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## Determinants of Non-Performing Loans (NPLs); Evidence from the Banking Sector of Pakistan

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ARTICLE DETAILS	ABSTRACT
<b>History:</b>  Received: February 26,2022 Accepted: March 2, 2022	<p>The main aim of the current study is to theorize an inclusive assessment of the factors of non-performing loans from the banking sector in the setting of Pakistan. In this connection, adequate criticism of contemporary literature is being provided in the context of relevant macroeconomic indicators which might aggravate the level of Non-Performing Loans (NPLs) in the conventional commercial banks of Pakistan as well as other regions. As per the study of literature, it has been found that corruption, political stability, accountability, investment profile, credit bank to private area and energy crisis affects the NPLs of conventional banks. In addition, factors like lending interest rate, unemployment, GDP and inflation do explain the variation in NPLs of the banking sector. Political stability, lack of capital capability, lack of efficiency, nominal emphasis on NPLs and lack of efficiency are the present issues being faced by the country. On the other hand, an increase in NPLs affects the internal factors including efficiency, profitability, bank size and capital. It has also been found that NPLs surge through inaccurate decisions by the organizations and political intervention in the banking sector. As per the outcomes of the studies, it has been observed that operational productivity and effectiveness have an adverse and significant relationship with NPLs. The lawmakers should accomplish a vigorous financial state of banks through manufacturing extra revenues. In this way banks will be in a better position to explore the credit worthiness of the creditors which will be ultimately helpful for better loan management. Once the key factors for an increase in NPLs are determined, the banks will establish stable and efficient policies for loan management. The purpose</p>
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	<p>behind determining these internal as well as external factors is not merely to highlight their significance but to chalk out measures and directions to control the stability of the banking sector and the financial structure.</p> <p>2022 The Authors, Published by WUM. This is an Open Access article under the Creative Common Attribution Non-Commercial 4.0</p>
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## 1. Introduction

Internationally, fiscal catastrophes are well-thought-out to be the most significant and instant issue for the banking sector, particularly in emerging countries like Pakistan (Bussiere, & Fratzscher, 2006; Naudé, 2009; Khan, Siddique, & Sarwar, 2020). It has been seen in the near past, that financial crises have noticeably increased and are being experienced all over the world. This argument has been witnessed in the year 2007 in the shape of a financial crisis and market instability (Saleuddin, & Jansson, 2021; Shuhao, 2021). Substantial foreign investment leakage has been seen in early 1997 in the case developing countries (Çan, & Okur Dinçsoy 2021; Subeh, & Boychenko, 2018; Moudud-Ul-Huq, Akter, & Biswas, 2020; Soedarmono, Machrouh, & Tarazi, 2011). Upsurges in the level of NPLs of bank advances have resulted in monetary crises. NPLs, being the main cause of the crises and failure of the banking sector, are being closely monitored by the banks' management and governments. (Clerides, 2014; Ghosh, 2015; Naili, & Lahrichi, 2020). This concept further strengthens where the countries largely rely on the banks to fulfill their credit needs. Therefore, banks are the backbone of maintaining financial sustainability as these are the key source in providing funds. (Moradi et al., 2016).

NPLs can be explained as unpaid loans. According to International Monetary Fund (2002), if the principal amount, as well as interest of a loan, is not paid for a minimum of 90 days then it is considered an NPL. If the principal along with the amount of interest is not paid on the maturity date and is not projected in the future then that loan will be included in NPLs (Alton and Hazen, 2001). Low credit principles, lack of monitoring policy of the borrowers, less capable credit specialists, weak credit procedures and high markup spreads are the chief reasons behind high levels of NPLs. The measures of credit risk majorly affect the banking structure of any country (Bucur, & Dragomirescu, 2014; Moinescu, 2012; Siddique, Khan, & Khan, 2021). The study by Handley (2010) shows that NPLs affect the financial development of the nation by deteriorating credit growth. A strong monetary system of any country is characterized by low levels of NPLs and vice versa (Ivanovic, 2016). The study of Souza and Feij\_o (2011) reveals that a high level of NPLs affects the banking sector of a country in the short run whereas in long run these deteriorate the financial position of the country. The increasing trend in NPLs can affect the banking capability showing the way to banking crises (Vouldis and Louzis, 2018). There will be a weak economic system resulting in more bankruptcy cases where NPLs will rise. The reason is that NPLs can block the principal amount and the interest resulting in reduced investment behaviors among the investors which will ultimately pave way for liquidity shortage issues which will be devastating for the financial system, therefore, it is pertinent to identify the factors that affect NPLs (Boudriga, Taktak, & Jellouli, 2009; Dinçer, Yüksel, Pınarbaşı, & Çetiner, 2019; Espinoza, & Prasad, 2010; Stijepovi, 2014; Rajha, 2016).

