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The Impact of Islamic Banking on Economic Growth via Mediating Role of Access to Financial Inclusion in Pakistan

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Abstract

This research examines whether financial inclusive acts as a mediator between Islamic banking investments and economic growth in Pakistan from 2010 to 2021. Applying annual time series data, the study explores how the flows in investments in Islamic banking (IBINV) affect the Pakistani GDP controlling the role of Access to financial services (Financial inclusion). Data for investment is obtained from the website of State Bank of Pakistan for value added from Islamic banking and World Bank indicators for financial inclusion. This study uses Islamic banking investments as the presumption that it affects GDP while using financial inclusion as the mediator in the econometric model. The results show that there is a positive and significant effect of Islamic banking investment on economic growth. Consequently, this study reveals that, access to financial inclusion significantly enhances the impact of Islamic banking investment for economic growth. Hence, the paper's findings favours Islamic banks' position for enhancing access to banking services, and thereby access financial inclusion as a stabilizer of Pakistan's economy that offers an opportunity to lessen economic disparities by avoiding the

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exploitation implied by interest charges. The study provides policy implications for increasing the Islamic banking industry in Pakistan including.

Keywords: Islamic Banking Investments, Access to Financial Inclusion, Economic Growth, Pakistan.

Introduction

From the past few years Islamic Banking and Finance has grown increasingly and is now a market giant in the global financial system (Banna et al., 2021). While the secular banking system operates under charging interests, the Islamic banking function operates under charging investments and that too with risk and loss sharing. In addition to being ethical and religious among Muslim consumers, this model is more just for all actors and create a more equal income distribution than most of other models (Jan et al., 2023). According to the Global Findex Database, (2017) though financial inclusion is crucial in the global community, it currently serves as the key enabler of seven out of the17 Sustainable Development Goals. It remains central in poverty reduction, economic development and the promotion of the rights of the needy through provision of affordable financial services (Demirgüç-Kunt et al., 2018). According to Islamic finance, financial inclusion promotes economic justice and social welfare (Ghroubi, 2023, Iskandar 2023).

In the light of the advancements, role of Islamic banking, Financial inclusion and Economic growth is significant in the context of developing countries such as Pakistan. With the recent focus on 'financial inclusion' for the poor and 'labor force' in the developed world through Islamic finance, the horizon has brightened for Islamic finance to deliver sustainable and fair economic growth model. The main factors that explain why the Islamic financial system is more suitable is that there is no speculation which makes the financial products of Shariah- compliant more stable than the traditional banking system (Le et al., 2019). For example, in Pakistan, bureaucratic systems have strengthened the nation's GDP growth. Global Islamic banking and the expansion of financial access

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aims at reducing economic vulnerability and promoting living standards through accessing sufficient financial enablers such as healthcare, education, and transportation (Hasan et al., 2024), ethical finance updating and inclusive growth framework show how Islamic banking contributes to sustainable economic development (Hidayat, 2024). Recent scholars pay more attention to the effect of Islamic finance as a tool for fostering economic development, income equality and social justice (Abdul-Rahman & Mohd Nor, 2016; Jan & Marimuthu, 2023). These qualities make Islamic banking as key strategic player in the future strategic map of the international finance industry. As research progresses in this area it will keep on changing the financial environment bringing about ethical and inclusive economic development.

In Pakistan, the central bank has launched the process to make the entire banking system Shari'ah compliant by 2027. This transition will enhance the position of Islamic banks this has a favorable effect on an increased number of fields in the overall economy. The increasing trend towards Islamic banking is also revealing the increasing concerns toward financial freedom (Le et al., 2019), especially among Muslims, who are embracing Islamic investment banks in Pakistan. Nevertheless, it has been evident that the country has over the last decade recorded a shrinking Gross Domestic Product which has called for a scrutiny of the causes of the poor showing. There are views suggesting that Islamic banking has ameliorated GDP growth impact (Khavarinezhad et al., 2021; Rafay & Farid, 2017), and others which report that it may be either non detrimental (Afidah & Yusof, 2020). This divergence prompts further analysis of the link between Islamic banking and economic results in Pakistan. In this context, the central question of this study is: *In what ways does the access to financial services mediates the effect of Islamic banking investments on GDP growth in Pakistan?*

In this context, the present research contributes to the literature in the following ways using Financial Intermediation Theory from Gurley and Shaw (1955, 1960).

