

# AN IMPLICATION OF SIGNALING THEORY TO EXAMINE IMPACTS OF FINANCIAL LEVERAGE ON FIRM PERFORMANCE: A STUDY OF ISLAMIC BANKS IN ASIAN REGION

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## ABSTRACT

Financial Leverage is most influential factor for overall productivity of the firms, thus not ignorable. Currently abundant literature is available on leverage of number of firms in different regions. Islamic Banking is nowadays emerging field need attention of the researchers. Fewer studies are available on financial leverage and Islamic Banks of Asian region are almost ignored by the researchers. Thus, this research is designed for analyzing the impact of the financial leverage on performance of the Islamic Banks in the countries of Asian region.

The research study comprises of the population of Islamic Banks from Asian region. Twenty five Islamic banks from Asian economies are selected for the time period (2010 -2019) is used, and this data have been retrieved from the Thomson Reuters Data Stream. Researcher deployed latest version of E-views for data analysis in current study. The results of current research work are providing strong evidence in support of the Signaling Theory. Signaling theory describes that if there is higher capital then the performance of the banks will be much better. The findings revealed that financial leverage is on the level in Islamic Banks that totally depends upon the flexibility ratio for the adjustment of the value of debt and their power of earning.

**Keywords:** Financial Leverage, Firm Performance, Return on Assets (ROA), Return on Equity (ROE), Signaling Theory

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## 1. Introduction

### 1.1 Background of the Study

Recently Islamic Bank industry is springing in Muslim countries and for general public, academicians and corporate owners it is also an area of interest as well. It is one of the important industries

that can work a lot for improvement in Banking Industry. Dawn news, (The Business and Finance Weekly), September 2nd, 2019, according to a senior banker the most practical solution is that it is essential for the banks to introduce and establish own rate based on Musharka and Mudarba agreements in the

interbank market. Currently government of Pakistan has introduced fixed rate Sukuk. Many sovereign issues can also be used as benchmark for the purpose of long-term financing by the financial institutions. In variation dynamics in financial sector, discussion requires some focused coordinating behavior among academia, practitioners, regulators and digitization experts to depict some creative solution.

There are number of strategies, methods and techniques which are used by firms in reaching (ROE) return on equity. Financial leverage is one of them. The association between financial leverage and ROE plays vital role to all firms. The motive of this study is to find out the effect of financial leverage on Islamic bank's performance in Asian countries. An authentic source of measuring the bank performance is their financial statements which have direct link with the performance. Researchers argued an admirable association and link between the financial leverage and performance of the bank.

The current world financial crises brought the Islamic financial system into the spotlight as a possible difference for the purpose of investment and banking (Smola and Mirakhor, 2010). Islamic financial institutions are dominant in possessing the high market shares in number of economies which are emerging like Malaysia and other middle Eastern economies (Beck et al., 2013). Islamic bank industry is recognized as one of the springing and fastest industry in finance and is still growing all over the world. The total number of Islamic institutions exceed to (Sufian and Noor, 2009). Malaysia and Bahrain are struggling hard to be a hub in the region for Islamic financial services (Ariss, 2010). Despite of the rapid expansion of the Islamic banking industry, the findings of Islamic banks at cross- nation level are still in its early age (Sufian and Noor, 2009). Most Asian countries are emerging and increasing trend recognized within the current investigations on banking sector is linked with particular performance dimensions and benchmark in developing economies (Ebrahim, Girma, Shah, & Williams, 2014). The specific investigation attentions are on Asian banks; banks performance reacts differently in various flourishing economies. However, the influence of Islamic banks and their compliance with the true rules of Sharia-which is profound in these countries on bank performance, is of special importance. Precisely, Sharia imposes clear restrictions on interest or any charge for loan of money (known as "riba"), whether the nature of payment is fixed or

floating.

Every organization requires finance in order to invest in various types of assets in order to perform effectively to provide the customers with tangible or intangible products. The requirements of increase in funds for successful operative pattern which have risen to critical concepts in finance, Financial leverage. Decisions made on capital structure of Banks' Management have a positive role on the financial performance of the firm and firms operating in various sectors of economy, the influence that these decisions may have on a firm's profitability is bound to be different across numerous industrial sectors owing to the basic difference in capital structure of the firms. Debt financing level that a firm is using in its structure of capital is referred to financial leverage. The work on financial leverage is done to impact the firm performance in the literature of various studies of capital structure (San & Heng, 2011; Salim & Yadav, 2012; Khan, 2012), although no conclusive association has been documented yet and therefore further research in this area will be encouraged lately. In any organization decisions related to finance investment and dividend play major role and having an urgent mater because of an important source of organization. These decisions have a direct link with performance of firm

Studies overall show how significant money related influence is affecting benefit in organizations. Most have discovered a huge connection between the two however changing degree. Such investigations included in Jordan (Al-Shamaileh and Khanfar, 2014), in Pakistan (Nawaz, Salmani and Shamsi, 2015) come to know that monetary influence has a measurably huge backwards sway on productivity at 99% certainty stretch; in China on the connection of operational influence and benefit (Chen, 2004); Iran on the association among budgetary influence and gainfulness (Fengju, Farad, Maher and Akhteghan, et.al 2013). Other models incorporate Banchuenvijt (2011) in Thailand and Srivstava (2014) in India who built up a positive relationship in the midst of monetary influence and gainfulness.

The relationship between the two kinds of influence is additionally exhibited in a few investigations in Africa, for example, Enekwe, Ague and Ezido (2014) in Nigeria, Boachie, Boachie, Ezidisi, Nyanes and Gyabeng (2013) in Ghana and Joshua, (2007) in South Africa. In East Africa, there is the examination by Ishuza (2015) who looked with the impact of monetary influence on business banks" gainfulness

in Tanzania. In Kenya there are studies, for example, Gweyi and Kranja,(2014) on the impact of budgetary influence on monetary execution of Deposit Taking Savings and Credit Co-usable in Kenya; and Kale ,(2014) on the effect of money related influence on firm execution: the instance of non-monetary firms in Kenya; and Mule (2015) on the money related influence and execution of recorded firms in a wilderness market: board proof from Kenya. Every one of these investigations uncovered a noteworthy connection between money related influence and benefit. Nonetheless, these examinations didn't glance relation in Agricultural sector firms recorded with Stock Exchange of Nairobi.

