

## THE IMPACT OF ECONOMIC INDICATORS ON THE PROFITABILITY OF FINANCIAL INSTITUTIONS: ANALYZING ON PAKISTAN'S FINANCIAL LANDSCAPES

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### Abstract

*This study uses a mixed-methodology to evaluate Karachi's interbank offered rate (KIBOR), a financial phenomenon. The research objective is to determine the direct and indirect effects of KIBOR on borrowing and investment preferences, financial activities, and an economy by using quantitative analysis to apply statistics to numerical data from economics journals, financial statements, and online databases and qualitative analysis to interview key stakeholders and policymakers. Financiers, business companies, and those affected by KIBOR and monetary policies are prioritised in the sampling technique, boosting confidence in the study method. Data is collected from SBP annual reports, organisation financial year statements, officials, and stakeholders in semi structured and unstructured interviews. Quantitative analysis uses data patterns and tendencies to detect this, while simulation models show the sector's performance with altering KIRB. The comprehensive strategy shows how KIBOR affects interest rates, credit availability, investment demand, and macroeconomic performance in Pakistan.*

**Keywords:** Karachi Interbank Offered Rate (KIBOR), monetary policy, financial landscape, mixed-methods research, quantitative analysis, qualitative analysis, stakeholders, State Bank of Pakistan (SBP), simulation models, economic performance.

### INTRODUCTION

#### Background of Study

The financial structure of Pakistan can be a motivational factor in terms of an economical setting using the financial landscape of the country to be able to play a role (Yemba et al., 2020). The monetary policy of the nation can thus be viewed in the national financial stability which is entrenched in a broad spectrum of financial institutions as well as businesses, and consumers undertaking financial activities which are dependent on the success of the monetary policies (Agha et al., 2005). Among all the drivers of the monetary landscape, the Karachi Interbank Offered Rate (KIBOR) is at the heart of setting interest rates in the Pakistani financial ecosystem. KIBOR being a cost of funds for a commercial bank, is the hub of the schema, it is a reference tariff, anchor of interest determination process known as a benchmark rate. By concentrating on promoting price stability, monetary policy helps achieve economic policies' overarching goal of increasing the general welfare. The idea that the country's long-term economic prospects will be jeopardized by chronic inflation is implicit in this goal. According to the SBP Act of 1956, the goal of Pakistan's monetary policy is to attain the yearly growth and inflation objectives established by the government (Utama, 2020). To fulfill this responsibility, the SBP sets the national monetary policy in line with these stated

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goals. The rate that it depicts the arithmetic mean of interest banks make each other charge is thought of a solid marker exercise judgment with respect to choices identifying with monetary undertakings. KIBOR is one of the key drivers of lending rates in the whole economy whose implication affects interest rates which in turn dictate the cost of credit to businesses, the returns on investment and many other financial activities in the country (Sukmana & Kassim, 2010). KIBOR, however, is not some sort of days with a passive interest rate substitute. It then becomes an instrument of transfer for monetary policies through SBP or other sovereign attacking different aspects of economy. Given the types of financial policy instruments such as monetary policy being run by the central bank creates variations in KIBOR directly influence the speedy change in interest rates and eventually reverberate into the financial system (Bernanke & Mihov, 1998). Thus, in order to understand how the monetary policy works in Pakistan it is essential to consider KIBOR.

This study has highlighted, therefore, that benchmark interest rates, particularly KIBOR, play a major role in forming the fiscal balance of Pakistan and currency stability. KIBOR fluctuations may implicate far and wide the government's finance, affecting its interest payments and revenue generation from public debt. Besides, it should be noted that KIBOR is an indicator of currency stability because interest rate movements have a bearing on changes in exchange rate dynamics and development of external trade competitiveness (Rashid et al., 2024). This study unfolds a relationship of KIBOR with the fiscal indicators of Pakistan and avails inputs that hold a massive importance for the policymaking body in the management of the fiscal policy and protection of the currency stability.

A deep relation of KIBOR with the monetary policy would help in viewing the risk factor more appropriately and regulating it within the financial arena. By tracking KIBOR and how its movements will influence lending rates, asset prices, and the stability of the financial market, then these sets of information shall enable the regulators to predict risks within the environment and take out preemptive measures to control such. Strong regulation further imparts integrity to the banks and other financial institutions, thereby increasing their strength against economic vagaries (Sakib et al., year). In their vigilant supervision with proactive regulations, the policymakers would be in a position to protect the interests of the smooth and efficient operations of the financial system and that of its depositors, investors, and other actors in the wider economy.

In relation to the monetary policy, the study will help with thorough analysis and, by all means, sighting any problems that will be brought about in the financial system and, by extent, the entire economy. Doing so, it will help in taking timely remedial action to avert deepening of the crisis and the adverse impact materializing (Shahzad et al., 2023). By so doing, ensuring through such efforts the integrity of banks and other financial institutions will allow the foundation from which policymakers can have an economic recovery from financial storms. In particular, this solution is very beneficial to all involved parties since it is proactive in risk management and crisis preparedness, therefore cementing in a sustainable economic growth and financial stability. The other very important independent variable, which shapes Pakistan's financial landscape, is the central bank monetary policy instruments operating in tandem with KIBOR. The tools simultaneously manage the money supply, controlling inflation, and directing the economy towards long-term stability and growth. This lies in the ambit of the State Bank of Pakistan (SBP). The two most prominent among the arsenal of monetary policy instruments are the open market operations and the reserve requirements (Bibi, 2019). Open Market Operations are a key part of the mechanism that uses central banks as an instrument towards the effect on money supply and interbank liquidity.

Reserve requirements are the other potent tool in the set of monetary policy instruments. Thus, the SBP can influence the amount of funds banks can lend out and, consequently, money supply

with the corresponding credit availability through the instrument of reserve requirements. High reserve requirements thus keep a check on the lending capacity of banks, thus applying upward pressure on the interest rates and bringing down forces of inflation. On the contrary, the cut in the reserve requirement will stimulate further borrowing; hence, the expansion of economic activity and hiring. All this gives life to a complex interplay of KIBOR with the monetary policy instruments within the financial system, multiplying into their impacts flowing to different transactions, various economic sectors. In the same line, the measures of monetary policy will change KIBOR dynamics. Changes in KIBOR can, therefore, amplify or dim the impacts of monetary policy measures. On the other hand, the adjustment of monetary policy may influence This actually clearly establishes the importance of a coordinated and coherent approach in the formulation of monetary policy, where movements in KIBOR and policy interventions are going hand in hand towards fostering macroeconomic stability and sustainable growth. Financial implications detail that, in targeting and projecting, financial activity planning and projection are means of interpreting the study (Friedman and Schwartz, 2008). Proper determination of the interest rate regime, monetary policy, and broader the financial environment would place the policymakers in a position making very accurate predictions in relation to the financial phenomena. The long-term oriented goal is structured with respect to financial direction, and this is helpful to understand the development of resilient and sustainable policies in the promotion of financial growth. The research would, therefore, most likely be very helpful in enhancing the usefulness of the monetary policy in the pragmatic circle in Pakistan. Such knowledge would be of high interest because many would like to know how KIBOR affects the interest and the macro financial landscape, thus boosting the policy-makers to make intelligible observation for better stabilization goals (Nahar & Sarker, 2016). Therefore, on a number of occasions, financial institutions, being the essence of the economy, might get more advantages from the insights that come out of this study and help in developing better strategies, effective risk management, and wise decisions regarding loans and investment (Mushtaq & Siddiqui, 2017).