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First, since significant shares of Pakistan's population remain financially marginalized and excluded from conventional banking systems, it is crucial to understand how the facet of financial inclusion might mediate the link between Islamic banking and economic development measured by GDP. Second, while earlier works have centered the influence of financial inclusion on economic growth in a straightforward manner (Adzimatinur & Manalu, 2021), not many have examined intermediate contribution of financial inclusion in relating Islamic banking investments to economic growth. Third, this study will be relevant to shed light on how Islamic banking can enhance the growth of the developing countries such as Pakistan. Combining the literatures on Islamic banking and financial liberalization, the findings will be most helpful to the policymakers who currently are witnessing a global phenomenon of moving away from the conventional interest based banking to Islamic banking. Finally, by developing the theoretical and methodological knowledge that grounded this work, as well as by providing suggestions for future research, this study benefits the academic community and establishing the basis for additional research in this field. Subsequent researchers can use these results to investigate other inquiries, or enhance the knowledge about Islamic finance and contribute to the advancement of the subject.

Literature Review

Theoretical Basis

The economic theory of financial intermediation of banking was developed by Gurley and Shaw (1955, 1960), With this theory, the role of banks in mobilizing funds from savers and directing them to borrowers is paramount to supporting the growth of the sovereign economies in borrowing the funds at an appropriate time, enabling investors to optimally manage capital. This theory postulates that banks help to fill the void occasioned by information asymmetries between creditors and borrowers. They bear risks and to stabillize the economy through the provision of

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funding to deserving projects. Traditionally, this process was associated with the interest-based process, which means that banks offered credit on interest and paid interest on deposits. yes but Islamic banking is all together a different concept which recedes from the conventional banking system as based on the Islamic shariah laws which egalitarian interest or charges on the loans given. It does not classify those that belong to lending, such as Ijara (leasing), and instead, emphasize profit-sharing and risk-sharing models of operations like Mudarabah (profit-sharing) and musharakah (joint ventures). These models anchor returns to real economy instead of a financial bubble, encouraging investment in genuine assets accruing value over the long-term (Sole, 2016; Khan & Bhatti, 2008). Scholarly, Islamic banking was developed from the conventional banking but it complements financial intermediation with ethical principles and risk sharing which in turn enhance the balanced economic structure and more distinct portraying of the banking system.

Another important contribution of Islamic banking, in the light of the financial intermediation theory, was the advancement of the option of financial inclusion. A basic fact to understand is that financial inclusion is all about providing access to timely, affordable, and appropriate financial services to those who are untouched by traditional banking systems. The shariah based finance relays on a fair, transparent and mutually responsible protection of the financial products enriching the financially disadvantaged notwithstanding the religious or economic constraints of the conventional systems (Imam & Kamil, 2020). Islamic bank invests in micro-enterprise, small business, and entrepreneurship who have no access to conventional interest-based loan sources (Karim, 2013). Equity financing therefore implies that borrowers take their chances and also reap value; this serves to make the financial systems more inclusive than when the entire risk is directed on fixed obligations – which tend to completely shut out the financially compromised.

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This is because the Islamic banking principles cannot incestuously in projects that are prohibited in the Shariah law. Islamic banks do not only target economic status but health in general since it ensures that the funds provided are allocated to the needy activities and all transactions are of good repute (Mannan, 2019). In addition to encouraging investment, zakat, which involves giving away wealth for charity as a form of paying for operational poverty alleviation expenses, supports economic equity by correcting the issue with income distribution. One has to wonder this ethical approach fosters good investment practices that the wealth is well distributed in order to form stable and inclusive monetary system (Karim, 2013). While in the conventional banking the major concentration remains on generating higher income through interest based loans, the ingredients of the Islamic banking such as real economy business and social benefits minimize financial exclusion and thereby includes more unbanked and under-banked people. The third is that of the positive internal dynamics within Islamic economics system where the fissures for the accumulation of debts common with most financial crises in the conventional banking sector are non-existent. Since Islamic banking is an integral part of Islamic economy, it directs investments to real economy, leading to strong economic recovery and sustainable growth (Sole, 2016). This makes lessons from sustainable and responsible growth advantages for the whole society, as well economic stability and inclusive development, which are ethical and feasible. Altogether, the approach based on financial intermediation theory and Islamic banking principles produces an environment to support the capital allocation for investment and contribute to the goal of financial inclusion. This way, there will be funding for everybody, as well as sustaining decent, moral, and economically stable money-creating environment which can enhance sustainable economic development, and actually eliminate financial isolation of people.

