

SECONDARY RESEARCH

The Internal and External Determinants of Financial Performance: Evidence from Islamic and Conventional Banking Sector in Pakistan

Rida Nazeer, Faiza Saleem, Shahab ud Din

¹Department of Management Sciences, University of Wah, Wah Cantt, Pakistan

²Graduate School of Business, Universiti Sains Malaysia 11800 USM Pulau Pinang Malaysia

³Management Sciences, Karakoram International University-Ghizer Campus, Gilgit-Baltistan

Keywords:

Financial performance, asset management, diminishing Mushārakah, Istiṣnā', muḍārabah.

Received: 13 October 2023

Accepted: 7 June 2024

Abstract

Purpose: This study set out to investigate the effects of both external and internal factors on financial performance (FIP) in Pakistan's banking industry, with an emphasis on comparing the conventional and Islamic banking sectors.

Data and Methodology: The sample of this study includes five leading Pakistani conventional banks and five Islamic banks. The study applied the OLS, fixed effect, or random effect model along with some pre-requisite diagnostic tests like descriptive statistics, correlation, and the Hausman test.

Findings: The study's findings show that, whilst asset management, bank size, and liquidity have a positive and substantial association with the ROE of Islamic banks, liquidity and asset management have a positive link with the ROE of conventional banks. Furthermore, a positive and significant link was found between running Mushārakah and ROE, while a negative and significant relationship was found between diminishing Mushārakah and ROE.

Significance: This study examines internal and external factors affecting the performance of top conventional and Islamic banks in Pakistan from 2016-2022, providing crucial insights into the effectiveness of Islamic banking for economic stability and progress.

Implications: Policymakers, investors, and students of Islamic banking and finance, as well as the conventional and Islamic financial sectors, may all benefit from this research.

JEL Classification: G30, G11, G21, G24, G21

KAUJIE Classification: L26, H12, K3, K8, K4

INTRODUCTION

Currently, Pakistan's economy is stuck in a poor growth mode, with rising inflation and unemployment, declining investment, large budget deficits, and a declining external balance (Muhammadullah et al., 2021). According to Haralayya & Aithal (2021) an improvement in banking sector efficiency corresponds to a country's economic progress. Ahmad et al., (2010) stated that every country on the globe is recognized for its distinct religious affiliation,

¹Corresponding Author: Faiza Saleem,

Email: faizasaleem2020@gmail.com, ORCID: 0000-0001-9753-9720



sociocultural characteristics, and economic traits. In today's world, economic prosperity and a strong economy are symbols of success. According to Cheng et al., (2021), financial development always harms economic growth, but this effect is amplified in high-income nations. In sustainable development, banks play a special role as intermediaries. They are essential to all types of business and industry, public policy, and economic performance (Jeucken, 2010; Yip & Bocken, 2018). Since banks are the primary drivers of economic growth and have considerable control over the amount of money in circulation, they are crucial to a country's economic development (Kamande, 2017; Malakolunthu & Rengasamy, 2012).

Pakistan's financial sector is composed of both bank and non-bank financial intermediaries (Ali, 2021). According to the State Bank of Pakistan, there were 33 operational banks in Pakistan as of March 31, 2023, comprising 5 public sector commercial banks, 4 specialized banks, 14 local private banks, 6 Islamic banks, and 4 foreign banks. According to Usman & Khan (2012), Islamic banking began in Pakistan with an initiative to eradicate interest in the activities of specialized institutions. To introduce Sharī'ah-compliant modes of financing, The State Bank of Pakistan established the Islamic Banking Department on September 15, 2003, and the Commission for the Transformation of the Financial System (CTFS) in January 2000. In contrast to conventional banking, it puts profit and loss sharing and risk sharing above interest-based deposits and loans (Porzio, 2010). Islamic banks offer a variety of financing options, including purchasing and selling finance and financing for profit sharing (Siddique et al., 2020). According to Aspal & Dhawan (2014), an economy's financial stability is seen as being usefully predicted by the success of the banking sector. According to Alim et al., (2021), increased liquidity improves bank performance in Pakistani commercial banks.

Numerous internal and external factors can be used to assess the financial performance (FIP) of Islamic and conventional banks (Istan & Fahlevi, 2020). A few things that could affect a bank's FIP are interest rates, bank size, asset management, decreasing *Mushārahah*, *Istiṣnā'*, and *muḍārahah* (Bakhita, 2017). According to Olaoye & Ayodele (2019), asset management significantly enhanced performance, particularly when assessed in terms of profit after tax. According to Al-Gazzar (2014), Islamic banks are more capable of managing assets than their conventional counterparts. According to Rahmat (2020), the market share and size of the banks have an enormous influence on how efficiently they operate. Salim & Bilal (2016) define liquidity as a bank's capacity to finance asset growth and pay bills on time without suffering unbearable losses. Supardi & Anantanyu (2018) defined *muḍārahah* as a type of transaction for the sale of commodities that specifies the purchase price and profit (margin) that the supplier and the buyer have mutually agreed upon. A diminishing *Mushārahah* is a type of collaboration in which a client or homeowner eventually owns all of the goods, projects, or houses (Mohammad Selim, 2020). According to Zulkhibri & Sukmana (2017), *Istiṣnā'* Finance offers money from a bank to its client to purchase products based on the client's order, which verifies the purchase price for the client. The client (consumer) then pays a higher price, with the difference being the bank's profit.

The main aim of this study is to examine the effects of various external and internal factors on the FIP of Pakistani Islamic and conventional banks. Prior studies have debated particular factors that have an impact on the bank's performance and profitability (Salman & Nawaz, 2018). Some researchers examined just internal factors, leaving out some external elements that also have an impact on the bank performance (Dabbagh et al., 2019; Rashid & Jabeen, 2016). Therefore, our study differs from prior studies in many ways. Firstly, it investigates the impact of internal factors as well as external factors on the firm performance of the top conventional and Islamic banks in Pakistan. Secondly, it also looks at internal

factors that exclusively represent the firm performance of Islamic banks, such as diminishing Mushārakah, muḍārabah, and Istiṣnā'. Thirdly, it looks at 2016–2022 to include more recent years in the research. This study adds to the body of knowledge already in existence. By providing insight into the effectiveness of Islamic banking and finance, which is crucial for promoting stability and economic progress because, understanding the factors that influence the effectiveness of Islamic banking and finance is essential for fostering economic progress (Imam & Kpodar, 2016). This study is structured as follows: Part 2 of this study has looked at the pertinent literature. The model's formulation, estimation techniques, and data are covered in Section 3. Part 4 presents the findings, while Section 5 discusses the study's conclusions and suggestions.