### **Problem Statement**

Financial institutions' profitability is crucial to the stability and expansion of Pakistan's financial industry. In an ever-changing economic environment, macroeconomic indices such as KIBOR (Karachi Interbank Offered Rate), inflation rate, GDP growth, and credit availability have a substantial impact on the financial performance of these institutions. However, the precise influence of these economic variables on profitability, notably Return on Assets (ROA), has received scant attention in Pakistan. Given the economy's volatility, which includes shifting interest rates, inflation, and unequal growth, financial institutions confront issues in maintaining profitability and improving asset use. This research aims to close this gap by examining the link between important economic indicators and the profitability of Pakistan's financial institutions. Understanding how KIBOR, inflation, GDP growth, and loan availability affect ROA can give useful insights into the economic variables that have the greatest impact on financial institution performance. By investigating these linkages, the project hopes to provide data-driven advice for policymakers, financial managers, and institutions to better navigate economic swings and enhance financial performance. This research aims to address a knowledge gap on the impact of macroeconomic factors on the profitability of Pakistani financial institutions. By identifying the economic elements that have a substantial influence on ROA, this study hopes to add to both academic literature and practical financial plans inside the nation. The findings of this research will help financial institutions make better choices about risk management, interest rate strategies, and capital allocation, resulting in a more robust and lucrative financial sector.

### Research Objectives

- To examine the impact of KIBOR on the profitability (ROA) of financial Banking Sector.
- To analyze how inflation affects ROA of Pakistan Banking Sector
- To assess how GDP growth affects the ROA in Pakistani Banking Sector
- To examine how loan availability affects the ROA in Pakistani Banking Sector

### Research Questions

- What is the impact of the Karachi Interbank Offered Rate (KIBOR) on the Return on Assets (ROA)?
- What is the Impact of the inflation rate have on the return on assets (ROA)?
- How does GDP growth affect Return on Assets (ROA)?
- How does the credit availability effect the profitability (ROA) of Pakistani Banking Sector?

### Significance of the Study

This study underscores the needed validation by the causal relationship that the Karachi Interbank Offered Rate (KIBOR) and its rates have with the monetary policy of the Pakistani economy. The study would, therefore, constitute very useful empirical input to policymakers in the formulation of required policies to bolster up the economy, since it provides very detailed input on how KIBOR responds to monetary policy tools. Another thing is that benchmark interest rates, especially KIBOR, have also been witnessed as one of the important determinants of fiscal balance and currency stability in Pakistan. This study gives a good detail of the linkage between KIBOR and monetary policy, the help in risk assessment and the regulation to ensure always the financial sector is resilient against fluctuations of the economy.

It will help policymakers with a refined view regarding the impact of KIBOR on monetary policy instruments. These insights into KIBOR reaction under monetary policy change could better guide the policymakers in policy formulation aimed at a better attainment of their desired outcomes which might be increased economic growth, control of inflation, or financial stabilization (Naz, 2020). A better understanding of such dynamics could well lead to policymakers who launch focused interventions that address the actual set of challenges and predicaments that the Pakistani economy is standing with, in this very manner, to push for the next step of development and prosperity.

## LITERATURE REVIEW

### 2.1 Historical Perspective of KIBOR

The journey of KIBOR from its conception in early 2000 to the rise as an important benchmark in the financial landscape has become a reflection of the journey Pakistani banking and financial system has gone through (Soomro & Shaikh, 2023). In this regard, however, it has been the case that challenges, such as the necessity for efficiency in consolidated benchmarks toward the efficient transmission of monetary policy and requirements of responsiveness to market forces, have characterized the associated trajectory. KIBOR joined the scene in the early 2000s as a very important measuring unit in the valuation of financial instruments. It is also a leading indicator that reflected interest rates. Its emergence was reflective of changing dynamics that were being witnessed in Pakistan by its banking and financial sectors. At this stage, no consolidated benchmark was present against benching the transmission of monetary policy (Troitzsch et al., 2022). After coming into existence as an interest rate benchmark, it didn't take KIBOR a long time to become the benchmark of choice in Pakistan's fast-maturing financial ecosystem. Flexibility and sensitive response to the forces of the market, among others, are the defining characteristics of KIBOR. Therefore, KIBOR remains flexible, and at



the same time, sensitive to the prevailing forces in the financial environment under which it adapts to remain relevant and applicable.

This flexibility further established KIBOR as a key yardstick for the movements in interest rates, enabling policymakers to traverse the currents of interest-rate landscape with more accuracy and foresight (Wahab et al., 2023). The significant evolution of KIBOR, therefore, was always punctuated with big regulatory interventions and benchmark re-examinations—mostly though, and not exclusively, occasioned by external shocks like that of the 2008 Global Financial Crisis. A milestone was made when the State Bank of Pakistan (SBP) introduced a regulated KIBOR-fixing session, indicating movement towards a unified benchmark rate. This further enhanced the standing of KIBOR as a credible indicator and solidified its place in the monetary policy toolkit. The global financial crisis turned out to be a milestone to revisit this benchmark as it required a much closer look into the reliability and robustness of KIBOR. However, the crisis did not bring out a thrust directly upon the credibility of KIBOR; what it has brought to the fore is the need for an onward reassessment process to ensure that the KIBOR benchmark continues with global best practice and market realities. Accordingly, it has been strengthened in a way that ensures more transparency, accuracy, and robustness for KIBOR to serve as a good benchmark in the financial landscape. Resilient, dynamic, and continuously new emerging challenges and opportunities for KIBOR. Ensuring that both remain sensitive to the market dynamics and credible in the ever-evolving regulatory and technological landscapes is of most paramount value (Yasmin & Ayaz, 2023). As financial markets continue to digitize, new alternative benchmark rates have been emerging. This is a source of threat but also an opportunity for the KIBOR to remain relevant and useful.

The veracity of the interwoven story testament to the historical process of the emergence of KIBOR and of the financial market development in Pakistan is supported by argumentation (Gambacorta & Mistrulli, 2004). KIBOR came into the scene in early 2000 as the measuring unit used for the valuation of the price of the financial instruments and primary instrument reflecting interest rates. Its development also depicts the development of Pakistan's banking and the financial system which presently does not have a consolidated benchmarks for cardinal in monetary policy transmission (Halim & Masih, 2017). Basically, KIBOR is a newborn rate reference that has gained a solid position to be a benchmark which is a vital part of the financial complexion. Unfortunately, the rate loses its purpose when it is no longer responsive in the face of market forces; this characteristic of the rate explains its purpose of being an instrument of price fluctuation to cater for changes in an financial environment and adapt to market dynamic.

However, the KIBOR has continued to evolve through progressive adaptations in reaction to the industry realignments only in market dynamics, technological developments y and regulatory shifts. In fact, the KIBOR goes beyond merely being a measurement of interest rate—it suffices to play more of a role as a pivot in the monetary policy transmission mechanism affecting deposit and lending rates for customers and the cost of money to the firms. At the same time the historical path the KIBOR that led can be said that both its development as an indicator rate and integration into the Pakistani policy context. In the subsequent chapters the revelations regarding the present applicability of KIBOR will remain as it unfolds the impacts of interest rate, investment and the general aspect of the financial attributes (Christiano & Eichenbaum, 1992). This is a writing a descriptive review leads to wide analysis on the issues abounding KIBOR and monetary policy in Pakistan.

