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**Impact of Operational Risk and Efficiency on Islamic Bank Performance:  
A case study of four major Islamic Banks of Pakistan.**

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**Abstract**

*The banking sector is the backbone of every country and many previous studies showed that the Banking sector has a depth impact on the economy. If we compare bank performance in previous Global Financial crises, it is concluded that Islamic Banks proved there-self as more resilient to conventional banking. The main purpose behind this research paper is to check the impact of operational risk and efficiency on the financial performance of major Islamic banks working in Pakistan. Operational risk is a risk of loss due to poor or futile performance of internal processes or systems, employee errors or omission, loss of key personnel, product failure and fraud, etc. Operational efficiency is the calculation of the level of cost used for performing a task. Lower cost means greater efficiency. Operational risk (Independent variable) of Islamic banks has been measured by Total Operating Cost/Total Operating Income (BOPO) and Operational efficiency (Independent Variable) of Islamic Banks has been studied by Net Interest Income/Average of Productivity of Assets (NIM). The Financial Performance of Islamic banks (Dependent Variable) is calculated by Return on Asset (ROA) and Return on Equity (ROE). For analysis purposes, secondary data from 2015 to 2019 were derived from the financial statement of Meezan Bank Ltd, Bank Islami, Al-Baraka, and Dubai Islamic Bank. Regression analyses (Multiple Linear) were utilized to check the influence of independent variables on the dependent variable. Result of this study revealed that both BOPO and NIM is negatively but significantly associated with Banks. Based on the results, It is recommended that bank management should validate every cost related to operations particularly the cost of deposits.*

*Key Words: Islamic Banks, Banks' performance, Operational Risk, Operational Efficiency.*

## **Introduction**

Banks work as a facilitator between two types of people, one who have more money (excess to their needs) and people who have needs fund. As an intermediary institution, banks have to play a strategic position such as the smooth running of the payment system, a major part in implementing monetary policy, fundraising, and channeling to the general public ultimately increasing investment, working capital, and consumption. So, a strong, apparent, and the responsible bank is necessary to improve the national economy (Tobing, Arkeman, Sanim, & Nuryartono, 2013).

Islamic banks have different approaches to operations as compared to conventional banks. The beginning of Islamic banks is usually treated as the revitalization of the Islamic financial system which has one mission, complete abolition of all interest-based transactions. In 2002, the State Bank of Pakistan took a crucial initiative by issuing a license to Meezan Bank for full fledged banking on Sharia principles. After this many other banks were also allowed to start full-fledged Islamic banking plus conventional banks were also allowed to establish their Islamic banking subsidiaries. In Modern era, Islamic Banks are growing at a very fast speed because it is based on Sharia (Islamic Law), Abolition of Interest (Riba), Gharar (Risk sharing and deception), etc. All of them make Islamic banks or Islamic financial systems more secure and stable in comparison to conventional banking (Khan & Mirakhor, 1986). Till December 2019, the market share of Islamic banking was stood at Rs 3,284 billion making 14.9% market share from the overall banking industry of Pakistan (SBP, 2019). Competition within the banking industry whether Islamic or conventional banks is increasing day by day due to increasing selective public knowledge in choosing banks, particularly banks which provide quality financial services to their customer and maintain good performance (Umiyati & Faly, 2015) The overall performance of bank includes the performance of bank management at efficient, operational, financial, marketing, human resources, fund management and at technology level (Syahputra, 2018). While playing a backbone role in the financial system of any country banks whether Islamic or conventional has to face many risks like marketing risk, liquidity risk, credit risk, and operational risk. Hence, this research paper studies the dimension of Operational risk and efficiency and checks both variable impacts on the Islamic Bank of Pakistan's performance from 2014 to 2019.

