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**EXAMINING THE IMPACT OF CAPITAL, LIQUIDITY AND
EXCHANGE RATE RISKS ON THE FINANCIAL
PERFORMANCE: EVIDENCE FROM BANKING SECTOR OF
PAKISTAN.**



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ABSTRACT:

This study examines the impact of financial risk on financial performances of commercial and investment banks of Pakistan listed in Pakistan stock exchange (PSX) by using data sample of 12 commercial and 7 investment banks from the period of 2015-2021. However, selected financial risk consists of Capital risk, liquidity and exchange rate risk, and financial performance is measured by the return on assets (ROA), return on equity (ROE) and net interest margin (NIM). To achieve the objective of the study a panel regression analysis of the data method was used. At the time, data was collected from the annual financial statements of the banks and Pakistan stock exchange website. As from the analysis we found that for both models, there is an extremely significant relationships emerged between capital and liquidity risk and financial performance, and negligible relationships between exchange rate risk and financial performance for commercial banks, and moderate relationships between liquidity risk and financial performance, for investment banks. Due to the limited limit of current research various proposals may be made for further research such as research on other financial risks, other financial institutions and other financial performance measures not included in the current study.

Keywords: financial performance, banks, Pakistan stock exchange, return on assets (ROA), return on equity (ROE) and net interest margin (NIM)

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LIST OF ABRIVIATIONS:

| | |
|------|--|
| CAR | Capita Adequacy Ratio |
| CR | Capital Risk |
| ERR | Exchange Rate Risk |
| FP | Financial Performance |
| LR | Liquidity Risk |
| NIM | Net Interest Margin |
| PSX | Pakistan Stock Exchange |
| ROA | Return on Asset |
| ROE | Return on Equity |
| SPSS | Statistical Package for Social Science |
| VIF | Variance Inflation Factor |
| VAR | Value at Risk |

CHAPTER 1

INTRODUCTION

1.1 Background of the Study:

Social life revolves around risks and not being able to overcome these risks, minimizing it is a part of our life. It is interesting to know that risk is an important factor in operating all aspects of life. Human development is achieved by taking all kinds of relevant risks. Risk management is always an important factor. The global financial crisis now indicates the need for corporate risk management strategies, as the collapse of corporations is no longer a new phenomenon. An effective banking sector is crucial for any economic development Country. In addition, there are now divisions in the banking sector worldwide becoming more comprehensive with each passing day. It is, therefore, as a result of the increased complexity of the functional structure of Banking Institute. Since it is possible to follow the same trend, Regulators are now gradually working on finding technology for better risk management (Saghir & Ch, 2020).

Companies and organizations that cannot reach their determined goals without taking risks require taking risky decisions. As a result of the increasing unpredictability in the economy, risk management is increasing day by day. Some of the main challenges faced by most companies are financial losses, especially when their stock market value is dependent on market conditions (Fama & MacBeth, 1973). Risk assessment is the process used by companies where investment decisions are made, evaluated, accepted or reduced due to uncertainty. Risk management comes when the investor tries to identify the loss of investment and then makes reasonable effort to

examine these potential losses on the financial results of a particular financial institution (i.e. the bank). This risk is calculated in relation to risk management (Saleem & Nazar, 2020)

One of the characteristics that investors use to determine their equity investments is the financial performance of the bank, which helps to evaluate the strength of the bank and apply the relevant financial performance information to make the right decision (Almagtome & Abbas, 2020). In this context, it is noteworthy that the financial results of a bank are specifically expressed in the balance sheet sales statement, which shows how well the bank performs according to certain criteria (ie, bank size, capital ratio, liquidity, etc.). However, the success of banks over the years is measured by their return on equity (Paul & Musiega, 2020). Return on Equity (ROE) is widely used as a financial viability model, the lack of computation problematic with ROE requires significant financial leverage. It is likely to produce a higher rate. However, banks with higher financial leverage have a higher risk of collapse. Therefore, with increasing economic conditions, banking is likely to lose market share, especially in case of industry inflation (Wu, Shao, Yang, Ding, & Zhang, 2020). With increasing global financial pressure on firms, these banks are key to sustainable financial success and have inspired scholars to explore viable ways for banks to sustain long-term growth because these banks have failed to create lasting financial success (Rupert & Smith, 2016). Therefore, in recent years, a significant amount of (realistic) research has been conducted on the subject of financial risk related to financial performance.

In recent years there are my researches that took place in order to find the relation between financial risks that effect the banks financial performance mostly all these studies demonstrates the role of financial systems and economies productivity

(Sathyamoorthi , Mapharing, Mphoeng , & Dzimiri, 2020). In this study the main focus is how we manage these risks and how to hedge these risks from bank. These risks could be generated through fluctuations in different economy factors that can upset their currency movements therefore banks performance or position can be effected and inexpensive in the commodity markets.

Financial achievement as a personal sign of in what way successfully company uses the resources of its core business mode to generate revenue. There are several parameters that utilize toward govern the commercial banks performance. FP metrics include ROA, ROE, and productivity. ROA is generated by the yearly profit by yearly assets. ROA verifies the bank managing's ability to generate income by means of the company's properties at its removal. In other words, it shows how effectively a company's resources are used to generate revenue (SUKA , 2010). Assets return displays that effectiveness of the executive of bank is in generating remaining revenue from assets resources of company (Khrawish, 2011). Return on equity (ROE) is widely used as a model of financial sustainability, the lack of calculation problems with ROE is likely to require significant leverage yield a higher ratio. However, banks with higher leverage have a higher risk of collapse. Therefore, as economic conditions rise, the banking sector is likely to lose its market share, especially in the event of sector inflation (Wu, Shao, Yang, Ding, & Zhang, 2020)

There remain different groups of risk, which arise in corporate. First, there is an essential to differentiate between business risks and financial risks. In business risks, it arises from the nature of business firms and due to financial variations in variables,

whereas financial risks arise in financial markets from possible damages (Phillippe & Joseph, 1996).

There is no unique definition of risk management. Many authors have defined risk management in many ways, even some of them have pointed to a single definition. There are many controlled ways to manage risk in magazines and books (Anderson & Hair, 2018). View risk management as an effective form of corporate governance that combines (Board of Directors) with business principles and risk mitigation. Satisfaction of available stakeholder entities. Therefore, risk mitigation can be considered as a function of the monitoring board which guides risk strategy and sets risk limits which are clearly defined in all organizations. (Cassidy & Gray, 2020) State that risk management operates in a way that involves organizations being internally involved. Risk management is primarily concerned with board policies, top board management and risk mitigation functions. The Board Committee should continue to review risk information and guidelines and analyze disclosures so that sound risk mitigation decisions can be made. The most definitive of these definitions, provides a forum for the Management Board to monitor risks and to apprise all stakeholders of risk mitigation problems.

In banking institutions, there are no strategies and directions suggested for comprehensive RM procedures due to the diversity of risks. Each financial institution is free to RM techniques in this regard. Although banking regulations are required in a modern market economy. The key efforts are primarily risk identification and then assessment to identify the impact on the profitability of banking institutions. There is a range of measures to measure risk control and risk intensive care in financial

organizations. Financial institutions can frequently measure risks and guarantee correctness (Brezeanu, Al-Essawi, Poanta, & Badea, 2011).