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Islamic Banking Investment and Economic Growth

The literature link of financial development and economic growth is already existent in theory although major part of the research body depends mostly on conventional financial systems. Many publications and famous researchers have tried to reveal this connection (Iskandar, 2023; Abdallah, 2021; AlSartawi, 2019; Hassan et al., 2020; Niaz & Gulzar, 2022). Nonetheless, a new discourse has appeared since the early 2000s concerning the role of the new Islamic banking or asset-backed banking in growth process.

The earliest work done on this issue is found in the paper done by Nguyen et al. (2022) that investigated how Islamic banking affected the economic growth in Malaysia. Employing Johansen and Juselius' cointegration techniques and Vector Error Correction Model, they concluded that borne out in the long run, the expansion of Islamic finance endorses economic growth and capital formation. But the study also pointed that this growth does not seem to employment or trade enhance. Using quarterly banking and macroeconomic data, Juhro et al. (2020) also tested the Islamic finance-growth nexus employing an ARDL technique. Their empirical findings revealed that there exist long-run co-integration relationships between the stock of Islamic finance and economic growth.

Lehnert went further in this by analyzing the role played by Islamic banking in economic growth in 32 developed and developing nations. Through the different econometric tests applied in this paper: POLS, FE, and DD, the paper suggests that Islamic banking industry is relatively small in the overall financial industry and its size is significantly positively related with economic growth. We found that this remained the case even when controlling for aspects affecting financial structure, as well as macroeconomic characteristics. Relatedly, Chazi et al. (2020) conducted a study using data from 14 countries to examine the effect of size of Islamic banks on the growth of 28 industries. The author established that the volume of Islamic banks' assets and the banks' proportion to total financial assets

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have a positive effect on industrial growth that underpins other sectors' development. While there was the consideration of long-run dynamics of testing the variables, the study did not support long-term cointegration analysis of the Islamic banking with economic growth, based on the pooled data from a number of countries.

Gazdar et al. (2019) examined whether Islamic finance moderates the effect of oil terms of trade and growth volatility on the GCC countries' economic growth during the period of 1996–2016. They found that there was a strong positive correlation between growth volatility in OTTO and economic growth. Another learning from the study was that the Islamic financial system also enhances the reinforcing effect of oil related growth volatility on general performance. In the same manner, Leon and Weill (2018) analyzed the impact of this Islamic banking on credit, employing a unique data set, namely IFIRST as well as firm level data of over 15000 firms from 52 different countries. They suggested that the evidence does not mean that development of Islamic banking decreases credit constraints for everyone, though the fixed effect model does indicated that Islamic banking increases the availability of credit for those individuals in countries where conventional banking is not well established. Conversely, these studies give useful information on the effects of Islamic banking on economic growth. Based on these observations, we hypothesize the following:

Hypothesis H1: There is a significant relationship between Islamic banking investment and economic growth.

Mediating Role of Access to FI in between Islamic Banking Investments and Economic Growth

According to Akhtar et al., (2020), and Ali & Aziz, (2019) found that the Islamic financial inclusion index has been formulated earlier on the data from the Islamic financial institutions. But Abu Seman and Ariffin (2017) went a notch higher in developing the financial inclusion index specific to Islamic financing. Their index

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includes factors such as physical access, accessibility, zakat, waqf, micro financial products and services and Islamic banking. This development only underscores the importance of this research to provide a deeper understanding of the engagement of Islamic banking in the proposition of the financial inclusion front. It also implies that Islamic banks can expand the scope of competition with conventional banks, increase the choice offering to clients and enhance the level and quality of financial intermediation. In a study done by Zamer in 2018, he noted that governments in areas such as the Middle East as well as sub-Saharan region have focused on Islamic banking and increased financial inclusion. However, difficulties including religious extremism and high interest rates have played a negative role on financial results in these regions.