In Pakistan, Al-Tani, (2013) examine how monetary leverage measures the use of debt by companies and equity in order to finance the assets of firm and its other. A firm can achieve the portfolio of its investment from equity and debt. Agency can rent desired capital as another shape of capital. Employer's fee of go back on property is constant irrespective of charge of the interest on debts. Economic leverage utilized by various corporations is supposed to earn greater benefits on their constant cost rather than the fee of their operations. As the debt will increase, monetary leverage will increase (Al-Tani, 2013; Mohamed, 2010). The accelerated monetary leverage manner a boom inside the enterprise potential and complements its capability earning lot of income.

Financial leverage selection is critical since the working exactly effected by such wish; thus, the desire of mixture among equity and debt have to be dealt with through finance manager with issue, for reason that seminar on the paper of Modigliani and Miiler in 1958 the capital formation idea and interplay by companies" performance there was consistency with modern-day results (Al-Taani, 2013; Mohamed, 2010; Ogebe. P, Ogebe & Alewi, 2013). Modigliani and Miiler (1958) claim that irrelevance of fairness to ratio of the agency position. Due to the fact that they have taken into account the assumptions of best markets without tax, and no bankrupt transactions expenses, idea regarding debt irrelevancy is very hardly sensible (Osmaan & Mohamed 2010, Ogebe & Alewi, 2013). Financial leverage, for this reason so has an impact on profit of the firm. Since lower debt causes in restrained capability to feature's extra efficient belongings.

Myers and Majluf (2004) finished a look at the impact for uneven facts on firms desiring the financial

sources, the observer used a descriptive measures in which 342 business companies in Canada have been analyzed, the observer observed that inside the life of uneven material, internal financial sources are more often than not desired by using the firm aside from different funds , debts could be used if there is deficiency in internal sources , the least opportunity for organization is to problem quite new fairness share, worthwhile groups are probably have extra retained income.

Research work in different nations on planet has demonstrated various relationships among influence and budgetary execution. While inspecting the structure of capital and execution of firms in USA, UK, Fraance and Japan, Wald (2009) examine significant relationship among size and monetary execution. Not with standing, it was insignificant relation for organizations in German. In China, Chin (2004) additionally settled negative relationship among extensive haul influence and monetary execution. This divergence in outcomes requires an examination in Kenya.

The function of budgetary influence in expanding the arrival of investors depends on the conviction which is subject to changing in finances, for example, loaning from money related establishments and different hotspots for instance debenture ought to be acquired at worth not exactly the association pace of profit for all out resources. Damourii, et al (2013) conveyed an investigation on organizations in S-Africa and characterized utilizing value as danger charges included and can be estimated with influence proportion. There are number of determinants for estimation of capital formation and normally utilized are, market esteem base actions, book base measures and semi-market based measures.

Money related influence effects income benefit after assessment. Blend of these two influences have significance to profit owing to standard investors (Pandey, 2010, Ogebe & Alewi, 2013). Al-Tani (2012) represented effect of monetary execution on working capital administration strategy and money related influence. From their examinations demonstrated that association's capital administration strategy, spoken by monetary influence and size of firm have critical relation with firms" execution in regard to overall gain anyway did not find noteworthy effect on Return on value and profit for Assets.

## **1.2 Determinants of firm performance**

### **1.2.1(ROA) Return on Assets**

ROA is the measure of gainfulness of the firm's functions. (Stephen 2010). It determines how a firm has earned the suitable return by making use of assets. Finance policy does not come under the consideration of this ratio it just shows how assets are used by firm to generate the income. (Williams,2010).

### 1.2.2(ROE) Return on Equity

ROE measures the total income related to firm average equity to stockholders during the year (Williams, 2010) and high ROE ensures the suitable profit to the shareholders. According to (Williams, 2010:647). A firm which suffers net loss is providing its shareholders a negative return on equity.

There is a possibility that a firm with high ROA has low ROE and having low ROA with high ROE because the ROE depends on amount of finance investment by the shareholders in the capital frame of the firm. If the borrowings (debt) are higher than the ROE will be low if we compare it with firm having same amount of entire assets and total earning.

Therefore, this study will investigate the situation in Asian country to bridge the knowledge gap.

In this research work ROE and ROA are the figures obtained from Islamic banks performance report in Asia.

### 1.3 Islamic Banking

The important aim and objective of Islamic financial system is to create unity and harmony among the Islamic nation's main purpose of just and reasonable circulation and use of wealth according to the true principles of sharia. It means whole banking system from deposits to product financing to their clients should be according to laws of shariah. Despite of the name Islamic financial system Islamic banking is rapidly growing among the non-Muslim regions due to its hard and fast rules of landings. Finance introduced by shariah is the combination of Islamic economy and modern principles because it sold the products to both Muslims and non-Muslims in a same way. There was only a small portion of market which deals only Muslim community who want to avoid the interest charges. Due to the worst risk management practices by some western economies in crises a number of non-Muslims are in search of low risky alternative.

Nevertheless, as compare to the various conservative sectors Islamic banks are in quite new state. Market players are working hard to for the well growth of its shares for the purpose of worldwide alternative to conventional one. The swift growth is moving toward the profitable opportunities notably. This diverts the

old process of number of institutions toward new profitable source.

London has shown its historical contribution as it managed and expanded its prominent position in the world markets to be a hub of Islamic finance. Likewise, Hong Kong, New York, and Singapore are also trying their best for the improvement of Islamic finance in their economies and wishing to gain the strong position of reputable Islamic centers like Kuala Lumpur, as Bahrain, Dubai and Labuan.

Both Islamic and conventional banking have contributing in the development and growth of financial sector of most of the countries of asian region by the usage of multiple financial instruments for channeling funds to public and private sectors.

According to ADB and IFSB 66 percent sukuk were issued by Asian countries. Malaysia is at the top of the list of these issues since many years as a leader in sukuk issues. World primary sukuk market comprises of 68.8 percent of the Malaysian sukuk, 4.68 percent of the Indonesian sukuk, 0.3 percent of the Pakistani sukuk and 0.33 percent of the brunei sukuks. In Asia some other has also been interesting in sukuks like Singapur, Kazakstan, Hong Kong and China.

According to Iqbal, (2001) information & analysis continue, stable growth as well as expansion in Islamic banking system as a proof first creation of Islamic banking structure in the Near East. Growth of Islamic banks takes in three modes. Firstly, the formation of Islamic banks globally, yet in un-Islamic countries including USA & Europe Secondly growth of Islamic banks as well as Islamic financial system in several Muslims countries; these countries are Sudan, Pakistan and Iran. Thirdly a number of conventional institutional recognize the profitable outlook of Islamic banking system and take realistic steps for the investment in Islamic financial gaps (Solé, 2007).

Čihák & Hesse, (2008,) defined Islamic banks as "the distribution and use of product and other services according to Islamic laws and principles".

