around the world to help various sectors of the economy. Due to the growth and expansion of the banking sector, Islamic banking practices in Pakistan have proven to be a successful experience (Ahmad, Malik, & Humayoun, 2010). The Islamic financial system is based on fiqh al-mu'amalat, also known as commercial law, and according to Salman and Nawaz (2018), this law promotes entrepreneurship, safeguards property rights, and emphasizes the characteristics of authoritative commitments, all of which are rooted in social justice, equity, and reasonableness in business transactions.

The elements of Maysir, Gharar, and Riba are forbidden in Islam's capital structure (CS) (Fathoni & Syahputri, 2021). Dubai Islamic Bank, the first of its kind, was founded in 1975. Since then, Islamic banking has experienced rapid growth worldwide, and it has begun to operate as an interest-free banking system alongside the conventional (Rammal & Parker, 2013). According to Al-Naseer and Muhammad (2013), Malaysia was among the pioneering nations in the area to adopt a methodical planning approach towards establishing an Islamic finance system.

A brief discussion has been conducted on CS and its attributes that any legal business should consider when selecting debt and equity in their CS. CS has a significant impact on banks' liquidity risk, both positively and negatively (Harun, Kamil, Haron, & Ramly, 2021). Debt and shareholder equity are both included in CS from the perspective of IBs. Current accounts as well as investment accounts are the primary sources of CS in IBs. Furthermore, debt is taken into account because it accounts for a large portion of CS and influences the CS of IBs (Bukair, 2019). Depositors' funds were submitted to IBs for investment with reasonable profits and risks.

In recent studies, all the focus on CS of IBs was on GCC and developing economies. But in the current economic situations of different regions, there is a strong need to address the issue that is related to the capital structure choices for IBs in the SAARC region, and factors that influence their CS need to be tested and researched through various angels and aspects, to identify the factors which, influence CS of IBs in SAARC.

Objective

1. To ascertain the variables that might impact the CS of IBs in the SAARC region. However, this investigation has prompted one inquiry.

Research Questions

1. When it comes to SAARC Islamic banks' capital structures, what are the most important factors?
2. What are the factors that have the most and least effect on Islamic banks' capital structure for SAARC region?

The financial sustainability of Islamic banks is significantly influenced by their capital structure. However, little is known about the precise factors that affect the capital structure of IBs in the SAARC (South Asian Association for Regional Cooperation) region (Bukair, 2019). To address this information vacuum, this study investigates the correlation between several variables and the leverage ratio of SAARC-area Islamic banks.

Even though there have been many studies on the CS of Islamic banks, there is a dearth of literature that especially examines this topic in the SAARC region. The impact of bank size, profitability, tangibility, liquidity, growth, non-debt tax shield, and GDP per capita on the structure of capital for Islamic banks of SAARC area has not been thoroughly examined in prior studies. This work thereby fills a significant gap in the body of available knowledge.

The focus on the SAARC region, which has been largely ignored in the literature on the capital structure of Islamic banks, is the main contribution of this study. This study improves our comprehension of the distinctive dynamics and difficulties faced by Islamic banks functioning within the SAARC environment by examining the factors influencing the leverage ratio of Islamic banks in this region. The current research will be an addition to the body of knowledge about capital structure determinants, notably in the field of Islamic banking, and they will shed light on the distinctive elements influencing the financial choices made by Islamic banks in the SAARC region.

There are many practical implications to knowing what influences Islamic banks' capital structures in the SAARC area. The results of this study can be used by policymakers, regulators, and Islamic bank managers to make well-informed choices on capital allocation, risk management, and overall financial stability. Additionally, SAARC stakeholders and investors can learn crucial information about the elements

that affect the capital structure of Islamic banks, empowering them to make better investment choices.

This study has two applications in real life. First, by taking into account the particular aspects relevant to the SAARC region, the findings will help managers of Islamic banks develop efficient ways to optimize their capital structures. Second, these findings can be used by regulators and policymakers to develop appropriate rules and guidelines that support financial stability and expansion within the Islamic banking industry. As a result, the SAARC region's general economic growth and financial stability may benefit.

No prior research has looked at the variables impacting the capital structure of Islamic banks in this particular environment, making this study unique and original in its focus on the SAARC region. This research gives a fresh and holistic perspective regarding capital structure drivers relating to Islamic banks in SAARC area by including a complete set of variables, including bank size, profitability, tangibility, liquidity, growth, non-debt tax shield, and GDP per capita.

This study focuses especially on the factors that affect Islamic banks' capital structures in the SAARC area. It investigates the impact of bank size, profitability, tangibleness, liquidity, growth, non-debt tax shield, and GDP per capita on the leverage ratio of Islamic banks in the countries of SAARC.