The benchmark flexible nature of KIBOR has so much grown to an important magnitude for gauging the interest rate slopes that help policymakers perceive the current conditions of the interest rate environment. KIBOR has evolved significantly over the period, with changes brought in by pivotal events and milestones that have reshaped the finance landscape of

Pakistan (Yasmin & Ayaz, year). This has not only improved the credibility of KIBOR but also raised its stature beyond that of a mere measurement tool for interest rates, which earlier was understood to be as crucial as its present role within the monetary policy transmission mechanism. It now has equal standing with other pricing mechanisms, on the one hand, influencing deposit and lending rates for customers and the cost of capital for firms on the other. The journey of KIBOR has traversed through a number of transformational events that mold the very course of direction and importance within the financial parameter of Pakistan. Introduction of a regulated KIBOR fixing session by the State Bank of Pakistan (SBP) marked a further move hinting at the emergence of a unified benchmark rate. This regulatory intervention underscored not only the believability of KIBOR but also fortified its place as one of the imperative tools in the toolkit for monetary policy.

## **2.2 Dependent Variable**

### **2.2.1 Financial Landscape Performance Index**

The Financial Landscape Performance Index works as the overall indicator that assimilates the areas of the financial landscape of Pakistan together into one measure. At its core, the mixture is the mixing of several factors with KIBOR reigning prominently to make a composite measure. This index serves as an independent variable to become a barometer used in evaluating the collective impact of KIBOR alongside other pertinent variables over the landscape of financial services within the nation. The key constituents are not only interest rates but also investments and GDP growth reverberations reverberating with the multifaceted dynamics inherently present in the Pakistan financial milieu. KIBOR remains central to different aspects of economic activity, constituting a linchpin in the matrix of financial operations. Fluctuations in interest rates, therefore, have lending and borrowing rates, influencing the investment decisions, shaping the consumption patterns, and finally impacting the whole broader economic trajectory. Integration of KIBOR with the Financial Landscape Performance Index provides context to the effect it has on the financial ecosystem and, as such, proves to be an invaluable source of information for strategic decision-making by the stakeholders (Zubair and Siddiqui, 2021).

The Financial Landscape Performance Index is a reflection in some way of the web of interconnected interdependencies of Pakistan's financial ecosystem and provides a lens with which to view their robustness. It plays a indicative role that lights the underlying drivers and challenges that will profile the trajectory of the financial services in the nation. Such discernments, when armed with them, assist policymakers, regulators, investors, and businesses in navigating the minefields of financial markets with greater accuracy and preparedness, allowing for an improved setting for the amicable coexistence of sustainable growth and prosperity. While Pakistan goes on to take its destiny with the other countries in the global financial system, the Financial Landscape Performance Index takes a lighthouse for the stakeholders, guiding them towards informed decisions and resilient management strategies (Mehar et al., 2018).

## **2.3 Independent Variables**

### **2.3.1 KIBOR (Karachi Interbank Offered Rate)**

KIBOR is an abbreviation for the Karachi Interbank Offered Rate. It's the bed of interbank offered interest rates in the financial structure of Pakistan and represents the existing prevailing interbank financing rate. The role this crucial metric plays is one of the independent interest-bearing variables and serves as a keystone to the fashioning of a country's monetary landscape. The crucial role is the deep influence across the board on various economic activities, acting as a deep impact on interest rates and hence the overall economy. KIBOR stands for an essential factor that helps in the consideration of determining the interest rate for all sorts of economic

activities between the lending and borrowing factors. The rate ups and downs, softer or stronger, of the rate reverberate across the financial ecosystem, determining the individual cost of capital and, in its influence, the degree of investment, consumption pattern, and dynamics taking place in the overall economy (Zahid & Basit, 2018). That certainly projects its role because all business, concerns, and human beings largely depend on borrowing, which is utilized either for capital expenditures, working capital management, or for personal financing, depending upon the KIBOR rate of interest. The key functions of KIBOR are to set up a benchmark interest rate all over Pakistan. Setting the rates at which financial institutions can lend out or deposit funds, given the current and prevailing conditions of the market, is one of the guiding roles played by KIBOR. It indicates that any change in the KIBOR rate must, in equal measure, lead to the change in loan rates; it will definitely affect borrowing costs to businesses and individuals. This nexus of KIBOR with interest rates highlights its importance as a barometer of the conditions in financial markets and a key determinant to make the effectiveness of monetary policy available. The volatility of the KIBOR rate implies deep consequences for the overall economy. It can affect consumption and investment, and hence, the level of economic growth. Whenever KIBOR moves up, borrowing costs move up, which may dampen the investment appetite while moderating consumer spending. Conversely, a falling KIBOR may announce a slump in economic activity due to the low financing costs that encourage disinvestment and consumption. In such a manner, the KIBOR rate becomes an important tool through which the monetary policy decisions are transmitted to the real economy, determining its path and its strength

### 2.3.2 Inflation Rate

The inflation rate is another really important economic indicator that shows to what percentage the prices of goods and services raise over time. This has more impact due to the overwhelming nature in varied areas of the economy concerning purchasing power, investment decisions, and, correspondingly, decisions pertaining to monetary policy (Omer, 2019). To understand the various impacts it bears on the monetary system, the effect of inflation should be well understood to a great extent. On the other hand, inflation will lead to reduced purchasing power in money; it results in a decrease in the quantity of goods and services which can be bought by a particular currency unit. With raising prices, the consumers are seeing their income spread thinly, with no other alternative but to adjust spending patterns and choice of consumption. Inflation causes wage earners to seek higher remuneration, and in the process, it has the effect of compensating for the decline in value of earnings; therefore, potentially fueling the wage-price spirals. At the same time, the continual piling up of interest earnings against them is threatening fixed-income earners with erosion of their real incomes, like pensions and interests from savings to retirees. It can be related that inflation has an erosive bearing on purchasing power, which underscores its bearing toward consumer behavior and economic welfare. With a massive impact on the dynamics of investment: it impacts the decisions of capital allocation and the pricing of assets. Long-term investment may be discouraged by uncertainty emanating from inflationary pressures since investors will be looking forward to protecting themselves from the erosion that might occur in real returns. It further distorts price signals, hence making it more complex for the appraisal of investment and allocation of resources. Real assets, which include commodities, real estate, and equities, may act as inflation hedges since their values show a trend of rising in periods when the prices are increasing. On the flip side, when there is inflation, fixed income securities, such as bonds, lose the power of purchasing; hence, they become less attractive to investors. This makes the rate of inflation a great determinant of the investment sentiment and asset allocation strategies being applied. Inflation has wide-ranging consequences on the monetary policy formulation and conduct in that regard; hence, central banks will be predisposed not to, by all means, have to tolerate any possible forfeit of stable

prices and by extension, economic well-being. They use a policy instrument, say the interest rate, and another one, like open market operations, to avoid inflationary pressures from reaching or achieving whatever policies they have set. This may put the central bank in a tight situation, needing to tighten monetary policy through hiking interest rates or withdrawing liquidity from the financial system in an effort to contain inflationary expectations at the target levels of inflation (Minhas, 2019). On the other side, if low inflation and deflation risks remain on the upside, the central bank may decide on accommodative policy, that is, lowering interest rates or other monetary policy tools to ensure further supported economic activity and price developments. The inflation rate, therefore, seems to be a very important barometer steering the central bank policy and fashioning the all-round landscape of the macro-policy.