Especially, Nawaz (2018) discussed the fact that the increase in the number of banks positively affected the financialisation of developing countries, and they are interested in Islamic banking. According to Onakoya and Onakoya (2014), the adoption of Islamic banking could potentially alleviate the proportion of poor people in Nigeria, because the majority of those surveyed are willing to embrace Islamic banking though it initially posed religious concerns to them. In their paper, Mustafa et al. (2018) focused on the effects of Islamic finance on financial liberalization of such countries as Pakistan, Saudi Arabia, Malaysia, the United Arab Emirates, Kuwait, and Qatar. Their results showed improvement in these areas. Although issues related to Islamic financial products are mainly argued in the legal context, there is an increased need to shift to the realization of maqasid al-Shariah, which is the aims and objectives of Shariah (Ishak & Nasir, 2021). According to the World Bank (2020), Usman and Tasmin, (2016), there are various opportunities on how Islamic finance can improve the level of financial inclusion including eliminating religion, employing risk sharing approach, improving existent services, developing new investment, and increasing quality of financial services.

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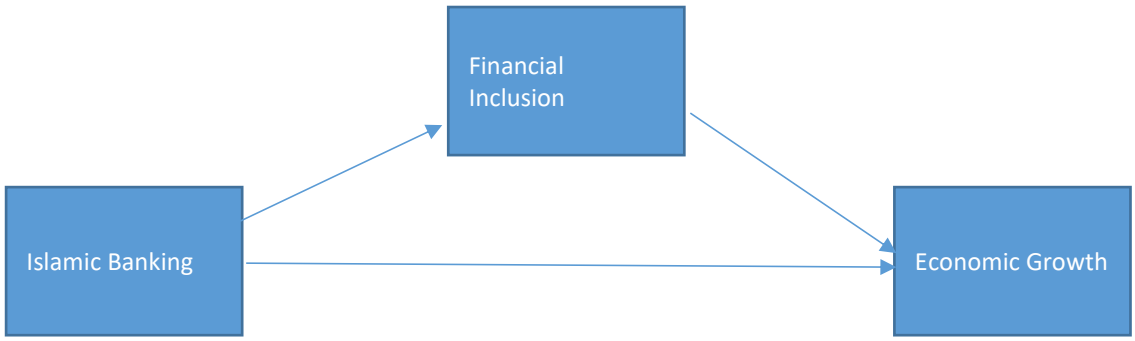
Various studies have shown that as much as 1.7 billion people globally are excluded from formal financial services, and they reside in the developing nations. For example, while global financial inclusion has risen to about 68pc, Pakistan's financial inclusion is at below 25pc . As for the population's usage of financially productive devices, only 191 million inhabitants, or 21% of the total population, have had at least some contact with a formal financial organization. According to Bigirimana & Hongyi (2018), Sharma (2016), Atkinson & Messy (2013), Lenka & Sharma (2016), and Sanjaya et al. (2016) of various countries, restricted financial inclusion poses an embryonic threat to economic development.

Despite the fact that numerous research is devoted to investigating African countries, it also explains how the density of the financial sector influence the rate of economic growth in other countries. According to Nkwede (2015), financial exclusion would deny the economy flow of the associated positive economic gains and put it in contradistinction that Nigeria's financial inclusion has a negative impact on economic growth. But still, according to Domeher et al., (2022) the vast majority of works carried out in Africa argue that financial access enhances economic growth. This supports view adopted in the literature that as barriers to bank access are diagnosed, people have more economic resources for lending, and hence more economic growth.

Based on these findings, we hypothesize the following:

Hypothesis H2: Financial Inclusion positively mediates that relationship between Islamic banking investments and Economic growth

Figure 1. Simple mediation model.



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Methods

Data and Data Sources

Annual time series data from 2010 up to 2021 was used for the analysis of the variables; for this purpose data for Islamic Banking Investments (Independent variable) and Economic Growth (Dependent variable) were collected from the Financial Statement Analysis available on the website of the State Bank of Pakistan whereas financial inclusion (Mediator) were collected from the World Bank Indicators. The analysis of data was done with SPSS 26 and E-Views version 8 software, the test of the mediator variable was done using the Process macro by Hayes (2013) adopted in model 4 in SPSS.

The target population of the current study includes all active Islamic banking system in operation in Pakistan. But it only covered a small cross section more precisely those banks which are purely Islamic in nature in Pakistan and included banks like Albaraka Bank Pakistan Ltd, Meezan Bank, Faysal Bank, Bank Islami Ltd, and Dubai Islamic Bank. Some of the banks were omitted in the study because of inadequate data.