Operational risk is a type of risk that arises due to insufficient or failing intra-organizational processes, any human error, failure in the system, or any other external problem that impacts a bank's operations (Masyhud, 2006). Operational risk is a chance of loss due to inefficient, wasteful, awkwardness, un-safe and unsystematic working of banks. Generally, most banks fail due to these reasons which in combination are termed as operational risk (Handayani & Fitriati, 2019). Operational risk arises due to diffidence in business activities of banks plus potential loss from processes. For Instance, banks due to their structure paid heavy operating costs which ultimately decrease profit before tax; ultimately reduce the overall Profitability of banks (Andesfa & Masdupi, 2019). In the famous CAMEL technique, the BOPO ratio is used as an indicator of operational

risk. Higher the BOPO specifies higher operational risk (Sri Hayati & Si, 2017). Basically (BOPO) Operational Income Operating Costs is a comparative analysis between operating income and operating cost. BOPO has a tremendous impact on the profitability of banks because it demonstrates how much a bank brings cost efficiency in its operations. Usually, BOPO is referred to as efficiency ratio to check the ability of a bank's management to regulate its cost of operation in comparison to income from operations. BOPO depicts how much operational risk is produced by the bank (Andesfa & Masdupi, 2019). If a BOPO ratio is more than the restricted condition, the bank concluded as inefficient because higher the BOPO termed as increasing operating cost is more than the increase in operating income resultantly net profit decreased. Indonesian Bankers Association 2015, specify "restricted condition" as the BOPO ratio must be a maximum of 94%. BOPO can be calculated by dividing operating expenses by operating income (Suyanto, 2016). BOPO ratio defines how a can bank diminish its operating cost on one hand and in another hand how to increase its operating income (Ponco, 2008). (Hijriyani & Setiawan, 2017) found significant negative influence between BOPO and ROA. (Yatiningsih & Chabachib, 2015) concluded that BOPO has a negative plus significant impact on ROA.

Another measure of efficiency is Net Interest Margin which is measured by dividing interest income earned by the bank and interest value paid for the debtor (deposits). It is just like the Gross Margin of Non-financial companies (Tulung & Ramdani, 2016). NIM ratio is a calculation of bank management capacity in handling their useful assets to yield net interest income. The bigger the ratio, the bigger interest income on productive assets operated by the bank. Ultimately, chances of crisis in operating banks get lesser (Sari & Endri, 2019). Net Interest Margin computes the bank's net interest spread and describes net interest income to total assets. NIM focus on profit derived by interest activities and important measure of bank efficiency (Anbar & Alper, 2011). NIM is net interest income associated with average earning assets. In some research articles, NIM is articulated as Net Income Margin Financing (NIFM). In some Islamic banks, Net Operating Margin is used instead of Net Interest Margin due to the absence of Interest. Net Interest can be getting after deducting interest income from interest expenses. To increase the NIM ratio which is good for banks, there is a need to moderate the cost of interest paid by the bank in every category of funds (Anwar, 2016). NIM usually showed as a fraction of loans received by the financial firm during some period reduces by interest on loan divided by average productive assets (Tulung & Ramdani, 2016). NIM demonstrates the capability of management of the bank in managing its productive assets to produce net interest income. Net Interest Margin is a comparison of net interest income from average earning assets. The greater the fraction of NIM, the greater the yield line achieved by the bank. Usually, the Income of any banking organization is heavily dependent on interest received from the dispersed loan. The greater the NIM, the greater the profit (ROA) or vice versa. So, NIM is directly related to ROA. It is also by the research result of (Fajri, 2017) and (Hakim & Sugianto, 2018) which found a positive impact of NIM on ROA.

### **Problem Statement**

As stated earlier, Islamic Banks has different approach for operation as compared to conventional banks. These operational approaches made Islamic banks more strong as compare to conventional counterparts to face any sort of crisis. Financial crisis of 2008 proved that Islamic banks were more resilient as compare to conventional banks. Consequently, more new Islamic banks were established and existing big conventional banks opened its Islamic bank section or branches. In this new era, only those Islamic banks survive who have good service delivery records, efficient mechanism of mitigating marketing, liquidity and operational risk. There are abundance of studies that have focused on marketing, liquidity and operational risk of conventional banks. Besides this, huge researches were done on marketing and liquidity risk aspect of Islamic banks but operational efficiency aspect which is utmost strong point of Islamic banks is not fully focused. So main aspect of this research is to check operational risk and efficiency aspect of Islamic bank and its focus on their performance

### **Objectives of study**

The primary objective of this paper is to inspect the influence of Operational risk and efficiency over the profitability of Islamic banks working in Pakistan. Secondly, analyze whether this influence is significant or not.