According to Kouseret al.,(2011) definition of Islamic banks is as "a system which is based on Islamic laws, rules and regulations of financing".

Since decapods, Islamic banking has become growing sector in the worldwide finance industry. In the latest financial crunch Islamic financial system has shown historical average growth of 15% - 20% (Weill & Ibrahim et al., 2012).

### 1.3.2 Growth of Islamic Banking

The speedy raise in the rate of interest in Islamic banking system and their confrontation to worldwide financial crunch as well involve positive look at the impact of leverage on their performance. The Islamic banks consider most important cause of financial intermediation; hold on 24 percent of regions total banks assets (Al-Hassan, Khamis, & Oulidi, 2010). Ernest and Young (2013) examined that between 2009 and 2013 total Islamic financial assets rose to 17.6 percent and finally reached USD 78 billion in 2013. A musingly, the rise of Islamic banking basically started from the Gulf cooperation economies named Qatar, Saudi Arabia, United Arab Emirates, Bahrain, Oman and Kuwait.

At present the Islamic banking is best ever the upward sector of credit institutions in Muslim countries. Internationally the number of Islamic financial institutions in 75 Muslim countries is 300 (Basu, Prasad, & Rodriguez, 2015).

#### **1.4 Statement**

According to the findings of the researchers based on the decisions made by managers of the financial institutions in investment opportunities, there are number of ways to follow which result in increase in credit position of the firm. The remarkable growth of Islamic banking structure and their barrier against worldwide crisis it is necessary to check the impact of financial leverage on Islamic banks performance.

Asia is famous by its world largest Islamic markets. Islamic banks are playing their vital role in constituting a source of financial intermediation. In cross country analysis of 16 countries between 1939 to 2004 financial stability and role of Islamic banking was determined (Čihák and Hesse, 2010). The aim and purpose of this research work is to determine the effect of financial leverage on Islamic bank's performance in Asian countries throughout period of 2010 to 2019.

A few numbers of reliable studies have investigated the leverage-performance relationship in Asian Islamic banks; a detailed and comprehensive research work is required to check the effect of financial leverage on the performance of Islamic banks in Asia and to fill this gap.

#### **1.5 Research Questions**

Does financial leverage affect the Islamic bank's performance?

#### **1.6 Significance of the study**

The research aims at determining correlation between F- leverage and Islamic bank's performance doing their business activities in Asian region. There may be a noteworthy impact of the financial leverage on the firm value either in positive or negative way. The results of this research work will help all old and new investors when making and identifying the fund investment decisions as they want to invest in listed Islamic banks for the purpose of lending the finance effectively for their core business activities.

The findings of study will benefit for different policy makers and governments of the Asian region for developing the new policies or making amendments in the existing policies in order to strengthening the Islamic banks performance. It will provide them the guideline for the review and formulation of suitable monetary policies and to bring reforms to make the availability of funds much accessible for the firms.

It will be useful for the academicians; they can add it in the existing literature on effect of monetary leverage on Islamic banks performance. Moreover, findings of this study will be of the value for the scholars to find the gaps for the inspiration of their interest in further studies and it will provide them with many more useful suggestions, information's and recommendations about the financial leverage and achievement of the Islamic banks.

#### **1.7 Research objective**

To examine and find the impact of leverage on Islamic bank performance is the prime objective of this research work.

#### **1.8 Signaling Theory**

Signaling theory says that the issuance of equity and debts are good signals because the issuance and debt is good sign, due to debt the market price of the share increases (Berk & DeMarzo, 2007) there is an increase in the level of confidence of investors in their business operations and the firm also gains confidence in order to generating the maximum cash flow to avoid the interest and it serves as positive sign for sound and strong condition of cash flow. Whereas on the other hand the issuance of equity shows negative signals and less confidence of investors of business because the stock value is overvalued as stated above Kabir and Roosenboom (2001) are of the opinion that due to equity there is reduction in stock price and it is considered as bad news for investor's point of view.

Ross (1977) explains that a firm which possess maximum amount of debt shows high value and

quality because it provides the good signals that firms get higher level of confidence for the generation of maximum and stable cash flow for the recovery of due debts and interest.

All the above mentioned theories have an association with the existing body of literature but the signaling theory is strongly persistent with the results obtained from this research work.

## 2. Review of literature

Number of studies conducted on financial leverage which is providing various views regarding the connection between leverage and performance of the firms. Some are showing significant relation whereas some are showing insignificant link between the financial leverage and performance of organization. Though available studies are helpful to review empirical studies conducted all around the world on the F- leverage and performance of firm, but there is need to conduct the research regarding financial leverage and its outcomes on Islamic banks in Asian region as well.

Therefore, current research work is an effort to fill the gap by addressing possible outcomes of monetary leverage on the Islamic banks in Asian countries. Research work is designed to examine the impact of financial leverage on the performance of the Islamic banks with the help of debt to equity ratio. Ishuza Witness Edson, (2015) claims that firm's profitability is affected by the financial leverage, while trade-off theory says financial leverage can affect positively when optimized.

Ahmadu Abubakar, (2015) found that many banks in Nigeria are highly leveraged banks and it is cleared by debt-equity and debt ratios. It is noted that in Nigeria banks are using minimum equity in their capital framework. Consequently, there is negative but significant association b/w debt to equity ratio and return on equity and the relation between ROE and debt ratio was not found significant during the whole period of study.

Jean Laurent Viviani, LotfiBelkacem,(2016) explains that characteristics of the bank which are profitability ratio and financial leverage ratios are the discriminator between the Islamic and their counterparts. The research work examines that financial accounting ratios are the better tool for the classification of firms within the same industries which are based on the financial characteristics.

Yu-Yen Ku & Tze-Yu Yen, (2016) found that across the quintile levels there is significant connection between leverage and firm value and this relation

which is identified in study shows the debatable association.

Nwanna, Ifeanyi, Onyenwe and Ivie Glory, (2017) explained that financial leverage is effecting the various sectors of the performance especially profitability of the firm is affected significantly by the financial leverage. Furthermore, bank size is also influenced by the financial leverage. Liquidity is affected due to such sound managing techniques adopted by banks.

Another study shows that Arabian banks are working hard for improving their performance by making balance in leverage borrowing and their zakat liabilities. (Hasan Ahmed Al-Tally 2018).