1.2 Problem Statement:

As my research collections prove, if the risk is well managed this will improve the financial performance of banks or financial institutions. The banking industry is booming globally. Every bank in the world should try to boost its overall performance profitability, where performance is measured as the best position among the world's financial institutions. According to (Alzorqan , 2014; Ismail, Abd Samad, & Romaiha , 2018), bank performance is different for each bank and is influenced by factors such as the basic management of banks and the markets they operate in to assess their risk exposure. Based on previous reports, this indicates that banks are exposed to different types of risk, such as credit risk, operational risk, interest rate risk, market risk and foreign exchange risk. For commercial and investment banking, this study can help identify factors that have an impact on the profitability of banks. Many studies have examined the relationship between financial risks and financial outcomes, but most of these studies reflect the experiences of developed countries, which makes it difficult to generalize its results to Pakistan. So in this research the comparison of both models (commercial and investments banks) are taken to identify and analyse their banks performances.

The current study reviews the Financial Risk Assessment of the Financial Outcomes of the Pakistan Stock Exchange and Commercial Banks from 2015 to 2021. In accumulation, capital risk, exchange rate risk and liquidity risk specifically represent financial losses. At the same time, equity return, asset return and net interest margin

reflect the financial results. However, the importance of the new analysis should be added to the banking works.

Financial risk management is important to the Pakistani banking sector as it increases business value. Therefore, risk management practices should particularly focus on the banking sector as it improves its financial performance. To address the major challenges facing the Pakistani banking sector, due attention must be paid to conducting and implementing adequate financial risk management practices. According to the literature reviewed, it is stated that many other factors will also be needed for mitigation. Risk, as the regulation of loans, credit positions and changing market conditions increase their importance. Hence, business models need to change with respect to risk strategies and many other researchers have pointed this out as well, but I had used the new combination of risk mitigation proxies and tried to find the combination with different dependent variables in the data. Banks in the Pakistani context. As there is a lot of ambiguity about market conditions in Pakistan, it is therefore important to test relationships with different variables to update the business model.

It is hoped that this research decide to recover awareness on previously published involuntary mixed outcomes. Exploring the impact of financial risks (capital risk, exchange rate risk, liquidity risk) on the financial performance of these banks (ROE, ROA, and NIM) will lead to the growth of the banking industry in Pakistan, promoting the current level of research and performance of these banks.

1.3 Research Question:

Q1: Does Capital risk has significant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange?

Q2: Does exchange rate risk has significant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange?

Q3: Does Liquidity risk has significant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange?

1.4 Objective of this Research:

Objective of this study are as followings:

- ✚ Assessing the impact of capital risk on banks financial performance of commercial and investment banks listed on the Pakistan Stock Exchange.
- ✚ Assessing the impact of exchange rate risk on commercial and investment banks financial performance listed on the Pakistan Stock Exchange.
- ✚ Assessing the Impact of Liquidity Risk on banks financial performance of commercial and investment banks listed on the Pakistan Stock Exchange.

1.5 Significance of the study:

The study will provide insight into the most effective approaches that banks use to mitigate financial risk. The results of the research will benefit Pakistani banks to establish guidelines that boosts financial risk management in the banking sector. The study will also be useful for commercial banks and will be able to understand the risk management activities and lead to the financial performance of commercial banks and

ensure that appropriate banking policies and procedures are followed. Academicians will benefit from the research details because the research would add to the current body of knowledge.

CHAPTER 2

LITERATURE REVEIW

Due to globalization, modern companies are facing extremely serious losses due to the ever-evolving development of technology contrary to previous belief. For financial institutions, managing these threats is not of primary importance. Consequently, financial risk is a major challenge facing many businesses, especially on the stock exchange, as they depend on market circumstances (Ali & Oudat, 2020). This is due to unpredictable fluctuations in financial losses. In this regard, it should be remembered that different types of risk formats can adversely affect a company's financial performance (Kioko, Olweny, & Ochieng, 2019). The concept of financial risk carries a wide variety of risks. Financial risk arises as a outcome of standard marketplace collapse due to asset instability. It is usually linked with obligation and may not meet the balance obligations (Al-Tamimi & Al-Mazrooei, 2007).

The banking sector is considered one of the most important financial institutions in the domain. Above the past few eras, the management of the banking industry has undergone several changes due to the high level of liquidity in banking institutions such as the Lehman-Brothers and Bear Stearns. However, (Chijoriga, 2019) found that all small, medium, large sized banks operate or operate in an environment that is volatile and fragile and faces a number of risks that can get in the way and which can lead to commercial The business may be closed i.e., financial obligations not met. (Robert & Gary, 2019). There are three different types of risk present in the financial system i.e. business risk, operational risk, financial risk. Furthermore, it was also examined (Heiney, 2010) This disclosure of risks makes banks a risky business, which is why

good risk mitigation is vital to the growth and survival of all commercial and retail banks. Banks as financial institutions show an energetic part in the growth and expansion of the overall economy in various ways.

The issues of disaster risk management have intensified in the last one year. Good risk mitigation techniques are a defined method for identifying and valuing the identified lost liability in an entity using effective debt management strategies. Banking center of Pakistan has faced many risks like bankruptcy, exchange rate risk, credit risk, employment risk, interest rate risk and many other risks due to unpredictable and uncertain nature of the country and due to this serious developing economy like Pakistan. There is pressure to meet current needs that is needed. Financial performance is a calculated by how fine an organization is using its current and fixed assets despite various management strategies to reduce risk. To measure an income bank's total equity in accordance with the Financial Performance Act (Wernz, J. 2014). A bank's financial performance is measured by credit rating, performance and cost of loans. Profitability is a attendant to the total results actions and results undertaken by commercial banks and maintaining its steadiness besides development. (Giesecke, 2004).

There is no unique definition of risk management. Many authors have defined risk management in many ways, even some of them have pointed to a single definition. There are many controlled ways to manage risk in magazines and books (Anderson & Hair, 2018). View risk management as an effective form of corporate governance that combines (Board of Directors) with business principles and risk mitigation. Satisfaction of available stakeholder entities. Therefore, risk mitigation can be considered as a function of the monitoring board which guides risk strategy and sets risk limits which are clearly defined in all organizations. (Cassidy & Gray, 2020) State that risk

management operates in a way that involves organizations being internally involved. Risk management is primarily concerned with board policies, top board management and risk mitigation functions. The Board Committee should continue to review risk information and guidelines and analyze disclosures so that sound risk mitigation decisions can be made. The most definitive of these definitions, provides a forum for the Management Board to monitor risks and to apprise all stakeholders of risk mitigation problems.

Due to greater digitization of services in Pakistan, there may be internal and external risks associated with banking. According to several researchers' reviewed literature on credit risk, which (Al-Tamimi & Al-Mazrooei, 2007) has an optimistic and important impact in developed countries of Europe, Asian developing countries), it has shown a significant negative correlation with financial performance indicators. Has shown as ROE. It is important to mitigate the risk if a beneficiary becomes unable to repay the loan, according to (Hogan, 2015) Committee of Banking Supervision (Basel) of Capital Adequacy Ratio (CAR). Association of Inverse relationships were found between the tested ROA and ROE and between credit risk proxies and performance indicators.