LITERATURE REVIEW

Interest Rate and Financial Performance

Interest is a cost that must be charged to debtors for money borrowed over a specific period (Mutinda, 2014)). Banks charge interest in exchange for their unique financial services, which sets them apart from other financial organizations. Ngure (2014) concluded that interest rates significantly positively impacted the FIP of Kenyan commercial banks, with a 95% confidence level. Utilizing secondary data gathered from the Kenyan Central Bank over a five-year period, from 2009 to 2013, the study employed a descriptive research style. It was found that interest rates and FIP are linearly correlated, with higher interest rates translating into more profitability. Ahmed et al., (2018) assessed the impact of interest rate changes on bank profitability using yearly data for 20 Pakistani banks spanning the years 2008 to 2014. The findings show that whereas advances, loans, and investments have a positive link with bank profitability, interest rates and deposits with other banks have a negative relationship. The interest rate has no appreciable effect on ROA, according to Istan & Fahlevi (2020), because Sharia banks use profit and loss sharing instead of interest. Likewise, the first hypothesis of this study is:

H1: There is a significant relationship between interest rate and financial performance.

Asset Management and Financial Performance

The process of assessing an asset's present and future conditions is known as asset management, and it is essential for estimating an asset's remaining service life and lowering the risk of an asset failing (Brous et al., 2016). Purba et al., (2020) investigate the association between asset management and FIP. The sole independent variable in the study was fixed asset turnover, which was utilized as a stand-in for asset management. Data from six companies between 2013 and 2017 were used in the study. The results show that asset management is a very important factor in improving the profitability of a firm. Sedovandara & Mahardika (2023) looked into how capital structure, asset management, and environmental management systems affected FIP. The panel data regression analysis's findings showed that asset management has a positive impact on FIP. Likewise, Ltaifa et al., (2021) gathered quarterly information for 50 Islamic banks from 12 countries between Q4 of 2013 and the Q3 of 2019. The study's conclusions showed that operational effectiveness, asset quality, and bank capitalization had a negative impact on the FIP of a subset of Islamic banks. The magnitude of an Islamic bank's assets has a major and beneficial influence on its profitability. We derive the following hypothesis:

H2: There is a significant relationship between asset management and financial performance.

Liquidity and Financial Performance

The bank's capacity to complete its responsibilities, particularly those of depositors, is referred to as liquidity (Jihadi et al., 2021). The liquidity ratio is a tool for evaluating a business's capacity to adjust short-term debt (Hertina et al., 2022). According to Chowdhury & Zaman (2018), indicators related to liquidity and bank performance are negatively correlated. The panel dataset used by Mennawi (2020) has 143 observations from 13 banks. The study's conclusions demonstrate that the FIP ratio of Sudanese banks is positively and significantly correlated with liquidity risk. Ltaifa et al., (2021) examined 50 Islamic banks from 12 countries using quarterly data spanning 2013–2019. The panel data findings showed that two variables, such as bank size and liquidity, have a positive correlation with the FIP of a subset of Islamic banks. Batool & Sahi (2019) used data of 24 insurance companies between 2007 and 2016 and discovered a favourable association between the internal factor liquidity and FIP. Thus, the following is the suggested hypothesis for this research:

H3: There is a significant relationship between liquidity and financial performance.

Bank Size and Financial Performance

The size of banks is a very important factor; most of the clients prefer large banks because they are subject to stability risks (Schildbach, 2017). Kirimi et al., (2022) employed a panel data regression model to evaluate data gathered from 39 commercial banks between 2009 and 2018. The study's findings showed that bank size had a negative effect on FIP. Fadhli & Ali (2021) analysis of data from 10 Kuwaiti banks from 2008 to 2018 revealed a negative relationship between bank profitability and asset size; however, that relationship was statistically insignificant. Al-Qudah & Jaradat (2013) selected Jordanian Islamic banks for the years 2000–2011 using panel data analysis methodologies. The fixed effects model and the generalized least squares analysis show that bank size has a large and positive impact on ROA and ROE. Khan et al., (2023) used yearly data for five active Islamic banks for the years 2008 to 2021. The results demonstrated a positive and substantial correlation between ROA and bank size and asset quality. Therefore, the proposed hypothesis statement is:

H4: There is a significant relationship between bank size and financial performance.

Muḍārabah Financing and Financial Performance

A muḍārabah contract is an agreement between two parties for the sale and purchase of an item; it is the sum of the cost of the items plus a margin, and the seller gives the buyer advance notice of the acquisition price (Puspitasari et al., 2019). Azizah & Mukaromah (2020) claim that financial inclusion percentage (FIP) is enhanced by muḍārabah financing. According to Afrizal et al., (2023) muḍārabahh finance has a major and favourable impact on FIP. Afiyanti & Hardiyanti (2020) state that the study's population, which consisted of up to 60 Islamic commercial banks registered at Bank Indonesia for the time period from 2014 to 2018. The results of the study demonstrate that muḍārabahh funding significantly and negatively affects ROA. Thus, the following is the suggested hypothesis for this research:

H5: There is a significant relationship between muḍārabah financing and financial performance.