Model Specification

In order to check the role of Financial Inclusion as a mediating role in the relationship between Islamic Banking Investments and Economic Growth, an Econometric model was designed

$GDP(Y)= \beta + \beta_1 IBINV + \beta_2 FINC + U_t$

Where

Y= Gross Domestic Product (dependent Variable)

IBINV= Islamic Banking Investments (Independent Variable)

FINC= Financial Inclusion(Mediator)

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Table 3.1. Variable description, Units and Sources

Variables	Proxy	Symbol	A Priori Expectation
Dependent			
Economic Growth	Gross Domestic Product (Leslie Kramer, 2022)	GDP	
Independent			
Islamic Banking	Islamic Banking Investments (Helmi, 2018).	IBINV	(+)
Mediator			
Financial Inclusion	Index of Financial Inclusion=> Access (Ifediora et al. 2022)	Access	(+)

Estimation Techniques

To check the economic growth of any country there is need to check the Gross Domestic product, after studying the decline occurs in the last decade of the Pakistani economy, for that reason current study has taken its Dependent variable(GDP), next step is to check what is the relation and impact of Islamic Banking component with the study's DV, so current study has chosen the most appropriate component of Islamic Banking i-e, Islamic Banking Investments (IV), also to check the Mediating role of Financial Inclusion Index i-e Access to Financial Services which helps to boost the Investments of Islamic Banking. To check the relationship Correlation test and for impact study has used ordinary least square (OLS) regression test. In case of mediator, process macro in the SPSS using Model 4 (Hayes, 2013) was used.

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Results and Discusion

Descriptive Statistics

Table 4.1. Descriptive Statistics

	GDP	IBINV	Access to FI
Mean	35.88384	31.02308	24.39580
Median	35.79385	30.81571	24.43216
Maximum	36.53204	32.72101	24.72504
Minimum	35.35271	29.67742	24.05669
Std. Dev.	0.390853	0.847134	0.203898

Keywords: GDP= Gross Domestic Product (Economic Growth) IBINV= Islamic Banking

The average GDP is 35.88 which means the typical GDP in the data set. A relatively equal distribution is observed in the case of median value of 35.79, which is close to the arithmetic mean. To indicate the exemplary nature of the fluctuation, there is a standard deviation of 0.39 and range of 35.35 to 36.53 so that the given figures concern relatively similar values of the GDP during the period of observations.

In the next distribution for IBINV, there might be more variability, seen with the mean of 31.02 % and the lower median of 30.81. Putting a standard deviation of 0.85 where IBINV range stands at 29.68 up to 32.72 signifies that there are little fluctuations in the levels of infrastructure investment. The distribution of Access to FI is nearly balanced, having a summary measure of central tendency of 24.40, and the measure of modal center of 24.43. The variance is equal to 0.20, and the values are 24,73 at the maximum and 24,06 at the minimum. Even more evidence pointing to the same is a low standard deviation, which indicates a minimal range in the availability of financial institutions.

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In turn, all three indicators differentiate but reveal rather limited variability compared to the overall mean: FCI has the least amount of variation based on standard deviations.

Data Normality Test

Table 4.2. Data Normality Test

	Skewness	Kurtosis
GDP	0.35954	1.91547
IBINV	0.69195	2.9119
Access to FI	-0.8768	2.1437

Keywords: GDP= Gross Domestic Product (Economic Growth) IBINV= Islamic Banking Investments, Access= access to Financial Inclusion.

With a skewness of 0.36 for GDP, the distribution is slightly positively skewed, with a longer tail on the right side. The distribution appears to be platykurtic, or flatter than a normal distribution, with fewer extreme values, as indicated by the kurtosis of 1.92, which is less than the normal value of 3. In contrast to GDP, IBINV has a more noticeable positive skew with a longer right tail, as indicated by its skewness of 0.69. The distribution is roughly mesokurtic, or comparable to a normal distribution in terms of peak and tail behavior, according to the kurtosis value of 2.91, which is near 3.

The distribution has a broader tail on the left side, and the skewness for Access to FI is -0.88, indicating a moderate negative skew. With a kurtosis of 2.14, it is likewise platykurtic but somewhat closer to normal than GDP.

Finally, Access to FI shows negative skewness, but GDP and IBINV demonstrate positive skewness. With the exception of IBINV, which is almost normal in this regard, all three variables have kurtosis values that indicate distributions with fewer extreme values than a normal distribution.