In current ages, this problem has concerned the courtesy of researchers investigating in impact on fiscal outcomes (Sathyamoorthi , Mapharing, Mphoeng , & Dzimiri, 2020). Financial success thus arises from the company's willingness to make important decisions and implement strategies to achieve its goals (Ali & Oudat, 2020). In particular, business results define company strengths and limitations by establishing a relationship between the components of the financial situation in the turnover and forfeiture statement (NOOR, 2019). This is the reason why banks are making huge

contributions to the global economic development. Its economic accomplishment is also significant because it also raises the existing standards of the population (Ali & Oudat, 2020). The following risks: Capital risk, exchange rate risk and liquidity risk are conversed in this current study.

2.1 Capital risk & Bank performance:

Capital risk has been defined as the ability of a bank to shelter unstable assets. It is calculated by variance among property marketplace rates and fairness liabilities. Capital plays the most important part in contradiction of any potential threat, especially when security is inadequate and central banks tend to mobilize the bank to ensure that all shareholders, especially depositors, have a margin of security. In short, 'Capital vulnerability is risk-averse equity' (Hogan, 2015).

(Sukmadewi, 2020) After examining the effect of the capital adequacy ratio, among other ratios, on the fund capacity of 23 banking companies traded on the Indonesian Stock Exchange between 2016 and 2018, it was determined that they had an equity ratio in terms of return on assets (ROA). Positively affects the profitability of banks. Also, the impact of capital adequacy on financing performance among ten banks listed in Nigeria between 2010-2017. The research has shown a huge positive impact on the financial viability of Nigerian banks (Ukinamemen & Ozekhome, 2019). In reality, a steady increase in debt, firm value, as it increases the firm's risk causes a decrease in company performance. In accordance with in previous research, capital risk is an important and negative association with ROE and NIM (Tan & Anchor, 2016). (Million, Matewos, & Sujata, 2015) Found a significant negative association Between Capital risk and ROE. Similarly, (Li & Zou, 2014; Alshatti, 2015) also found a negative relationship between CAR and ROA and ROE in commercial and investment banks in

Jordan The significant capital impact on financial results from 54 Kenyan insurers over the period 2014-2018 was examined. Studies have shown that the financial success of insurance companies in Kenya has statistically significant consequences (Mutumira, 2019). The present analysis therefore proposes to test the following hypothesis:

H1: Capital risk has an insignificant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange.

2.2 Exchange Rate Risk and Bank's Performance:

The exchange value of one country is equivalent to the currency value of another country. In this context, it means memorizing that all commercial investment banks benefit from one of the important financial market surroundings, the foreign exchange market. There are different currencies in international trade. Treasury inconsistencies have an incentive to monitor the extent to which they affect banks' financial intermediation activities. Since no country can exist independently without other countries, both deal with transactions; therefore, the exchange rate is inevitable (Moyo & Tursoy , 2020). Exchange rate fluctuations have a wide impact on other economic factors such as interest rates, inflation rates, and unemployment rates. These arguments highlight the importance of currency for the well-being of any country's economy, especially those that trade in goods and services internationally. He emphasized the need for monetary stability for sustainable macroeconomic conditions in any sector. This allows the country's exchange rate regulator to adopt the optimal exchange rate to maintain balance (Elhoussein & Osman, 2019).

The effect of financial risk on the financial performance of commercial banks was examined by (Sathyamoorthi , Mapharing, Mphoeng , & Dzimiri, 2020) from which eight years of data (2011-2018) were taken, which shows that exchange rates are negative and significantly negative. its effect on returns on assets and returns on equity. On the other hand, the ratio of total debt to total assets had a negative and negligible effect on return on assets.

The impact on finance performance of commercial banks listed on the Bahrain Exchange of Business Hazard (Capital Risk, Exchange-Rate Risk, and Liquidity Operational Risk) between 2014 and 2018, 11 of the 18 banks in Bahrain were investigated.and found the lowest correlation between bank success in exchange rate risk (Ali & Oudat, 2020). Research of the efficiency finance exchange rate inflation in four commercial banking institutions in South Africa from 2003-2019 was done which show the exchange rate is less closely linked to risk bank output (Moyo & Tursoy , 2020). Research of the impact of exchange rate instability on the financial outcomes of 37 banks between 2002 and 2017 indicated a modest correlation among the success of banks in exchange rate risk (Elhoussein & Osman, 2019). In addition, (Otieno, 2017) analyzed the impact of foreign exchange prices on the financial results of 43 commercial banks in Kenya from 2007 to 2016. The results suggest that the success of the exchange rate in Kenya will have a major positive impact on the banking industry. In addition, among the 10 banks listed on the Nairobi Securities Exchange from 2006 to 2013 (Lagat & Nyandema, 2016) inspected the impact of the partnership on the financial results of the conversion easing. Research has shown that financial success scales are a strong optimism for the foreign exchange rate. Exchange rate fluctuations improve banks' profitability, thereby increasing bank efficiency. The current analysis therefore proposes to test the following hypothesis:

H2: Exchange rate risk has an insignificant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange.

2.3 Liquidity Risk and Bank's Performance:

Liquidity risk occurs when financial institutions meet their lending commitments to meet their targets or take a profit that can support their available credit base. Now another credit risk is a loan payment which is made when due and may not be available in case of any error. (Akhtar, Ali, & Sadaqat, 2011) Market risk is that when market conditions are volatile and change rapidly it can affect the market value of a bank or firm and financial institution. Risk mitigation is a streamlined process of application of organization-wide processes to identify, assess, manage and monitor unified data such as risk assessment (protection), extract and value-creation is used.

The bank defines credit prices to encounter the difficulties of investors for their customers to extract their cash. In further arguments, if the business does not have passable incomes to meet the contract capacities or requirements within a specified period, they may face. Higher liquidity ratios are assumed to be stable for enterprises, although corporations with higher debt-to-lower liquidity levels are more likely to default. Because of the low liquidity risk it means that banks are struggling to provide loans for income Therefore, if the bank does not have sufficient liquidity, its day-to-day operations will not be covered (NOOR, 2019). The study shows the positive influence of maintaining liquidity on the performance of banks in Pakistan. The increase in the liquidity ratio has had a positive influence on the performance of banks in Pakistan. Different studies also shows an optimistic connection between the liquidity position and the performance of banks. However, some researches shows a negative relationship

between the two variables. Increased liquidity incurs an opportunity cost to the bank as liquid assets have lower interest rates. On the other hand, due to low liquidity the bank may not be able to pay when its depositors want to withdraw funds (Alim, Ali, & Metla)

The relationship of liquidity with bank performance has yielded different results across different sectors and time periods. Therefore, a comprehensive study is needed to identify their impact on the Pakistani market in order to formulate better policies for this sector. Meanwhile, among the six Islamic banks in Bangladesh between 2012 and 2016, which analyzed the liquidity risk associated with bank success. Research has revealed a negative relation between measurements of bank liquidity capacity, Risk Liquidity, Credit Risk, Foreign Exchange Risk, and Interest Rate Risk Impact. Further it analyzed the return of 42 commercial Banked assets to Kenya in 2010–2015. Research has shown that liquidity risk has a significant optimistic result on the profitability of banks (Chowdhury & Zaman, 2018). (Wani & Dar, 2014) Explored the relationship between bank financial risk successes in India. From 2008 to 2013 the five public sector banks were 5 private banks. Evidence from 10 financial institutions. The results showed that liquidity risk was not related to financial viability. The current analysis therefore proposes to test the following hypothesis:

H3: Liquidity risk has an insignificant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange.