Another research checks the Islamic bank's performance and impact of financial leverage on it in GCC Countries examining significant relationship between leverage and firm performance in the region. Abdesslam Menacer, Abdulazeez Y.H. Saif-Alyousfi, & Nor Hayati Ahmad, (2019) Investigated an absolute need of strong financial system to maintain high financial leverage which can ensure the efficiency in term of profit and to maintain minimum financial leverage in order to minimize the risk. Al Nuaimii et al (2011) research planned to examine the effect of subsidizing blend in market estimation of insurance agencies recorded in Jordanian Financial Market. The investigation test comprised of the insurance agencies recorded in Amman Stock Market (ASM) so as to check the impact of Leverage on every one of normal stock profit for the return on value and income per portion of profits and friends market esteem. Examination utilized basic relapse and multi-way investigation to check the connection among the factors. The investigation reasoned that influence and profit for value have no impact with a measurably huge in insurance agency's offers market an incentive in Jordian markets.

Another research study found positive association capital structure and bank operations. In this research study data is taken from period 2009 to 2014 of 17 banks (Nikoo, 2015). Another research study explores that there is significant relationship b/w capital structure and firm performance. The research study use data from period 2006-2009 by taking the 100 firm (Umar et al., 2012).

Al Taleb, and Al Shubiri (2011) take a look at examined profitability, boom in funding opportunity, belongings size, and liquidity variable. The examiner linked those variables with debt with look at pattern. The examiner model of 60 business enterprise

indexed in Stock Market of Amaan. They have a look at results indicated that the debt has a high quality relation with increase price in total amount of assets, while it has an inverse courting with the liquidity and capital structure, in contrast the take a look at confirmed that growing investment possibilities variables have a superb dating with time-consuming debt, and property size variable has no appropriate relation with long term debt and an opposite relation with short-time period debt, and it is also confirmed that profit and liquidity variable have no courting with exchange in debt length. Mahira Rafique, (2011) examine aim at analyzing the impact of company profitability and its monetary leverage on capital formation in car region companies in Pakistan. To acquire the studies dreams the capital shape of 12 indexed companies was analyzed by adoption of econometric frame for the period of 5 years. By testing regression analysis and inspecting the relation of estimated version via Correlations Test, they have a look at observed that the productivity of the organization and its economic leverage don't have any full -size effect on the capital shape of the firms at some stage in period of assessment. Furthermore, there was not massive relation between productivity and leverage on the capital structure of a company.

Jang and Tanag (2009) determined U fashioned courting between economic leverage and fertility from an evaluation of accommodations groups. This takes a look at shown that monetary leverage is more carefully related to profitability than global diversification (Jang & Tang, 2009).

The results of economic leverage on company performance have additionally been a subject for decades. First, high financial leverage is understood to be positively associated with organization performance due to better outside supervision. As Ilyukhin (2015) describes, commercial banks set up a chain of financial conditions for corporations that borrow from them, and to fulfill those conditions, managers have to work tough and enhance company performance.

Wainina (2014) Examined affiliation among leverage and performance of top one hundred SME,s enterprises in Kenya. In this study he used pass sectional kind of descriptive studies designed in his work. Objective populace for the examiner turned into the top hundred SMEs (2013) in Kenya. It uses an instance of 30 SMEs. This examines compiled information for duration of five years (2008-2012). According to the results of this study leverage had

crucial impact on the monetary performance and that has been a tremendous association among leverage, debt Fairness and economic performance of small and medium Enterprise in Kenya.

Research conducted by Gweji and Kranja (2014) to check the effect of leverage on overall performance of the credits, deposits co-operation firms. The data of 40 firms was the part of study from the time period 2001-2012. In this study there were two plans adopted named descriptive and logical plans. The findings of the study shown affiliation among leverage and returns on equity and profit after taxes and also relation among ratio of debt and return on property and there is increase in level of total income.

### 2.1 Firm Performance

Major characteristics of the firm performance are defining competitiveness, business potentials and economic intension of firm (Dufera, 2010). Financial performance majorly focuses on the elements which can affect the financial statements of the firms. The firm performance analysis deals in various things such as sales turnover, growth of dividend and employed capital and other assets of the firm (Omondi & Muturi, 2013).

A research study has investigated the relation b/w product market competition, capital structure and firm value that conducted in South Africa. In this research ROA and Tobin Q were used as measures of performance. This study found positive association between performance and leverage. In the relationship between performance and leverage, role of product market competition is very important (Fosu, 2013).

Another research study conducted on the listed corporations on KSE Pakistan between firm performance and financial leverage and found significant relationship between financial leverage and firm performance (Raza, 2013).

Succession of some important economic units such as completion of goals and objectives is always measured through the performance of the firm (Xu & Wanrapee, 2014). Firm performance and the finance which a firm has is the major consideration of the shareholders (Nyamita, 2014).

Financial performance can be explained the ways by which the objectives of the firm can be achieved (Yahaya & Lamidi, 2015).

A researcher concluded that performance of the firms means how the firm conducts its business and how it manages and uses the asset in effective and efficient

manners to generate the revenue (Yahaya & Lamidi, 2015).

A research study conducted on listed companies of Jordanian on Amman Stock Exchange found that there no appropriate relationship between firm's performance and leverage but their relationship is same in financial leverage of both low and high increase firms on performance of the firms (Soumadi & Hayajneh, 2012).

As for as the finance is concerned the firm's performance means the overall well-being of the firm. To make the comparison between same industries or across the different industries firm performance can be used as gauge or measuring instrument. Briefly firm's performance is a critical tool that has been the desire of all profit oriented companies (Yahaya&Lamidi, 2015).

## 2.2 Financial Leverage

Financial leverage is a fundamental decision preferred by firms to utilize the mix stream of debt and equity in order to finance the number of activities such as investment and other general operations (Gill & Mathur, 2011).

Financial leverage refers how business firms use the mixture of both equity and debt to finance their assets (Rehman, 2013).

In the research study (Barakat, 2014), the variables leverage, profitability and the financial arrangement are explored by using Saudi Arabia manufacturing companies. Results show positive relation b/w capital structure and (ROE) which is used as independent variables while stock market price is used as dependent variables. This study found weak and negative relation between stock value and financial leverage. This study found positive association between ROE and capital and significant relation between stock value and capital structure. Another research work obtained positive and significant affiliation between worth of the firm and financial leverage. Firm value is measure by Tobin's Q. While there is significant relationship between Tobin's Q and Firm size (Farooq & Masood, 2016).

Association between owner equity and the funds that firm borrows is the major concern of financial leverage which results in shaping the firm's capital structure. Researcher defined leverage as how the firm utilizes the funds of external parties and ultimately boosts its overall profit and taxes (Barakat, 2014).

