

## Assessment of Financial Risks on Financial performance of Conventional Banks: An Empirical Evidence from Pakistan

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**Cite this paper:** Javid, S., Farooqi, M. R., & Rasheed, A. (2020). Assessment of financial risks on financial performance of conventional banks: An empirical evidence from Pakistan. *Paradigms, SI(1)*, 81-86.

Financial stability and long-term viability of banks become vulnerable by financial risks. All banks face financial risks with the modern progress and development of the global financial market. Therefore, it becomes necessary to judge that these risks had any consequence on bank's financial performance in order to put into practice good risk management. In Pakistan there are few studies that have been conducted on the financial risks that affect the bank profitability. The purpose of this research is to draw attention on the impact of financial risks on banking financial performance of conventional banks in Pakistan. "Return on Assets (ROA) Return on Equity (ROE)" has been utilized as the proxies to measure the financial performance of banks, Financial risk proxies used as independent variables which includes credit risk, interest rate risk, liquidity risk, and controlled variables includes interaction of Credit Risk & Interest Rate Risk, GDP, inflation, bank size and bank capitalization. The results of several studies showed mixed results. Henceforward, the relationship between them is not conclusive. This research relies purely on secondary data. The duration of the study was 2014 to 2018 and sample size consists of 22 banks. We applied panel data regression analysis of Generalized Least Square (GLS) with fixed effect and random effect model. The findings of the study showed that Credit risk has significantly negative relationship with ROE and ROA. The relationship among Interest rate risk and performance is significant positive but liquidity risk's impact on both performance measures is insignificant. The regression outcomes for controlled variables shows that lagged ROA and Lagged ROE significantly affected the both performance measures. The impact of interaction of Credit risk and Interest rate risk on ROA and ROE is negative significant. Bank size have positive relationship with ROA and ROE. Bank Capital has insignificant impact on both ROA and ROE. Whereas, GDP impact on ROA and ROE has insignificant relationship. This study will be useful for policy makers and for regulators to avoid systematic risk indirectly by making updated decisions and by making policies that will provide bottom line of the bank. Henceforth, bank supervisors along with banks should build the tradeoff among financial performance and financial risk.

**Keywords:** Financial risk, Financial Performance, Conventional banks

### INTRODUCTION

There are many studies about bank profitability around the world including in developed and emerging markets. Like other Asian emerging economies, including China, India, Indonesia, Korea, Malaysia, Philippines, Taiwan and Thailand, Pakistan has gained its status back of "emerging market", which was lost in late 2008. The tremendous performance of Pakistan's energy, oil and gas, cement, fertilizers and most important the banking industry contributed to bringing Pakistan into one of the renowned stock markets around the globe. Pakistan's KSE100 index achieved 46% growth in 2016 and emerged as top-performing and most profitable Asian stock market. The stock market and banking sector development are likely to continue given growth in the gross domestic product (GDP) of Pakistan, which has hit an average growth of 5.2% over the past decade (Malik 2017). King and Levine (1993) suggested that financial sector development indicators have a positive and significant influence on economic growth. Levine and Zervos (1998) earlier suggested that both sound banking system and stock market liquidity have a positive impact on capital accumulation, economic growth, and productivity, even after controlling for political and economic factors.

Economic performance in any country is dependent upon its financial sector. The role of banking sector is important in

channeling public savings into productive investments which lead to economic growth. Banking is the supreme noticeable sector in current era. Bank is a financial organization which take deposits from its customers in form of cash and lend it to others and gain incomes in form of interest (Ali D. M., 2018). Banking business is the vibrant organ of any economy that assists all businesses (Ahmed, Rehan, Chhapra, & Supro, 2018). A comprehensive and advanced financial region is needed to maintenance economic progression of a nation. If banks gain more interest and pay less this specify the success of bank (Yilmaz, 2013).

Now a days, banking sector is performing energetic part in economic growth. There is a solid correlation between banking system's stability and economic progress and development of any nation (Javaid & Alalawi, 2017). Monetary resources of a nation are apportioned through banks. Furthermore, the banking region actions as a heart through which money is injected into the economy. Banks in every country help people, businesses and government financially. If banking sector is performing well, this will lead to increase in economic development of country (Shah & Khan, 2017).