Afghanistan, Bangladesh, Maldives, Pakistan, and Sri Lanka are among the varied range of economies included in the research, which offers a thorough examination of the variables affecting the capital structure of IBs in the SAARC area.

Literature Review

In Islamic banking, the structure and tool for assets and liabilities management (ALM) have always been playing a significant role. Islamic banking attempts to enhance the benefits of beneficiaries, including depositors, because depositors in IBs contribute to the bank’s benefits. As a result, Islamic and conventional banking use different approaches to ALM. The first reason for this discrepancy is that Islamic and conventional banking use different accounting procedures. Second, the illegality of usury and associated with guidelines demonstrate that sharing in the profits and losses of investments in the real economy sector serves as the fundamental underpinning of financial transactions rather than time alone as an effective factor in increasing equity (deposited capital) return. These two crucial elements are crucial to Islamic ALM. IBs are more efficient than conventional banking (Bidaba & Allahyarifard, 2019).

The CS is a method of long-term financing that combines shareholder capital, preferred stock, and long-term debt. Husaeni (2018) looked at the Jakarta Islamic Index firms' CS and how factors including company size, liquidity, ROA, and sales growth impacted it. To achieve this goal, we examined the complete financial records of 20 companies that make up the Jakarta Islamic Index. The findings show that the CS of these companies is greatly impacted by factors such as company size, liquidity, return on assets, and sales growth. In the banking industry, CS decisions are critical because they affect the interests of many parties, including investors, creditors, and company management. To evaluate CS, the Debt-to-Equity Ratio is used. Fauziah, Latief, and Jamal (2020) investigated the determinants and causal relationships among the major CS determinants, namely the profitability, risk, and firm size of the bank. They looked at IBs registered with Otoritas Jasa Keuangan (OJK) in Indonesia from 2010 to 2018 and found that all of the independent variables had a significant effect on the CS at the same time. Nevertheless, the CS of an Islamic bank in Indonesia was significantly affected only by ROA and company size. Managers at Indonesian Islamic banks favor CSs funded internally and hold the view that larger companies will need to reorganize their CSs to secure their future.

Contrarily, Al-Hunnayan (2020) asserted that Islamic banking institutions' (IBs') CS decisions were influenced by Shari'ah law regulations that controlled their financial transactions, products, and contracts, even though these institutions were subject to the oversight of central banks and other financial regulatory bodies. The more tangible firm's assets become and lower the required monitoring cost, the less probable it is that shareholders will take on additional debt to split the cost of monitoring with debt holders.

Various independent variables on CS have different effects (in terms of the magnitude of the coefficient) among Islamic and Conventional banks (Guizani & Ajmi, 2021). When it comes to adjusting their CS towards the desired leverage ratio, IBs adjust more slowly than Conventional banks (Guizani, 2020). Alternatively, Al-Balushi, Locke, and Boulanouar (2018) sought to determine if the owner-managers of Omani SMEs who are interested in implementing Islamic finance were impacted by their characteristics, their level of knowledge about the concept, and the characteristics of their businesses. Their research found that owner-managers of small and medium-sized enterprises (SMEs) were less likely to employ Islamic financing if they had a poor grasp of the concept and if they lacked certain personal attributes, but that company factors did have an effect.

The determinants were found by Guizani (2020) using the autoregressive distributed lag (ARDL) technique. Macroeconomic variables: variations in the price of oil have a positive correlation with the book leverage of both IBs and CBs, while there is a negative correlation between financial development and the GDP. Adawiyah, Badina, and Najib (2022) also covered the impact of a company's non-debt tax shield, tangibility, profitability, and business size on its CS. Manufacturing businesses that were listed on the Indonesian Sharia Stock Index (ISSI) between 2016 and 2021 make up the research population. In this analysis, panel data from sixteen carefully selected company samples totaling fifty-four samples were employed. They concluded that business size, profitability, tangibility, and non-debt tax shield have a favorable and significant impact on a company's CS.

Adawiyah, Badina, and Najib (2022) also examined the impact of firm size, profitability, tangibility, and non-debt tax shield on a company's corporate social responsibility (CS). The study sample comprises manufacturing firms that were included in the Indonesian Sharia Stock Index (ISSI) from 2016 to 2021. This analysis utilized panel data consisting of 54 samples obtained from a carefully selected group of 16 corporate entities. The researchers determined that the customer satisfaction of a company is favorably and significantly affected by factors such as the company's size, profitability, tangibility, and non-debt tax shield.