### 2.3.3 GDP Growth

Growth in Gross Domestic Product (GDP) is the essential indicator of performance, measuring the rate of expansion an economy undergoes over stipulated time frames. This metric gives a good overall sense of the health and direction of the economy; thus, it might serve as a fairly good leading indicator of the economic growth prospects. The high GDP gives the conclusion of great economic performance; therefore, it has direct influence over the formulation and implementation of monetary policy. Growth in GDP is an all-inclusive tool of economic health, capturing both the aggregate output of goods and services in an economy. An increasing GDP, therefore, implies that production is growing, incomes are rising, and the level of consumption by the people is buoyant. In fact, strong GDP growth usually corresponds with improvements in employment levels, business confidence, and investment activity, further perpetuating the virtuous cycle of economic expansion. On the other hand, slow-growing or contractionary GDP could pose an underlying weakness to the economy that may again force policymakers for reassessment of policy priorities and corrective measures.

### 2.3.4 Credit Availability

The availability of credit, in other words, acts as a lever for the access of financial instruments by consumers and business. Credit access is one of the major determinants for the shape of consumption patterns, investment decisions, and thereby the overall economic vitality. It is also co-related to the health of the economy in such a manner that it reflects spending habits, choices of investment, and the direction of overall economic growth. This will define the spending behavior or pattern of consumers. Credit card or loan enables the purchase to be made above the amount of money available at the moment, thereby fomenting consumption and, therefore, the general economic activity. And be it the purchase of a home, high-level education expenditures, or just the buying of anything that took their fancy, consumers relied on credit to fill up not only their needs but also aspirations. Besides, the availability of credit smoothen consumption over time, in that it keeps the level of spending even in times of income volatility or economic uncertainty. Thus, credit does not only help to drive up current consumption but also becomes an arbiter for future spending habits and economic resiliency. This, therefore, shows that credit availability is one of the main determinants of making investment decisions and possibly even encouraging entrepreneurial activity. In response, corporations depend on capitals in doing their expansions, purchases of new technologies, and for overall strategic investments. Whether these are requirements of working capital through loans or raising capital markets for equity financing, an enabling credit environment is required for business to operate and grow. Further, it has a bearing on the cost of capital and hence returns from investment, with the consequence that the viability of the project gets affected. In summary, with the existence of credit, entrepreneurs get encouraged to innovate and, therefore, develop the economy, growth also facilitated through investment and job opportunities created. The very economic health of the country depends too much on the opportunities provided for credit and



borrowing. What this then means is that credit actually serves as some kind of lubricant to economic activities, transactions, investments, and wealth creation. Nonetheless, too much reliance on the ease with which credit might be availed can also prove risky at times, leading to a debt overhang that may ignite financial instability and macroeconomic imbalances. Thus, a striking balance between high credit availability and prudence in risk management is, therefore, the prerequisite for stimulating sustainable economic growth and financial stability. The Monetary Policy Transmission Mechanism is a theoretical framework that explains the way changes in the monetary policy, particularly the interest rate, spread throughout the economy to bring about changes in diverse financial variables. The mechanism in the context of Pakistan is through the channel system, which transmits changes in the KIBOR to major financial variables and thereby influences credit availability and, in turn, affects the level of economic activity. Monetary policy transmission is the mechanism of the interest rate channel. State Bank of Pakistan changes policy rates, which bring indirect effects on KIBOR; in turn, the effect is visible on changes in interest rates on individual, enterprise, and financial institution loans. Conversely, when the interest rates are low, this reduces the cost of credit and therefore encourages investments and trade, among other activities related to an increase in economic activity. However, higher interest rates can cool down the overall activity of borrowing and hence result in slower economic growth, along with lesser inflationary pressures.

### **2.3.5 Exchange Rate Channel**

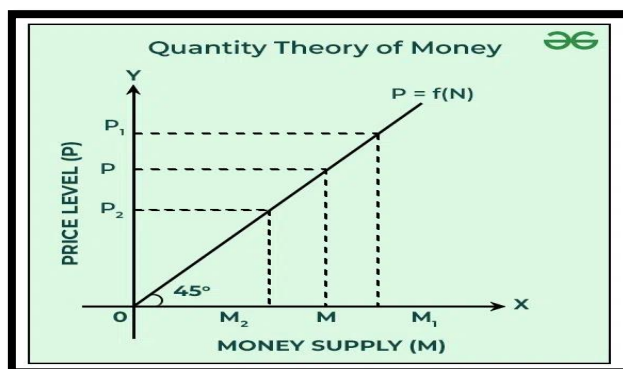
Apart from the interest rate channel, the exceptional position of the exchange rate channel necessitates an assessment of its effect within the transmission mechanism. KIBOR regime adjustments will affect the exchange rate, and, in consequence, exports and imports competitiveness will improve. The volatility of the exchange rate can make the price of goods and services behave, disrupt the patterns of trade, and eventually cause a change in the inflation dynamics. The case in which the currency is depreciated might make exports cheaper, yet the same can potentially aggravate inflation across the country, thereby affecting the power of domestic purchasing and the stability of the economy. Financial assets, channels, credit, and economic fluctuations. Differences in KIBOR create an effect on asset prices, including real estate values. Prices of assets such as housing and stocks can impact households' wealth, consumption, and investment decisions. Consequently, the spread has effects on economic activity and financial market dynamics.

### **2.3.1 Analysis of Theories Related to KIBOR's Influence**

Several theoretical planks explained within this thesis confirm the understanding of the KIBOR influence on interest rates, investments, and national output in Pakistan, respectively. Quantity Theory of Money assumes spatiometric relationship between money supply, inflation and interest rates (Peek & Rosengren, 1997). Turning to a more relaxed reply to the first question, the KIBOR mechanism is irrational; a growth in the amount of money in the economy causes interest rates to fall and thus investment to rise as well as a higher rate of growth. Contrast to this however the Expectations Hypothesis holds that therefore long term interest rates are dependent upon expected future short term accruals. Putting this theory in KIBOR approach by the changes in anticipated forthcoming monetary policies decisions would determine the current interest rate level which again influences investment decisions (Loayza & Schmidt-Hebbel, 2002).

Behavioral financials encompassed under Prospect Theory which describes the process of individual decision making in response to ambiguities that confront them (Shabbir, 2012). Therefore, after KIBOR, applied interest area variations may not only impact and modify the financial characteristics yet can guide the choice-making styles to change

investment direction and consumption habits. The practicalities utilized in KIBOR in the development of interest rate and financial activities are pragmatic whenever pertaining to empiric studies, mostly State Bank of Pakistan ((SBP) and other such seminars (Mishkin, 1995). For instance, research could dwell on the impact of KIBOR adjustments on the disbursement of borrowed money which could affect the portion of credit to businesses and consumers, among others.