2.4 Hypothesis Development:

H1: Capital risk has insignificant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange.

H2: Exchange rate risk has insignificant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange.

H3: Liquidity risk has insignificant relationship with the financial performance of the commercial and investment banks listed on the Pakistan Stock Exchange.

2.5 Research Framework:

Based on the above literary reviews, the following reflective theoretical framework has been developed that shows the relation among IV's and DV's. This framework is adapted from (Oudat & Ali, 2021).

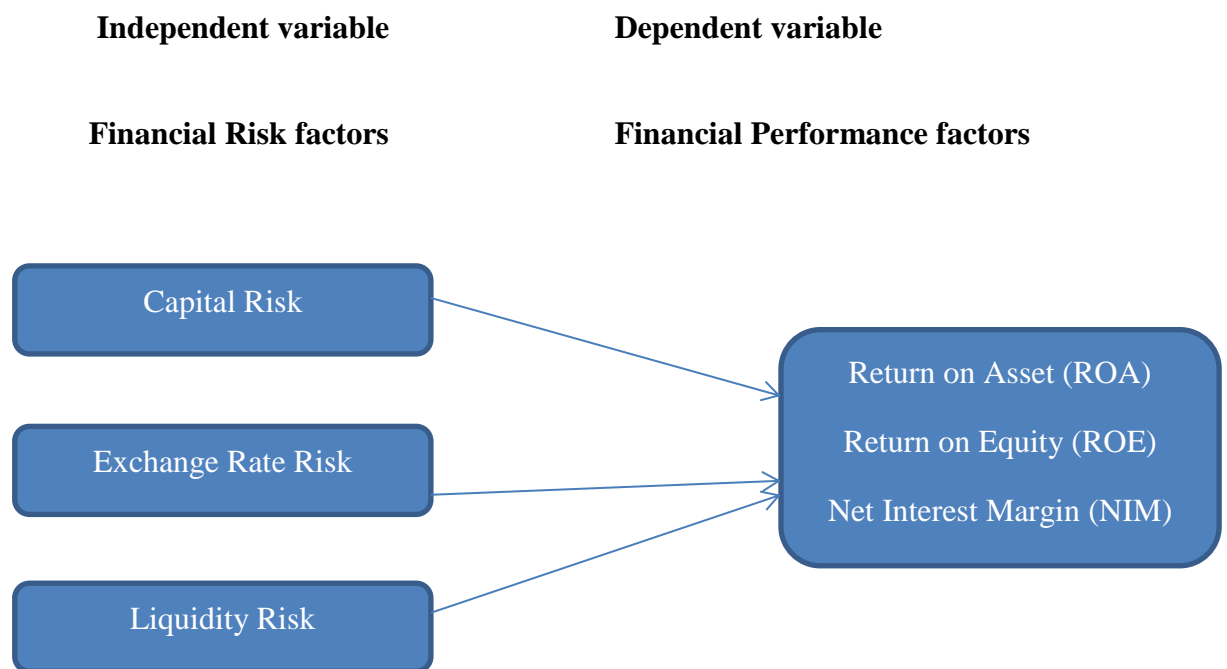


Figure 1: *Research Framework for commercial and investment banks*

2.6 Theoretical Background:

There are several theories that confirm the impact of financial risk management on financial performance. Appropriate appreciation of such theories by an organization's

management will enable them to engage in the most appropriate financial risk management practices to suit the organization. Two of these theories are discussed below:

2.6.1 Finance Distress Theory

According to Baldwin and Scott (1983), if a company's business collapses in a way that it cannot meet its fiscal responsibilities, the company is said to be in a financial crisis. The first symptoms of depression are usually a violation of the terms of the credit agreement or a reduction in benefits. It is a situation in which a person or company flops to create revenue as it fails to encounter its prescribed financial responsibilities. In such a condition, in the business environment, the company's financial performance is becoming increasingly volatile, leading to increased investment challenges and building trust. In the view of commercial banks, the inability to honor deposit withdrawals and the issuance of loans is a risk factor for money laundering. Similarly, credit risk rises when lending banks fail due to a consumer's delay in repaying a loan. It therefore follows that banks should be careful to pay attention to their payments and credit risk in order to avoid any financial stress. According to Whitaker (1999), measures to correct factory managers to improve their financial performance are determined by financial pressure. Therefore, financial pressure theory is important in the study of the relation between financial risk management and financial performance as it identifies financial risks and liabilities as predictors of financial stress (Fighting with the Wizard, 2018).

2.6.2 Risk Management Theory

In 1997 David developed the theory of Risk management theory by the purpose of learning in what way banks should be able to manage risks such as debt and market

risk and why it is needed. Concept is clear that together credit and market risk can have a straight or unintended consequence on the survival of banks (Schuhmann & Eichhorn, 2017). Managers are concerned about common risks and have little concern for the individual risks of portfolio components, as managers are able to close the windows bank position. The need for total risk indicates that the amount of risk cannot be fixed as portfolio risk is not just a fraction of the value in Markowitz's view. This suggests that portfolio risk should be determined by the portfolio income that is consistent with changes in the structure of the portfolio (Banks, 2004). Regulatory requirements and other options require managers to assume that risk returns trading, Risk estimates are costly and therefore bank managers interact between accuracy and cost. Trading will have a huge impact on slightly technique used by bank. They obligate single goal of measuring hazard by expressive the maximum level of accuracy and the maximum loss that the bank may incur. Administrators may adjust capital requirements beyond the extreme forfeiture limit to safeguard disappointment. It has two basic methods of measuring risk, analyzing the situation and the amount at risk (Sovan , 2010) .

2.6.3 Theory of Financial Intermediation

This theory was developed by (Akerlof & Milbourne, 1980); where financial intermediation is a mix of institutional instrument and market needs of different economic entities whose main purpose is to collect money from public and legal entities and to lend this money on commercial terms. Exposure to financial risk. The theory focuses on reducing the costs necessary to encourage the behavior of debtors in the interests of creditors (Sharp, Alexander, & Bely, 2011). Later, he replaced the theory (Vishnevsky , Matyushin, & Annenkov, 2008)and showed that financial intermediation is a variation of the traditional theory that explains the behavior of banks using the

prices, quality, quantity, and temporal evidence of assets. Invention of banks. Financial innovation.

Regulating the money distribution of savings and finance of the economy affects the solvency and liquidity of intermediaries and enables efficient refining and recovery of debt (Diamond & Rajan, 2000). Depositors face liquidity risk, the balance between liquidity and profitability, the balance between liquidity and profitability allows them to keep their funds in the form of deposits, but according to the Diamond model, depositors do not know in advance when they will experience liquidity risk. In order for depositors to hold liquid assets, banks are required to sell more profitable and less liquid assets, so that many depositors withdraw their funds reduces profit opportunities, other customers may follow a behavior called bank leakage and therefore expose banks to liquidity risk (Aleksandra, Dalia, & Julija , 2009).