Setyawati, Suroso, Suryanto, and Nurjannah (2017) examined the internal and external factors that affect the performance of Islamic banking in Indonesia. They also investigated the influence of the global financial crisis on the financial performance of Islamic banks. It was shown that non-performing loans and inflation had a substantial influence on the performance of Islamic Banks (IBs). Moreover, IBs have exhibited comparatively superior performance after the crisis, thanks to the utilization of data from many sources to analyze internal and external factors. The data on internal determinants was obtained from the quarterly reports of 11 Indonesian banks (IBs) spanning from 2004 to 2012. The data on external determinants was acquired from the Central Bureau of Statistics. IBs and CBs can be differentiated based on customer satisfaction, financial performance, and the factors influencing them. Toumi (2019) proposed that banks exhibiting higher dividend payout policies, financing ratios, cost ratios, and insolvency risk are more inclined to be Islamic. Additionally, Toumi highlighted that Islamic banks tend to have lower collateral, size, and credit risk.

Bank Size

The trade-off hypothesis posits that there is an inverse correlation between the size of a corporation and the probability of bankruptcy. According to this theory, the leverage ratio has a positive relation with bank size. Large Islamic banks (IBs) have reduced bankruptcy costs because they adhered to Shariah norms in their business contracts, diversified portfolios, and the lesser investment risks they undertake. Consequently, investment banks (IBs) have a preference for financing new projects through the acquisition of more debt. Toumi, Louhichi, and Viviani (2012) found that a bigger leverage multiplier is suggested by the discovery that bank size negatively affects the capital structure, as measured by the equity ratio. This idea is derived from a combination of the trade-off theory and the Islamic worldview.

H1: Bank size is positively related to leverage ratio.

Profitability

Profitability and asset structure are the main determinants of leverage levels (Al-Hunnayan, 2017). Investors have a preference for firms to utilize debt financing rather than relying on internal capital from available earnings or issuing equity to effectively manage agency costs (Easterbrook, 1984; Jensen, 1986; Meckling, 1976). In this scenario, debt serves as a mechanism for controlling the firm by introducing a layer of financial provisioning. It allows for an evaluation of the business's activities and helps determine the feasibility of its project.

H2: Profitability is negatively related to the leverage ratio.

Tangibility

According to Meckling (1976), corporations with large levels of debt are more likely to make excessive investments, which might create a conflict between shareholders and bondholders, putting the bondholders at risk. Prior research has indicated a positive correlation between tangibility and debt, a finding supported by Rajan and Zingales (1995). However, Sbeiti (2010) and Aremu (2013) have contended that there is a negative correlation between tangibility and leverage ratio.

H3: Tangibility is negatively related to leverage ratio.

Liquidity

The ability of a business to pay its short-term debts is known as its liquidity (Al-Hunnayan, 2017). Sbeiti (2010) concluded that liquidity and leverage were not

compatible. The current asset-to-current-liability ratio is the liquidity-independent variable.

H4: Liquidity is negatively related to leverage ratio.

Growth

According to the trade-off argument, both the cost of a financial crisis and the firm's growth rate will rise. According to the theory's believers, businesses that are established and stable and that expand at a steady rate are less likely to go bankrupt. Leverage ratios are higher for profitable businesses with more tangible assets. Al-Hunnayan (2017) found a negative relationship between the leverage ratio and the growth of IBs.

H5: Growth is negatively related to the leverage ratio.

Non-Debt Tax Shield

Modigliani and Miller (1958) proposed that debt benefits may be viewed as costs to substitute taxes. Companies are tempted to take on debt due to the benefits of tax shelters (Bukair, 2019). Lim (2012) found that NDTS lowered the leverage ratio of Chinese financial institutions, lending credence to the trade-off theory. When applied to financial institutions in Pakistan, Ahmad and Abbas (2011) confirmed this conclusion.

H6: Non-debt tax shield is negatively related to the leverage ratio.

GDP Per Capita

GDP per capita as a macroeconomic variable is used to measure the external factors that IBs consider in their CS decision-making process (Bukair, 2019: Kayo & Kimura, 2011). Their findings show the negative relation between GDP per capita and Leverage ratio. So, the expected hypothesis is:

H7: GDP per capita is negatively related to the leverage ratio.

Theoretical Framework

According to static trade-off theory, the optimal financial structure is the result of a trade-off between anticipated bankruptcy costs and tax savings brought on by interest rate deductibility (Modigliani & Miller, 1963; Myers, 1984). According to Toumi,

Louhichi, and Viviani (2012), investors in Islamic finance must participate in the real economy. Contracts backed by real assets serve as a security mechanism that enables IBs to limit their risk exposure. Due to the collateralization of the credit portfolio, the bank's exposure to counterparty risk has been greatly diminished. The expense of bankruptcy for liability claimants is reduced by IBs' higher proportion of tangible assets. As a result, IB should have lower predicted bankruptcy costs than its traditional competitors. There is no distinction between this situation and the typical situation because IBs' fees on their liabilities are also tax deductible.