**Figure 1. Quantity Theory of Money. Source: (GfG, 2023)**

One of the central pillars enjoying significant popularity is the relationship between the Karachi Interbank Offered Rate (KIBOR) and its contribution to interest rates, investments, and overall output in Pakistan, where a broad spectrum of theoretical frameworks can contribute to the understanding of the complex interplay of the essential elements. Besides the Quantity Theory of Money, Expectations Hypothesis, and Behavioral Finance theories mentioned earlier, other theories as well continue to contribute more to our understanding of the nature of KIBOR as a multifaceted approach to economic growth. Proposed by John Maynard Keynes, the Liquidity Preference Theory argues that interest rates are influenced by the flow of the money supply and its demands. This theory is based on the hypothesis that a liquid asset that can actually be liquidated in the near future is always more preferred than an illiquid asset. In the case of KIBOR, alterations in cash preferences might result in variations in the demand for loans, thus affecting the level of interest rates. The practical experiments could estimate how the modifications in liquidity demand change the implementation channel of monetary policy via the fine-tuning of KIBOR. The market segmentation theory stipulates the presence of segments of the financial market that act as independent units with their own supply and demand dynamics, in which different maturities of debt have been specified. For example, an increase in interest rates may not affect everything the same, as one segment may behave in a different way than another without necessarily needing to have changes in interest rates. With the theory of KIBOR in mind, it is evident that managers of any bank should be aware of the nuances within the interbank lending market and their effect on the interest rate mechanism and monetary transmission policy. The Asset-Preference Theory of Tobin, as introduced by James Tobin, designates the role of asset preferences that dictate interest rates. This theory, then, suggests people rationalize their asset allocation by considering the various asset features related to risk and return. The structure of portfolios often affects the change in interest rates if one of the factors taken into consideration in the process is fixed-income securities. Along the KIBOR line, investors' preferences can change towards different investing assets, so that demand for loans may be affected and interest rate patterns get varied. As per the Efficient Market Hypothesis, markets reflect all available information, and asset prices display rapid movements in response to new information. As applied in the case of KIBOR, this theory suggests that movements in interest rates are triggered by market expectations, which incorporate all judgments formed about the future economic environment and monetary policy

decisions. Empirical research could be aimed at determining to what extent KIBOR movements coincide with such assumptions as the Efficient Market Hypothesis and the consequences of these on our interest rate forecasting and policy-making processes. The Modern Portfolio Theory, which is advocated by Harry Markowitz, states that one should diversify his investor base, analyze correlation, evaluate risks, assess those risks, and take decisions accordingly. As per this theory, investors make choices about portfolios, managing risk and return relationships of assets so that they can maximize their returns and minimize the level of risk. When rates of interest change, including those reflected in KIBOR rates, it may affect the associated risks and returns of different assets and eventually have some impact on investment choices. We bring into our considerations a range of theoretical strands, namely, liquidity preference theory, market segmentation theory, portfolio balance theory, efficient market hypothesis, and modern portfolio theory, which subsequently advance our understanding of the role of kibar on interest rate, savings and investment, and national output in Pakistan. The empirical studies that develop the theoretical frameworks are the building blocks of the overall understanding of the intricate processes that link the interbank lending market and economic outcomes and their impact on monetary policy as well as the economic system. The finance sector can be improved in Pakistan by integrating divergent successful theories with real-life experience so that market participants can make more educated decisions.

#### 2.4.2 Gaps in Existing Literature

If the SBP study has emphasized to uncover four significant transmission channels, there is still a space for further elaboration of which mechanisms exactly caused the impact of KIBOR on interest rates, credit, exchange fees and asset prices (Tran, 2018). More studies in future could analyses these channels at a finer level to achieve a microscopic analysis. Most empirical studies focus on quantitative aspects and thus leave room for further analysis of behavioral dynamics that drive retail market participant's reactions to deviations in KIBOR. Comprehension of psychologic component of decision making following the interest rate amendments leads to a more comprehensive insight.

#### 2.5 Hypothesis

**H0:** There is a no relationship between KIBOR with Financial Landscape.

**H1:** There is a relationship between KIBOR with Financial Landscape.

**H0:** There is a no relationship between Inflation Rate with Financial Landscape.

**H2:** There is a relationship between Inflation Rate with Financial Landscape.

**H0:** There is a no relationship between GDP Growth with Financial Landscape.

**H3:** There is a relationship between GDP Growth with Financial Landscape.

**H0:** There is a no relationship between Credit Availability with Financial Landscape.

**H4:** There is a relationship between Credit Availability with Financial Landscape.

#### 2.6 Conceptual Framework

The conceptual framework used for correlation between KIBOR, monetary policy and financial sector in context to Pakistan involves the identification of different dependent and independent variables of KIBOR, monetary policy and financial sector. This framework provides the way to understand the dynamics and working of various mechanism which are directly involved in the influence of changes in KIBOR which is short term prospective, on different segments of financial system and structure.

### CONCEPTUAL FRAMEWORK

Figure: 1

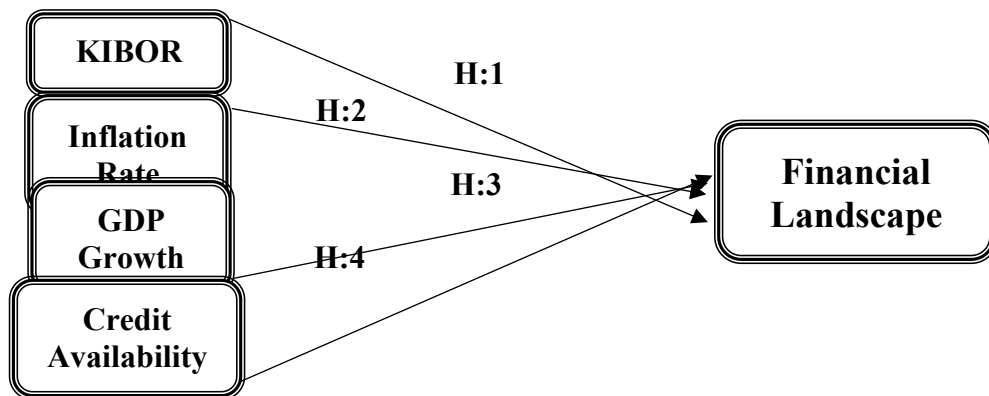


Figure: 1 Conceptual Framework  
METHODOLOGY

### 3.1 Research Design

To gain a sufficiently detailed understanding of the relationship between the Karachi Interbank Offered Rate (KIBOR), monetary policy, and finance in Pakistan, this study adopts a mixed-methods research design. Mastering complex, multilevel processes is made possible with use in inquisitorial mode of those methods – both quantitative and qualitative. It is meant to construct statistical evaluation utilizing the statistical tools on the numerical data of samples from different sources such as central bank journals, financial statements, and all other financial databases. What the quantitative changes talk about the indirect impacts of KIROR on borrow and investment preferences, financial issues, and financial factors are as follows. Using broad qualitative interviews with policymakers reported to central bank officials further followed with observing the field, qualitative meaning will be obtained. The qualitative analysis of such a nature allows analyzing perceptions, attitudes, and decision-making aspects re KIBOR and monetary policy.

### 3.2 Sampling

There is a segment addressed here which can be associated with financial institutions, corporate bodies and price sensitive consumers in response to KIBOR and monetary policies in Pakistan. Some of these are banks, manufacturers, sub-contracting industries, service providers as well individuals carrying out various financial activities such as loans or investments among others. The sampling procedure for the representative sample will be mandamus which is stratified. The varying sectors from banking to manufacturing, services would also be termed the structures. The inclusion criteria, constituted of items largely influenced by the KIBOR interest rate, include banks, companies with the credit exposure as well as the consumers owing loans or investments. The excluded criterion to ensure a focus sample required for this study would be entities extraordinarily low or no exposure to KIBOR.

The sample size determination is an inclination with statistical considerations and available resources. A balance is attempted where there is a representation from each stratum alongside a component of feasibility. The statistical power requirements to detect real patterns obtainable from the data as well as conclusion on how rate affects the financial scenery allow the sample size to be justified. Guided by a stratified random sampling and the depth achieved using a mixed- methods framing, this research tries to speak to the quantitative dimensions of KIBOR's power while also penetrating the qualitative scope that dictates decision-making processes. In a holistic style of research design, this study thus uses a fill in the gaps approach not only



comprehending the phenomenon in a better way but to also offer the policymakers, financial institutions as well as the academic engagement enough relevant and appropriate information about how monetary policy was transmitted in Pakistan.