CHAPTER 3

RESEARCH METHODOLOGY

This chapter includes methodology used for assessing the impact of capital structure on financial performance. This chapter has highlighted research methodology used for collecting and analyzing data. It also highlights unit of analysis, population frame, sample size, data collection, data analysis, etc., to assess the relationship between financial risk and banks financial performance.

3.1 Research Sample:

The population for this research is all commercial and investment banks listed on Pakistan Stock Exchange (PSX) and the sample size which was taken 12 commercial banks and 7 investment banks listed on Pakistan Stock Exchange (PSX).

| Banks | Selected banks | Observation |
|-------------------------|-----------------------|--------------------|
| Commercial Banks | 12 | 84 |
| Investment Banks | 7 | 49 |
| TOTAL | 19 | 133 |

3.2 Research Design:

The research design of this research will covers secondary data from (2015-2021), which will be collected from the selected banks annual financial reports or from PSX website. After that Statistical Package for Social Sciences (SPSS) is used as a tool to analyze the data.

3.3 Variables and their Measurements:

The following variables are used in the research:

3.3.1 Independent variables

Capital Risk (CR): It is the relation of bank's wealth to its total assets (Mutumira, 2019).

$$CR = \text{Bank's capital} / \text{Total assets}$$

Liquidity Risk (LR):

It appears when the firm is unable to repay its debt and has not fulfilled its obligation, thus negatively affecting the firm's profitability. The proxy used for this measure is the loan / deposit ratio. According to (Giesecke, 2004; Anderson & Hair, 2018) they found that liquidity risk negatively affects financial performance. The positive role of the variable is shown by (Akhtar, Ali, & Sadaqat, 2011). Most researchers have used it as a risk factor in their studies. It can be measured by following the formula

$$LR = \text{Total loans} / \text{Total deposits}$$

Exchange Rate Risk (ERR):

ERR states to risk that the bank's performance besides productivity might be pretentious by fluctuations in rates between currency kinds (Otieno, 2017).

$$ERR = (\text{Asset-Liability}) / \text{Total assets}$$

| Table 2 Independent variable measurments | | |
|---|--|--------------------------------|
| Variable | Measurement | Reference |
| Capital Risk (CR) | CR=Bank's capital/Total assets | (Mutumira, 2019) |
| Liquidity Risk (LR) | LR= Total bank loans and advances / Total deposits | (Akhtar, Ali, & Sadaqat, 2011) |
| Exchange Rate Risk (ERR) | ERR= (Asset-Libility)/Total assets | (Otieno, 2017) |

3.3.2 Dependent Variable:

ROA: (Ali & Oudat, 2020) Return on Assets is a good financial measure to evaluate how well a company is performing in terms of other risk factors and formula:

$$ROA = \text{Net income} / \text{Bank's total assets}$$

ROE: Return on equity (ROE) is a company's financial performance measure that reflects relation between a company's profit and an investor return (Al-Tamimi & Al-Mazrooei, 2007).

$$ROE = \text{Net income} / \text{bank's shareholder equity}$$

NIM: Net Interest Margin is another proxy measure of profitability. It is an indicator used to compare the debt situation in a bank with investment decisions. Other scholars define NIM as the net return on interest-generating assets as it is used to monitor and evaluate whether a bank's investments and lending assets are profitable. A bank's profitability is determined by a positive NIM, while a negative NIM indicates investment inefficiencies (Doyran, 2013).

$$NIM = (\text{investment income} - \text{investment expense}) / (\text{current assets} - \text{previous assets})$$

| Table 3 Dependent variable measurments | | |
|--|---|---------------------------------|
| Variable | Measurement | Reference |
| Return on Equity (ROE) | ROE=Net income/bank's shareholder Equity | (Ali & Oudat, 2020) |
| Return on Asset (ROA) | ROA=Net income/Bank's average total assets | (Al-Tamimi & Al-Mazrooei, 2007) |
| Net Interest Margin (NIM) | NIM=(investment income-investment expense)/(current assets-previous assets) | (Doyran, 2013) |

3.4 Research Model

Panel data regression was used to evaluate the research theory, the following model is utilize to analyze appropriate regression analysis approach for the data:

$$ROA = \alpha_0 + \beta_1 CR_{it} + \beta_2 LR_{it} + \beta_3 ERR_{it} + \varepsilon_{it}$$

$$ROE = \alpha_0 + \beta_1 CR_{it} + \beta_2 LR_{it} + \beta_3 ERR_{it} + \varepsilon_{it}$$

$$NIM = \alpha_0 + \beta_1 CR_{it} + \beta_2 LR_{it} + \beta_3 ERR_{it} + \varepsilon_{it}$$

Where the interruptions of α_0 is the intercept point of regression and β_1 , β_2 and β_3 represent the population slope Coefficient, ROA: Indicates the dependent variable which is measure by asset on returns ROE: Indicates the dependent variable which is measure by equity on returns, NIM: Indicates the dependent variable which is measure by net interest margin, CR: It indicates the independent variable x_1 as Capital Risk; LR:

It indicates the independent variable x_2 as Liquidity Risk and ERR: Indicates the independent variable x_3 as exchange risk; and ε_{it} : Error term. However, relevant mathematical methods can be used to estimate and evaluate the interaction between IV's and DV's.

3.5 Data Analysis Techniques

In this research, the technique used is fixed effect model technique. This technique is used for assessing the relationship between financial risk management and financial performance. Furthermore, this technique provides generalizable results in situations where there is need of assessing relationship amongst variables. Hence, use of panel data technique is preferred in comparison to cross-sectional and time series techniques to perform an effective research. Spss software is used for data analysis and identifying relationship between financial risk and financial performance in banking sector of Pakistan.

CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter covers the result and discussion which includes all tests and interpretations on data collected from a secondary source. All statistics is composed from the annual reports of the selected banks of Pakistan and also from the PSX website.

4.1 Descriptive statistics:

Descriptive statistics help organize data in such a way that it can be easily interpreted from the information collected. It is utilized to achieve a sample from the population to represent the entire population. In this study, the variables are of two types; dependent and independent variables in which the mean, the median and the standard derivation are calculated. These calculations are very essential as they indicate the mean of the variables. Average, which helps measure the central trend, which indicates the average value of the data. This can help find any anomalies in the available data. Similarly, Median is used to find the mean value of the data. The standard derivation is used to find how much data is spread by the mean. Closer to the average is better than moving away from the average.