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A research study found that in banking sector capital structure has significant impact on firm profitability (Zafar, Zeeshan et al., 2016). These research studies use the data from 25 listed banks of Pakistan and use regression technique. There was absolutely direct relation between financial leverage and ROE ratio and indirect link with ROA (Meero (2015). This result is based on the data of Gulf countries from period of 2005-2014.

Another research conducted on Karachi stock exchange to judge the association b/w banking performance and capital structure (Nikoo, 2015). The research study found strong association between ROE, ROA and EPS. A research study based on 19 countries by selecting 85 Islamic. These research studies explore the relationship between profitability and capital structure (Tarek Al-Kayed, Raihan Syed MohdZain et al., 2014). These research studies conclude that there is a strong association between profitability and capital structure.

Enekwe, Agu & Eziedo,(2014). Explain most of the firms use the financial leverage for the purpose of earning more return from the investment than the cost of funds.

Abubakar, (2015) investigated that the leverage is just a loan which a firm borrows from other firms with the intension of utilizing these loans efficiently and effectively by the firm because the earnings generated from the investment are more than the interest paid on the loans.

Adenugba, Ige & Kesinro, (2016). Explain amount of debt which is utilized by firm in its structure of capital known as financing leverage. Leverage is known as firm, fixed financial expense because it is the fixed obligation used for payment of interest.

Therefore, on the basis of above mentioned literature and evidences from previous studies by researchers (as mentioned in literature review) researcher will go to check out how performance of Islamic banks is affected by financial leverage. So the below mentioned hypothesis has been formulated as proposed hypotheses for current research study.

**H1: There is correlation between financial leverage and Islamic banks performance.**

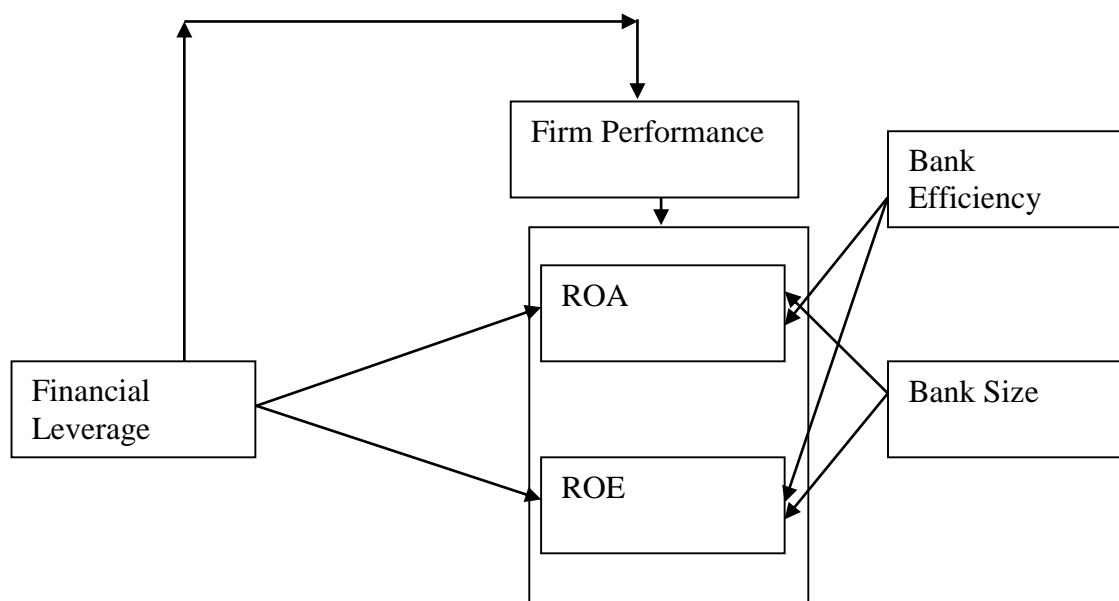
**H1a: Financial leverage has positive impact upon Islamic banks' performance (ROA).**

**H1b: Financial leverage has significant impact on the performance of Islamic banks (ROE)**



## 2.3 Theoretical Framework

Figure: 2.1



Theoretical background of current study based on signaling theory and its description. Signaling theory says that the issuance of equity and debts are good signals because the issuance and debt is good sign, due to debt the market price of the share increases (Berk & DeMarzo, 2007) there is an increase in the level of confidence of investors in their business operations and the firm also gains confidence in order to generating the maximum cash flow to avoid the interest and it serves as positive sign for sound and strong condition of cash flow. Research Model of current study is combination of the relationships among two variables financial leverage (IV), and firm performance (DV). The determinants for firm performance that are used in current study are ROA and ROE.

## 3. Methodology

### 3.1 Dependent Variable

#### 3.1.1 Firm Performance

Iswatia, & Anshoria, (2007), Explain performance refers to an ability of entities by managing the resources in various ways for the accomplishment their goals or for the achievement of their objectives. Mainly it focuses on those variables which are closely related to the financial statements.

Several measures for the firm performances such as return on sales shows that what company earns in

relation to sales, ROA reveals the ability of the company use its assets and ROE explains what amount of return is taken by the investors for their investment (Almajali, Alamro and Al-Soub ,2012).

### 3.2 Independent Variable

#### 3.2.1 Financial Leverage

In order to enhance or boost the taxes and profit Financial leverage is used, and is equal to the ratio of loans and total liabilities.

A firm which is comprises of owner equity and debt is called levered firm whereas all-equity firm is known as unlevered firm (Andy, Chuck & Alison, 2002). Because with the increase of debt financial leverage increases.

Pandey (2010) examines that financial leverage occurs if there is low financial interest or there is no fixed financial interest. .it is said that a firm may be unlevered or levered.

#### 3.3Data Environment

The study is comprises of 20 listed Islamic banks from Asian region. Ten years (i.e., 2010 to 2019) data set involved the 20 Islamic banks from Asian region. Thomson Reuters DataStream will be used to retrieve the data.

### 3.4 Variables measurement

#### 3.4.1 Variables Description and Model Specification

Variable Type	Variables	Short Name	Measurement
<b>Independent Variable</b>	Financial Leverage	( FL)	Equity to Total Liabilities
<b>Dependent Variables</b>	Return on Assets	(ROA)	Net Income / Total Assets
	Return on equity	(ROE)	Net Income / Common Equity
<b>Control Variables:</b>	Bank efficiency	(BE)	Cost of the Total Income
	Bank size	( SIZE)	Log of the total Assets

Data of current research study is estimated by using following econometric model:

$$ROA_{it} = \beta_0 + \beta_1 FL + \beta_2 BE + \beta_3 SIZE + \varepsilon_{it} \quad (1)$$

$$ROE_{it} = \beta_0 + \beta_1 FL + \beta_2 BE + \beta_3 SIZE + \varepsilon_{it} \quad (2)$$

In the above econometric model

(ROA) mean Return on Assets, (ROE) stands for Return on Equity; (FL) is Financial Leverage (BE) means Bank Efficiency and SIZE refers to Bank Size

In the above mentioned equation

1. It is used to measure the relationship between financial leverage and (ROA).
2. For measuring the relation between financial leverage and (ROE).