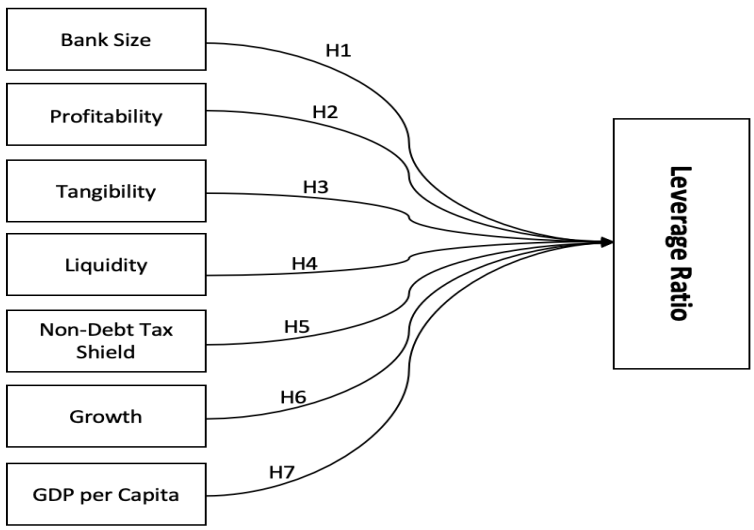

Figure 1. Conceptual framework

Research Methodology

An exhaustive analysis of the relevant capital structure literature was carried out to create a strong model that accurately represents Capital Structure decisions made by IBs in SAARC area. Suggested model is validated in this work using a panel data approach and GLS (Generalized Least Squares) regression analysis.

Financial data from a total of 17 Islamic banks registered on the stock exchanges of SAARC member nations was gathered to compile the essential data for this study. We guarantee a broad and representative sample that captures the distinctive characteristics and dynamics of Islamic banking in this region by including banks from various SAARC member nations.

The panel data technique used in this study allows for a more thorough analysis of the variables impacting capital structure decisions since it accounts for both cross-sectional and time-series variations in the data. By addressing potential heteroscedasticity and serial correlation concerns, the GLS regression analysis strengthens the statistical validity of the model even further.

The credibility and reliability of the data utilized in this study are ensured by the inclusion of financial data from Islamic banks listed on the stock exchanges of the SAARC member countries. This data source is based on information that is freely accessible to the public and adheres to standardized reporting practices, ensuring transparency and lowering the possibility of bias or incorrect interpretation.

Table 1. *List of Islamic banks and countries from the SAARC region*

Region	Banks	Countries
SAARC	Bank Alfalah Limited	Afghanistan
	Ghazanfar Bank	
	Maiwand Bank	
	Afghan United Bank	
	New Kabul Bank	
	Islami Bank Bangladesh Ltd.	Bangladesh
	Shahjalal Islamic Bank	
	First Security Islami Bank Limited	
	Al-Arafah Islami Bank Limited	
	Social Islamic Bank Limited	
	Maldives Islamic Bank	Maldives
	Bank Islami	Pakistan
	Islamic Commercial Bank (Al-Baraka)	
	Dubai Islamic Bank	
	Meezan Bank	
	Bank Alfalah Limited	
	Amana Bank	Sri Lanka

Sample and Data Collection

Data from 17 different Islamic banks that operate in the SAARC region were gathered for this study. The chosen banks covered the years 2011 through 2021. This timeline is justified by the fact that the global financial crisis, which started in 2008, was formally over in 2010. By beginning the data collection in 2011, we hoped to capture the post-crisis period and examine the factors that affect Islamic banks' capital structures in the SAARC area during a period of comparatively stable economic conditions.

The chosen Islamic banks' financial statements, annual reports, and other banking periodicals were accessed as part of the data collection procedure. We made sure that important variables of relevance were included in the data we gathered, bank size, profitability, tangibility, liquidity, growth, non-debt tax shield, and GDP per capita. These variables' inclusion enables a thorough examination of the determinants affecting the capital structure of IBs of SAARC area.

The decision to concentrate on Islamic banks in the SAARC area was made because of the region's growing importance in the Islamic finance sector and the paucity of studies on factors affecting capital structure in this situation. Our sample includes banks from Afghanistan, Bangladesh, Maldives, Pakistan, and Sri Lanka, which gives us a thorough understanding of the capital structure dynamics in Islamic banking in these nations. These banks represent a varied range of economies within the SAARC area.

The data collected from 2011 to 2021 enables us to examine the long-term trends and patterns in the capital structure of Islamic banks post the global financial crisis. By analyzing this extended time frame, we can gain insights into how the identified factors have influenced the leverage ratio of Islamic banks in the SAARC region over a significant period. This period also enables us to record any potential adjustments to Islamic banks' capital structure choices and business plans as the global and local economic landscape changed in the wake of the financial crisis. The chosen time and the chosen banks are suitable for addressing our research goals and help close a gap in the literature.