Diminishing Mushārakah and Financial Performance

Although most classical literature has addressed diminishing Mushārakahh in great detail, most Islamic banks and financial organizations worldwide have just recently begun to investigate it in terms of actual practice (Syafaâ et al., (2018). Islamic law defines the term "Mushārakahh" as a contractual partnership between two or more individuals or bodies that come together by contributing a specific sum of money considered as capital (Hassan, 2020). Akhtar & Madni (2022) claimed that the diminishing Mushārakahh product practices of IFIs

involved certain Sharī‘ah issues, including the joint purchase of a house where all fees and expenses are the exclusive responsibility of one partner (the customer). Islam & Omar (2017) claim that Mushārakah contracts have a positive impact on FIP in Kenya. Siddique et al., (2020) concluded that the characteristics and macroeconomic factors of the Islamic banking industry (IBI) have a considerable influence on economic development and poverty reduction, suggesting that the IBI has the potential to contribute to the achievement of the Sustainable Development Goals. Kalim et al., (2016) used quarterly data for the years 2006 to 2013. The findings from the autoregressive distributed lag (ARDL) approach revealed a negative association between the Muḍārabah, diminishing Mushārakah, and the growth of the economy. The proposed hypothesis is:

H6: There is a significant relationship between diminishing Mushārakah and financial performance

Istiṣnā‘ and Financial Performance

A contract known as an istiṣnā‘a is a legal agreement between two parties: the demander, who is the one who needs the product to be manufactured, and the "manufacturer," who has the knowledge and experience required to produce the product in accordance with the demander's specifications, for a predetermined amount that the demander will pay the manufacturer in premiums or deferred payments (Al-feel, 2019). Abubakar et al., (2020) used time series secondary data for the years 2013 through 2019. The results of the investigation demonstrated that Istiṣnā‘ significantly lowers banks' FIP. A study by Selim (2020) used utilizing Istiṣnā‘ as an instrument of monetary policy (MP), this analysis looks at how well it contributes to achieving price stability, income, and full employment. The results of the study showed that Istiṣnā‘-based MP quickly generates well-paying jobs, expands and influences the manufacturing sector favourably, increases capital per worker, increases labour productivity, finally increases output, and fosters industrialization. This study's hypothesis is as follows:

H7: There is a significant relationship between istiṣnā‘ and financial performance

Running Mushārakah and Financial Performance

As a substitute for interest-based products for working capital, Islamic banking products like running Mushārakahh were initially launched. By way of a contractual partnership (Shirkat ul aqd), an Islamic bank participates in the client's business as a sleeping partner in this contract. One of the features of an Islamic bank's investment is the credit limit that it sets Akram (2019). Ali et al., (2022) collected data for those eight Islamic banks that provide services for Mushārakahh financing. The study examined the volume and trend analysis of Mushārakahh as a mode of Islamic banking. The study applied univariate data analysis techniques for annual data from 2011 to 2018. The study's result showed that Meezan Bank leads in running muskarakah investment out of all the banks operating Mushārakahh investment banks in Pakistan. Siddique et al., (2022) concluded that a running Mushārakahh is very close to managing finances. Zafar & Nor (2019) examined the effects of agency costs, risk, monitoring costs, and taxation on return on investment (ROI) in Muḍārabah h and Mushārakahh contracts in Pakistan. Twenty-three Pakistani Muḍārabah h companies that are registered on the Pakistan Stock Exchange had their annual statistics collected between 2011 and 2015. The panel data analysis's conclusions showed that agency costs, Mushārakahh contracts, and mudarbah all significantly and favorably affect return on investment. This is the hypothesis that is put forth:

H8: There is a significant relationship between running Mushārakah and financial performance

RESEARCH METHODOLOGY

Population, Sample, and Data

According to the State Bank of Pakistan, there were 33 operational banks in Pakistan as of March 31, 2023, comprising 5 public sector commercial banks, 4 specialized banks, 14 local private banks, 6 Islamic banks, and 4 foreign banks. Ten top banks make up the sample, and data from five commercial and five Islamic banks was included in this study. Data on internal factors has been taken from the annual reports from 2016 to 2022 for all ten banks and is available on their website. Data on external factors is extracted from the World Development Indicator (WDI). These banks' names are as follows in Table I.

TABLE I: List of Banks

Commercial Bank	Islamic Bank
United Bank Limited (UBL)	Meezan Bank Limited
Habib Bank Limited (HBL)	Dubai Islamic Bank
Allied Bank Limited (ABL)	Muslim Commercial Bank
Askari Bank Limited (AKBL)	Albaraka Bank Limited
Bank Al Falah	Bank Islami Limited

Variables

Asset Management

The performance of an organization's asset management is evaluated using asset management ratios (Purba et al., 2020). A fixed asset turnover ratio is used to quantify asset management (Seth et al., 2020).

$$\text{Fixed asset to turnover} = \text{net sales} / \text{fixed assets}$$

Liquidity

The amount of a bank's assets or securities that can be purchased or sold on the open market without impacting the asset's price is referred to as liquidity (Saeed, 2014). By dividing net loans by total assets, liquidity is calculated.

$$\text{Liquidity} = \text{net loans} / \text{total assets}$$

Bank Size

The log of a bank's total assets is used to calculate the size of the institution (Berger et al., 2017).

$$\text{Bank size} = \text{logarithm of total assets}$$

Return on equity

This ratio evaluates how well a business uses its assets to produce a return on equity (Lusy et al., 2018). It indicates how much profit may be made for every rupee invested in a business. The following formula is used to calculate the ROE:

$$\text{Return on equity} = \text{net income} / \text{total equity.}$$

Muḍārabah Financing

According to Azizah et al., (2020), muḍārabah financing refers to the sale of products in which the purchase price is stated along with the profit (margin) that the buyer and seller have agreed upon. Natural logarithms (Ln) is used in the calculation of Muḍārabah financing.

$$\text{Total Muḍārabah Financing} = \text{Ln (Muḍārabah Financing)}$$

Istiṣnā' Financing

The definition of Istiṣnā' given by Bank Negara Malaysia in 2015 is a contract wherein a

seller offers to a buyer an asset that is still to be built, made, or constructed to agreed-upon specifications and is scheduled to be delivered at a certain future date. Natural logarithms (Ln) is used in the calculation of Istiṣnā' financing.