Table 4 and 5 indicates the descriptive statistics of the selected samples. Covers with range, mean, minimum, maximum, standard deviation. The outcomes display that the mean value of ROA is .009742 with a min value of -0.51 and a max value of 2.45 along with the standard deviation of 0.43 for the commercial bank, while for the

investment bank the outcomes disclose that 1.24 is the mean and -12.25 min value, 10.51 is the max while the standard deviation has 3.17 value. ROE mean value is 14.10 with a minimum of -11.17 and a maximum of 32.05 as well as the standard deviation of 6.13 for the commercial banks, while for the investment banks the results disclose that 5.29 is the mean and -4.01 min value, 21.91 is the max value while the standard deviation is 18.78. NIM value is 11.26 with a minimum of 4.26 and a maximum of 124.86 as well as the standard deviation of 17.20 for the commercial banks, while for the investment banks the results tells that 9.74 is the mean and -25.57 min value, 24.86 is the max while the standard deviation is 21.17. Furthermore, the results of the table indicates that the mean of capital risk is 7.10 by a min value of 4.30, a max value of 13.93 and standard deviation 2.07 for the first model. For the second model, however, the mean value is 22.51 with a min value of 4.00 and a max value of 8.59 along with the standard deviation is 28.20. Therefore, it justifies that these banks have recognized that capital shows an vital role alongside with any possible risk, mostly in the event of insufficient provision, thus these banks have revolved to raising investment from the banks to ensure a safety boundary for all investors and shareholders in particular the effects disclose that the mean value of liquidity risk is 24.45, with minimum 1.56, maximum 775.23 and 24.45 for the standard deviation for the commercial banks. Meanwhile, the mean for the investment banks is 22.07with a minimum of 00.00 and a maximum of 90.60 along with the standard deviation of 20.82, which shows that these banks have credit distributions on the credit balance of these banks customers to please the needs from depositors to extract their currency. By means of this selected banks are up to guarantee its day-to-day processes and are operative in conveying credits and generating returns. Meanwhile, the outcomes also expresses that for the commercial banks the mean of the ERR is 6.36 and 3.89 for the investment banks, with a min value

of 5.20, - 9.39, while for the max 71.3, 89.0 along with the standard deviation of 43.4 and 38.9 for commercial and investment banks respectively. Therefore it is evident that exchange risk had the max value related to the other risks, that means banks believe that the instabilities in ER are a stimulating feature that observers the altitudes of profitability of the banks since it disturbs their practices of financial intermediation.

| | N | Minimum | Maximum | Mean | Std. Deviation |
|------------|----------|----------------|----------------|-------------|-----------------------|
| ROA | 84 | -.00511 | .02452 | .009742 | .004279 |
| ROE | 84 | -.111734 | .32051 | .14104 | .06130 |
| NIM | 84 | .042586 | 1.24864 | .112646 | .17198 |
| CR | 84 | .043002 | .139257 | .07099 | .02065 |
| LR | 84 | .0156 | 7.75228 | .24448 | .83322 |
| ERR | 84 | .00458 | .00745 | ..06365 | .000953 |

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-----|----------|----------------|----------------|-------------|-----------------------|
| ROA | 49 | -.122477 | .105138 | .012418 | .0317446 |
| ROE | 49 | -0.041051 | .2190710 | .052949 | .1877649 |
| NIM | 49 | -.2557436 | 0.248641 | .097442 | .2116658 |
| CR | 49 | .0400372 | .9858913 | .225055 | .2819691 |
| LR | 49 | .0000295 | .9060430 | .220671 | .2082256 |
| ERR | 49 | .0045864 | .0074577 | .0389 | .0009573 |

4.2 Correlation matrix

The correlation matrix represents the direct relationship between two independent variables. The tables below show the correlation matrix between dependent and independent variables. To determine the strength of the relationship between the dependent variable, i.e. ROA, and various independent variables, the study uses a Pearson moment correlation [A correlation coefficient involves changing the value of one variable over another. The correlation coefficient varies between +1 and -1. A correlation coefficient of +1 indicates a perfectly positive correlation. A change in the value of one variable predicts a change in the second variable in the same direction. A correlation coefficient of -1 indicates a perfect negative correlation. A change in the value of one variable predicts an inverse change in the second variable. In the absence of correlation, the coefficient will be zero to improve the correlation matrix].

4.2.1 correlation matrix of commercial banks of Pakistan

From the below table of correlation matrix we found that there is a optimistic correlation between assets return and risk of capital as shown by factor of .556 that means that both are on same direction and also found positive correlation between ROA and LR by factor of .283. We also found that there is a negative relationship between ROA and ERR with a factor of (.047) which mean that they are opposite in direction. The correlation between CR and ERR shows positive sign with .37 and negative signs with LR and ERR of (0.15) We found that there is a positive correlation between ROE and CR as shown by factor of .216 that means that both are on same direction and also found positive correlation between ROE and LR by factor of .207. We also found that there is a negative relationship between ROE and ERR with a factor of (.0174) which mean that they are opposite in direction. we found that there is a positive correlation

between NIM and CR as shown by factor of .367 that means that both are on same direction and also found negative correlation between NIM and LR by factor of (.031) positive relationship between NIM and ERR with a factor of .129 which mean that they are same in direction.

Correlations

| Table 6 correlation matrix of commercial banks of Pakistan | | | | | | |
|---|------------|------------|------------|-----------|-----------|------------|
| | ROA | ROE | NIM | CR | LR | ERR |
| ROA | 1 | | | | | |
| ROE | .668 | 1 | | | | |
| NIM | .416 | 0.109 | 1 | | | |
| CR | .556 | .216 | .367 | 1 | | |
| LR | 0.283 | .207 | -0.031 | -0.021 | 1 | |
| ERR | -0.047 | -0.174 | 0.129 | 0.085 | -0.155 | 1 |

4.2.2 Correlation matrix of investment banks of pakistan

From the below table correlation matrix we found that there is a optimistic correlation between ROA and CR as shown by factor of .451 that means that both are on same direction and also found positive correlation between ROA and LR by factor of .169. We also found that there is a negative relationship between ROA and ERR with a factor of (.045) which mean that they are opposite in direction. The correlation between LR and ERR shows positive sign with .495 and negative signs with CR and ERR of (.036) We found that there is a positive correlation between ROE and CR as shown by factor of .103 that means that both are on same direction and also found positive correlation between ROE and LR by factor of .059. We also found that there is a negative relationship between ROE and ERR with a factor of (.047) which mean that

they are opposite in direction. we found that there is a negative correlation between NIM and CR as shown by factor of (.261)that means that both are on opposite direction and also found negative correlation between NIM and LR by factor of (0.22) positive relationship between NIM and ERR with a factor of .053 which mean that they are same in direction.

Correlations

| Table 7 correlation matrix of investment banks of pakistan | | | | | | |
|---|------------|------------|------------|-----------|-----------|------------|
| | ROA | ROE | NIM | CR | LR | ERR |
| ROA | 1 | | | | | |
| ROE | .617 | 1 | | | | |
| NIM | -.095 | .053 | 1 | | | |
| CR | .451 | .103 | -.261 | 1 | | |
| LR | .169 | .059 | -.220 | .495 | 1 | |
| ERR | -.045 | -.047 | .053 | -.036 | -.011 | 1 |

4.3 Multicollinearity Statistics:

In order to avoid biased regression coefficients caused by the multicollinearity problem, Variance Inflation Factor and tolerance values of entirely variables were evaluated in this study to evaluate the strictness of multicollinearity. The following table represents the multicollinearity statistics for the various independent variables:

| Table 8 Multicollinearity statistics of commercial banks of pakistan | | | |
|---|------------|-------------------------|-------|
| Model 1 | | Collinearity Statistics | |
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | CR | 0.993 | 1.007 |
| | LR | 0.976 | 1.025 |
| | ERR | 0.969 | 1.032 |

| Table 9 Collinearity statistics of investment banks of pakistan | | | |
|--|------------|-------------------------|-------|
| Model 2 | | Collinearity Statistics | |
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | CR | 0.854 | 1.327 |
| | LR | 0.855 | 1.325 |
| | ERR | 0.999 | 1.001 |

From the Collinearity statistics tables shown above, it is clear that the value of Variance Inflation Factor (VIF) of entirely independent variables are 10 at the initial limit. Similarly, tolerance values are in the satisfactory range and not close to zero. Therefore, we accomplish that no multicollinearity problem is found between the variables measured in this research.