The major aim of the financial institutions is to lessen the fluctuations in cash flows or earnings caused by risk exposure (Dhanini et al., 2007). This reduction in volatility of cash flows

or returns will enable the firm in making better financial decisions and investments. Holton (2004) asserts that financial risk is the unexpected fluctuations in returns. After knowing the financial risk impact on the bank's profitability, it would be the most crucial aspect for all the banks as it would give heads-up to the bank to mitigate those risk effectively. Likewise, a profitable and healthy banking system promote comprehensive financial firmness and perceive to raise the economy's pliability to adverse macroeconomic surprises. Between risk and return the tradeoff is well recognized - the higher return comes with higher risk and viz versa. Therefore, in order to expand business and to increase profitability, financial institutions should be aware of the risk factors which have a major impact on profitability measures. Moreover, it's a known fact that the amount of risk faced by financial institutions is a great concern and is of a significant nature to the policymakers. The Basel committee report also highlights the importance of studying bank risks (BCBS-BIS 2001) and the Central bank's ongoing and consistent effort to record it in the capital adequacy guidelines (Shukla 2013). All the financial institutions have somehow common financial risks. For instance, banks and microfinance institutions share common risks like credit risk, market risk, liquidity risk, foreign exchange risk, operational risk, interest rate risk. The present study focuses primarily on financial risks such as IRR CR, and LR related to Pakistani conventional banks. Even though banks face various types of risks, these risks stand out and are often related to one another.

### **Research Objective**

- To study the relationship between Financial Risks and Profitability of the conventional banks
- To assess the impact of financial risk on the profitability of the conventional banks in Pakistan

### **LITERATURE REVIEW**

Bank's financial performance is considered as "Profitability". Its measurement is done by ratios. In the views of (Tafri et al, 2009; and Ruziqa, 2013) there are 3 measurement methods for financial performance that are, "Return on Assets (ROA), Return on Equity (ROE) and Net Interest Margin (NIM)". The study of Simpasa (2011) find out the figure of financial performance by "Return on average assets (ROAA), Return on average Equity (ROAE) & NIM". This performance has been utilized to predict failure & success of banks. According to the study of Glenn & Samad (2012) which is on the topic of "Factors for Bank Failure in US". The results reveals that ROA was one of the important and major indicators which predict and forecast the failure of US banks in 2009. When there is failure in financial performance it indicates "Financial Risks". According to Peng et al (2011) Financial Risk is defined as the probability of losing or dropping the profitability that base on banks financial characteristics. According to Dimitropoulos et al. (2010) and Tafri et al (2009) financial risk is the combination of Credit risk, Liquidity Risk, Exchange Rate risk and Interest rate risk.

In financial risk, credit risk is considered the most important risk because it slows down the bank's performance in Africa. According to Pyle (1997) Credit Risk is a risk that occurs while the counter party fails in performing their obligation and the net

worth of assets varied. Ruziqa (2013) defines that credit risk could be find out with the "ratio of non-performing loan". Liquidity risk is the incapability of bank to enlarge their assets and trim down their liabilities. Al-Khoury (2011) defines Risk of liquidity with the ratio of "Liquid Assets divided by Deposits". According to Dimitropoulos et al. (2010) Interest Rate Risk occurs while there is variation in deposit or lending interest rate. According to Ni, Fah & Nasir (2009) interest rate is determined by the factors of interest risk, like "total deposits and total loans".

Liquidity risk has two angles which is stated by Goodhart (2008). These two facets are; maturity transformation and inherent liquidity. The first one states the assets and liability maturity of bank and the second one is the magnitude on which a bank can sell the asset without suffering substantial loss. There is no need for the bank about maturity transformation if bank have those assets that can be easily sold in market without incurring loss. Although, if the banks have those assets whose maturity is shorter time period, such banks need less to keep liquid assets with them (Ahmed et al 2015).