This study will verify the following four hypotheses:

#### **Hypothesis:**

**H1:** BOPO has a positive influence on profitability (ROE, ROA).

**H2:** BOPO has a significant influence on profitability (ROA, ROE).

**H3:** NIM has a positive influence on profitability (ROE, ROA).

**H4:** NIM has a significant influence on profitability (ROA, ROE).

For testing above mentioned hypothesis, the Panel Data regression model has been utilized on financial data ranging from 2015 to 2019 of four major Islamic banks of Pakistan namely Meezen bank, Al-Baraka, Bank Islami, and Dubai Islamic Bank arrive at any result.

The subsequent part of this paper discusses literature related to Operational risk, operational efficiency, and profitability with a variety of studies already done on the Impact of operational risk and efficiency on the profitability of financial firms' i.e. banks, Insurance companies, and non-financial firms with diversified perspectives. Next in the Substantial and procedure section, detailed methodology in which selection of sample, model and its testing detail discussed. After this, descriptive statistics, correlation, and regression analysis are presented with results and discussion. In the end, the author's recommendation and suggestion are presented as the conclusion.

## **Literature Review**

### **Signaling Theory**

It was first recommended by (Lintner, 1956) asserting that the company's share price increase or decrease depends upon changes in dividend payout. To enhance the company's share prices, managers try their best to transfer information about the outside investor. (Riyani, Mardiah, & Suherma, 2019) The signaling theory states how a company should send signals to financial statement users. The word "Signal" refers to information about Management action for realizing owner (shareholder) aspirations. The signal can be in any form claiming the company is better than its competitor. Information is crucial for any investor. It contains notes, pictures of past, current, and future conditions in which the company has to survive, and particularly market effects (Ross, 1977). In this research paper, we are using Signaling theory in the form of financial ratios. Financial ratios include in this study are Operational risk and efficiency (BOPO), Net Interest Margin, Return on Asset (ROA), and Return on Equity (ROE).

### **Asymmetric Information Theory**

According to (Brigham Eugene & Joel, 2006), Asymmetric Information theory tells us the condition in which corporate managers have more (better) information regarding the position, operation, and prospects of the firm than any other person particularly investors. For example, if management thinks that the current share price is too high then it is a good time to offer new shares in the market (High price high profit). But investors will interpret it as the current stock price is too high (As management perception) than they bid for new stock at a lower price. Resultantly, the issuance of new shares will lower the current share price (Aguirre & Saidi, 2004). This phenomenon was first stated by (Akerlof, 1970) followed by (Spence, 1978), (Myers & Majluf, 1984) and (Cheung & Krinsky, 1994).

### **Efficiency Theory**

Nowadays, rapidly changing financial services industry structure put extra pressure on the regulator of financial institutions to develop a mechanism which not only measure efficiency but also elaborate discrepancies in financial institutions performance (Bhuia, Baten, & Kamil, 1970). So, the productivity of any economy is depending on efficient services provided by the financial market. It means higher net returns for creditors and debtors. The function of an efficient financial market is essential for the development of the economy because it increases channelizing of savings to industrious ventures (Berger & Humphrey, 1997) (Megginson, Nash, & Van Randenborgh, 1998).

### **Operational Risk/Efficiency Concept:**

Operational efficiency is achieved when the correct blend of individuals, methods, and equipment work collectively to augment the efficiency, simultaneously decreasing routine operational costs at the anticipated level. Resultantly, more availability of resources towards new innovative initiative which will bring further competencies to the organization. Operational efficiency points out those operational policies particularly related to finance which are profitable, proficient, and depend on sensible usages of resources. For investigating how efficient and profitable our operational policies particularly finance-related, certain ratios which are collectively called Performance ratios are being used. On the other side,

Operational risk is chances of loss owing to inefficiency in the bank working, and usually, banks failures are more caused by operational risk(Sri Hayati & Si, 2017). This study uses Net Interest Margin (Tobing et al.) as a proxy of operational efficiency and Operating Cost of Operating Income (BOPO) ratio as a proxy of operational risk to quantify the operational efficiency of Islamic Banks.