Data were gathered for the study from 17 Islamic banks that operate in the SAARC region, which includes nations including Pakistan, Bangladesh, Afghanistan, Maldives, and Sri Lanka. There are 187 total data points in the sample because the data was gathered from 2011 to 2021. This extensive dataset enables a thorough study and offers a strong framework for looking at the choices regarding capital structure decisions of IBs in the SAARC area.

The model's equation is written as follows:

$$LEV_{it} = \alpha + \sum \beta i X \varepsilon it$$

The final equation of GLS regression model after using independent variables:

$$LEV_{it} = \alpha + \beta_1(BANKSIZE_{it}) + \beta_2(PROFIT_{it}) + \beta_3(TANGIBILITY_{it}) + \beta_4(LIQUIDITY_{it}) + \beta_5(NDTS_{it}) + \beta_6(GROWTH_{it}) + \beta_7(GDP_{it}) + \varepsilon_{it}$$

Where:

- LEV_{it} is the leverage ratio for the company i at time t. The average leverage ratio when all independent variables are equal to zero is represented by the intercept, or constant term, α.
- The regression coefficients β_1, β_2, β_3, β_4, β_5, β_6, and β_7 show how each independent variable affects the leverage ratio.
- $BANKSIZE_{it}$ represents the natural logarithm of the bank's total assets for company i at time t.
- TANGIBILITY: This is the ratio of tangible assets to total assets for firm i at time t.
- LIQUIDITY: This is the ratio of liquid assets to total assets for firm i at time t. PROFIT: This is the return on assets (ROA) for firm i at time t.
- $GROWTH_{it}$ is the rate at which a firm i's total assets have grown from time t-1 to time t.
- $NDTS_{it}$ is the value of non-debt tax shields for firm i at time t.
- GDP_{it} is the actual GDP per person for a firm i's operational nation at time t. • ε it is the error term, signifying the noise or random variation in the model that the independent variables are unable to explain.

Dependent Variable

Leverage Ratio: Leverage is a variable that is influenced by other factors and has been used in previous research on capital structure. The research defined the leverage ratio in different ways. Rajan and Zingales (1995) presented four distinct explanations of leverage: The total liabilities to total assets ratio offers the most comprehensive measure of stock leverage. This study utilizes the leverage ratio, as defined by Bukair (2019), which is calculated by dividing total assets by the sum of current and investment accounts. The purpose of this measurement is to assess the leverage ratio for decision-making in the context of Islamic Banks (IBs).

Independent Variables

Bank Size: Prior studies used a variety of proxies to determine a firm's size, such as total assets, branch count, and personnel count. The natural logarithm of the book value of all assets is used in this study as a substitute for bank size (Amidu, 2007; Ahmad, Arif, & Skully, 2008; Bukair, 2019; Gul, Khan, Razzaq, & Saif, 2012; Lim,

2012). The logarithm is a better choice for adjusting accounting numbers since small businesses are more susceptible to the effects of scale.

Profitability: In earlier studies, many proxies were employed to gauge profitability, including Earnings per share (EPS), Tubin Q, return on equity (ROE), and return on assets (ROA). Considering existing studies, this study follows Amjad, Belal, and Tufail (2013), Bukair (2019), Gul, Khan, Razzaq, and Saif (2012), Lim (2012) who used ROA as a stand-in for profitability. The most significant indicator of a bank's ability of management to generate revenue using financial resources is thought to be the ROA.

Tangibility: One of the key factors affecting a bank's capital structure is the structure of an asset. The value of the bank's liquidation would increase depending on how much of its assets are tangible and intangible (Amidu, 2007; Bukair, 2019). The tangibility of IBs is evaluated using the ratio of tangible assets to total assets.

Liquidity: A variety of proxies have been employed to ascertain liquidity in earlier research. These stand-ins include but are not limited to, the following: the proportion of current assets to current liabilities, the ratio of liquid assets to deposits, and the proportion of total assets funded by cash and equivalents. To estimate the liquidity of IBs, current research used liquid assets instead of total assets (Akhtar, Ali, & Sadaqat, 2011; Bukair, 2019; Iqbal, 2012).

Growth: Previous studies have examined the potential growth of financial institutions using a variety of proxies, including the equity's market-to-book value, the proportional modification in total assets or sales, the rate of increase of deposits or advances, and spending concerning overall sales of Islamic banks. As the data was available in the yearly reports, this analysis investigates the annual change in total assets as a measure of IB expansion (Ahmad & Abbas, 2011; Ahmed, Ahmed, &Ahmed, 2010; Bukair, 2019; Gul, Khan, Razzaq, & Lim, 2012; Saif, 2012).