The most important function and purpose of financial institution is to receive deposits and provide loans, so exposed a credit risk unavoidably. Credit risk is considered an utmost substantial risk which is challenged by bank. The bank can work in a proper way when the bank manages this risk accurately and efficiently than any other type of risk (Giesche, 2004). In a study Hosna et al. (2009) examined an association among capital adequacy ratios and non-performing loans. The results reveal that capital adequacy ratios and non-performing loans negatively affect ROE. The same result among profitability and credit risk also shown in the study of (Tomak, 2013; Kadubo and Musyoki, 2012; Kolapo et al. 2012; Tegnuh and Achou, 2008). Qin and Pastory (2012) find out that on profitability level of non-performing loan has a negatively associated. In the study of Dimitropoulos et al. (2010) shows the relationship of credit risk and bank profitability. The outcomes show that Credit Risk has significant negative effect on return earnings. Additionally, (Ruziqa, 2013; Tabarin et al, 2013) find out that on ROA and ROE, Credit Risk has significant negative impact. Likewise Abdus Samad (2012) with the help of 'Probit Model' in his paper on "the significant determinants between credit risk variables of the US bank failure in 2009" find out that three variables of credit risk, namely as, "1) Credit loss provision to net charge off, 2) Loan loss allowance to non-current loans, and 3) noncurrent loans to loans" be used for calculating failure of bank and the two left over variables of credit risk, '1) net charge off to loans and 2) loan loss to non-current loans' are not substantial estimators to found the failure of US bank. In opposition, Solomon & Muntean (2012) in the study of "The assessment of financial risk on profitability" evaluated Financial Risk (Credit Risk) which is shown in paper by the ratio of Financial Leverage, shows a positive relationship with financial performance.

The study of Koiol et al. (2008) evaluated the risks that cause the failure of bank. One of the major risks which cause the failure of bank was liquidity risk. The methodology of regression model was utilized which defines that Brunei Islamic banks required to focus on risk identification, risk assessment and risk analysis, so

that their risk management polices effectively works based on BASE-II Accord.

Shen et al. (2009) suggested that with the performance of bank, liquidity risk was negatively linked. These outcomes are comparable with outcomes of (Dimitropoulos et al. 2010; and Tabarin et al. 2013). In addition, Tafri et al. (2009) stated that liquidity risk's impact on ROA is positive insignificant but on ROE its impact is negative. In another way Al-Khouri (2011) was found that the impact of liquidity risk on ROA is significant negative and with ROE its impact is positive. The study of Ruziqa (2013) the results shows that on ROA and ROE liquidity risk had significant positive influence. According to Qin and Pastory (2012) they used the ANOVA method for the three large banks, in order to find out the financial performance of commercial banks for the period of (2000-2009) in Tanzania. The findings demonstrated that on the profitability liquidity has a positive effect.

The paper of Tafri et al. (2009) revealed so that the effect of Interest Rate Risk on ROE of conventional banks is significantly weak and negative and for Islamic banks this is insignificant. Furthermore, with Return on Asset (ROA) its impact is significantly positive for Conventional & Islamic banks the relationship exists insignificant. The study of Dimitropoulos (2010) shows that on return earning, the impact of interest rate risk is positive insignificant. According to Wood and Staikouras (2003) the association between interest rate and bank profit is constructive and direct. The findings of Huizinga and Kunt (1999) revealed that the relation of high interest rate with the bank profitability is direct and this is in low developed countries.

The study of Schumacher & Saunders (2000) used 'dealer model'. The sample size consists of 614 banks and the duration of study was 1988-1995. Europe and US banks was the sample of this study. The results of the study demonstrated that interest rate positively affect the net interest margin of bank. The results of English (2002) revealed positive impact of interest rate on net income of bank.