4.4 Regression Analysis:

In this study, hypothesis will be validated by regression analysis using spss in which three DV's (ROA, ROE and NIM) were used for two models commercial and investment banks.

4.4.1 Model Summary Analysis for Commercial Banks

For first model (Commercial Banks) below tables show that the adjusted R-squared value is 0.322 for ROA, .075 for ROE and 0.144for NIM, which shows that selected financial risk explain roughly 32.2% , 7.5% and 14.4% as an IV's. Changes in financial performance measured by its proxies sequentially.

| Table 10 Model Summary of commercial banks of Pakistan for ROA | | | | | | |
|---|-------------------|----------|-------------------|----------------------------|-------------------|----------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | |
| | | | | | R Square Change | F Change |
| 1 | .568 ^a | .322 | .297 | .003588 | .322 | 12.670 |

a. Predictors: (Constant), ERR , LR, CR

b. Dependent Variable: ROA

| Table 11 Model Summary of commercial banks of Pakistan for ROE | | | | | | |
|---|-------------------|----------|-------------------|----------------------------|-------------------|----------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | |
| | | | | | R Square Change | F Change |
| 1 | .273 ^a | .075 | .040 | .060074003250145 | .075 | 2.147 |

a. Predictors: (Constant), ERR , LR, CR

b. Dependent Variable: ROE

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|
| | | | | | R Square Change | F Change |
| 1 | .380 ^a | .144 | .112 | .162066632547268 | .144 | 4.491 |

a. Predictors: (Constant), ERR , LR, CR

b. Dependent Variable: NIM

4.4.2 Model Summary Analysis for Investment Banks

For second model (Investment Banks) below tables show that the adjusted R-squared value is .334 for ROA, .208 for ROE and 0.12 for NIM, which shows that financial risk explains roughly of 33% , 20.8% and 12% as an independent variable. Variations that arise in financial performance measured by its proxies sequentially.

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|
| | | | | | R Square Change | F Change |
| 1 | .456 ^a | .334 | .274 | .009182 | .334 | 3.933 |

a. Predictors: (Constant), ERR , LR, CR

b. Dependent Variable: ROA

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|
| | | | | | R Square Change | F Change |
| 1 | .079 ^a | .208 | 0.060 | 0.193322 | .208 | 0.093 |

a. Predictors: (Constant), ERR , LR, CR

b. Dependent Variable: ROE

| Table 15 Model Summary of investment banks of pakistan for NIM | | | | | | |
|---|-------------------|----------|-------------------|----------------------------|-------------------|----------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | |
| | | | | | R Square Change | F Change |
| 1 | .284 ^a | 0.124 | 0.020 | 0.20957 | 0.124 | 1.320 |

a. Predictors: (Constant), ERR , LR, CR

b. Dependent Variable: NIM

4.5 Hypothesis test

4.5.1 H1 Result:

Below is an unrelated association among Capital Risk and Financial Performance of banks in Pakistan. In below tables, the results of the regression investigation on CR and their effects on the ROA are presented as the dependent variable in the study. Sig value reaching 0.0015 in commercial banks and 0.003 in investment banks has a major outcome among CR and ROA, while possibility rate (T) is 6.131 which has a progressive result. It clarified that banks try to increase the amount of ROA as it is unique utmost effective proceeds on the effort, and therefore series are willing to uphold satisfactory amounts of reappearance. Assets and this is linked to the monetary policy promise of banks to listed banks. Pakistan, which seeks to continue adequate capital levels to keep stakeholder sureness and strike a balance between generating high returns for the bank and maintaining capital. Therefore, the lower the capital risks, the greater the impact on investor confidence and therefore asset performance. This finding is consistent with previous studies (Ismail, Abd Samad, & Romaiha , 2018; Ukinamemen & Ozekhome, 2019)

It shows that increasing the capital risk variable by 1% will reduce ROE by 32% for commercial banks and -.008 for investment banks. This means that banks with

investment risk incline to be focus to inadequate requirements as they cannot afford risky assets. In other words, banks with a high capital adequacy ratio will remain further ready to refuge possible damages because capital adequacy negatively affects their return on equity.

In the study, a regression test was performed on capital risks and their effects on the net interest margin as the dependent variable. A Sig value reaching 0.001 in commercial and .232 in investment banks indicates a statistical important consequence among capital risk and asset returns, and a probability value (T) of 3.449 and 1.212 designates a positive effect on capital risks. PSX. (Ali & Oudat, 2020; Sukmadewi, 2020; Mutumira, 2019) Whose results reveal a positive relationship between bank performance and capital adequacy. There is an important relationship between capital risk and financial efficiency.

4.5.2 H2 Results:

From the table below Sig value is 0.287 in commercial banks and 0.753 in investment banks between ERR and ROA, it reveals that in exchange rate risk and assets return has no significant effect between them, while Probability Value (T) - 1.072 in Commercial banks and -2.14 in Investment banks shows that exchange rate risk has a negative impact on banks asset return traded on the Pakistan Stock Exchange, the above results are similar with previous studies (Giesecke, 2004; Mutumira, 2019).

By assessment, the exchange rate results shows that .132 increase in equity return in commercial banks and a decrease of 0.042 in the second, but in both models the currency price effect have an irrelevant consequence 0.871 and 0.189 on ROE. Result indicates that the interchange rate law of banks in Pakistan describes that the accurate interchange rate besides promises its steadiness. These results (Ali & Oudat,

2020; Moyo & Tursoy , 2020) are reinforced by revealing an insignificant relationship among exchange and bank performance.

In the study, we found that it shows the influence between them. The value of Sig, is 0.355 in commercial banks and 0.755 in investment banks, was not statistically significant. The effect of Probability Value (T), which is 0.931 in commercial banks and 0.314 in investment banks, between exchange rate risk (ERR) and net interest margin (NIM), shows that exchange rate risk has a positive effect on assets return. Banks traded in the Pakistan Stock Exchange. Thus, third hypothesis was accepted as not all models were related to exchange rate risk and financial results.

4.5.3 H3 Results:

The table below shows the Sig value of the bank. bank. 0.725 in commercial banks. While 0.643 shows that no relation is found among liquidity risk and asset return in commercial & investment banks, and Probability Value (T) is -.353 in commercial banks shows negative effect of liquidity risk. It shows that .467 on ROA of commercial banks traded on Pakistan Stock Exchange and liquidity risk in investment banks ensure a progressive result on ROA in banks traded on Pakistan Stock Exchange. Due to banks' ability to accomplish decreases and unclear fluctuations on facing different challenges in the market.

From a liquidity risk perspective, it shows that an increase of 1% will increase ROE by 19.5% for model 1 and 0.006 for model 2. The result demonstrates an irrelevant outcome on the equity return 0.522 for liquidity risk in model 1. This confirms that banks require adequate investment towards their obligations or financial commitments in a given period. Their studies have shown that an irrelevant relation was found between liquidity risk and bank efficiency. For investment banks, the results

nevertheless show successful relationship between them because p value is .422. The second hypothesis is partially accepted because the correlation between the liquidity risk of commercial banks and their financial results is negligible, while the relationship of investment banks is significant.