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Correlation

Current study presents the Pairwise Correlation between the variable, to find out the multicollinearity exists among the executed variables or not, this test for applied, having multicollinearity among the variables the estimated coefficients and standard errors become inflated (Simon, 2004). To ensure the current study model is free from the multicollinearity the below ranges should be followed. Correlation coefficients range from -1 to +1, with weak relationships indicated by coefficients between +0.1 and 0.4. Correlations over 0.6 are considered strong, while those between +0.5 and 0.6 are moderate. A positive correlation occurs when both variables increase or decrease together, whereas a negative correlation occurs when one variable increases as the other decreases. A decrease in both r and p values signifies a strong correlation. Once the descriptive statistics of the daily data have been examined, the next step is to assess the correlation between the dependent and independent variables. Table 4.3 is about the correlation matrix of the dependent variables as well as independent variables.

Table 4.3. Correlation

	GDP	IBINV	Access
GDP	1.000000		
IBINV	0.713702	1.000000	
Access	0.652298	0.534550	1.000000

Keywords: GDP= Gross Domestic Product (Economic Growth) IBINV= Islamic Banking Investments, Access= access to Financial Inclusion.

Variance Inflation Factors (VIF)

To examine the presence of multicollinearity among independent variables, the values in the correlation indicate that there is not much multicollinearity, which also verify with VIF test. The VIF results suggest that the independent variables do not exhibit multicollinearity. According to Gujarati (2009), if the VIF values are

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less than 10, it implies that multicollinearity is not an issue. Ensuring that none of the independent variables are multicollinear is crucial. As all VIF values are below 10, the analysis indicates no problem with multicollinearity among the independent variables. Gujarati (2009) confirms that a VIF value less than 10 signifies that multicollinearity is not a concern.

Table 4.4. VIF

Variable	VIF
IBINV	7.01752
ACCESS	5.84604

Keywords: IBINV= Islamic Banking Investments, Access= access to Financial Inclusion.

Philips-Perron Fisher Unit Root Test

The stationarity of a time series can be evaluated using unit root tests. A time series is considered stationary if its distributional structure remains constant over time. The presence of unit roots is one reason for a lack of stationarity. It is recognized that the statistical power of these tests is limited. The researcher has evaluated the stationarity of each variable.

Table 4.5. Unit Root Test

Variables	Intercept/Trend	t-Statistics	Probability	Remarks
GDP	Intercept	-3.64976	0.0289	Series Is Stationary at 2nd Difference.
IBINV	Intercept	-2.86045	0.00976	Series Is Stationary at 2^{nd} Difference

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Access	Trend and Intercept	-8.5083	0.0005	Series Is Stationary at level

Keywords: GDP= Gross Domestic Product (Economic Growth) IBINV= Islamic Banking Investments, Access= access to Financial Inclusion.

Linear Regression

H1: There is a significant relationship between Islamic banking investment and economic growth.

Table 4.6. Linear regression

Variable	Coefficient β	Std. Error	t-Statistic	Prob.
Constant	20.79236	0.486049	42.77831	0.0000
Islamic Banking Investments	0.435407	0.048264	9.021400	0.0000

A linear regression analysis was conducted to determine the relationship between independent variable and the dependent variable

The results of the regression analysis are summarized in Table, it shows that the constant C of the regression has a beta β of *20.79236* (SE = *0.486049*). This means that when the value of the independent variable is held constant, at the zero values, the dependent variable is expected to have a value of approximately 20.79.

Islamic banking Investment *0.435407* (SE = *0.048264*) In other words, all else being equal a one-unit increase in the Islamic banking Investment, is anticipated to lead to an approximately 0.44 unit raise in Takāful penetration. This value is statistically significant, t = *9.021400*. And a significant contribution to the model in predicting higher dependent variable 0.0001 In line with previous studies, current study has also found this for (Biancone & Radwan 2019; Kuanova et al. 2021; Tiwari et al., 2016; Shuaib & Sohail, 2021; Iqbal i wsp. 2023; Kanapiyanova et al. 2024 Khan et al. 2021; Pratomo & Ismail 2006 Timur, MU et al.

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2023; Stewart et al., 2005) Participants (n = the listed number) (Mousalreza & Akbarzadeh, M. 2021, Qatabiyon. 2021; Belkhaoui 2023). Therefore, our hypothesis H1 is accepted.