With the help of above literature, following hypothesis is formulated;

**H1a:** Credit Risk has significant Impact on the Bank's Profitability.

**H1b:** Interest Rate Risk has significant Impact on the Bank's Profitability.

**H1c:** Liquidity Risk has significant Impact on the Bank's Profitability.

## METHODOLOGY

For estimation, secondary data has collected from the annual reports and from the audited financial reports of conventional banks in Pakistan. The other secondary sources are State bank of Pakistan (SBP) and Pakistan stock exchange (PSE). duration of the study was from 2014 to 2018. This period of the study was chosen because the data is completely available during this period of the selected banks. In this study Generalized Least Square Method was used. For the models of panel data regression, two models were used (model 1) GLS with fixed effect model and (model 2) GLS with random effect model. Hausman specification test was used to select the appropriate

model for the study between FE & RE (Baltagi 2014). For the estimation of panel data there are three models. Pooled Regression Model, Fixed Effect Model and Random Effect Model. The main problem and drawback of pooled regression model is that it does not distinguish among all the sample banks that we have. It means that by pooling all the sample banks this method deny the individuality and heterogeneity that might be exist between 22 banks.

**PROFIATABILITY= F (RISKS; MACRO; BANK)**

In this the RISK signify three key risks that be there as, 'Credit Risk, Interest Rate Risk and Liquidity Risk' whereas, MACRO represent the control variables which included the inflation and GDP growth and BANK signifies the size of bank. The profitability measures that had used in this study are Return on Asset (ROA) and Return on Equity (ROE)".So, the systematic model which was used in this study is as,

$$ROA_{it} = \beta_0 + \beta_1 ROA_{i,t-1} + \beta_2 CR_{it} + \beta_3 IRR_{it} + \beta_4 (CR*IRR)_{it} + \beta_5 LIQ_{it} + \beta_6 \ln BSIZE_{it} + \beta_7 BCAP_{it} + \beta_8 GDP_{it} + \beta_9 INF_{it} + \mu_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 ROE_{i,t-1} + \beta_2 CR_{it} + \beta_3 IRR_{it} + \beta_4 (CR*IRR)_{it} + \beta_5 LIQ_{it} + \beta_6 \ln BSIZE_{it} + \beta_7 BCAP_{it} + \beta_8 GDP_{it} + \beta_9 INF_{it} + \mu_{it}$$

Where,

**ROA<sub>it</sub>** is the Return on asset of ith bank at year t

**ROE<sub>it</sub>** is the Return on equity of ith bank at year t

**CR<sub>it</sub>** is the Credit risk of ith bank at year t

**IRR<sub>it</sub>** is the Interest Rate risk of ith bank at year t

**LIQ<sub>it</sub>** is the Liquidity risk of ith bank at year t

**lnBSIZE<sub>it</sub>** is the Log of total asset of ith bank at year t

**BCAP<sub>it</sub>** is the Bank capitalization of ith bank at year t

**GDP<sub>it</sub>** is GDP growth Rate of ith bank at year t

**INF<sub>it</sub>** is Inflation rate of ith bank at year t

**μ<sub>it</sub>** is Error term

**Table 1: Variables Measurement**

| Variable Names                  | Measures                                                         | Abbreviations      |
|---------------------------------|------------------------------------------------------------------|--------------------|
| Profitability                   | Net Income/Total Asset                                           | ROA                |
|                                 | Net Income/ Equity                                               | ROE                |
| Lagged ROA/ROE                  | Previous Year ROA/ROE                                            | ROA(-1)<br>ROE(-1) |
| Credit Risk                     | Loan Loss Provision/Loans                                        | CR                 |
| Interest Rate Risk              | Rate Sensitive Assets - Rate Sensitive Liabilities/Total Capital | IRR                |
| Credit Risk* Interest Rate Risk | Interaction Between Credit Risk And Interest Rate Risk           | CR*IRR             |
| Liquidity Risk                  | Loan/Total Deposits                                              | LIQ                |
| Bank Size                       | Ln Total Assets                                                  | BSIZE              |
| Bank Capital                    | Equity / Total Assets                                            | BCAP               |
| GDP Growth                      | GDP Growth Rate                                                  | GDP                |
| Inflation                       | Consumer Price Index                                             | INF                |

## RESULTS AND DISCUSSIONS

### Descriptive Statistics

The detail of 'descriptive statistics' for the dependent and explanatory variables, given in the table 1.2. This table defines the maximum, minimum, median, mean and SD of all the variables that are involved in study for the period of 2014 to 2018. The dependent variable ROA ranges from maximum value of 0.0296 to a minimum of -0.021 with mean value of 2.63% and the standard deviation is 0.0091. The dependent variable ROE has a mean ratio of 6.82% with minimum and maximum value of -2.02% and 2.96% respectively with the standard deviation of 6.16%. The mean value of ROE indicate that banks are challenging among them for making profit however their standard deviations of 6.16% evident that their profit-making capacity is deviating from each other.