The reports and publications issued by the SBP make a stable base for the determination of the kibar rates, monetary policy instruments, and financial indicators hence, makes it possible to extract the data from it. Such official publications reflect authoritative estimates of the state of an economy of the country. An analysis of the quantitative data set prudently comes from the various financial institution data set from where the financial statements comes. It is with the help of such reports that one can understand how KIBOR impacted interest rates, credit availability, and total cash holdings conducted by banks and enterprises.

Data from the State Bank of Pakistan's (SBP) publications and briefings may be relied on for KIBOR rates, monetary policy instruments, and economic data. In terms of the economics, these official papers are useless. The quantitative collection of financial statements obtained from various sources is ideal for curation. Such studies provide insight into how KIBORs effect bank and company interest rates, loan accessibility, and organizational monetary success. The salient stakeholders for closer scrutiny set for whom an analysis will be performed by crystallizing role of policymakers, top central bankers, and the financial commentators within the monetary policy , and the financial market domain. Unstructured variant of semi-structured interview will be used as an interview technique because it will be a middle mode between rigidity of conventional questioning in a structured interview and free form investigation of emergent topic applied under an unstructured interview. Structured questions will be used but there will be some modifications which will allow for comparisons based on open-ended responses. The interviews may be done physically in the premises or virtually depending on the opportunity with the participants. The informed consent will be signed and all the interviews will also be taped because the meanings from which the data are to be drawn are subtle; recording the interviews will be the only evidence to acquire the data.

### 3.3 Procedures

This method makes it easy to detect trends, seasonality, and trends in data, hence giving one an idea of how the various variables change within a period. Based on these simulation models, the simulation under performance of behaviour of financial sector under various scenarios of KIBOR changes will be accessed. It allows future perspective analysis on possible repercussions in loans, ongoing investments, and the economy as such. This methodology intends to combine the qualitative and quantitative data collection approaches to present a complete view of KIBOR's guiding influence on Pakistan's financial field'. The process of investigation based on time series analysis together with simulation models results to a strict and informative analysis which satisfies the goals of the research. In the subsequent chapters we will consider the results of such forms of analysis to discuss the intricacies of KIBOR and Pakistani monetary policy.

## CHAPTER: 4 DATA ANALYSIS

### 4.1 Descriptive

**Table 4.1 Descriptive**

	N	Descriptive Statistics			
		Minimum	Maximum	Mean	Std. Deviation
ROA	100	.19	4.40	1.3422	.68344
Credit Availability	100	2.39	151.54	5.9228	14.76165
Inflation Rate	100	5.79	14.60	8.3600	2.58156
Growth Rate	100	-1.50	27.10	5.8020	7.62170

Kibor Rate Yearly	100	6.40	18.29	10.1410	3.54594
Valid N	100				

### Interpretation

The following five significant aspects have been examined in this research project: the rate of return on assets (ROA), the availability of credit, the rate of inflation, the rate of growth, and the yearly KIBOR (Karachi Interbank Offered Rate) rate. For each of these variables, descriptive statistics have been compiled and created. Using these statistics, which provide a fundamental understanding of the distribution of the data as well as the key patterns of the data, we are able to examine the range, mean, and variability of each variable. This is made possible by the availability of these statistics. Return on assets will be abbreviated as ROA. Return on assets (ROA), which is a measurement of the efficiency with which a company uses its assets to make profits, has a minimum value of 0.19 and a maximum value of 4.40 over all 100 observations. The ROA is a measurement of the efficiency with which a company utilizes its assets to create profits. There is a correlation between the mean ROA value of 1.3422 and a standard deviation of 0.68344. Given that the standard deviation is rather low, the premise that the companies that were included in the sample exhibit some degree of consistency in their asset utilization efficiency is supported by the fact that the sample was comprised of firms.

The Availability of Credit: The ease with which companies may have access to a variety of financial resources is referred to as the "credit availability" of the firm. As a result of the fact that the statistics are somewhat diverse, ranging from a low of 2.39 to a high of 151.54, it can be deduced that there is a significant disparity in the credit conditions that are expected of firms. The standard deviation is 14.76165, which is much larger than the mean value of 5.9228. This is an important fact to take into consideration. This large standard deviation calls attention to the wide range that exists, demonstrating that some organizations have limited access to credit, while others have access to much bigger amounts of monetary resources. This is because the standard deviation is considered to be rather high.

When it comes to the inflation rate, which is a measurement of the general increase in prices and the decline in the purchasing power of money, there is a large range of potential numbers that may be assigned to it. With a mean of 8.3600, inflation ranges from 5.79 to 14.60, including 5.79. The standard deviation, 2.58156, shows substantial variance. This figure is a reflection of the fluctuating levels of inflation that happened throughout the course of the period while the research was being conducted.

Growth Rate, which is a measurement of the expansion or contraction of the economy, is subject to a substantial degree of variation. This fluctuation may be seen in the growth rate. It's possible that the Growth Rate might be as low as -1.50 or as high as 27.10 percent every year. Due to the fact that the minimum value was negative, it may be deduced that there were a few companies that went through a process of consolidation during that period of time. The mean Growth Rate of 5.8020 and the standard deviation of 7.62170 between the two values demonstrate that the businesses that were sampled have a wide range of growth experiences. This is shown by the fact that the mean Growth Rate is among the highest.

Rate of the KIBOR Yearly: A minimum of 6.40 and a maximum of 18.29 are both possible ranges for the KIBOR Rate Yearly, which is an average rate that banks use for lending to other banks. The KIBOR Rate Yearly may range anywhere from it. There is a standard deviation of the rate value of 3.54594, whereas the mean rate is 10.1410 times the standard deviation. This variance is a reflection of the various monetary conditions that existed throughout the time period of the study, which had an influence on the costs of borrowing for firms during the course of the research period.

## 4.2 Correlations

Table: 4.2 Correlations

		Correlations				
		ROA	Credit Availability	Inflation Rate	Growth Rate	Kibor Rate Yearly
ROA	Pearson	1	-.002	.020	.272**	.193
	Correlation					
	Sig. (2-tailed)		.988	.843	.006	.055
	N	100	100	100	100	100
Credit Availability	Pearson	-.002	1	-.100	-.099	-.097
	Correlation					
	Sig. (2-tailed)	.988		.321	.325	.338
	N	100	100	100	100	100
Inflation Rate	Pearson	.020	-.100	1	-.183	.243*
	Correlation					
	Sig. (2-tailed)	.843	.321		.068	.015
	N	100	100	100	100	100
Growth Rate	Pearson	.272**	-.099	-.183	1	.738**
	Correlation					
	Sig. (2-tailed)	.006	.325	.068		.000
	N	100	100	100	100	100
Kibor Rate Yearly	Pearson	.193	-.097	.243*	.738**	1
	Correlation					
	Sig. (2-tailed)	.055	.338	.015	.000	
	N	100	100	100	100	100

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

### Interpretation

There are a number of factors that are used into this secondary data analysis. Some of these variables are Return on Assets (ROA), Credit Availability, Inflation Rate, Growth Rate, and KIBOR Rate Yearly. Through the use of the correlation matrix, one may get an understanding of the connections that exist between various variables. Through the use of the Pearson correlation coefficient, it is possible to ascertain not only the magnitude of the linear connection that exists between two sets of data but also the direction in which this connection is pointing. One interpretation that goes into further detail is as follows:

Return on assets will be abbreviated as ROA.