Non-Debt Tax Shield: In their analysis of capital structures, several NDTS metrics were used. Among these, you can find the following ratios: depreciation + amortization to total assets, and investment tax credits to earnings before interest, taxes, and depreciation. A number of previous studies (Ahmad & Abbas, 2011; Bukair, 2019; Gul, Khan, Razzaq, & Saif, 2012; Lim, 2012) have utilized the same NDTS criterion, which is the ratio of depreciation to total assets.

GDP Per Capita: Very few studies examine the GDP per capita for capital structure's decision of IBs. This study follows Bukair (2019) and uses GDP to measure the annual growth in GDP per capita.

Table 2. *Measurements of Dependent and Independent Variables*

Variables	Measurements
Leverage Ratio	The ratio of total assets to the sum of investment and current accounts
Bank Size	Total asset natural logarithm
Profitability	ROA is calculated as net income less Zakat and total assets.
Tangibility	Tangible assets as a percentage of total assets
Liquidity	Current assets over current liabilities
Growth	The variation in total assets annually
Non-Debt Tax Shield	The ratio of annual depreciation costs to total assets
GDP per Capita	The annual change in GDP per capita

Findings and Discussion

The leverage ratio (dependent) and seven independent variables are both subjected to the unit root test to determine whether the data is stationary. For the panel data in this investigation, the Levin-Lin-Chu unit root test is used because it is more relevant. Results of the Levin-Lin-Chu unit root test (ADF regression) are shown in table 2.

Table 3. *Levin Lin Chu Unit Root*

Variables	t-Statistics	p-Values
Bank Size	-4.0309	0
Profitability	-4.824	0
Tangibility	-3.0487	0
Liquidity	-89.1825	0
Non-Debt Tax Shield	-3.7353	0.0001
Growth	13.6237	1.0000
GDP per Capita	-4.3527	0
Leverage Ratio	-8.7328	0

The unit root test's null hypothesis will be rejected in favor of the alternative hypothesis, which demonstrates that the data is stationary, as the table reveals that Levin-Lin-Chu bias-adjusted t* is significantly less than zero ($p<0.0005$).

All of the study's variables have stationarity in them, and as a result, all variables—except for the growth variable do not have unit roots in them, according to the Levin-Lin-Chu unit root test's findings. The panel data were obtained using annual reports of IBs, which contained 187 observations.

Note: A significance level of 0.05 is used for the p-value. To reject the null hypothesis, the p-value must be less than 0.05. However, if the p-value is equal to or greater than 0.05, it cannot be rejected.

Descriptive Analysis

The Profitability's mean value is 0.010, which means that before deducting tax and zakat from their assets, an IB earns 1% on their accounts. The average Tangibility value is 0.021, which amply demonstrates that about 2.1 percent of IBs have tangible assets on their asset sides. Because most IBs have all of their assets in tangible form, which lowers the bankruptcy rate, Bukair (2019) claims that the tangibility ratio is high. The average growth rate is 0.289, indicating that practically all IBs see asset growth each year. This clearly shows that IBs can get loans from the market (Bukair, 2019).

Based on the descriptive analysis' 0.45 mean value for liquidity, roughly 45 percent of IBs' total assets are made up of cash and cash equivalents. According to descriptive research, the Non-Debt Tax Shields' mean is 0.0023, which suggests that depreciation represents around 0.23 percent of all assets. According to Bukair (2019), the low ratio of Non-Debt Tax Shield indicates that IBs spend relatively little on their fixed assets, hence based on the mean value of this variable, it is not a crucial characteristic of the capital structure. The average GDP per capita is 0.043, indicating an annual growth rate of 4.3 percent over the years. The average leverage ratio for IBs is 0.78, indicating that their current and investment accounts fund nearly 78% of their total assets.

Table 4. *Descriptive Analysis*

Variables	Obs.	Mean	Std. Dev.	Variance	Skewness	Kurtosis	Min.	Max.
Bank Size	187	21.448	3.974	15.790	0.137	1.559	15.351	30.067
Profitability	187	0.011	0.012	0.001	-1.162	6.011	-0.041	0.038
Tangibility	187	0.022	0.0431	0.002	11.660	150.863	-0.001	0.579
Liquidity	187	0.455	0.416	0.173	2.007	11.084	0.014	3.127
Non-Debt Tax Shield	187	0.002	0.002	3.11E-06	1.601	5.568	0.0001	0.009
Growth	187	0.290	1.484	2.202	11.1299	139.879	-0.801	19.098
GDP per Capita	187	0.044	0.110	0.012	-0.332	5.883	-0.345	0.423
Leverage Ratio	187	0.783	0.225	0.051	-0.440	4.941	0.097	1.834

Correlation Matrix

The leverage ratio and bank size have positive correlation coefficients, indicating that increasing financial leverage will result in bigger banks for investment banks. Leverage Ratio is also positively correlated with profitability, tangibility, liquidity, non-debt tax shield, growth, and GDP per capita, indicating that whenever Leverage Ratio increases, IBs' growth levels of profitability, tangibility, liquidity, non-debt tax shield, growth, and GDP per capita also increase. According to Bukair (2019), an improvement in these macroeconomic indicators will result in a drop in the demand for loans from IBs of SAARC region countries, but this paper contends that the opposite is true.