$$\text{Total Istiṣnā' Financing} = \text{Ln}(\text{Istiṣnā' Financing})$$

Diminishing Mushārakah

According to Ali & Mahmood (2015), Islamic banks employ the Diminishing Mushārakahh (DM) model for their house loans, where ownership of the bank declines over time and is transferred to the consumer after each payment. Natural logarithms (Ln) are used in the calculation of diminishing Mushārakah.

$$\text{Total Diminishing Mushārakah} = \text{Ln}(\text{Diminishing Mushārakah})$$

Running Mushārakah

According to Maulana Taqī Usmani (2021), the traditional books of Islamic fiqh do not contain any examples of running Mushārakahh, where the partners occasionally withdraw money and occasionally insert new capital, with profits determined on a daily product basis. Natural logarithms (Ln) is used in the calculation of running Mushārakah.

$$\text{Total running Mushārakah} = \text{Ln}(\text{running Mushārakah})$$

Data Analysis Technique

This study uses descriptive statistics, correlation, the Hausman test, the ordinary least squares method, a fixed effect, or a random effect model. The research variables that have been used in the study are asset management, liquidity, interest rate, bank size, diminishing Mushārakah, Muḍārabah, Istiṣnā', and return on equity.

Econometric Model for Conventional Banks:

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{AM}_{it} + \beta_2 \text{BS}_{it} + \beta_3 \text{LIQ}_{it} + \beta_4 \text{INT}_{it} + \varepsilon_1$$

Econometric Model for Islamic Banks:

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{AM}_{it} + \beta_2 \text{BS}_{it} + \beta_3 \text{LIQ}_{it} + \beta_4 \text{INT}_{it} + \beta_5 \text{DM}_{it} + \beta_6 \text{IST}_{it} + \beta_7 \text{MRB}_{it} + \beta_8 \text{RM}_{it} + \varepsilon_1$$

Whereas;

ROE	–	Return on Equity
AM	–	Asset Management
BS	–	Bank Size
LIQ	–	Liquidity
INT	–	Interest Rate
DM	–	Diminishing Mushārakahh
IST	–	Istiṣnā'
MRB	–	MuḍārabahhRM--Running Mushārakahh

RESULTS AND ANALYSIS

Descriptive Statistics for Conventional and Islamic Banks

The descriptive statistic is a summary measure for a given data set. We can determine the measure of deviation and the measure of central tendency using descriptive statistics. The measures of deviation include minimum value, maximum value, standard deviation (S.D), etc. Tables II and III show the results of descriptive statistics.

TABLE 2: Descriptive Statistics Conventional Banks (N=35)

Variables	Mean	Maximum	Minimum	Std. Dev.
ROE	0.1374	0.2026	0.0498	0.0355
AM	0.3971	0.9478	0.1303	0.1621
BS	28.1451	29.1654	27.1584	0.5334
INT	1.1139	4.5155	-3.7582	2.8092
LIQ	0.8536	0.9194	0.7853	0.0318

Table II presents the descriptive statistics for Islamic banks, which offer important information about their attributes and financial performance. The average return on equity (ROE) for Islamic banks is 0.1374%, indicating that they make 13.74% on their equity investments on average. The low standard deviation (S.D.) of 0.0355 suggests a rather stable performance. The mean value of asset management (AM) is 0.3971%, indicating effective management of assets. The sample's bank size (BS) exhibits significant variation, with a mean value of 28.1451 and a standard deviation of 0.5334, indicating a wide range of bank sizes. Interest (INT) rates show significant variability, with a mean of 1.1139% and a large standard deviation of 2.8092. This variation, which ranges from -3.7582% to 4.5155%, can be the result of differences in lending policies or circumstances in the market. With a mean of 0.8536 and a standard deviation of 0.0318, liquidity (LIQ) looks to be fairly consistent, indicating that Islamic banks often maintain high levels of liquidity. The liquidity values range (0.7853 to 0.9194), however, suggests that there is some variation in the sample's liquidity positions.

TABLE 3: Descriptive Statistics Islamic Banks (N=35)

Variables	Mean	Maximum	Minimum	Std. Dev.
ROE	0.12	0.2145	-0.0367	0.0661
AM	0.4022	1.8167	-0.1098	0.3557
BS	27.1563	28.4437	25.5163	0.9258
LIQ	0.8568	0.9194	0.7589	0.0358
INT	1.1139	4.5156	-3.7583	2.8092
LOGIST	9.5522	10.3633	8.0000	0.5142
LOGMRB	9.8042	10.4284	7.8862	0.4447
LOGDM	10.3517	11.1808	8.5518	0.5620
LOGRM	10.1491	11.3812	8.1761	0.8695

Table II presents the descriptive statistics for Islamic Banks. The ROE's range is -0.0367 to 0.2145, with a 0.1200 mean and a 0.0661 S.D. AM values range from -0.1098 to 1.8167, with a mean of 0.4022 and a S.D of 0.3557. The BS runs from 25.5162 to 28.4436, with a mean value of 27.1562 and a S.D of 0.9257. The LIQ has a mean value of 0.8567, with a range of 0.7589 to 0.9194 and a S.D of 0.0358. The INT has a mean value of 1.1139 and a S.D of 2.8092, with a range of -3.7582 to 4.5155. With a mean value of 9.5521 and a S.D of 0.5142, the IST ranges from 8.0000 to 10.3632. The S.D of MRB is 0.4446, with a range of 7.8861 to 10.4284 and a mean value of 9.8042. DM runs from 8.5517 to 11.1808, with a mean value of 10.3516 and a S.D of 0.5620. With a mean value of 10.1490 and a S.D of 0.8694, the range of RM is 8.1760–11.3811.

Correlation Coefficient for Conventional and Islamic Banks

The association between each of the variables was examined using a correlation analysis. Several earlier studies, like Gujarati & Porter (2009), propose 0.8 at the start when multicollinearity issues may affect the regression study. The correlation matrix in Tables IV and V demonstrates that there is no multicollinearity because no variable correlates above 0.80 or 0.90.