**Profitability Concept:**

Profitability is the result of the strategy adopted by the organization. Profitability ratios measure how much profit earns by management in managing the company. Profit is the excess amount on cost received via revenue. The profitability of banks particularly Islamic banks is very much crucial in today's competitive environment because the soundness of any country's financial system depends on their financial institution's stability. Profitability can be measured with two major techniques. One of them is ROA in which an asset's ability to generate profit is checked and the second ROE in which overall earning on given stockholder equity is checked. The profitability of banks or Islamic Banks is a vital sign that is not only seen by the investor but regulatory agencies also take it seriously due to the involvement of general public money in the shape of deposit and Investment.

**Previous studies:**

In 2020, Mohammad Sofie and Bahtiar Usman in their study of “Determinants of Bank Profitability” checked the influence of BOPO and NIM on ROA and ROE. After utilizing data from 2007 to 2018 they found both NIM and BOPO have a substantial influence on ROA and ROE(Hasan, Manurung, & Usman, 2020)

In the same year i.e 2020, another study “The Impact of banking risk on regional development banks in Indonesia” was done by Herman Karamoy and Elly Tulung. They used ROA as a dependent variable and used BOPO and NIM as independent variables. They used BOPO as a proxy for operational risk, NIM as a proxy for Market risk, and ROA as a proxy for financial performance. After getting data from 2013 to 2015 of 26 Indonesian regional development banks. They concluded that BOPO is significantly and negatively affects ROA but NIM significantly and positively affects ROA(Karamoy & Tulung, 2020).

In 2019, Yehasril did a study to check the impact of Operational efficiency (BOPO), NIM (Net Interest Margin) on ROA (Profitability) of the National Bank in Indonesia from 2013 to 2016. They employed Panel Data Regression analysis and found both BOPO and NIM has a significant impact on ROA(Yuhasril, 2019)

In 2018, a study conducted by Ida Bagus and I Nengah on Significant aspects towards Return on Assets and Profit change. They used BOPO and NIM as Independent variables and ROA as the dependent variable. After applying the path analysis technique in AMOS program 16, they concluded that BOPO has negative whereas NIM has a positive influence on ROA (Suardana, Astawa, & Martini, 2018).

Wayan Budi and Bambang Mulyana conducted a study to analyze the effect of BOPO and NIM (Operational efficiency) on Performance (ROA) of State-Owned Banks from 2012 to 2017. They found a positive and significant effect of NIM on ROA and (BOPO) have a significant but negative effect on (ROA) of banks(Budi & Mulyana, 2017).

Astuti and Husna, 2020 studied the effect of Net Interest Margin and Operational Costs Operating Income (BOPO) on Return on Assets (ROA) of PT. Bank Rakyat Indonesia, Tbk from 2008 to 2017. The study resulted as NIM partially had a positive influence on Return on Asset (ROA) whereas (BOPO) had a partially negative effect on Return on Asset (ROA)(Astuti & Husna, 2020).

Andhikatama and Iskandar, 2020 conducted a study to check the factor impacting Profitability with an Interest rate as moderating variable in bank Sumut of Indonesia. They utilized data from 2014 to 2018 and used ROA as a dependent variable with Net Interest Margin and BOPO (Operational Efficiency) as an independent variable. After using regression analysis, it concluded that BOPO has a positive but in consequential influence on ROA and NIM has a constructive and substantial influence on ROA (Andhikatama, 2020).

Luqman Hakim and Sugianto, 2018 conducted empirical research for the determination of profitability and its implication on the value of the 42 banking companies registered in the Indonesian stock exchange from 2010 to 2015. After using multiple regression analysis in Eviews9 on secondary data in the form of Time series and cross-section. They conclude that BOPO has not any significant effect on the positive coefficient on profitability (ROA)(Hakim & Sugianto, 2018)

Okky Paulin and Sudarso 2015 conducted a study on "Determinants of Islamic Bank's Profitability in Indonesia". They employed a quantitative analysis technique in SPSS with CAMEL method on financial data of Islamic Banks from 2009 to 2013. After applying multi-linear regression techniques, it is concluded that BOPO has a significant but adverse influence on the ROA of Islamic Banks but NIM has a significant and positive effect on the ROA of Islamic Banks(Paulin & Wiryo, 2015).

### **Substantial and Procedure**

To address the key research objective, this research paper utilizes quantitative methodology on secondary data. Quantitative methodology refers to techniques and strategies used to study phenomenon by exploring numeric pattern. Secondary research or data is a research method that utilizes already existing data. The study area i.e., data sources, Quality control, financial ratios and data analysis are discussed below.