The NPLs negatively impact the performance of the banking sector resulting in higher chances of bankruptcy cases (Michael, 2006). The overall financial health and performance of the banks directly depend on the level of NPLs (Berger and DeYoung, 1997). The study by Fofack (2005) considers an increase in the level of NPLs to be the main reason behind the economic crisis in African countries. State Bank of Pakistan (SBP) is the institute that is responsible for the compliance of regulations in the banking sector and controls the banking sector of the country in totality. In Pakistan, the NPLs ratio has increased promptly over a short period of time. The NPLs ratio has increased from 7.8% in 2010 to an alarming rate of 13.9% in 2020 and still it has an increasing trend. The negative effects of the NPLs are accompanied by high interest rates, low levels of Investment and dividend payments which ultimately result in the lower financial growth of the country (State Bank of Pakistan, 2020).

The banking sector is the chief network for providing credit facilities to numerous commercial segments (Kamran et al., 2018; Kamel, 2005; Richard, 2011; Rehman, Adzis, & Mohamed Arshad, 2020). However, it cannot be ignored that the reliability and performance of the banking sector are measured through its earning steadiness (Kim et al., 2019; Ghosh, 2017; Yin, 2019), enhancements in the profitability (Galdeano et al., 2019 Trujillo- Ponce, 2013; Tan et al., 2017), growing the volume of funds from investors to debtors (Jakab & Kumhof, 2015), and facility of eminence services for their clients (Bouhamed, Díaz, Chaoui, Kamel, & Nouara, 2021; Panigrahi, Azizan, & Waris, 2018; Rafiq & Siddiqui, 2018; Zameer, Tara, Kausar, & Mohsin, 2015). Though, risk administration practices are the gauge for the general performance of the bank. Approach to the steadiness and handling of risk in emerging and advanced economies are dissimilar. The cause is that emerging economies are underdeveloped and have diverse hazard dynamics (Hussain, Oad, Ahmad, Irfan, & Saqib, 2021; Ahmed, Khan, & Ozturk, 2021).

Therefore, while providing loan facilities to various sectors, the intermediary role of the banking sector becomes vital in any economy (Bougatef, 2016). Furthermore, in presence of different risk factors involved in the operations of the banking sector, it is already considered a dodgier business entity (Omarova, 2018; Rehman, Adzis, & Arshad, 2020; Waemustafa & Sukri, 2015). If we talk about various types of bank risks, credit risk is one of the most significant ones (Ghosh, 2017). When a client of a bank, from whom the repayment is being expected, fails to repay the principal amount as well as the amount of interest, then this type of risk emerges (Derban et al., 2005; Emekter et al., 2015; Hersugondo, Anjani, & Pamungkas, 2021; Stijepović, 2014; Schiantarelli, Stacchini, & Strahan, 2016; Araka, Otieno, & Mogwambo, 2021). This type of risk occurs when there is a substantial change in the financial condition of the borrower who is liable to make the payment on the due date (Subramanian, & Kumar Kattumannil, 2022; Yanenkova, Nehoda, Drobyazko, Zavorodnii, & Berezovska, 2021).

The banking system is a key factor in providing financial support to the whole economy in the setting of Pakistan (Rafay, & Farid, 2017; Arif & Nauman Anees, 2012). Though, in the near past, it has been observed that there is an increase in the volume of low-quality assets such as NPLs in the country (Nikolopoulos, & Tsalas, 2017; Ghosh, 2015; Messai, & Jouini, 2013; Mesnard, Margerit, Power, & Magnus, 2016). This has resultantly marked a question on the stability of the banks as well as restricted credit facility to different sectors. The study of Kamran et al. (2019) explains the market structure, credit risk, corruption and political stability to be the major factors for a stable commercial Pakistani banking sector. Furthermore, since 2006 general scrutiny of the banking sector displays that it is susceptible to growing credit risk.