### 3.5 Data Analysis Technique

For analyzing the data of current research work the researcher will apply E-Views software to run the various tests. Firstly researcher will run the Descriptive statistics to find out Mean, Median and Standard deviation of the data. Secondly researcher will run correlation test to check the association among the variables of the research work. The following test will be run to check the relationship among various variables of the study: Common Effect, Fixed Effect, Likelihood, Random effect and Hausman Test.

Then hypothesis of study will be tested to see the association b/w the F- leverage and Islamic bank's performance in Asian countries.

## 4. Results and Findings

### 4.1. Introduction

The chapter three briefly explained the method of investigations about study topic. However, the chapter four is working on the analysis of the study by basing on the chapter (03) schematic work. Thus, the researcher obtained the secondary data. As empirical chapter, the study has used the frequency tests as descriptive. In next part, correlation tests are

implied after data normality through Skewness and kurtosis. Further, fixed effect regression test is applied to check the data impact of experimental variables with dependent variables.

### 4.2 Descriptive Statistics

The table 4.1, in this study describes the behavior of data about all existing variables in the model from the duration of 2010 to 2019. Descriptive statistics of financial leverage and firm performance measures like ROA and ROE are separately explained. Data behavior was investigated to explore the accuracy before examining other statistical test. The descriptive statistics analysis shows the summary of data that contain average value of mean, lower value in the data set shows by (minimum), high value in data shown with data set (maximum) and measurement of dispersion (standard deviation). The mean value description about average of data, spread and measure of dispersion in the value of the data from mean and standard deviation and mean has low due to the used as separately and minimum and maximum values shows the current series of data.

In below table dependent variable bank performance measure through the combination of return on asset and return on equity in the 25 Islamic banking sectors. In this table explanation of return on assets and return on equity has been explained through the value of minimum and maximum strength from the selection of all Islamic banks, in which rear any bank hold maximum assets and equity returns and also shows that difference with standard deviation value. In this table also explanation of financial leverage as independent variable, in which value of mean shows that average value of financial leverage, minimum

and maximum value shown low leverage and high leverage respectively. The standard deviation value of the financial leverage has been recorded as difference among the variables during the 2010-2019. The

descriptive statistic table also explores the controlling variables description for mean, minimum, maximum, standard deviation.

**Table: 4.1 Descriptive Statistics**

	Mean	Maximum	Minimum	Std. Dev.	Observations
ROA	0.0610	0.7066	0.0246	0.0479	230
ROE	0.6703	5.5241	0.1182	0.6410	230
FL	0.1989	0.9612	0.0102	0.2568	230
BS	9.2932	16.3006	5.1976	3.4648	230
BEF	17.0799	35.3314	0.0183	6.0604	230

In above table 4.1, description about study variable has been explored briefly. The mean value of ROA return on assets is (0.0610), it explains the average Islamic banking performance having a 6.10% return on assets with value of standard deviation value (0.0479), in which difference in return is 4.79% during the 2010-2019 Islamic banking sector. The maximum value is (0.7066), it shows the higher rate of asset return is 70.66% and minimum value is (0.0246), it shows that lower rate of return on assets is 2.46% during the 2010-2019 Islamic banking sector. The mean value of ROE return on equity is (0.6703), it explains the average Islamic banking performance having a 67.03% return on equity so it is higher than assets return value its mean mostly firms having high volume of shareholders equity strength with value of standard deviation value (0.6410), in which difference in return is 64.10% during the 2010-2019 Islamic banking sector. The maximum value is (5.5241), it shows the higher rate of asset equity is 5.52% and minimum value is (0.1182), it shows that lower rate of return on equity is 11.82% during the 2010-2019 Islamic banking sector.

The mean value of FI financial leverage is (0.1989), it explains the average Islamic banking performance having a 19.89% financial leverage with value of standard deviation value (0.2568), in which difference in return is 25.68% during the 2010-2019 Islamic banking sector. The maximum value is (0.9612), it shows the higher rate of equity return is 96.12% and minimum value is (0.0102), it shows that lower rate of return on equity is 1% during the 2010-2019 Islamic banking sector.

The mean value of BS bank size is (9.29), it explains the average Islamic banking performance having a 9% bank size with value of standard deviation having a 3.4648, in which difference in variation of bank size is 3.46% during the 2010-2019 Islamic banking sector. The maximum value is (16.30), it shows the higher ratio of bank size is 16.30% and minimum value is (5.19), it shows that lower ratio of bank size is 5.19% during the 2010-2019 Islamic banking sector.

The mean value of BEF bank efficiency is (17.07), it explains the average Islamic banking work efficiency having a 17.07% with value of standard deviation is (6.06), in which difference in variation of bank efficiency is 6.06% during the 2010-2019 Islamic banking sector. The maximum value is (35.33), it shows the higher ratio of bank efficiency is 35.33% and minimum value is (0.01), it shows that lower ratio of bank efficiency is 1% during the 2010-6.02019 Islamic banking sector.

#### 4.3 Correlation Analysis

Correlation analysis showed to determine the relationship between financial leverage and Islamic banking performance. In our study also examine the potential multicollinearity problem. Multicollinearity problem check with the formula ( $VIF=1/1 - \text{Adjusted R-squared}$ ). According to the formula all values of VIF below the value of 3, so according to the standard value of VIF all values of VIF less than threshold value 10. Therefore, no multicollinearity issue in research model. In below Table 4.2, examined Correlation analysis among all financial leverage and responding variables. To check the strength of relation among variables with direction of positive

and negative measured through correlation matrix. The range for correlation analysis is (-1 to +1) which shows that correlation between variables. If value less than 0 value shows that negative relationship and if

greater 0 value its mean positive relationship among variables. (+1, -1) shows the perfect correlation among variables.