#### **The study area**

As this research is on secondary data, a dataset which contains secondary panel data of 4 full-fledged Islamic banks listed in Karachi Stock Exchange namely Meezan Bank Ltd, Bank Islami Ltd, Al-Baraka, and Dubai Islamic Bank has been developed and used for analyzing the hypothesis of this study.

#### **Data sources**

Dataset prepared after in-depth desk review which include data collection from various secondary sources i.e. annual financial reports, documents, visiting banks websites and SBP website. This dataset consists of data from (2015-2019) and is mainly extracted from the Islamic Bank's Financial Statement published in Annual Reports issued by the bank which is a reliable source of the bank's data.

### **Quality Control**

Three levels of quality control were constituted, the first being to show the exact or clear picture of the Islamic banking industry, only full fledged Islamic bank were chosen. Islamic bank branches of conventional banks were excluded due to comparability of data. Secondly, data extracted from Audited Banks financial statement. Lastly, financial data were counter checked from banks own website financial statement section and from SBP website.

### **Financial Ratios**

Islamic Banks in Pakistan were established to fulfill economic and religious needs. Worldwide efforts to eliminate Riba (Interest) started during 1970 but in Pakistan, practical steps were taken from 2000. For this purpose, the State Bank of Pakistan being a regulator of the Pakistan Banking Industry develops and implements rules and regulations particularly for accounting and other matters for the smooth working of Islamic Banks in Pakistan. So, it looks reasonable to make meaningful performance measurement after utilizing financial ratios as used regularly and comprehensively in previous studies (Erol, Baklaci, Aydoğan, & Tunç, 2014);(Olson & Zoubi, 2008)(Olson & Zoubi, 2008); (Rosly & Bakar, 2003);(Samad & Hassan, 2006).In this study, we have utilized 4 ratios that are presented below. These ratios fall into two categories: profitability and Operational Risk and Efficiency. Profitability ratios measure managerial competency. Main profitability ratios include return on assets and return on equity. The higher the profitability ratios are a sign of good performance or vice versa. On the other side, Operational ratios measure how efficient is organization in its operations and use of assets. The main Operational ratios are Net Interest Margin and (BOPO). The smaller the BOPO indicate more efficient bank or vice versa.

### **Data Analysis**

Consequently to above discussion following ratios and two research models were chosen for testing in this paper:

$$\text{Model 1 - } Y1 = \beta_0 + \beta_1 \text{ nim} + \beta_2 \text{ bopo} + \mu$$

$$\text{Model 2 - } Y2 = \beta_0 + \beta_1 \text{ nim} + \beta_2 \text{ bopo} + \mu$$

ROA and ROE were selected as the dependent variable for assessing the financial performance of Islamic Banks as formerly used by (Madhuwanthi & Morawakage, 2019); (Akhtar, Ali, & Sadaqat, 2011); (Naceur & Goaid, 2001); (Siddiqui, 2008); (Berger, 1995). For assessing Operational risk and efficiency, being an independent variable a proxy of Net Interest Margin and BOPO were used as formerly used by (Hasan, Manurung, & Usman, 2020) (Yuhasril, 2019).

Further explanations of variables are as under.

Here,

- Y1 represent ROA.
- Y2 represent ROE.
- $\beta_0$  represent constant
- $\beta$  shows the coefficient of the variable
- $\mu$  represents the error term.

Sign	Variable	Proxy
<b>Dependent Variable</b>		
Y1	ROA (Return on Assets)	Net Income/Total Assets
Y2	ROE (Return on Equity)	Net Income/Total Equity
<b>Independent Variable</b>		
Nim	NIM (Net Interest Margin)	Net Interest Income/Average of Productivity of Assets
Bopo	BOPO (Cost to Income Ratio)	Total Operating Cost/Total Operating Income

Multiple regression techniques coupled with SPSS Data Analysis Tool were used to analyze above mention model and get coefficients of independent variables.