The NPLs were hovering around Rs.446.05 billion during the last decade but reached to an alarming 611.81 billion by 2017 (Kamran et al., 2018; Rehman, Abdul Adzis, & Mohamed Arshad, 2020). Considering this situation, many banks increased their operational costs to maintain lower levels of NPLs which resultantly negatively impacted their profitability. Another example of growing NPLs is that the National Bank of Pakistan (NBP) which is a leading public bank in the country, has produced the highest level of NPLs for 2004-2020 whereas other banks have also confronted an alike matter representing the inadequacy in handling such jeopardy (Khan et al., 2020).

In modern times, financial institutions are one of the main pillars of an economy, therefore, their importance cannot be denied (Waqas, Fatima, Khan, & Arif, 2017). The main source of credit in developing countries is the banking sector (Mirza, Malik, & Abdul-Hamid, 2018; Raza, Jawaaid, & Shafqat, 2013). Major earnings of the banking sector are advances (Niu, 2016). Thus, most banks generate their funds through advances (Malimi, 2017) and some of the advances turn into Non-Performing Loans (NPLs). In the balance sheet, credit risk is represented through NPLs (Malimi, 2017). Credit risk includes both partial and total risk of default (Basel Committee BCBS, 2000). NPLs are responsible for decreasing the growth in lending, failure to invest in good projects, shaking customer's confidence and decreasing the development of the economy of a country (Balgova, Nies, & Plekhanov, 2016; Cucinelli, 2015). Hence, economic activity is minimized and usage of funds in productive projects is blocked (Nikolopoulos & Tsalas, 2017). NPLs become the main reason for the failure of a bank (Campbell, 2007). The most common risk experienced by the banks is occurring of NPLs (Fraser, Gup, & Kolari, 2001). NPLs matter is a serious threat to the strength of banking institutions (Saba, Kouser, & Azeem, 2012). NPLs are one of the main indicators and represent credit as well as operational risks. NPLs also explain the efficient provision of resources. Therefore, it becomes vital to determine the factors that affect NPLs in the context of the monetary environment of the emerging countries, in general and precisely the overall circumstances of Pakistan.

### **1.1. NPLs in Conventional Banks of Pakistan: Historical Perspective**

The banking sector of Pakistan is reasonably developed (State Bank of Pakistan, 2015). 95% of the financial sector of Pakistan depends on banks (Ahmad, 2011). The study of Badar & Javid (2013) indicates that in the last 10 years, the NPLs had grown rapidly in Pakistan. The NPLs issue needs a serious concern in Pakistan as the ratio was 15.74% in 2011 and in 2016 it was calculated as 10.06% which is still beyond the threshold of 10% of the NPL ratio (Demirgüç-Kunt & Detragiache, 1998). In the near past, the Pakistani banking sector has experienced several cases that were close to bankruptcy due to the high heap up and extension of NPLs. However, due to the intervention of the State Bank of Pakistan (SBP), some of these banks were amalgamated into or are adopted by financially stronger banks. As a result, there were eight mergers of banks from 2006 to 2016 (Competition Commission of Pakistan (CCP), 2017).

Economic crises are caused by the high level of NPLs (Lleshanaku, 2015). Besides, high NPLs give way to an occurrence of agony to be classified as a full-fledged crisis which occurs when the share of nonperforming advances in the financial context exceeds 10% (Demirgüç-Kunt & Detragiache, 1998). As far as the NPLs ratio is concerned, Pakistan was ranked in the 25<sup>th</sup> spot out of 32 nations that have an NPL percentage more than 10% (Balgova et al., 2016) while its NPLs (Non-Performing Loan Ratio) in 2016 is yet over 10%. Consequently, the current situation shows that NPLs can set off a banking, fiscal or economic crisis.

## **1.2. An Overview of Non-Performing Loans of Conventional Banking and Non-Performing Financings of the Islamic Industry**

This study attempts to identify the factors of the non-Performing advances of conventional banking as well as non-performing fundings of the Islamic business. The overall share of Islamic banking in the total Islamic Financial Industry (IFI) is about 76% which accounts for almost USD 1,557.5 billion. The worldwide IFI, which comprises of Islamic Capital Market, Islamic Insurance (Takaful) and Islamic Banking, has a combined development rate of 8.30% (Islamic financial services industry stability report, 2018).