Table 5. *Correlation Matrix*

Variables	Bank Size	Profitability	Tangibility	Liquidity	Non-Debt Tax Shield	Growth	GDP per Capita	Leverage Ratio
Bank Size	1							
Profitability	0.1278	1						
Tangibility	-0.160	-0.110	1					
Liquidity	-0.479	-0.076	0.133	1				
Non-Debt Tax Shield	-0.338	-0.277	0.127	0.376	1			
Growth	0.013	0.056	-0.019	0.152	0.064	1		
GDP per Capita	0.375	0.007	-0.090	-0.308	-0.145	0.005	1	
Leverage Ratio	0.296	0.080	0.020	0.371	0.045	0.057	0.012	1

GLS Regression

The Wald chi^2 statistic and the low p-value of the study's applied model both point to statistical significance at a level of less than 0.0000. Let's now relate these findings to the developed hypotheses.

The capital structure of IBs in the SAARC area is not significantly influenced by profitability, as indicated by the results with a p-value higher than 0.05. This finding contradicts the prediction made in H2, which suggested that there would be a trade-off between profitability and leverage ratio. Thus, profitability does not have a significant impact on the capital structure decisions of Islamic banks in the SAARC region.

With a p-value greater than 0.05, tangibility is also judged to be statistically insignificant. This rejects H3, which proposed that tangibility and leverage ratio have a negative relationship. As a result, it does not seem that the existence of tangible assets significantly influences the capital structure choices made by Islamic banks in the SAARC region.

Just like a seasoned financial expert, it is concluded that liquidity does not play a significant role in determining the leverage ratio for Islamic banks in the SAARC region, as its p-value is greater than 0.05. This differs from H4, which suggested a cause-and-effect connection between liquidity and leverage ratio. It appears that liquidity does not have a significant impact on the capital structure decisions of Islamic banks in the SAARC region.

The results show that the non-debt tax shield does not have a substantial impact on the leverage ratio, since the p-value is greater than 0.05. Hypothesis 6 posited the opposite relationship between the non-debt tax shield and the leverage ratio, hence this does not hold. Islamic banks in the SAARC area do not appear to be much impacted by the non-debt tax shield when making decisions regarding capital structure.

Conversely, the findings support H1, H5, and H7. The determinants of GDP per capita, bank size, and growth are found to be statistically significant in determining the leverage ratio of Islamic banks in the SAARC area, with p-values less than 0.05. This implies that the size, growth, and GDP per capita of the bank should be taken into consideration while determining the capital structure for Islamic banks in the SAARC region.

Table. *GLS Regression Analysis*

Leverage Ratio	Coef.	Std. Err.	z-Value	p-Value
Bank Size	0.0355	0.0038	9.35	0.0000
Profitability	1.1566	1.0487	1.1	0.27
Tangibility	0.1776	0.2924	0.61	0.544
Liquidity	0.3621	0.0361	10.04	0.0000
Non-Debt Tax Shield	2.5667	7.9838	0.32	0.748
Growth	-0.0086	0.0084	-1.01	0.313
GDP per Capita	-0.0217	0.1236	-0.18	0.86

Number of Observations = 187
Number of Groups = 17

Time Periods = 11
Wald chi^2 = 144.93
Prob > chi^2 = 0.0000

Profitability: According to the study, there is a significant and positive correlation between IBs' financial leverage and profitability. This shows that IBs are more likely to enhance their capital structure by borrowing more money to seize new possibilities when they make larger profits. These results partially support those of Bukair (2019).

Liquidity: According to the study, liquidity has a positive and significant effect on the leverage ratio of IBs. This suggests that IBs with higher liquidity ratios are more inclined to carry more debt because their risk of going bankrupt is lower. This offers management the choice to put enhancing shareholder value above just concentrating on appeasing debt holders through cost-cutting. The results are in line with those of Ozkan (2001).

Non-debt tax shield: According to the study, the non-debt tax shield has a slight but positive influence on the leverage ratio of IBs. This implies that depreciation serves as an alternative to debt for IBs. Partially, these results correspond with those of Gul, Khan, Razzaq, and Saif (2012).

GDP Per Capita Growth: The study shows that GDP per capita growth has a negative and insignificant impact on the leverage ratio of IBs. This suggests that IBs have additional financial choices to promote productive initiatives in the nations of the SAARC region. The capacity to request more funding rises together with the GDP per capita growth rate. The outcomes support Kayo and Kimura's (2011) results.