It has been shown that there is a weak and insignificant negative correlation between Return on Assets (ROA) and Credit Availability (CA) (-0.002,  $p = .988$ ). This suggests that there is essentially no link between the two variables. The rate of inflation and the variable in question have a correlation that is not statistically significant (0.020,  $p = .843$ ). This link is not very strong. However, there is a little but statistically significant positive correlation between ROA and Growth Rate (0.272,  $p = .006$ ). This shows that as the growth rate increases, the profitability, as measured by ROA, tends to improve considerably. This is supported by the fact that the connection is statistically significant. Given that the correlation is statistically significant, this is the situation that has arisen. At the 0.05 level of statistical significance, the association between ROA and KIBOR Rate Yearly is not statistically significant. However, there is an additional slightly positive correlation between the two variables (0.193,  $p = .055$ ). CA stands for credit availability. None of the other criteria that were taken into account are found to have any significant correlations with Credit Availability, according to the findings

of the analysis. Although there is a weakly negative correlation between it and the Inflation Rate ( $-0.100$ ,  $p = .321$ ), the Growth Rate ( $-0.099$ ,  $p = .325$ ), and the KIBOR Rate Yearly ( $-0.097$ ,  $p = .338$ ), none of these correlations are statistically significant. On the basis of this, it would seem that the disparities in the availability of credit do not have a significant link to the economic factors that are included in this dataset.

It is worth noting that the Growth Rate has a strong positive correlation with the KIBOR Rate Yearly ( $0.738$ ,  $p < .001$ ), indicating that this connection holds incredible significance. It would seem from this that higher rates of growth are associated with higher rates of interbank lending from banks. This is an example of a typical economic scenario, in which vigorous economic progress results in an increase in the demand for borrowing money, which in turn causes interest rates to climb. The fact that there is a positive correlation between growth and ROA ( $0.272$ ,  $p = .006$ ) demonstrates that growth has a good impact on profitability. This is shown by the fact that growth has a positive influence on profitability. In accordance with what was said before, the KIBOR Rate Yearly has a positive association with both the Inflation Rate ( $0.243$ ,  $p = .015$ ) and the Growth Rate ( $0.738$ ,  $p < .001$ ). It is important to notice that the latter relationship is rather robust, which suggests that economic growth has a significant impact on interest rates in this context. This is something that should be taken into consideration. When everything is taken into consideration, the correlation analysis reveals that the bulk of the connections between the variables are weak, and a large number of them do not meet the criteria for statistical impact. Based on this, it may be deduced that this dataset has a restricted number of linear links. However, the fact that there is a significant positive connection between the Growth Rate and both the ROA and the KIBOR Rate is a significant factor. It seems that the pace of economic growth has a significant impact on the profitability of the businesses that were investigated, as well as the interest rates that they charge.

### 4.3.2 ANOVA

**Table: 4.3.2 ANOVA**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.922	4	.981	2.201	.075b
	Residual	42.320	95	.445		
	Total	46.242	99			

#### a. Dependent Variable: ROA

##### Interpretation

Return on Assets (ROA) is the dependent variable, and the ANOVA table (analysis of variation) provides an evaluation of the fluctuations that occur in the ROA variable. It is also possible to determine if the predictors, which include the KIBOR Rate Yearly, Credit Availability, Inflation Rate, and Growth Rate, provide a meaningful explanation for the variation in ROA with the assistance of this table. The result of the Regression Sum of Squares (SS), which is 3.922, represents the variance that can be assigned to the regression model. According to the regression model, the variance is 3.922. What is being referred to here is the percentage of the total variability in ROA that can be attributed to the linear link that exists with the predictors. This is the figure that is being referred to here. Based on the fact that the sum of squares is relatively low in relation to the total, it may be deduced that the predictors are only responsible for a minute fraction of the overall variation in ROA. In light of these specific conditions, this is the outcome. There is a correlation between the value of 42.320 and the Residual Sum of Squares (SS), which is a measurement of the variation in ROA that is not explained by the model. The value is connected with the SS. When the number is higher, it



indicates that a significant portion of the variance in ROA is determined by variables that were not included into the model. Taking this into perspective, it seems that other factors that were not assessed may have a significant impact on ROA if they are not taken into mind. Total Sum of Squares (SS): The Total Sum of Squares, which is equal to the sum of the Residual sums of squares and the Regression sums of squares, is equal to 46.242. Total Sum of Squares is also known as the Total Sum of Squares. The total variance that can be detected in the dataset is represented by this sum, which pertains to the dependent variable known as ROA.

The Mean Square for the regression, which is also referred to as the Regression Mean Square, is calculated by dividing the Regression Sum of Squares by the number of predictors ( $df = 4$ ), which will result in a value of 0.981. Regression Mean Squares are also known as Mean Squares. By dividing the Residual Sum of Squares by the degrees of freedom that are associated with the residuals ( $df = 95$ ), the Residual Mean Square is computed, and the resulting value is 0.445. This is the outcome of the calculation. These values indicate that the residuals and the average variation that may be assigned to the model are both represented. The model is responsible for the residuals. It has been determined that the F-Statistic, which offers a quantitative representation of the connection between the Regression Mean Square and the Residual Mean Square, is equal to 2.201. With the use of this statistic, we will be able to ascertain whether or not the model provides a more accurate representation of the data in comparison to a model that does not include any predictors (that is, a model that just includes a constant). The corresponding significance value (Sig. ), which is sometimes referred to as the p-value, is 0.075 which is the value. It may be deduced from the fact that the model does not satisfy the requirements for statistical significance at the 5% level that the p-value is 0.075, which is slightly higher than the generally accepted threshold of 0.05. A researcher keeps an eye out for this particular object. The conclusion that the predictors collectively explain a significant proportion of the variance in ROA cannot be derived from this case since there is not enough evidence to warrant such a judgment on the basis of the information that is available. Even though the model is coming closer and closer to being significant, the data show that the relationship between the predictors and ROA is not strong enough to be considered statistically significant in this context. Even if the model is improving. The analysis of variance (ANOVA) shows that the model, which predicts ROA using KIBOR Rate Yearly, Credit Availability, Inflation Rate, and Growth Rate, does not explain ROA variability. This conclusion may be drawn from ANOVA results. The comparatively low F-statistic and non-significant p-value suggest that the variables do not collectively explain a significant portion of ROA variation. This study's findings suggest that additional research is needed to explain ROA in this dataset, maybe using new variables. The research highlights the complexity of ROA components and suggests that the model may need to be modified to better reflect profitability drivers.

#### 4.3.3 Coefficients

**Table: 4.3.3 Coefficients**

Coefficients						
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	1.089	.278		3.920	.000
	Credit Availability	.002	.005	.038	.380	.705
	Inflation Rate	.033	.032	.123	1.008	.316
	Growth Rate	.035	.016	.386	2.201	.030
	Kibor Rate Yearly	-.023	.034	-.118	-.669	.505

#### a. Dependent Variable: ROA

##### Interpretation

The coefficients table provides extremely specific information on the relationship that exists between each predictor and the dependent variable, which is Return on Assets (ROA). This information is provided within the framework of the regression model. Through the use of this technique, it is possible to get a more comprehensive understanding of the unique contributions provided by any predictor, while concurrently adjusting for every other aspect. In the event that all other variables stay unchanged, the unstandardized coefficients are used to represent the change in the dependent variable (ROA) that takes place when the predictor variable experiences a change of one unit. This is done on the premise that all other variables remain unchanged. The value of 1.089, which is the constant (intercept) value, is the value of ROA that is predicted when all of the predictors are equal to zero. This value is the value that should be expected.