The popularity of Islamic Banking and finance has developed over the years due to the reason that it offers interest free banking solutions. It has not only grasped the attention of Muslim nations but non-Muslims as well. The international Islamic banking industry, working along with the conventional financial banking sector, has similarly undergone a few initial challenges during current years. The Islamic banking system has shown the foremost monetary business sectors that it has captured a noticeable share in the international monetary framework. On the other hand, the Islamic banking system has the potential to work against the difficulties of contemptible hardships of poverty across the globe.

In Pakistan, the monetary business is involved in the steady financial zone having share of 87.1% and the Islamic financial area with a 12.9% share distinctly (State Bank of Pakistan, 2018). Pakistan is the second biggest Islamic country per population after Indonesia and it has tremendous potential for expansion in the Islamic model of the banking system as well as for the Islamic monetary market. Reliable insurance might support releasing the banks' chaotic data uncertainties by assuring repayment (Bester, 1985; Chan and Thakor, 1987). The banks may evade sponsoring risky businesses to make up for the unfavorable assortment of risks. Banks overlook these two conditions while issuing loans to the remarkably aggressive business segments and as a result prompt NPLs. Whereas in the case of the Islamic banking system, before issuing loans, the matter of asymmetric information is established as assets must be cast-off in acquiring resources referenced in the contract. In this way, the incomes of Islamic banks are more stable and reject non-performing funding.

On one side, NPLs appear on the liabilities side of the balance sheet and on the other, these cause a decrease in profitability by negatively affecting incomes. In addition, NPLs decrease banks' capacity to give new loans by locking up the portion of banks' capital. The study of Karim (2010) explains that an increase in non-performing credit reduces cost-efficiency. Similarly, lesser cost efficiency increases non-performing loans. There is an indirect correlation between banks' efficiency and banks' capital whereas banks' efficiency has a positive relationship with the non-performing loans (Mester, 1993 and 1996). Islamic monetary assets comprise 12.9% of the Pakistani financial sector. Non-Performing financing is very low (2.7%) when it is compared to that of the conventional financing sector (7.9%) (State Bank of Pakistan, 2020).

Islamic banking institutions and the conventional banking sector are working in the same monetary environment, however, to deal with NPLs, strategies for both of these conventions are different but unique. Therefore, there emerges a need to study both Islamic and conventional banking systems and to look into the measures they take in dealing with NPLs. Some studies likewise Raditya Sukmana (2015) have explored the factors of non-Performing loans and these have observed an inverse relationship of capital sufficiency with NPLs in the

case of Islamic banks giving the reason for the occurrence of conventional banks. Other studies like Setiawan et al (2017) reveal that there is a need of Islamic banks to deal with poor management of internal and external factors of NPLs. It has been seen that there is a shortage to find such types of studies in the setting of Pakistan. As per the quarterly issues of the Islamic Banking Bulletin of the State Bank of Pakistan, the asset quality marks of Islamic financial trade including non-performing accounts (NPFs) to financing (gross) and net NPFs to net financing in June, 2021 were noted at 2.6 percent and 0.3 percent respectively.

## **2. Literature Review**

There are various factors seen in the literature which impact NPLs. The study by Mehmood et al, (2019) shows that there are quite a several macroeconomic factors relevant to the Pakistani conventional banking sector which might impact the degree of non-performing loans (NPLs). Though, there is an ambiguity about the relationship between NPLs and these factors. Some studies infer a positive relationship between these factors whereas others discard their consequences.

### **2.1. Effect of Non-Performing Loans and Return on Assets (ROA)**

The studies of Godlewski (2008) and Ahmad and Bashir (2013) examined the significance of the relationship between return on assets and non-performing loans. These studies showed that there is a minor impact of NPLs on return on assets. The study of Boudriga et al (2010a) established a negative impact of return assets on NPLs. The outcomes of the study confirmed that as soon as the return on assets decreases, the bank invests in risky projects to build up the profitability resultantly increasing the NPLs. There is a negative relationship between return on assets and NPLs as per the study of Makri et al whereas the study of Ahmad (2015) revealed a positive relationship between NPLs and return of assets. Berger and Young (1997) explained that if the non-performing loans are controlled then it can give a boost to the profitability of the banks, hence, establishing a negative relationship between NPLs and profitability of the banks.