TABLE 4: Correlation Coefficient (Conventional Banks)

	ROE	AM	BS	INT	LIQ
ROE	1				
AM	0.7334	1			
BS	-0.3821	-0.2839	1		
INT	-0.4990	-0.4329	-0.0580	1	
LIQ	0.4467	-0.0301	-0.2942	-0.0715	1

Return on Equity (ROE) and Asset Management (AM) show a substantial positive association, suggesting that banks with effective asset management strategies typically see better returns. On the other hand, the correlation between ROE and Interest Rate (INT) is moderately negative, at -0.4990, indicating that a bank's profitability may suffer from higher interest rates. Furthermore, liquidity (LIQ) and return on equity (ROE) exhibit a somewhat positive connection, suggesting that preserving sufficient liquidity levels is favourably correlated with increased returns on equity. It's interesting to note that Bank Size (BS) exhibits a small negative association with AM as well as ROE, indicating that larger banks can have marginally lower returns and less effective asset management.

TABLE 5: Correlation Coefficient (Islamic Banks)

	ROE	AM	BS	LIQ	INT	LOGIST	LOGMRB	LOGDM	LOGRM
ROE	1								
AM	0.595	1							
BS	0.747	0.153	1						
LIQ	0.596	0.208	0.468	1					
INT	-0.170	-0.206	-0.076	0.053	1				
LOGIST	0.025	0.169	0.005	0.370	-0.126	1			
LOGMRB	-0.221	-0.063	-0.069	0.032	0.004	0.251	1		
LOGDM	-0.223	-0.106	-0.011	-0.144	0.149	-0.015	0.276	1	
LOGRM	0.447	0.287	0.543	0.429	0.059	0.472	0.003	0.259	1

Return on Equity (ROE) demonstrates a strong positive association with the logarithms of Islamic finance variables (LOGIST, LOGMRB, LOGDM, and LOGRM), Asset Management (AM), Bank Size (BS), Liquidity (LIQ), and ROE, indicating a substantial impact on bank profitability. The logarithms of Islamic finance variables, BS, LIQ, and asset management (AM) all show moderately positive relationships, highlighting the significance of effective asset management for Islamic finance activity participation and profitability. The result shows that larger banks are typically more profitable and actively involved in Islamic finance. Bank Size (BS) has substantial positive relationships with ROE, LIQ, and the

logarithms of Islamic finance variables. The data indicates that liquidity (LIQ) has a somewhat positive relationship with ROE, AM, BS, and the logarithms of variables related to Islamic finance. This suggests that LIQ plays a significant role in both bank profitability and involvement in Islamic finance.

OLS and Fixed Effect for Islamic Banks

In this study, we use OLS, fixed or random effect models, for both conventional and Islamic banks. The outcome of the least squares method and the fixed effect model for Islamic banks is shown in Table V.

TABLE 6: Ordinary Least Square Fixed Effect Method for Islamic Banks

Independent Variable	OLS		FE	
	Coefficient	Prob.	Coefficient	Prob.
AM	0.0835	0.0000***	0.0709	0.0000***
BS	0.0400	0.0000***	0.0720	0.0000***
INT	-0.0011	0.5327	-0.0004	0.7950
LIQ	0.4464	0.0077***	0.1161	0.5884
LNDM	-0.0202	0.0181**	-0.0181	0.1034
LNMRB	-0.0025	0.8049	-0.0004	0.9636
LNRM	0.0228	0.0004***	0.0388	0.0000***
LNIST	-0.0166	0.0970	-0.0027	0.7905
C	-1.3837		-1.1382	0.3218
R-squared	0.8392		0.8889	
Adjusted R ²	0.8178		0.7059	
F-statistic	39.1634		32.3682	
Prob (F-statistic)	0.0000		0.0000	

***, **, and * denotes significance at 1%, 5% and 10% levels, respectively

Asset management has a significant positive relationship with ROE which indicates that asset management will boost ROE. The results are consistent with the earlier research conducted by Purba et al., (2020). Bank size and ROE have a substantial positive association. The positive coefficient of correlation suggests that return on equity will improve with bank size. The results are compatible with the earlier research conducted by Khan et al., (2023). Liquidity and return on equity have a substantial positive association. The results also support the conclusions of earlier research by Ltaifaa et al., (2021). Likewise, diminishing Mushārakah and ROE have a substantial negative association. The results are similar to the earlier research conducted by Kalim et al., (2016). In addition, running Mushārakah and ROE have a strong positive connection. The results are similar to the earlier research conducted by Zafar et al., (2019).

OLS and Random Effect for Conventional Banks

Hausman value indicates that the random effect model is appropriate for conventional banks, so the outcome of the least squares method and the random effect model for conventional banks is shown in Table VI.

TABLE 7: Ordinary Least Square Random Effect Method for Conventional Banks

Independent Variable	OLS		RE	
	Coefficient	Prob.	Coefficient	Prob.
AM	0.1391	0.000***	0.144	0.000***
BS	-0.005	0.362	-0.001	0.819
INT	-0.002	0.048**	-0.002	0.011
LIQ	0.474	0.000***	0.461	0.000***
C	-0.154	0.500	-0.277	0.116
R-squared	0.788		0.777	
Adjusted R ²	0.760		0.748	
F-statistic	28.027		26.234	
Prob(F-statistic)	0.000		0.000	

***, **, and * denotes significance at 1%, 5% and 10% levels, respectively.

Asset management has a significant positive relationship with ROE. The study accepts the hypothesis that it has a significant effect on bank performance. The findings are in line with the previous study of (Sedovandara et al.,2023; Supriyadi & Terbuka, 2021). The interest rate has a significant negative relationship with ROE by using the OLS method, and the value of its coefficient is negative, indicating that an increase in interest rate will cause a decrease in ROE. The findings are in line with the previous study by (Ahmed et al., 2018). Liquidity has a significant positive relationship with ROE. The findings are in line with the previous study of (Mennawi et al., 2020; Iqbal, 2012).