As for CR concerned, the value of mean is 0.116 with the maximum value of 0.951 and minimum value of 0.001. The standard deviation of CR is 0.137. There is also moderate variation among the banks in loan loss provision ratios which is evident from standard deviation of the ratio of loan loss reserve to total loan which is 13.7 percent. Maximum value of IRR is 30.234 with downside -13.599. The standard deviation of IRR is 5.92 and with the mean value 2.843.

The Loan and advance to deposit ratio (LAR) is the most commonly used measure of bank liquidity. This ratio also shows how far the bank used depositors fund on credit activity which is disposed to to default risk. From the table 4.2 the average LAR of Pakistani banks was 0.604 with the variability of 0.162. The maximum and minimum value of LR ranges from 1.119 to 0.337. The average value of CR\*IRR is 4.82% which supported by variability of 75%. The lower boundary value of CR\*IRR is -1.23 and with stretch up value of 4.46. The mean value of BSIZE is 19.49 with the standard deviation of 1.02. The maximum and minimum values of BSIZE are 21.52 and 17.26 respectively. The standard deviation of BCAP is 0.081 with the average value of 0.096. The upper value of BCAP is 0.51 and lower value is -0.02. As for GDP concerned, the average mean value is 3.86% with the variability of 0.2164%. The Maximum value of GDP is 4.2% limiting the downside up to 3.6. Finally, the minimum and maximum recorded values of INF are 0.048 and 0.137 individually. The mean value of INF is 0.091 and the standard deviation is 0.0301.

**Table 2: Summary of Descriptive Statistics**

| Panels                         | Variables | Mean    | Median   | Maximum  | Minimum   | Std. Dev. | Obs. |
|--------------------------------|-----------|---------|----------|----------|-----------|-----------|------|
| Panel A: Dependent Variables   | ROA       | 0.02639 | 0.008650 | 0.029600 | -0.02020  | 0.00914   | 110  |
|                                | ROE       | 0.06829 | 0.077500 | 0.185400 | -0.09840  | 0.06161   | 110  |
| Panel B: Independent Variables | CR        | 0.11617 | 0.088200 | 0.951000 | 0.001100  | 0.13714   | 110  |
|                                | IRR       | 2.84375 | 1.188950 | 30.23450 | -13.5997  | 5.92218   | 110  |
|                                | LR        | 0.60480 | 0.567000 | 1.119400 | 0.337100  | 0.16997   | 110  |
|                                | CR*IRR    | 0.04829 | -0.01350 | 4.464900 | -1.23080  | 0.75438   | 110  |
| Panel C: Controlled Variables  | BSIZE     | 19.4971 | 19.63835 | 21.52010 | 17.26010  | 1.02019   | 110  |
|                                | BCAP      | 0.09641 | 0.074000 | 0.518600 | -0.024800 | 0.08155   | 110  |
|                                | GDP       | 0.03860 | 0.038000 | 0.042000 | 0.036000  | 0.00216   | 110  |
|                                | INF       | 0.0910  | 0.08600  | 0.137000 | 0.048100  | 0.03057   | 110  |
|                                |           |         |          |          |           |           |      |

Abbreviations: Return on Assets (ROA), Return on Equity (ROE), Credit Risk (CR), Interest Rate Risk (IRR), Liquidity Risk (LIQ), Interaction between credit risk and Interest Rate Risk (CR\*IRR), Inflation Rate (INF), Gross Domestic Product (GDP), Bank Capitalization (BCAP), Bank Size (BSIZE).