A study by Hue (2015) recognized that the real GDP rate of growth enhanced the non-performing loans in the case of banks of Vietnamese. In the study, Kirui (2014) explained that there is a negative relationship between profitability and non-performing loans in instances of Kenyan commercial banks. Furthermore, the Kenyan banks faced a decrease in profitability during the tenure of 2004-2013 due to non-performing loans. The study of Dimitrios et al (2016) showed that there is an impact of various variables on NPLs in the case of the banking sector, however, this study showed a substantial impact of return on assets on NPLs along with other variables. There are numerous variables related to the banking sector that increased NPLs being studied by Rachman et al (2018). The findings revealed that banks' profitability maximized when the NPLs were controlled through the monitoring of credit regulations. The study of Kumar and Kishore (2019) explained several macroeconomic and bank-specific factors in the setting of the United Arab Emirates. The findings showed an insignificant relationship of return on assets with NPLs.

In the light of previously built argument, the study undertakes that:

H<sub>1</sub>. There is positive connection NPLs and return on assets.

## 2.2. Impact of Non-Performing Loans on Efficiency and Size of Bank

When the financial institution plays all its commercial enterprise with an exceptionally little cost, formerly they were able to give or take the bank has effectively undertaken its activity. Bergor and Young (1997) demonstrated that lower the disbursement performance of the industrial banking sector inside affects the rise in future mortgage defaults. This is challenged with the aid of the administrators who are incapable to govern operational fees and loan portfolio administration. Nevertheless, in any other observation, while the well-organized banks are studied, a raise in value performance is observed by way of the tramp of mortgage evasions philanthropical the economical speculation (boom in mortgage nonappearances passed off whilst banks determined to occupy a smaller amount quantity on endorsing and feature an adjacent appearance taking place loans in a quick run and endure the threat of getting mortgage overall execution issues in adjacent future). Godlewski (2005) showed a looks at to decide the association between non-performing loans and the size of the bank.

Boudriga et. Al. (2009) performed a connection between banks' unique, groups and the institutional environment at the NPL. The study covered the time span from 2002 to 2006 in 46 banks in 12 MENA countries. The results show that the credit score growth has a negative relationship with non-performing loans. Conflicting the directly above affiliation, Keeton (1999) has confirmed that growth in loan increase could be observed by employing the multiplied inside the NPL. Keeton (1999) employed 50 nations and DC records spanning over four 12 months from 1982 to 1986 the use of VAR. It turned into discovered that the credit score boom has a high-quality courting to the NPL. He argued that the excessive boom in the mortgage is a result of credit score screening leniency and reduced trendy of the mortgage technique. The courting among loans increases and the awful loan has additionally been tested with the aid of Kwan and Eisenbeis (1997). Kwan and Eisenbeis accumulated quarterly statistics from 1986 to 1995 with the pattern of 352 banking groups, they observed that a boom in loans has a poor relationship with the awful mortgage but a rectangular of one year increase fee of general loans is positively associated with terrible loans. (Vouldis, Louzis, & Metaxas, 2012; Lubis, & Mulyana, 2021).

Ekanayake and Azeez (2015) evaluated the determinants of non-performing loans in the banking region. The study has taken the time spanning 1998-to 2012. The findings indicated that non-performing loans have a high-quality association between the dimension's efficiency of banks and non-performing loans. Benthem (2017) scrutinized the connection between NPLs, capitalization and operating efficiency in business banks. The result indicates that operating efficiency will increase the higher stage of non-performing loans. Fiordalisi, Ibanez, and Molyneux, (2011) and Rachman et al. (2018), "studied the different issues that accelerated the chance side by side inside the banks and attained that reducing performance will rise the threat stage of banks in destiny. Additionally, the productivity and overall performance features have an effect on NPLs for the banking zone (Rachman et al., 2018; Lubis, & Mulyana, 2021; Louzis et al., 2012). said that working proficiency does not affect non-performing loans.

H<sub>2</sub>. There exists a positive link between non-performing loans and Bank efficiency

1) How do secondary school teachers perceive the coherence among the leadership team and various functions of distributed leadership i.e., supportive leadership function and supervisory leadership function?

- 2) How do secondary school teachers perceive their own self-efficacy beliefs?