### Results and Discussions

Organizational profitability is based on policies and actions taken by their management. Profit ratio measures profitability which is the result of how much better the management is managing the organization. In this study, Operational Risk and Performance (Independent Variable) has been measured through (BOPO) and Net Interest Margin ratio, whose influence had to be analyzed on dimensions of profitability, named as Return on Equity and Return of Asset, (ROE)(ROA) as (Dependent Variable). Minor changes in Operational Variables (policies) can extremely impact bank profitability. These ratios are also practically used by bank management for day-to-day monitoring and improving performance.

### Descriptive Analysis

Ratios	Mean	S.D	CV	Range	Count
NIM	3.04	0.61	0.37	2.31	5.00
BOPO	99.13	13.63	185.82	43.41	5.00
ROA	0.49	0.52	0.27	1.68	5.00
ROE	9.06	9.81	96.15	34.38	5.00

This table shows that descriptive statistics for all variables included in our study. ROE, ROA, NIM, and BOPO all have positive mean values ranging from 0.49 to 99.13. Note that Islamic banks included in this sample have different sizes and business combinations. Returns on assets of 4 Islamic Banks have 0.49 averages, ROE has 9.06 averages, NIM has 3.04 averages and BOPO has 99.13 averages. From the above table, it is the clear that means of both independent variables are not negative.

Standard deviation depicts us level of risk attached with each ratio. It also indicates the variation in the degree of the mean value. The mean BOPO ratio is the largest (99.13) and varies greatly from bank to bank (Max = 120.38 and Min = 76.97). ROE mean is 9.06 and the Standard deviation is 9.81. As of NIM, an operational efficiency ratio shows a mean of 3.06, and the Standard deviation is

0.61. The coefficient of variation has been calculated by dividing standard deviation from the mean, it depicts the difference in sample data as a match from the entire population mean. A lower value in CV indicates lower risk. So, NIM and ROA are less risky than BOPO and ROE. Range measurement is used to check the variance between the lowest and highest value which is also an indicator of values spread and count depicts how many years were selected for any study.

### Correlation Analysis

A correlation study depicts the association and deviations level among all variables whether independent or dependent.

Correlations					
		ROA	ROE	NIM	BOPO
ROA	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	20			
ROE	Pearson Correlation	.936	1		
	Sig. (2-tailed)	.000			
	N	20	20		
NIM	Pearson Correlation	.546	.458	1	
	Sig. (2-tailed)	.013	.042		
	N	20	20	20	
BOPO	Pearson Correlation	-.838	-.842	-.735	1
	Sig. (2-tailed)	.000	.000	.000	
	N	20	20	20	20

The above Table depicts that NIM is positively and significantly and BOPO is negatively and significantly related to ROA and ROE. In Simple words, if 1% rise in NIM will raise ROA and ROE by 54.6% and 45.8% respectively or vice versa, and if there is a 1% rise in BOPO will bring a reduction in ROA and ROE with 83.8% and 84.2% respectively or vice versa. It can also be seen that both Independent and dependent variables are also correlated with each other. For instance, ROE will rise 93% if a 1% rise occurred in ROA or vice versa.

### Regression Analysis Based on ROA

#### Model summary

Model	R	R Square	Adjusted R Square	Anova Sig.
1	.844 <sup>a</sup>	.712	.678	0.000 <sup>a</sup>

a. Predictors: (Constant), BOPO, NIM

The above model depicts us the valuation of R, R<sup>2</sup>, and course of Adjusted R Square with Anova. According to this table, R is .844, the estimation of R<sup>2</sup> is equal to .712, and adjusted R Square is equal to .678. Adjusted R Square is changed into a percentage equal to 67.8%. It means our variables clarify the model at 67.8%. Anova measurement depicts us model fitness. In this context, Anova is equal to .000. So, P<0.05, shows the significance of the model, if P>0.05 shows the insignificance of the model.

### Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.458	1.140		3.909	.001
	NIM	-.128	.163	-.151	-.786	.443
	BOPO	-.036	.007	-.948	-4.944	.000

The above table depicts the value of every independent variable in the model. In the above table, the Beta coefficient is a self-explanatory dimension: the measurement of NIM is -.151 and BOPO is -.948, It means beta coefficient depicts us both variables have a negative effect on ROA, while significant value which is (NIM .443) and (BOPO .000) telling us NIM has insignificant and BOPO have a significant effect on ROA. Hence P<0.05, shows the significance of the model if P>0.05 shows the insignificance of the model.