CONCLUSION

This research investigates the effect of internal and external determinants of FIP in the banking sector of Pakistan by using annual data from 2016 to 2022. Strong evidence has been revealed that asset management and liquidity are the main determinants for measuring the FIP of banks in Pakistan. This demonstrates that banks can obtain a higher ROE when they have a large asset management and liquidity program. Bank size has a positive relationship, and interest rates have no impact on the FIP of Islamic banks because they don't operate based on interest, even though they have a considerable negative impact on the conventional banking sector. Furthermore, running Mushārah is positively and strongly correlated with ROE, whereas diminishing Mushārah is negatively and significantly correlated with ROE, suggesting that the increase in diminishing Mushārah will result in a decline in the ROE of Islamic banks. In contrast, running Mushārah has significant effects on the FIP of Islamic banks, respectively. There is sufficient data to conclude that there is a negative correlation between the liquidity of Islamic banks and their FIP. As a result, the report suggests that bank management take action to increase profitability by utilizing debt and expanding their institutions. Since liquidity and FIP have a negative relationship, they should exercise caution while retaining liquidity levels above what is acceptable. To guarantee stable economic circumstances, bank regulators should take action. According to the fixed effect model result, Istiṣnā', Muḍārahah, and diminishing Mushārah have a negative and

insignificant effect on the FIP of Islamic banks. Therefore, bank management and other stakeholders must develop strategies to achieve maximum capacity utilization while making the most use of their available resources.

The findings of this study suggest some policy implications. First, this research is useful for the conventional and Islamic financial sectors, policymakers, investors, and scholars of Islamic banking and finance who seek help determining the status of selected variables. Secondly, it is intended to improve students' and users' awareness of how to make wise investment decisions. Finally, the findings suggest a variety of policy implications, including the need for banks to continue engaging in a substantial volume of financing activities to improve performance, their desire to direct deposits toward successful investments, and their need to diversify their portfolios by tapping into new markets.

Various limitations of this study can be taken into account for future research. First, the time frame and sample size need to be increased. Secondly, we exclusively used five leading conventional and Islamic banks. The public-sector commercial banks may be used in future investigations. Third, the results are based on Pakistan, which may restrict their applicability to other emerging nations. Additional variables and future research in other developed and developing nations are anticipated to yield more detailed results. Fourth, future research should examine the impact of Islamic financing assets like salam and ijarah on the national and international Islamic banking sectors because there are so many Islamic financing instruments that affect the FIP of Islamic banks. Fifth, since there are so many other elements that affect banks' FIP, such as solvency, dividend growth, sales turnover, asset base, and capital employed, future studies may look at their effects.

REFERENCES

- Abubakar, A., Garba, A., & Sadiq, S. A. (2020). Non-Interest Banking Products and Financial Performance of Jaiz Bank Plc, Nigeria.
- Alim, W., Ali, A., & Metla, M. R. (2021). The effect of liquidity risk management on financial performance of commercial banks in Pakistan.
- Ahmed, A., Rehan, R., Chhapra, I. U., & Supro, S. (2018). Interest rate and financial performance of banks in Pakistan. *International Journal of Applied Economics, Finance and Accounting*, 2(1), 1-7. doi: <https://doi.org/10.33094/8.2017.2018.21.1.7>
- Akhtar, N., & Madni, A. (2022). Home Financing through Diminishing Musharakah by Islamic Financial Institutions in Pakistan: An Analysis. *Traditional Journal of Law and Social Sciences*, 1(01), 93-103.
- Akram, M. (2019). Running Musharakah-based working capital finance case study from Pakistan. *Journal of Islamic Finance Accountancy AAOFI*, 3(1).
- Al-Feel, N. Z. (2019). Manufacture Contract (Istisna'a), Concept, Importance & Risks. *Humanities & Social Sciences Reviews*, 7(5), 1039-1052. doi: <https://doi.org/10.18510/hssr.2019.75139>
- Al-Qudah, A. M., & Jaradat, M. A. (2013). The impact of macroeconomic variables and banks characteristics on Jordanian Islamic banks profitability: Empirical evidence. *International Business Research*, 6(10), 153. doi: <https://doi.org/10.5539/ibr.v6n10p153>

- Al-Gazzar, M. M. (2014). The financial performance of Islamic vs. conventional banks: an empirical study on The GCC & MENA Region. *Faculty of Business, Economics and Political Science Bachelor's Dissertation/Senior Year Project, British University in Egypt*.
- Ali, R. A. (2021). External factors that effect the banking performance: a comparison of internal and external factors of commercial banks in Pakistan. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(08), 1928-1945.
- Ali, U., & Mahmood, A. (2015). Proposing a KIBOR-free home financing model based on diminishing musharakah for Islamic Banks. *Pakistan Journal of Social Sciences*, 35(2), 763-776.
- Aspal, P. K., & Dhawan, S. (2014). Financial performance assessment of banking sector in India: A case study of old private sector banks. *The Business & Management Review*, 5(3), 196.
- Azizah, S. N., & Mukaromah, S. (2020). The Effect of murabaha financing, profit sharing financing, intellectual capital, and non performing financing (NPF) on financial performance. *Jurnal Reviu Akuntansi dan Keuangan*, 10(1), 150-160. doi: <https://doi.org/10.22219/jrak.v10i1.11323>
- Bakhita, H. (2017). Impact of Islamic modes of finance on economic growth through financial stability. *Journal of Business & Financial Affairs*, 6(1), 1-7.
- Batool, A., & Sahi, A. (2019). Determinants of financial performance of insurance companies of USA and UK during global financial crisis (2007–2016). *International Journal of Accounting Research*, 7(1), 1-9. doi: <https://doi.org/10.35248/2472-114X.19.7.194>
- Berger, A. N., Klapper, L. F., & Turk-Ariss, R. (2017). Bank competition and financial stability. In *Handbook of competition in banking and finance* (pp. 185-204). Edward Elgar Publishing. doi: <https://doi.org/10.4337/9781785363306.00018>
- Brous, P., Herder, P., & Janssen, M. (2016). Governing asset management data infrastructures. *Procedia Computer Science*, 95, 303-310. doi: <https://doi.org/10.1016/j.procs.2016.09.339>
- Cheng, C. Y., Chien, M. S., & Lee, C. C. (2021). ICT diffusion, financial development, and economic growth: An international cross-country analysis. *Economic modelling*, 94, 662-671. doi: <https://doi.org/10.1016/j.econmod.2020.02.008>
- Chowdhury, M. M., & Zaman, S. (2018). Effect of liquidity risk on performance of Islamic banks in Bangladesh. *IOSR Journal of Economics and Finance*, 9(4), 01-09.
- Dabbagh, R., Golmoradi, H., & Bagri, A. (2019). Financial performance comparison of islamic and conventional banking in selected countries using the CAMEL model. *Quarterly Studies in Banking Management and Islamic Banking*, 4(Autumn), 85-114.