### **2.3. Impact of Bank Capital on NPLs**

The outcome of bank capital on non-performing loans is within the contrary path. Along the single side, the motivation and inspiring supervisors of low capitalized banks have a tendency to grow complicated in excessive-chance investments and give loans that are issued deprived of proper credit ranking and tracking (Mahyub, & Said, 2021; Keton, 1999; Menz, 2019). As a consequence of those performances, the upward thrust in mortgage nonpayment happens to exhibit the capital has a negative influence on NPLs. Along the opposite facet, banks through an excessive stage of investment generally tend to present loans effortlessly as they identify that owing to banks loans are not attributing to be bankrupt and collapse; consequently, banks are relatively engaged with those varieties of unstable acclaim score have a positive affiliation between NPLs and capital (Rajan, 1994). Regulatory capital operates as a trademark of the economic hazard exposure of the entire system (Hu & Chiu, 200; Boudriga et al., 2009; Keeton, 1999).

Raditya Sukmana (2015) analyzed the determinants of the non-performing financing in Islamic Banks in Indonesia. The findings confirmed and located that the terrible dating of total financing through Islamic banks has a negative association with and capital adequacy. Capital adequacy percentage suggests the ability of a company to face strange losses and to continue to exist in that scenario (Mahyoub, & Said, 2021; Manz, 2019). Hu & Chiu (2004) explored that the negative association occurs among NPLs, bank size and capital while banks subsidize risky loans (Constant & Ngomsi, 2012; Hu & Chiu, 2004). Numerous banking reasons influenced the non-performing loans (Kumer & Kishore, 2019; Amuikwa & Boakye, 2015). The outcomes of the study affirmed that macroeconomic indicators have a significant and negative effect on NPLs even though the capital of the bank has a positive link with NPLs in Ghana. Other previous studies by Koju et al. (2018) and Kumar & Kishore (2019) investigated a negative relationship appears between capital and NPLs.

H3. There is a positive correlation between capital (CAR) on NPLs.

### **2.4. Relationship between NPL and Income Divergence**

The two forms of profits are obtained via lending actions and the opposite is from noninterest endeavors, that is, buying and selling and imitative matter. Banks with extra earnings apart from hobby income are greater cautious and try and lower their threat through participating very much less in excessive-risk investments. Consequently, these banks have higher mortgage overall performance indicating the inverse dating between income diversification and NPLs (Hu (2002; Ghosh, 2015). The study showed the negative effect of ROA and noninterest profits on non-performing. Some studies scrutinized the many banking elements disturbing the NPLs which comprise profits diversification, capital and different banking issues (Sukmana, 2015; Rahman et al., 2018).

H4. NPLs have a positive relationship with income diversification.

### **2.5. Effect of Interest Rate on Non-Performing Portfolio**

The relationship between interest rate and non-performing portfolio is positive. Higher interest rates or interest incomes of banks will make the loan/financing expensive and lead to an



increase in the non-performing portfolio of banks. Ahmed Bashir (2013) studied the Explanatory Power of Macroeconomic Variables as Determinants of Non-Performing Loans in Pakistan and found that interest rate is significantly associated with non-performing loans. The connection between NPL and interest rate is tangible. The advanced interest rate decides the borrower into a problematic condition. The greater volume of disbursement attributable to the rise in interest rate possibly will not be meet the expense of businesses and so, non-performing loans raise. Subsequently, a positive association occurs between these variables interest Rate and non-performing. The outcomes on this problem be able to scrutinized in Araka, Otieno, & Mogwambo, (2021), Assibey, & Asenso, (2015), Demid, (2021), Farhan et al (2012), Priyadi, Utami, Muhammad, & Nugraheni, (2021), Jakubik et l (2013), Jumono, Sofyan, Sugiyanto, & Mala, (2021). Mkhaiber, & Werner, (2021), Osei- Haniifah, (2015), Singh, Basuki, & Setiawan, (2021), Zeman and Jurca (2008).

H<sub>5</sub>. The interest rate has a positive relationship with non-performing loans.

## **2.6. Relationship between Growth of Gross Domestic Product on NPLs**

The real gross domestic product output has an element of global economic performance. Financial growth reasons increase income level beyond advanced employment opportunities which decrease economic anguish on debtors, and facilitate an analysis of the diminished banks of NPLs (Elyassi, 2021; Park, & Shin, 2021; Makri, et al., 2014; McCann, & O'Malley, 2021)). On the contrary, the depression (monetary) depreciates earnings owing to a rise in unemployment (Alexandri, & Santoso, 2015; Chaibi & Ftiti, 2015). Besides, banks perform moderately negatively at some stages in depression and decline in lending and rise in delivery for mortgage dead and jump traumatic approximately accelerated NPLs.