In terms of liquidity risk, an increase of .1764 for commercial banks and .468 for investment banks indicates a 1% increase in NIM. It also shows an insignificant effect on the equity return -.078 in liquidity risk for model 1. This guarantees that banks ensure sufficient interest margins to meet their financial commitments in a given period. For investment banks, the results still show unsuccessful relationship between them because p value is -.733. It has been shown that the second hypothesis does not have a important relation between Liquidity risk and financial performance. This result was consistent with prior findings (Ismail et al., 2018; Kioko et al., 2019; Mansyur, 2017; Patarai & Mohamad Fauzi, 2016).

| Coefficients^a | | | | | | |
|---------------------------------|------------|----------------------------|------------|--------------------------|--------|-------|
| Model | | Unstandarized Coefficients | | Standarized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .011 | .003 | | 1.480 | .143 |
| | CR | .117 | .019 | .566 | 6.131 | .0015 |
| | LR | .000 | .000 | -.033 | -.353 | .725 |
| | ERR | -.450 | .420 | -.100 | -1.072 | .287 |

a. Dependent Variable: ROA

| Table 17 Coefficients of commercial banks of pakistan for ROE | | | | | | |
|--|------------|-----------------------------|------------|---------------------------|--------|-------|
| Coefficients^a | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .249 | .047 | | 5.320 | <.001 |
| | CR | -.321 | .020 | -.203 | -1.882 | .063 |
| | LR | .442 | .008 | .057 | .522 | .195 |
| | ERR | 1.030 | 7.027 | .166 | 0.871 | .1030 |
| a. Dependent Variable: ROE | | | | | | |

| Table 18 Coefficients of commercial banks of pakistan for NIM | | | | | | |
|--|------------|-----------------------------|------------|---------------------------|--------|-------|
| Coefficients^a | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.204 | .126 | | -1.615 | .110 |
| | CR | 2.981 | .864 | .358 | 3.449 | <.001 |
| | LR | -.002 | .022 | -.008 | -.078 | .1716 |
| | ERR | 17.643 | 18.957 | .098 | .931 | .355 |
| DV: NIM | | | | | | |

Table 19 Coefficients of investment banks of pakistan for ROA

| Coefficients^a | | | | | | |
|---------------------------------|------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .008 | .027 | | .301 | .765 |
| | CR | .055 | .017 | .485 | 3.173 | .003 |
| | LR | -.011 | .023 | -.071 | .467 | .643 |
| | ERR | 0.722 | 4.403 | -.028 | -.214 | .832 |

a. Dependent Variable: ROA

Table 20 Coefficients of investment banks of pakistan for ROE

| Coefficients^a | | | | | | |
|---------------------------------|------------|-----------------------------|-------------|---------------------------|-------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std . Error | Beta | | |
| 1 | (Constant) | .098 | .179 | | .546 | .588 |
| | CR | -.08 | .114 | -.028 | -.162 | .872 |
| | LR | .065 | .154 | .072 | .422 | .006 |
| | ERR | .042 | 29.167 | -.047 | 0.189 | -.042 |

a. Dependent Variable: ROE

Table 21 Coefficients of investment banks of pakistan for NIM

| Coefficients^a | | | | | | |
|---------------------------------|------------|--|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients ^a | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .099 | .194 | | .510 | .613 |
| | CR | -.150 | .124 | -.199 | 1.212 | .232 |
| | LR | .095 | .167 | .121 | -.733 | .095 |
| | ERR | 9.929 | 31.620 | .045 | .314 | .755 |

a. Dependent Variable: NIM

CHAPTER 5

CONCLUSION AND RECOMMENATION

5.1 Conclusion

In the current research, panel regression analysis was applied using panel data to analyses the effect of financial risk on commercial and investment banks traded I Pakistan stock exchange and the relative importance of different risk types. The research covers 18 selected banks located in Pakistan. The period taken for analysis is from 2015-2021. Independent variable taken in this study is financial risk management which proxies are CR, ERR and LR and dependent variable include ROA, ROE and NIM. Their interpretation result of this study have meet the purpose of the analysis. The selection and the risk types of these banks were determined according to the amount of data. For both banks, the result shows that there is a significant relationship were found between capital and liquidity risk with financial performances and negligible relations between exchange risk with financial performance of commercial banks and moderate relation between liquidity risk with financial performance of investment banks.

5.2Recommendation:

The research focuses primarily on banking result, but then again the main attention remains restricted toward (commercial and investment) banks. As a recommendation, there seems to be chances aimed at further researchers toward the advancement of research. From the current study, it is established that around are numerous recommendations for further investigation in the direction towards complete conclusion. Future research will utilize financial hazards to analyze their impact on the result of these banks to identify similarities and differences between these banks. Non-

profit banks/companies also by adding different proxies such as corporate governance, GDP for improved outcomes for upcoming exploration.

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APENDIX

Bank's listed on Pakistan Stock Exchange PSX and Stated Bank of Pakistan SBP

List of Commercial banks listed on PSX

| Symbol | Company Name | Short Name |
|---------------|----------------------------------|------------------------|
| <u>ABL</u> | <u>Allied Bank Limited</u> | <u>Allied Bank Ltd</u> |
| <u>AKBL</u> | <u>Askari Bank Limited</u> | <u>Askari Bank</u> |
| <u>BAFL</u> | <u>Bank Al-Falah Limited</u> | <u>Bank Al-Falah</u> |
| <u>BAHL</u> | <u>Bank Al-Habib Limited</u> | <u>Bank AL-Habib</u> |
| <u>BOP</u> | <u>Bank Of Punjab Limited</u> | <u>B.O.Punjab</u> |
| <u>FABL</u> | <u>Faysal Bank Limited</u> | <u>Faysal Bank</u> |
| <u>HBL</u> | <u>Habib Bank Limited</u> | <u>Habib Bank</u> |
| <u>MCB</u> | <u>MCB Bank Limited</u> | <u>MCB Bank Ltd</u> |
| <u>NBP</u> | <u>National Bank Of Pakistan</u> | <u>National Bank</u> |
| <u>SILK</u> | <u>Silkbank Limited</u> | <u>Silk Bank Ltd</u> |
| <u>SNBL</u> | <u>Soneri Bank Limited</u> | <u>Soneri Bank Ltd</u> |
| <u>UBL</u> | <u>United bank limited</u> | <u>United bank</u> |

List of Investment banks listed on PSX

| Symbol | Company Name | Short Name |
|---------------|---|------------------------|
| <u>786</u> | <u>786 Investment Limited</u> | <u>786 Invest Ltd</u> |
| <u>AMBL</u> | <u>Apna Microfinance Bank Limited</u> | <u>Apna Microfin.</u> |
| <u>AHL</u> | <u>Arif Habib Limited</u> | <u>Arif Habib Ltd.</u> |
| <u>ESBL</u> | <u>Escorts Investment Bank Limited</u> | <u>Escorts Bank</u> |
| <u>FDIBL</u> | <u>First Dawood Investment Bank Limited</u> | <u>Ist.Dawood Bank</u> |
| <u>ICIBL</u> | <u>Invest Capital Investment Bank Limited</u> | <u>Invest Bank</u> |
| <u>JSIL</u> | <u>JS Investments Limited</u> | <u>JS Investments</u> |