## Regression Results

For the estimation of impact of financial risk on the banking profitability of Pakistan panel data analysis has been utilized. In analysis of panel data two model has been used which are Fixed Effect Model (FEM) and Random Effect Model (REM). For the purpose to know which model is best in both regression coefficients were estimated. According to the views of Chu et al, 2002 random effect model is considered “Asymptotically Effective” model whereas, fixed effect model is considered reliable and unbiased model but not effective. For the purpose of choosing the best model between FEM and REM a specification test of “Hausman” was performed. From the application of this

model the fixed effect model is rejected in favor of random effect model at 0.8432 for return on Assets as the dependent variable and 0.7576 for Return on equity as dependent variable. Based on Hausman test, decision is made for the utilization of random effect model. So, the results of panel data are obtained with the help of random effect model. The regression results with fixed effect model are shown in Appendix B and Appendix C with both profitability measures.

**Table3: Regression Analysis with ROA as dependent variable**

| Independent variables | Random Effect Model Coefficients | P-Value  |
|-----------------------|----------------------------------|----------|
| Constant              | -0.032419***                     | (0.0950) |
| ROA (-1)              | 0.643819*                        | (0.0000) |
| CR                    | -0.008355*                       | (0.0094) |
| IRR                   | 0.000384*                        | (0.0024) |
| LIQ                   | -0.001143                        | (0.7856) |
| CR*IRR                | -0.002521*                       | (0.0022) |
| BSIZE                 | 0.001458**                       | (0.0424) |
| BCAP                  | 0.004144                         | (0.5808) |
| GDP                   | 0.172499                         | (0.5720) |
| INF                   | 0.003540                         | (0.8900) |
| R-Square              | 0.68348                          |          |
| Adjusted R-Square     | 0.64697                          |          |
| F-Statistics          | 18.7146*                         |          |
| Prob. (F-statistics)  | 0.0000                           |          |
| Durbin-Watson Stat    | 2.291                            |          |
| Hausman Test          | 0.8432                           |          |
| No. of Observations   | 88                               |          |

\*, \*\*, \*\*\* indicates significance level at 1%, 5% and 10% respectively.

**Table 4: Random Effect Regression Results Based on Return on Equity (ROE)**

| Independent and Control variables | Random Effect Model Coefficients | P-Values |
|-----------------------------------|----------------------------------|----------|
| Constant                          | -0.118586                        | (0.4352) |
| ROE (-1)                          | 0.543481*                        | (0.0000) |
| CR                                | -0.085070*                       | (0.0015) |
| IRR                               | 0.003194*                        | (0.0018) |
| LIQ                               | 0.006960                         | (0.8220) |
| CR*IRR                            | -0.01296**                       | (0.0387) |
| BSIZE                             | 0.005940                         | (0.2446) |
| BCAP                              | -0.04190                         | (0.4506) |
| GDP                               | 1.183282                         | (0.6411) |
| INF                               | -0.146597                        | (0.4917) |
| R-Square                          | 0.60695                          |          |
| Adjusted R-Square                 | 0.56159                          |          |
| F-Statistics                      | 13.3831*                         |          |
| Prob. (F-statistics)              | 0.0000                           |          |
| Durbin-Watson Stat                | 2.338                            |          |
| Hausman Test                      | 0.7576                           |          |
| No. of Observations               | 88                               |          |

\*, \*\*, \*\*\* indicates significance level at 1%, 5% and 10% respectively.

The results of research study demonstrated that credit risk negatively influenced the both banking profitability measures and its impact is highly significant. These findings are in line with Athanasoglou et al (2005) and Awdeh (2005). This suggest that when the exposure of credit risk increases it reduced the profitability of bank.