Various studies expressed a negative connection between nonperformance loans and economic growth (Lubis, & Mulyana, 2021; Prastowo, & Usman, 2021; Mohaddes, Raissi, & Weber, 2017.) although others described positive and significant links with them (Mahyoub, & Said, 2021; Beck, PiloIU, & Jakubik, 2015; Alexandri, & Santoso, 2015; Saba, Kouser, & Azeem, 2012). Furthermore, some studies confirmed an insignificant association between GDP growth and non-performing loans (Žunić, Kozarić, & Dželihodžić, 2021; Dimitrios, Helen, & Mike, 2016; Tanasković, & Jandrić, 2015; Nor & Ahmad, 2015; Singh, Basuki, & Setiawan, 2021).

As a result, concise the small output growth of GDP diminishes monetary diversion and debtors' loan compensable ability at the same time as, conversely higher GDP reasons for the rise in non-performing loans. Accordingly, due to inconsistency in the association of non-performing loans and output growth (% of GDP). So, the resulting proposition can be established:

H<sub>6</sub>. There is a significant relationship between GDP and NPLs.

## **2.7. Impact of Unemployment Rate on NPLs**

Unemployment has the diversity of jobless compared to the employees and dealings the amount of the workforce (Goensch, Gulyas, & Kospentaris, 2021; Huang et al., 2017). The crucial factors of NPLs nevertheless additionally consumes a hyperlink towards the commercial enterprise and fiscal actions that affect the call for goods and offerings and in the

end to enterprise's ability to refund its credits (Žunić et al., 2021; Queglieriello, 2007; Singh et al., 2021).

Through financial boom thumps, there might be a rise in manufacturers because of extended claims and it involves further people at the job in inexpensive profits. For this reason, they drive low unemployment prices by the better remunerative potential to control and wage to effect in lower of NPLs (Bofondi & Ropele, 2011).

While however, throughout monetary slumps might be less manufacturing as a result of the failed petition. they turn out to be in the lower of revenues that will outcome in greater lay-offs or lower within the profits of the staff. Consequently, debtors with low earnings have more charges of defaulting owing to the elevated danger of dealing with joblessness and existence not being able to pay. Progress within the redundancy fee may impact negatively the prevailing and imminent buying stimulus of ancestors and therefore, raise the debt burden. So, it provides an increase in non-performing loans inventory

Unemployment modifies currency influxes dropping revenue and enhancing the probability of loan limitations Konstantekis et al., (2016). Comparable findings remain testified by Obeid, (2022); Arrillo, Rubio, Galera, & Gómez-Miranda, (2020); Touny and Shehab (2015); Ghosh (2015); Akinlo & Emmanuel (2014). Unemployment has a significant impact on NPLs (Louzis et al., 2012; Arrillo et al., 2020). Then, some other studies have a negative effect on NPLs and unemployment (Bofondi & Ropele, 2011; Zaib, Farid & Khan, 2014); although, Shu (2002) confirmed that insignificant influence on unemployment and non-performing loans NPLs in the banking system of Hong Kong. In this way, the respecting proposition can be amplified:

H7. Unemployment has a significant effect on NPLs

## **2.8. Association between Political Stability and Corruption on NPLs**

Corruption is a statement of volume to which public strength is trained for non-public benefit wide-ranging of both negligible and awesome types of corruption along with manipulation of political effect for private advantage. Shaffer (2008) asserts it is a secret amusement and Breuer (2006) exposes those inconsistencies in the rate of interest are there when the disturbing entities cross in opposition. The immense obstacle to monetary increase and improvement (Park, 2012) and exaggerates the hassle with NPLs while finances are channeling into awful tasks

(Mohamad, & Jenkins, 2021; Mehmood, Hidthiir, & Nor, 2019; Toader, Onofrei, Popescu, & Andrieș, 2017; Bougatef, 2015)

which usually finally ends up with a growing of NPLs (Kasinger et al., 2021; Taiwo, & Mike, 2021). Subsequently, corruption has an extreme hurdle to the powerful enlistment and division of the assets (Lassoued, 2021; Bougatef, 2015; The Global Economy., 2017). Corruption is a vital factor to decide the non-performing loans (Hu et al., 2007) at the same time Perk (2012) recognizes the corruption by way of an international element of the loan first-class within the banking quarter. Corruption partakes superb part in non-performing loans' boom in developing international locations (Breuer, 2006; Barth, Caprio & Levine, 2006; Boudriga, Taktak & Jellouli 2009; Ahmad, 2013b; Hasan, & Ashfaq, 2021; Mohamad, & Jenkins, 2021; Qureshi, Qureshi, Vo, & Junejo, 2021; Jungo, Luzendo, Quixina & Madaleno, 2022; Kassem, 2022).