**Table: 4.2 Correlation Analyses**

	ROA	ROE	FL	BS	BEF
ROA	1.00				
ROE	0.17	1.00			
FL	(0.22)	0.04	1.00		
BS	0.29	0.04	(0.63)	1.00	
BEF	(0.58)	(0.34)	0.29	(0.60)	1.00

In Table 4.2, correlation analysis analyzed no multicollinearity issues in panel data of 10 years of Islamic banking sector because values relay below the 0.63 correlation outcomes described the significant correlations all the values has below 0.63. In Table: 4.2, correlation analysis indicates that return on equity coefficient value 0.17 positively linked with (ROA). The high correlation shows that both indicators were dependent variables and measurement of these both mostly moderate levels correlated each other. The coefficient value of financial leverage (FL) 0.22 indicates positive correlation. The value shows positive correlation among financial leverage and return on assets, due to the lower debt financing Islamic banking sector. The coefficient value 0.04 shows that positive correlation among financial leverage and return on equity. The value of Coefficient for bank size BS is 0.29, it shows that positive correlation between bank size and return on assets in Islamic banking sector, the coefficient value 0.04 shows that positive correlation among the bank size and return on equity, the coefficient value 0.63 shows that high positive correlation between bank size and financial leverage in Islamic banking sector duration of 2010-2019. The next one coefficient value of bank efficiency BEF is 0.58, it shows that positive correlation b/w Bank efficiency and Return on Assets, the coefficient value 0.34 shows that positive correlation among bank efficiency and return on equity, the coefficient value 0.29 shows that positive correlation between bank efficiency and financial leverage, the coefficient value 0.60 shows that positive correlation among the

bank efficiency and bank size in Islamic banking sector during the 2010-2019.

#### 4.4 Panel Regression Analysis

In the below **Table 4.3,4.4**, panel-regression analysis has been described the effect of financial leverage with controlling effect of bank size and bank efficiency on Islamic banking performance with measure of ROA and ROE. However, study found that direct effect of independent variable financial leverage with different proxy measures. The study has found the direct significant/positive or negative role of financial leverage for adjusting the Return on Assets and Return on Equity in Islamic banking industry of Pakistan. Regarding to the direction of likelihood ratio test fixed model was suitable for hypothesis improvement as final analysis. According to Hausman test and redundant test suggested the common and random effect model were not suitable for the final interpretation. The fixed model and random effect model R-square and p values were mostly significant and accepted range then fixed effect model were finalized for further analysis.

##### 4.4.1 Model 1 Dependent Variable Return on Assets

The below fixed effect model test examined the impact of financial leverage on return on assets with controlling role of bank size and bank efficiency. But before applying the fixed effect model study has been checked its consistency through likelihood and Hausman test, both these test will provides the suggestion for final selection of any model from common, fixed and random effect model.

**4.4.1.1 Likelihood test**

Null hypothesis: Shows common effect is more appropriate

Alternate hypothesis: Indicates fixed effect is also more appropriate

**Table: 4.3 Likelihood test**

**Redundant Fixed Effects Tests**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.952371	(22,204)	0.0000
Cross-section Chi-square	63.575106	22	0.0000

The Chi-square value is  $p < 0.05$  then according to this likelihood test fixed effect model has been selected for final analysis.

**4.4.1.2 Hausman Test**

Null hypothesis results shows that Random Effect is more appropriate  
 Alternate hypothesis results shows that fixed Effect is more appropriate

**Table: 4.4 Random Effects - Hausman Test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	38.663437	3	0.0000

The cross section random value is  $p < 0.05$ , its mean hausman test recommends the fixed effect model is more appropriate for the final analysis. So likelihood and Hausman selection base test recommended the fixed effect model is more suited for the final analysis of the hypothesis improvement.

**4.4.1.3 Fixed Effect Model**

According to direction of likelihood test study has applied the fixed effect model to check the effect of financial leverage on return on assets as Islamic banking performance.

**Table: 4.5 Fixed Effect Model**

**Dependent Variable: ROA**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.829213	0.112305	7.383586	0.0000
FL	0.007891	0.019684	0.400876	0.0589
BS	-0.071130	0.012066	-5.895336	0.0000
BEF	-0.006369	0.000805	-7.917099	0.0000
R-squared	0.512944	Mean dependent var		0.060961
Adjusted R-squared	0.453255	S.D. dependent var		0.047852
S.E. of regression	0.035383	Akaike info criterion		-3.739062
Sum squared resid	0.255394	Schwarz criterion		-3.350409
Log likelihood	455.9921	Hannan-Quinn criter.		-3.582287
F-statistic	8.593706	Durbin-Watson stat		1.596478
Prob(F-statistic)	0.000000			

Note: The above table depicts the results for linear panel data regression model with using the 25 Islamic banks and 10 years fixed effects. The dependent variable is the return on assets (ROA) and the independent variables were financial leverage. In further statistically significant level is 1%, 5% and 10 percent respectively.

**H1: There is significant correlation between Financial Leverage and Islamic Bank performance.**

In the above **Table: 4.5** financial leverage and return on assets have been explained. To determining the relationship of financial leverage and its influence on banking performance with controlling role of bank size, bank efficiency, the fixed effect model is used for the hypothesis's improvement. The above table is included dependent variable return on assets and independent variables financial leverage, controlling variable bank size and bank efficiency in Islamic banking sector. The above **Table 4.5** shows that value of R<sup>2</sup> (0.51) in the model which includes financial leverage shows only 51% return on assets performance of the Islamic banking has been examined through the independent variable of this study, in other words variation in return on assets outcome due to the other independent variables in the field of banking sector. However, the R-squared value build a suitable source for the model of financial leverage and Islamic banking performance.

**H1a: Financial leverage has positive impact upon Islamic banks performance through return on assets.**

Financial leverage has a positive impact on Islamic banking performance with measure of return on assets. In above model FL (financial leverage) found that statistically significant at the level of (p<0.05) with coefficient value (β=0.007). These values show that financial leverage significantly positive influence

on return on assets. Similar results found that negative impact of financial leverage on return on assets Kipesha and Moshi (2014), NGUYEN, T. N. L., & NGUYEN, V. C. (2020). The coefficient value of control variables BS (board size) is β= -0.071 ) significant at the level of (p<0.05) and bank efficiency (BEF) coefficient value (β= -.006), significant at the required level of (p<0.05). The control variables values show that significant relationship with dependent variable return on assets its mean study control the effect of financial leverage through bank size and bank efficiency improvement. According to these outcomes hypothesis 1a has been accepted statistically, because required results obtained from this table.

**4.4.2 Model 2 Dependent Variable Return on Equity**

The below fixed effect model test examined the impact of financial leverage on return on equity with controlling role of bank size and bank efficiency. But before applying the fixed effect model study has been checked its consistency through likelihood and Hausman test, both these test will provide the suggestion for final selection of any model from common, fixed and random effect model.