- Hassan, S. (2020). Diminishing Musharakah: Concept and Practice by Islamic Financial Institutions of Malaysia and Bangladesh. *Talent Development & Excellence*, 12(2), 2280-2294.
- Hertina, D., Wijaya, M., Gunawan, G., & Saudi, M. H. (2022). CAPITAL STRUCTURE IMPACT OF COMPANY SIZE, ASSET STRUCTURE AND LIQUIDITY. *Central Asia & the Caucasus (14046091)*, 23(1).
- Haralayya, B., & Aithal, P. S. (2021). Study on cost efficiency in Indian and other countries experience. *Journal of Advanced Research in HR and Organizational Management*, 8(1&2), 23-30.
- Imam, P., & Kpodar, K. (2016). Islamic banking: good for growth?. *Economic Modelling*, 59, 387-401. doi: <https://doi.org/10.1016/j.econmod.2016.08.004>
- Istan, M., & Fahlevi, M. (2020). The effect of external and internal factors on financial performance of Islamic banking. *Jurnal Ekonomi & Studi Pembangunan*, 21(1), 137-145. doi: <https://doi.org/10.18196/jesp.21.1.5036>
- Iqbal, A. (2012). Liquidity risk management: a comparative study between conventional and Islamic banks of Pakistan. *Global journal of management and business research*, 12(5), 54-64.
- Jeucken, M. (2010). *Sustainable finance and banking: The financial sector and the future of the planet*. Routledge. doi: <https://doi.org/10.4324/9781849776264>
- Jihadi, M., Vilantika, E., Hashemi, S. M., Arifin, Z., Bachtiar, Y., & Sholichah, F. (2021). The effect of liquidity, leverage, and profitability on firm value: Empirical evidence from Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(3), 423-431. doi: <https://doi.org/10.1080/23311975.2021.1920116>
- Kalim, R., Mushtaq, A., & Arshed, N. (2016). Islamic banking and economic growth: Case of Pakistan. *Islamic Banking and Finance Review*, 3(1), 14-28. doi: <https://doi.org/10.32350/ibfr.2016.03.03>
- Khan, S., Polat, A., & Bashir, U. (2023). Factors affecting the financial performance of Islamic banks in Pakistan. *FWU Journal of Social Sciences*, 17(1).
- Kirimi, P. N., Kariuki, S. N., & Ocharo, K. N. (2022). Moderating effect of bank size on the relationship between financial soundness and financial performance. *African Journal of Economic and Management Studies*, 13(1), 62-75. doi: <https://doi.org/10.1108/AJEMS-07-2021-0316>
- Ltaifa, M. B., Saleh, H. A., & Derbali, A. (2021). The internal factors determining the financial performance of Islamic banks. *International Journal of Innovation, Creativity and Change*, 15(6), 52-64.
- Lusy, L., Hermanto, Y. B., Panjaitan, T. W., & Widyastuti, M. (2018). Effects of current ratio and debt-to-equity ratio on return on asset and return on equity. *International Journal of Business and Management Invention (IJBMI)*, 7(12), 31-39.

- Mennawi, A. N. A. (2020). The impact of liquidity, credit, and financial leverage risks on financial performance of Islamic banks: A case of Sudanese banking sector. *Risk and Financial Management*, 2(2), 59-72. doi: <https://doi.org/10.30560/rfm.v2n2p59>
- Muhammadullah, S., Urooj, A., & Khan, F. (2021). A revisit of the unemployment rate, interest rate, GDP growth and Inflation of Pakistan: Whether Structural break or unit root?. *iRASD Journal of Economics*, 3(2), 80-92. doi: <https://doi.org/10.52131/joe.2021.0302.0027>
- Mutinda, D. M. (2014). *The effect of lending interest rate on economic growth in Kenya* (Doctoral dissertation, University of Nairobi).
- Ngure, I. M. (2014). *The effect of interest rates on financial performance of Commercial banks in Kenya* (Doctoral dissertation, University of Nairobi).
- Olaoye, C. O., & Ayodele, J. E. (2019). Assets management and performance of selected quoted firms in Nigeria. *American International Journal of Business Management*, 2(11), 65-76.
- Porzio, C. (2010). Islamic banking versus conventional banking. In *Islamic Banking and Finance in the European Union*. Edward Elgar Publishing. doi: <https://doi.org/10.4337/9781849803410.00016>
- Purba, R. A. P., Paengkoum, S., Yuangklang, C., & Paengkoum, P. (2020). Flavonoids and their aromatic derivatives in Piper betle powder promote in vitro methane mitigation in a variety of diets. *Ciência e Agrotecnologia*, 44, e012420. doi: <https://doi.org/10.1590/1413-7054202044012420>
- Puspitasari, N., Hidayat, S. E., & Kusmawati, F. (2019). Muḍārabah as an Islamic financial instrument for agriculture. *Journal of Islamic Financial Studies*, 5(1).
- Rahmat, S., MH. (2020). Intellectual capital, bank size, bank market share, and efficiency of conventional banks in Indonesia. *Revista CEA*, 6(11), 71-88. doi: <https://doi.org/10.22430/24223182.1457>
- Rashid, A., & Jabeen, S. (2016). Analyzing performance determinants: Conventional versus Islamic banks in Pakistan. *Borsa Istanbul Review*, 16(2), 92-107. doi: <https://doi.org/10.1016/j.bir.2016.03.002>
- Saeed, M. S. (2014). Bank-related, industry-related and macroeconomic factors affecting bank profitability: A case of the United Kingdom. *Research journal of finance and accounting*, 5(2), 42-50.
- Salim, B. F., & Bilal, Z. O. (2016). The impact of liquidity management on financial performance in Omani banking sector. *International Journal of Accounting, Business and Economic Research*, 14(1), 545-565.
- Salman, A., & Nawaz, H. (2018). Islamic financial system and conventional banking: A comparison. *Arab economic and business journal*, 13(2), 155-167. doi: <https://doi.org/10.1016/j.aebj.2018.09.003>