Many current studies help “sand the wheel” impact of corruption which explains that the bigger corruption, the more complex the immoral loans (Chen, Jeon, Wang, & Wu, 2015; Boudriga et al., 2009; Hassan, Hasan, Miah, & Ashfaq, 2021; Batra et al., 2003; White III, Chintakananda, & Rajwani, 2022; Goel & Hasan, 2011; Weill, 2011). Though Chen et al., (2015) accomplished an insignificant association between NPLs and corruption. The Parallel decision is offered using Nor and Ahmad (2015) and with the aid of Ahmad (2013b) in Pakistan.

Political stability provides of probability that management is undermined and defeated in an autocratic way including politically (Barth et al., 2006; IMF, 2011).

The nation banks remain further exposed to political lobbying and the executive strain that brings about an upper level of non-performing loans. (Siddiqui, Mehjabeen, & Stapleton, 2021; Manz, 2019; Us, 2017; Hu et al., 2007)). The document that the political solidity index has no relationship with NPLs in Malaysia Banks (Jungo et al., 2022; Nor & Ahmad, 2015; Mohamad, & Jenkins, 2021). The equal conclusions also appeared with the aid of Mehmood, Hidthiir, & Nor. (2019). Ernovianti, & Ahmad. (2017), Ekanayake, & Azeez. (2015). The subsequent speculation can be hooked up:

H<sub>8</sub>. The political stability index and corruption have a significant association with non-performing loans.

### **3. Conclusion and Policy Implications:**

The study is an effort to paradigm a conceptual inclusive framework to establish the maximum dominant internal factors like liquidity, capital adequacy, and profitability and other macroeconomic factors such as the GDP, unemployment, interest rates, corruption, political stability, and Bank credit to a private area that affect non-performing loans. On the base of a critical review of previous literature, the findings confirmed that the credit risk has a significant effect on corruption which validates that with higher management on top of corruption, sophisticated horrific loans or a short fine of bank property might be diminished. Additionally, financial institution-primarily based variables along with the financial bank, capitalization and return assets have an enormous effect on NPL. Further, macroeconomic variables of inflation, unemployment, private investment, and GDP output growth have a significant and positive relationship with non-performing loans. Some of the findings accomplish that the banking area performs a vital part in the financial system and is measured because of the backbone within the monetary contract of the nations. Compared to different international locations, Pakistan's banking area is facing the troubles of NPLs. The prime objective was to identify the banking features that decide the non-performing loans of Pakistan.

This present study indicates that there is a significant association exists between capital capability, profitability, size of and loans (NPLs). This shows that the profitability of the banks is strongly prompted with the aid of the growth in the quantity of NPLs. The stage of NPLs is increased using different factors consisting of political interference with the banking area and incorrect funding choices by way of the administration. The finding exhibited that the legislators must collect a robust financial condition of banks via the creation of greater income; with the aid of doing so, the banks may be able to liability appropriate loan control approaches along with test the comfortable circumstances of the creditors. The outcomes also suggested, that the cost of NPLs will drive decrease and lower, and banks will advantage more income.

#### 4. Limitations and Future Directions

The contemporary study has measured partial banking indicators of non-performing loans. As a result, firstly, future studies would meditate on further data groups of determinants of NPLs. Secondly, the study empirically analysis in depth, the external factors such as unemployment and the interest rates, corruption, inflation, bank credit, GDP, political solidity and other internal elements along with banking NPLs variables similar, capital, bank size, profitability and liquidity for future research

Furthermore, the ownership structure is a significant aspect of the triumph of a bank. Thus, the future study also purposes on moderating or interactive role of diverse and cross-cultural influences of ownership structures in banking to establish the level of non-performing loans accumulation. Moreover, the study can be achieved in other emerging nations to scrutinize the impact of banking elements on non-performing loans. However, future research may want to check out different governance indicators such as corruption, rule of law, socio-economic condition, government effectiveness, voice and accountability, political stability, and absence of violence, in relationship with non-performing loans.

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