**4.4.2.1 Likelihood Test**

Null hypothesis results show that common effect is appropriate

Alternate hypothesis results show that fixed effect is appropriate

**Table: 4.6 Likelihood Test**

**Redundant Fixed Effects Tests**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.070688	(22,204)	0.0000
Cross-section Chi-square	115.830042	22	0.0000

**4.4.2.2 Hausman Test**

Null hypothesis results show that Random effect is more appropriate

Alternate hypothesis results show that fixed effect is more appropriate.

**Table: 4.7 Random Effects - Hausman Test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	20.055094	3	0.0002

**4.4.2.3 Fixed Effect Model**

According to direction of likelihood test study has applied the fixed effect test to check the effect of financial leverage on return on assets as Islamic banking performance.

**Table:4.8 Fixed Effect Model**

<b>Dependent Variable: ROE</b>				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.348001	1.536708	-0.226459	0.8211
FL	-1.111289	0.269348	-4.125845	0.0001
BS	0.170424	0.165097	1.032263	0.3032
BEF	-0.020166	0.011008	-1.831868	0.0684
R-squared	0.491779	Mean dependent var		0.670316
Adjusted R-squared	0.429497	S.D. dependent var		0.640994
S.E. of regression	0.484154	Akaike info criterion		1.493299
Sum squared resid	47.81856	Schwarz criterion		1.881951
Log likelihood	-145.7293	Hannan-Quinn criter.		1.650073
F-statistic	7.896010	Durbin-Watson stat		1.118130
Prob(F-statistic)	0.000000			

Note: The above table depicts the results for linear panel data regression model with using the 25 Islamic banks and 10 years fixed effects. The dependent variable is the return on equity (ROE) and the independent variables were financial leverage. In further statistically significant level is 1%, 5% and 10 percent respectively.

In the above **Table: 4.5** financial leverage and return on equity has been described briefly in the context of hypothesis improvement. To determining the relationship of financial leverage and its influence on banking performance with controlling role of bank size, bank efficiency, the fixed effect model is used for the hypothesis's improvement. The above table is included dependent variable ROA and independent variables financial leverage, controlling variable bank size and bank efficiency in Islamic banking sector. The above **Table 4.5** shows that value of  $R^2$  (0.51) in the model which includes financial leverage shows only 51% return on assets performance of the Islamic banking has been examined through the independent variable of this study, in other words variation in return on assets outcome due to the other independent variables in the field of banking sector. However, the R-squared value builds a suitable source for the model of financial leverage and Islamic banking performance.

**H1b: Financial leverage has positive impact upon Islamic banks performance through return on equity.**

Financial leverage has a positive influence on Islamic banking performance with measure of return on equity. In above model FL (financial leverage) found

that statistically significant at the level of ( $p < 0.05$ ) with coefficient value ( $\beta = -1.11$ ). These values shows that financial leverage significantly negative influence on return on equity. Similar findings in the study of Abubakar (2015) Nikoo, S. F. (2015), Thabang and Maina (2014), Vitolla, F., Raimo, N., Rubino, M., & Garzoni, A. (2020), in which examined the negative impact of leverage on return on equity.

The coefficient value of bank efficiency (BEF) coefficient value ( $\beta = -0.020$ ), significant at the required level of ( $p < 0.05$ ) and bank size insignificant at the level of  $p > 0.05$ . The control variable bank efficiency value shows that significant inverse relationship with dependent variable return on equity its mean study control the effect of financial leverage through bank efficiency improvement. According to these outcomes hypothesis 1b has been rejected statistically, because required results does not meet the threshold. According to the both fixed effect model findings hypothesis 1 has been approved, because in both model financial leverage p value found that significant at the level of  $p < 0.05$ . So with respective of the threshold values and outcome of this study hypothesis 1 has been accepted.

#### 4.5 Summary of Hypothesis

The aim and objective of study was to determine the association between F- leverage and firm performance, financial leverage is an independent

variable and measured by equity to entire liabilities, whereas dependent variables ROA and ROE were the determinants of Firm performance and measured by

net income /assets and net earnings/ total equity correspondingly.

To meet the objective of this research following Hypotheses were tested which were base on the wide-ranging literature review.

### **Hypothesis**

**H1:** There is significant correlation between financial leverage And Islamic banks performance.

**H1a:** Financial leverage has positive impact upon Islamic banks performance (ROA).

**H1b:** Financial leverage has positive effect on the performance Of Islamic banks (ROE).

### **Status**

**Accepted**

**Accepted**

**Accepted**

The aim and objective of research work was to check the effect of Financial Leverage on Islamic Bank's performance which is achieved successfully. All the required results according to Hypothesis of the study are persistent with the Hypothesis mentioned above which can be helpful for the researchers in the future. Most of the results are persistent with the previous studies described in Literature of this research work, Firer et al, (2004), Ward & Price, Sharma,(2006), found in their works that financial leverage has significant and positive impact on the firm value.

Many prior studies which were conducted Ebiringa, Oforegbunam Thaddeus ,Ezeji, E. Chigbu (2012) explained positive and significant connection of financial leverage on firm value.

Wainaina (2014) and ( zafer ,Zeeshan et al.,) also explained theencouraging and significant link between firm performance and financial leverage.

### **Conclusions and Recommendations**

This research work aims at shaping the impact of leverage on performance of Islamic banks in Asian countries. (ROE) and (ROA) were used to measure the Islamic bank performance whereas the financial leverage is independent variable. The total number of 25 Islamic and semi Islamic banks is the part of analysis of this study for the time period from 2010 to 2019 namely Bahrain, Bangladesh, Qatar, Indonesia, Malaysia, srilanka and Pakistan are the part of analysis of this study.

In the light of the results obtained significant association between the bank performance and financial leverage which shows that an increase in the equity will result in the increase of Islamic bank performance (ROA,ROE) in Asian Islamic countries, These results differ from the agency cost theory which says high financial leverage cause in decrease

in the overall performance of firm .However results support the signaling theory which claims the higher performance of banks due to increase in equity.

Results of the study imply the requirement of those Islamic banks which can maintain maximum financial leverage for the achievement of efficient and sufficient profit or able to have a low financial leverage for the reduction of risk. It is also noted that Islamic banks having high level of financial leverage are in a good position to obtain high financial benefits through tax income or the bear high cost of debt in term of interest reducing the profit. On the basis of this financial leverage used by Islamic banks is depending on flexibility in the adjustment of the value of their debt and their power of earning. This research study has main focus on Islamic banks in Asian region. Therefore there is a need of more comprehensive and detailed studies to check the effect of leverage on listed and unlisted Islamic banks as well in Asian countries to make the findings and results of this research work more sound and strong.

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