### Regression Analysis Based on ROE

#### Model summary

Model	R	R Square	Adjusted R Square	Anova Sig.
1	.875 <sup>a</sup>	.766	.738	0.000 <sup>a</sup>

a. Predictors: (Constant), BOPO, NIM

The above model depicts us the valuation of R, R<sup>2</sup>, and course of Adjusted R Square with Anova. According to this table, R is .875, the estimation of R<sup>2</sup> is equal to .766, and adjusted R Square is equal to .738. Adjusted R Square is changed into a percentage equal to 73.8%. It means our variables clarify the model at 73.8%. Anova measurement depicts us model fitness. In this context, Anova is equal to .000. So, P<0.05, shows the significance of the model, if P>0.05 shows the insignificance of the model.

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	104.567	19.461		5.373	.000
	NIM	-5.636	2.787	-.350	-2.022	.059
	BOPO	-.791	.125	-1.099	-6.350	.000

The above table depicts the value of every independent variable in the model. In the above table, the Beta coefficient is a self-explanatory dimension: the measurement of NIM is -.350 and BOPO is -1.099, It means the beta coefficient depicts us both variables hurt ROE, while NIM has insignificant and BOPO have a significant effect on ROE. Hence  $P < 0.05$ , shows the significance of the model if  $P > 0.05$  shows the insignificance of the model.

### Conclusion

Operational Risk and efficiency are very much important for every type of firm particularly firms working in the financial industry like banks particularly Islamic Banks. The importance of the banking system comes from the role it plays in all economies as they make funds available through their lending and investing activities to borrowers. Increased attention was given to Islamic banks especially during and after the recent global financial crisis because they represent a business model that differs from commercial banks. On the other side, globalization risks are arising and take a large portion in the market competition, the stakeholders will find another bank that provides better financial performance to save their money.

In this research, we have studied the bank's related determinants of profitability i.e ROA and ROE, and bank's related determinants of Operational efficiency i.e NIM and BOPO. In this study, panel data from 2015 to 2019 related to four Major Islamic banks working in Pakistan were utilized. These banks are Meezan Bank, Bank Islami, Al-Baraka, and Dubai Islamic Bank.

We concluded from our results that NIM has a negative and insignificant effect on ROA, while BOPO has a negative and significant impact on ROA. On the other side, NIM has negatively and significantly affected the profitability of banks at a level of significance of 10% on ROE because in Islamic Banking Industry, NIM influence is insignificant in the overall profitability of Islamic Banking due to their dependency on operational income (Paulin & Wiryono, 2015), while BOPO has a negative and significant impact on ROE. Finally, it is concluded that both factors NIM and BOPO affect the ROA and ROE of major Islamic Banks working in Pakistan. Our results are consistent with (Karamoy & Tulung, 2020) (Hasan et al., 2020) (Almadany et al. 2012) (Ulandari, et al. 2016), Dewi *et al.* (2015), and Irawan (2017) in which it was concluded that operational risk BOPO and NIM has a significant influence on financial performance but the research of (Sabir, et al. 2012) and (Bilian and Purwanto (2015) depict that BOPO and NIM have no effect toward ROA.

While reviewing the significances of this study, hypotheses # 1 and 3, which states BOPO and NIM have a positive influence on ROA and ROE (Bank Profitability) have been rejected but hypotheses # 2 and 4 which state BOPO and NIM have a significant influence on ROA and ROE (Bank Profitability) have been accepted.

Based on the result, this research recommends SBP could issue a policy to improve the profitability of banks through operational efficiency factors such as Net Interest Margin (NIM) and operational expenses to operational revenue (BOPO). To survive in today's competitive market, Islamic banks have to enhance their financial performance by compelling each prospect in the industry. It means management of the bank should always put an eagle eye on operational costs. Besides this, Islamic banks must avoid getting expensive deposits from markets due to its adverse effects on the competitiveness of profit-sharing percentages.

### **Recommendation**

In this study, operational efficiency factors did not fully impact the financial performance of four major Islamic banks working in Pakistan. As per future research guidelines, a future researcher should increase samples size and periods of observation to enhance its scope. For achieving a high number of R-square (which describes how far independent variables influence the dependent variable) future researchers should include more features of risk and finance in the Independent variable of this research.

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