Islamic Banking Investment on GDP via Access(FI) as a mediator

Table 4.7. IBINV on GDP via Access as Mediator

Variable	Model	Coefficient	SE	t-Value	p-value	LLCI	ULCI
Access	Direct Effect	.3216	.0522	6.1552	.0002	.2034	.4398
GDP	Constant	25.2210	1.4640	17.2272	.0000	21.9080	28.5340
	IB Investments	.3216	.0522	6.1552	.0002	.2034	.4398
	Access	.1344	.0448	3.0022	.0149	.0331	.2357
	Indirect Effect	.1138	.0633			.0363	.3025

Keywords: GDP= Gross Domestic Product (Economic Growth) IBINV= Islamic Banking Investments, Access= access to Financial Inclusion.

Here is a table 4.7. of the mentioned results: Investment and GDP with Access as mediator - Mediation Analysis from Post Development vol. 28 no.2 compact-374. The direct effect of Access on GDP is significant (β = *0.3216*, SE = *0.0522*, t = *6.1552*, p < *.0002*, 95% CI (*0.2034, 0.4398*)), with a standard error of

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mean being 10%. This suggests that an increase in Access is accompanied by a complementary rise in GDP. The intercept is *25.2210* (SE = *1.4640*, t = *17.2272*, p < *.001*, 95% CI (*21.9080, 28.5340*)), and the relationship between GDP and Investment, represented by Islamic Banking Investments, is within range [p < .001, 95% CI (*21.9080, 28.5340*)]. In addition, the β for the direct effect of Islamic Banking Investments on GDP is identical to the coefficient for Access's direct effect on GDP (*0.3216*, SE = *0.0522*, t = *6.1552*, p < *.0002*, 95% CI (*0.2034, 0.4398*)). Nevertheless, the coefficient for Access to GDP changes when Islamic Banking Investments is also controlled (β = *0.1344*, SE = *0.0448*, t = *3.0022*, p = *.0149*, 95% CI (*0.0331, 0.2357*)). This means that the Access to GDP relationship becomes weaker as a result of considering Islamic Banking Investments, indicating a mediation effect. The indirect effect of Access on GDP through Islamic Banking Investments (mediator) is significant (β = *0.1138*, SE = *0.0633*, 95% CI (*0.0363, 0.3025*)). The results imply a mediated pathway in the relationship between Access and GDP via Islamic Banking Investments.

To sum up, these results demonstrate the existence of a positive direct effect of Access on GDP. There is a partial mediation effect of Islamic Banking Investments between Access and GDP; showing that there is an overall positive indirect impact from Access to GDP through Islamic Banking Investment. Our results are consistent with Kamal et al. (2021); Irfany, Wulan, and Fitri (2022); Malik et al. (2022); Pandey et al. (2022); and Demirgüc-Kunt & Levine (2018). Therefore, our hypothesis H2 is accepted.

Pairwise Granger Causality Tests

Table 4.8. Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
GDP does not Granger Cause IBINV	11	3.49433	0.0985
IBINV does not Granger Cause GDP		0.86793	0.3788

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GDP does not Granger Cause Access	11	0.25774	0.6254
Access does not Granger Cause GDP		1.22689	0.3002

Keywords: GDP= Gross Domestic Product (Economic Growth) IBINV= Islamic Banking Investments, Access= access to Financial Inclusion.

The GDP does not exhibit Granger causality. The inverse of the incomplete beta function (IBINV) with parameters (*11, 3.49433*) is equal to *0.0985*, with a p-value of *0.0985*. Additionally, the inverse of the incomplete beta function does not have a Granger causality relationship with GDP, where the parameters are (*11, 0.86793*) and the value is *0.3788*, with a p-value of *0.3788*. These findings indicate that there is no substantial causal correlation between GDP and investment. With a corresponding probability value of 0.625, the null hypothesis that "GDP does not Granger cause Access" produced an F-statistic of 0.257. We are unable to reject the null hypothesis since the p-value is higher than the standard significance level of 0.05. This shows that there is no proof that access to financial institutions in this sample is influenced by GDP Granger.

Comparably, the null hypothesis "Access does not Granger cause GDP" yielded a probability value of 0.300 and an F-statistic of 1.227. It is not possible to reject the null hypothesis because the p-value is higher than 0.05. This suggests that the idea that GDP is caused by financial institution access is not well supported by data. Overall, the findings indicate that there is no bidirectional Granger causation between GDP and financial institution access in the examined data.

Based on the Pairwise Granger causality tests, there is no significant evidence to establish causal relationships between the examined economic variable. These results indicate that the variable could act independently rather than as part of one another in our setting.