Bank Size: The study discovers a positive and significant correlation between bank size and the financial leverage of IBs. As a result, it may be argued that bigger IBs frequently use debt financing to expand their capital structure. These results correlate with those of Amidu (2007).

Tangibility: According to the study, the leverage ratio of IBs rises as tangibility rises, but the difference is only marginal. IBs who make small long-term asset investments are less likely to go bankrupt. These results correspond with those of Amidu (2007) and Lim (2012).

Growth: The study reveals that growth has a little but negative influence on the financial leverage of IBs. This shows that when there are expansion chances, IBs are

more likely to choose equity financing over loan financing. According to Ahmed, Ahmed, and Ahmed (2010), these hypotheses are supported.

Conclusion

The current research aims to identify the factors that impact the capital structures of Islamic banks in the SAARC region. Islamic banks stand out due to the unique aspect of Shariah law governing all of their financial dealings, products, and contracts. Aside from central bank regulations, these traits influence the capital structure decisions made by IBs, while comparing to the conventional environment.

In order to accomplish the goals of the study, an empirical model was constructed. Bank size, profitability, tangibility, liquidity, growth, and GDP per capita are all presented in relation to one another as independent factors, while leverage is described as the dependent variable. To evaluate the empirical model, we used panel data analysis with 17 Islamic banks from the SAARC region and ran GLS regressions from 2011 to 2021.

The empirical results of this study provide some significant new insights into the variables affecting Islamic banks' (IBs') leverage ratio in the SAARC area.

First, it was discovered that the relationship between profitability and the non-debt tax shield and the leverage ratio was positively insignificant. This shows that IBs' capital structure decisions are not much influenced by their profitability or non-debt tax shield. In terms of practicality, this means that IBs in the SAARC region shouldn't base their leverage ratio simply on profitability or the non-debt tax shield. They should instead take into account other factors that have been noted to be important drivers of capital structure, as detailed below.

Second, banks' size, tangibility, and liquidity were found to have a positive impact on IBs' leverage ratios. These results suggest that IBs in the SAARC area have greater leverage ratios when they have larger sizes, higher levels of liquidity, and more physical assets. In practical terms, this means that IBs should maintain a proper mix of tangible assets to support their leverage decisions and carefully manage their liquidity levels. Larger IBs might also benefit from easier access to capital markets and funding, which might result in higher leverage ratios.

Additionally, the analysis discovered that the relationship between growth and GDP per capita and the leverage ratio was negatively insignificant. This shows that IB capital structure decisions in the SAARC region are not much influenced by economic

growth or GDP per capita. In terms of practicality, this means that IBs shouldn't base their decisions about leverage solely on the state of the economy as a whole or the level of per capita income. Instead, they ought to concentrate on other factors that have been found to have greater influence, such as bank size, tangibility, and liquidity.

The practical implications of these findings highlight the significance of taking into account liquidity, tangibility, and bank size as crucial variables when figuring out the leverage ratio of IBs in the SAARC area. To support their capital structure decisions, IBs should focus on managing their liquidity effectively, keeping a sufficient mix of tangible assets, and taking into account the benefits of higher size. Additionally, IBs should be wary about basing their judgments exclusively on economic growth or per capita income levels and should not solely rely on profitability or the non-debt tax shield as predictors of leverage. IBs can make decisions that support their financial stability and long-term sustainability in the SAARC area by comprehending and applying all of these aspects to their capital structure policies.

This work significantly improves theory as well as practice in several ways. First off, it closes a significant gap in the literature by being the first theoretically grounded research effort to look at the variables impacting capital structure decisions specifically in SAARC-based Islamic banks. Previous studies have largely ignored the distinctive dynamics and traits of the SAARC region, concentrating instead on either developing economies or the Gulf Cooperation Council (GCC) nations. The study clarifies the market and industry-specific factors influencing capital structure choices made by IBs by concentrating on this area. The conflicting results of earlier empirical studies emphasize the need for context-specific research and the significance of taking into account market and industry-specific factors when analyzing capital structure decisions. The SAARC region's Islamic bank managers and policymakers can use these findings to guide their judgments about capital structure management and regulatory frameworks because they have real-world applications.

The results of this study can be expanded in a variety of ways by future studies. First off, looking at samples from beyond the SAARC region would give a larger perspective and enable comparisons of capital structure options in various cultural, economic, and legal situations. A more thorough knowledge of capital structure decisions within the larger financial industry might also be provided by integrating more institutions in the analysis. Future research may also include new variables, such as the impact of corporate governance practices and the impact of artificial

intelligence on capital structure decisions. These recommendations would assist Islamic banks in making well-informed decisions and contribute to a more thorough and nuanced knowledge of the variables impacting capital structure choices.

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