- Schildbach, J. (2017). Large or small? How to measure bank size. Deutsche Bank Research. In.
- Sedovandara, D. F., & Mahardika, D. P. K. (2023). Financial Performance Determinant: Evidence On Energy And Mineral Sector. *Jurnal Akuntansi*, 27(2), 299-317. doi: <https://doi.org/10.24912/ja.v27i2.1392>
- Selim, M. (2020). Financing homes by employing Ijara based diminishing Musharaka. *International Journal of Islamic and Middle Eastern Finance and Management*, 13(5), 787-802. doi: <https://doi.org/10.1108/IMEFM-05-2019-0217>
- Seth, H., Chadha, S., Ruparel, N., Arora, P. K., & Sharma, S. K. (2020). Assessing working capital management efficiency of Indian manufacturing exporters. *Managerial Finance*, 46(8), 1061-1079. doi: <https://doi.org/10.1108/MF-02-2019-0076>
- Siddique, M. A., Haq, M., & Rahim, M. (2020). The impact of the Islamic banking industry on economic growth and poverty reduction in Pakistan. *Enhancing Financial Inclusion through Islamic Finance, Volume II*, 259-279. doi: https://doi.org/10.1007/978-3-030-39939-9_11
- Supardi, S., & Anantanyu, S. (2018, April). The Performance of the Indonesian National Amil Zakat Board in Supporting the Development of Healthy Sanitation in Karanganyar, Central Java. In *The International Conference on Public Health Proceeding* (Vol. 3, No. 01, pp. 161-161).
- Supriyadi, T., & Terbuka, U. (2021). Effect of return on assets (ROA), return on equity (ROE), and net profit margin (NPM) on the company's value in manufacturing companies listed on the exchange Indonesia securities year 2016-2019. *International Journal of Economics, Business and Management Research*, 5(04), 2021.
- Usman, A., & Khan, M. K. (2012). Evaluating the financial performance of Islamic and conventional banks of Pakistan: A comparative analysis. *International Journal of Business and Social Science*, 3(7), 253-257.
- Yip, A. W., & Bocken, N. M. (2018). Sustainable business model archetypes for the banking industry. *Journal of cleaner production*, 174, 150-169. doi: <https://doi.org/10.1016/j.jclepro.2017.10.190>
- Zafar, S., & Nor, E. (2019). DETERMINANTS OF ROI IN MUDARABAH & MUSHARAKAH CONTRACTS IN PAKISTAN: AN APPRAISAL. *International Journal of Business & Society*, 20(3).
- Zulkhibri, M., & Sukmana, R. (2017). Financing channels and monetary policy in a dual banking system: Evidence from Islamic banks in Indonesia. *Economic Notes: Review of Banking, Finance and Monetary Economics*, 46(1), 117-143. doi: <https://doi.org/10.1111/ecno.12076>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics*. McGraw-hill.

- Syafaâ, A., Hilmy, H. M. A., Saifurrahman, A., & Hassan, R. (2018). Analysis the Gap between BNM Regulation and Musharakah Mutanaqisah Application in Islamic Banking. *Labuan e-Journal of Muamalat and Society (LJMS)*, 12, 26-42. doi: <https://doi.org/10.51200/ljms.v12i.1348>
- Afiyanti, A., & Hardiyanti, W. (2020). Impact Analysis Of Capital Adequacy Ratio (Car) And Return On Asset (Roa) On Financing Of Murabaha On Sharia Bank In Indonesia Period Year 2014-2018. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 8(3).
- Malakolunthu, S., & Rengasamy, N. C. (2012). Education policies and practices to address cultural diversity in Malaysia: Issues and challenges. *Prospects*, 42, 147-159. doi: <https://doi.org/10.1007/s11125-012-9227-9>
- Kamande, E. G. (2017). *The effect of bank specific factors on financial performance of commercial banks in Kenya* (Doctoral dissertation).
- Ahmad, A., Malik, M. I., & Humayoun, A. A. (2010). Banking developments in Pakistan: A journey from conventional to Islamic banking. *European journal of social sciences*, 17(1), 12-17.
- Afrizal, Y., Aliamin, A., & Shabri, M. (2023). The Effect of Musyarakah, Mudharabah, and Murabahah Financing on The Financial Performance of Sharia Commercial Banks in Indonesia. *Journal of World Science*, 2(5), 738-744. doi: <https://doi.org/10.58344/jws.v2i3.235>
- Siddique, M. A., & Siddique, M. Z. (2022). Intrinsically irreconcilable: The case against running musharakah as employed by Islamic banks. *Borsa Istanbul Review*, 22(5), 861-872. doi: <https://doi.org/10.1016/j.bir.2022.06.003>
- AlFadhli, M. S., & AlAli, M. S. (2021). The effect of bank size on financial performance: a case study on Kuwaiti Banks. *Journal of Insurance and Financial Management*, 4(3), 11-15.
- Islam, M., & Omar, N. A. (2017). Effects of Musharakah (Partnership) Contracts on the Financial Performance of Islamic Banks in Kenya. *International Journal of Advanced Engineering and Management Research*, 2(3), 400-411.
- Ali, A., Shafi, M., Tabasam, A. H., Ashiq, A., & Shabbir, M. S. (2022). Trends and volume of successful application of Musharakah as a major mode of financing in Pakistan: A case study of Meezan bank limited. *Journal of Public Value and Administrative Insight*, 5(2), 467-482. doi: <https://doi.org/10.31580/jpvai.v5i2.2621>
- Usmani, M. M. T. (2021). *An introduction to Islamic finance* (Vol. 20). Brill.