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Conclusion and Policy Implications

The importance of this study lies in the fact that Pakistan is an emerging economy, where Islamic banking occupies a large share. Islamic banking works under Islamic law, and accordingly, the payment of interest is prohibited so it provides a distinct form of financial intermediation. However, there is a small volume of studies, which has investigated the impact of Islamic banking on development of such economies.

By doing so the study has greatly contributed to the understanding of the dynamics of Islamic banking industry in the context of Pakistan's economy. It also illustrates that Islamic banking helps to redress exclusion and supports long-term balanced economic development. Using a framework of the Financial Intermediation Theory of Banking, the work aims at examining how these Islamic banks intermediated depositor funds in order to provide funds for investment. Referring to the monetary circulation, this theory emphasizes that bank act as an intermediation between savings and investment in productive economic sectors. Islamic banking system is actually another type of financial intermediation that complies with sharia law besides fueling economic development in the world and improving access to basic financial services for many people.

This study also examines the level of government expenditure as another determinant factor affecting the Islamic banks' performance. Monetary and fiscal policies, such as infrastructure and welfare policies have keen implications to the activities of Islamic financial institutions. The findings of this study support the proposition that Islamic banks are involved actively in financing government initiated activities or projects by which over all development of Pakistan is accelerated. The study therefore calls for enhancement and support of Islamic banking Institutions in the maintenance of economic stability and growth especially within developing economies such as Pakistan. Also, the work contributes to the existing literature of the subject of Islamic finance mainly

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because it brings into focus on the relationship between economic development and Islamic banking. Its risk-sharing practices reduces economic inequalities as an inherent feature of Islamic finance, in order to foster balanced economy. Due to their non-interest based operations, Islamic banks help to bring changes for the better both for the system and the overall stability of the economy. This is a part of the overall economic plan of Pakistan which envisages growth for the country that does not leave any part of the population behind.

On the basis of theoretical advances, this research uses the Financial Intermediation Theory of Banking within the premise of the Pakistan economy. This paper provides a more subtle and practical view of how Islamic banks – as a type of financial intermediaries – might generate money and influence the liquidity state of affairs. This accords with economic theories that Mises (1912) and Phillips (1920) held that banks are not just an intermediate agent, but also act as money creators through lending. Thus, enhancing liquidity and fostering economic operations, Islamic banks help to sustain stabilization of the financial system during economic crisis in terms of the concepts developed by Diamond and Dybvig (1983).

From a practical perspective, the paper offers policy implications for policymakers, Islamic finance institutions, and practitioners in the sector. This paper's results indicate that the promotion of efficient performance and policy improvements in Islamic banks can be useful in achieving a wide range of economic goals, including the goal of improving financial inclusion and achieving economic stability. The study also suggests integration of the financial laws to the Islamic laws, provision of incentives in the area of taxation and easing up of rules and regulations in the growth of Islamic banking. It will also contribute to the establishment of a legal and regulatory scheme that will enable formation of competitiveness of Islamic finance.

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Therefore, the study suggests that the government, the micro-finance banks and international Islamic banking organizations should work together to increase the use of Islamic banking in the country. It will be necessary to propose an approach towards the population that has no experience cooperating with Islamic banks, and increase the flow of investments in different branches of the economy to make the possibilities of such banking accessible to a greater amount of people. Despite the merits of the study, Mariampolski (2004) admits some latinities of the study such as the use of secondary data. As a basis for future research work, further studies should be made on the effects of this Islamic banking especially in the Muslim countries as well as the countries that are not predominantly of Muslims.

Limitations and Future Research Directions

The following limitations are also recognized for this study. This study is confined to utilize secondary data from State Bank of Pakistan and World Bank Indicators only, thus it has modeled data accuracy and completeness problem. Furthermore, since our study investigated purely Islamic banks operating in the context of Pakistan for analysis, the conclusions drawn cannot be extrapolated to other banking systems or to any other countries with different economic or with different legal frameworks. For future research the cross-sectional study makes it easier to establish the approximate correlation or even causality between Islamic banking investment, financial inclusion and economic growth based on the data obtained for specific time, however, the given approach does not focus on long-term trends or causality between the stated variables, so a longitudinal study can also be exercised in future. Importantly future research could overcome all the aforementioned limitations and incorporate more varieties of conventional and mixed banking systems, and furthermore, use panel data or experimental design to investigate the longer-term impacts of Islamic Banking on the economic growth rate.

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