The reason may be that the condition of loan portfolio of bank possibly will be reflected with the fluctuations in credit risk and have impact on bank's financial performance. The interpretation of results may be defined as if more bank exposed loans that high risk as have a result the ratio of unpaid loans become higher, the loan loss provisions become also higher, indicating that the losses of loans decrease the return of conventional banks. Sufian (2009) indicated that profitability will be reduced as banks use more profit as buffer against their loan loss. In order to reduce loan loss to reduce reserve ratio and increase the profitability, sensible credit management is required.

interest rate risk has significant impact on the profitability of conventional banks in Pakistan. Interest rate positively affected the financial performance of bank in both profitability measures and this impact is significant. These findings are consistent with Tafri et al (2009). However, contradicting with the findings of Tabarin et al (2013).

This was in agreement with English (2002) who asserted that floating rate assets and liabilities had different reprising periods with base rates that have maturities similar to their respective reprising periods (assets that reprise annually based on 1 year rate and liabilities that reprise quarterly based on a three-month rate).

But the results of liquidity risk show that it has negative insignificant relation with ROA and positive insignificant relation with ROE. A former study of Bourke P. (1989) shows that LIQ and ROE has positive significant relationship between them. These outcomes of our study are accredited to the fact that banks hold liquid assets as a commitment to the requirements levied by the authorities. When bank hold money for these devotions the profitability of bank may decline because the low return is expected. Liquidity risk creates mismatch in assets and liabilities and creates differences among their maturities. It also refers that current assets are not enough available to achieve the current requirement. When a bank has not enough liquidity, it cannot get enough fund at some reasonable cost, either by increasing liabilities or by convert their cash quickly, therefore it effects their profitability. The cause of negative impact of liquidity risk on profitability may be because of opportunity cost. This shows that at sometimes, the presence of high liquidity risk forced bank to borrow emergency funds at extreme high cost that can affect the profitability. The study praises that finance managers of banks must maintain a balance between the level of liquid assets and long-term assets to highlight contradictory objectives of sustainable profitability and enough profitability

The conclusion of this problem is that if the problems of liquidity was not seen properly it could affect the profitability of banks. A bank that have problems of liquidity possibly will face troubles in fulfilling the depositors demand. So, these problems can be controlled with the help of adequate and satisfactory cash reserves and by reducing the gap of liquidity.

The regression outcomes for controlled variables shows that lagged ROA and Lagged ROE both have significant positive influence on both profitability measures. The impact of CR\*IRR on ROA and ROE is negative significant. These findings are consistent with Anas and Fauziah (2014) and inconsistent with Tafri et al (2009). Bank size have positive relationship with ROA and ROE. Basically, size of bank captured the economies and diseconomies of scale in banking industry. The positive association displays that when the size of bank increase bank's profitability also increases. Banks take benefits from its scale and also from its scope of economies. Bank Capital has insignificant impact on both ROA and ROE. Whereas, GDP impact on ROA and ROE has insignificant relationship. It means that if the GDP is favorable it does not improve the bank's Profitability significantly. Similarly, the relationship between inflation and profitability is insignificant.

## CONCLUSION

A balanced panel of 22 banks over the period 2014–2018 was used to analyze the impact of Financial risk on return on assets, return on equity of banks in Pakistan. The findings of this study reveal that Credit Risk has negative significant impact on both profitability measures. The impact of interest rate is significant positive and for liquidity risk this impact shows insignificant relationship. The results of this study are useful to academics, bank managers, investors and other stakeholders. This study has some policy implications relevant to the profitability. First, Pakistani banks are still weak in credit management because the mean loan loss ratio of Pakistani banks is higher than mean loan loss ratio of banks in other emerging countries such as China (Tan2016) and Ghana (Alhassanetal. 2016). They should avoid disbursing the riskier loans to strengthen the profitability. Second, the banks should invest more in human capital to further increase their productivity, which has the potential to further strengthen the revenues. Third, to enhance the profitability of the banking sector, the banks and the government of Pakistan should collaborate to control the mechanism to repay the debt by the government entities during government transition. Fourth, the banks in Pakistan should anticipate the future inflation to avoid its negative impact on banking profitability, as already suggested by Perry (1992). The government of Pakistan should inject more equity and focus more on expansions to/on specialized banks to generate more income. Higher capitalized banks have cushion available to observe negative shocks, to make riskier investment decisions, and to reduce their borrowing cost, thus can enjoy more profitability.

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