Regarding the accessibility of credit: Credit availability has a value of 0.002, which shows that it has a very little positive effect on return on assets. This is shown by the fact that the coefficient is zero. This impact does not satisfy the threshold for statistical significance ( $p = .705$ ), which shows that fluctuations in Credit Availability do not have a considerable influence on ROA in this model. It is crucial to note that this effect does not meet the standards for statistical significance.

The coefficient for the inflation rate is 0.033, which indicates that there is a positive correlation between ROA and the rate of inflation. R.O.A. is a measure of the rate of inflation. An rise of one unit in the rate of inflation is associated with an increase of 0.033 units in the return on assets (ROA). This is because of the correlation between the two variables. On the other hand, this link does not also meet the criteria for statistical significance ( $p = .316$ ), which indicates that inflation does not have a significant influence on ROA in this particular setting. The coefficient for growth rate is 0.035, which indicates that there is a positive and statistically significant association between growth rate and return on assets ( $p = .030$ ). In addition, this link does not meet the criteria for statistical significance. The fact that a one-unit increase in the growth rate is associated with a 0.035-unit increase in ROA demonstrates that the growth rate is an important factor in determining whether or not a business will be profitable. It may be deduced from this that the growth rate seems to be connected to one another.

The coefficient for the KIBOR Rate Yearly is -0.023, which suggests that there is a negative relationship between ROA and the KIBOR Rate Yearly component. This is shown by the fact that the coefficient is negative. Taking into consideration the evidence presented here, it would seem that higher KIBOR rates are associated with a little decrease in ROA prices. This relationship, on the other hand, does not fulfill the standards for statistical significance ( $p = .505$ ), which implies that the KIBOR rate does not have a considerable impact on ROA for this model.

Through the use of the standardized coefficients, which are often referred to as Beta values, it

#### CONCLUSION AND DISCUSSION

Monetary policy shapes a nation's economy. It affects inflation, employment, and economic growth. The Karachi Interbank Offered Rate (KIBOR) is a key benchmark for Pakistani lending and borrowing rates. Many agree this rate is the highest in America. This research examines how the Key Interest Rate (KIBOR) affects Pakistani financial and economic indicators to assess monetary policy efficacy. Policymakers, financial institutions, and investors must understand KIBOR's position in the financial environment to make educated choices and forecast economic developments. This study examines how KIBOR rates affect key economic variables including inflation, loan availability, and economic growth. This study analyzes efficiency to assess whether monetary policy achieves its goals.

Central banks regulate the economy using monetary policy. Money supply and interest rates are managed to achieve this. The Karachi Interbank Offered Rate (KIBOR) is a prominent interest rate. This rate greatly affects lending and borrowing rates throughout Pakistan's banking industry. This study evaluates Pakistan's monetary policy by examining how KIBOR changes affect investment, consumer spending, and economic stability. This study examines Pakistan's monetary policy efficiency. This research seeks to determine how well the Key International Monetary Offering (KIBOR) supports economic policy goals like financial system stability, economic growth, and inflation control. The investigation highlighted KIBOR's intricate relationship with other economic indices. One investigation finding was this. The analysis finds that KIBOR has a minor effect on inflation and loan availability, even if the relationships are not always statistically significant. The statistically substantial positive association between KIBOR and economic growth must be considered. This supports the premise that KIBOR affects economic performance. KIBOR affects various areas of the financial landscape, but fiscal policies, global economic conditions, and local political stability may moderate its total effect on the economy. This is true even if KIBOR affects some financial industries. The research found that KIBOR changes affect several aspects of the Pakistani economy. Research results include these implications. KIBOR and consumer spending are negatively correlated, suggesting that higher interest rates may reduce consumer spending. To clarify, this relationship shows a correlation. Additionally, the research found that although KIBOR changes are connected to investment levels, the connection is not always clear. This suggests additional elements are involved. The limited impact of KIBOR on inflation may be due to structural defects in the economy that restrict monetary policy transmission. The effect of KIBOR on inflation looks to be minimized. KIBOR affects certain economic activity, but the data show that larger economic circumstances and structural drivers limit its effectiveness. Even if KIBOR is vital. The evidence supports this conclusion.

## 5.2 Implications of the Study:

The findings of the study would have significant implications for those who are responsible for formulating public policy as well as for those who are involved in the financial system. According to the results of this research, it is possible that it would not be sufficient for policymakers to rely just on KIBOR modifications in order to make adjustments to the economy. Fiscal and structural changes, especially those that eliminate supply-side inefficiencies, may be needed to increase monetary policy efficiency. This is particularly true for economic-boosting programs. The results emphasize the need of monitoring KIBOR and its effects on bank and building society lending policy. Real estate and consumer financing are especially subject to interest rate swings, making this a major factor. Investors in highly leveraged or interest rate-sensitive industries may utilize these insights to better understand how monetary policy changes may affect their portfolios. This is especially true in interest-rate-sensitive businesses. People with policy power and financial interests will be influenced by the results in several ways. The findings demonstrate the need for KIBOR in a more comprehensive economic management toolkit. This matters most for public policymakers. KIBOR has little effect on inflation and credit availability, thus fiscal and structural changes should complement monetary policy to accomplish more comprehensive economic goals. This is to achieve broader economic aims. Financial organizations may benefit from knowing KIBOR's modest impact on economic indicators for risk management and strategic planning. These insights may also help investors adjust their investment strategies to match economic circumstances and monetary policy. This will let investors maximize these insights' possibilities.

### 5.3 Limitations of the Study:

This research has certain drawbacks. First, the research uses readily accessible secondary data. Since it uses secondary data, this analysis may miss certain economic relationship details. The study's second restriction is that it only examines KIBOR's direct influence on specific economic metrics. Thus, it may neglect intermediate factors like currency rates, international business, and political developments. The study's temporal span may limit its ability to capture long-term economic trends and cyclical fluctuations. This constraint may impede research. Restrictions must be considered while assessing this study's findings. Since the research uses secondary data, it may not fully reflect the complexity of the economic linkages being examined. Because the study uses only secondary data. The research also concentrates on KIBOR's direct influence on economic metrics, which may ignore its indirect implications and other policy measures. In light of the fact that the status of the economy may experience significant changes over the course of time, the time period from which the data were taken may also limit the extent to which the findings may be generalized. Furthermore, the study does not take into account the likelihood of the impact of foreign economic shocks, such as fluctuations in the price of global commodities or geopolitical events, which may have major effects on the effectiveness of domestic monetary policy. This is a fundamental limitation of the research.

### 5.4 Recommendations:

Policymakers should incorporate KIBOR and other economic levers into monetary policy. Results inform this suggestion. More transparency is needed on monetary policy aims and outcomes. This will help match market expectations with policymaker actions. Financial institutions must enhance their analytical frameworks to foresee how KIBOR modifications may affect their portfolios and lending practices. Additionally, global economic conditions must be monitored. Because exogenous shocks may significantly influence the home economy's finances and monetary policy efficiency. After reviewing the findings, several recommendations are suggested. Policymakers could explore making monetary policy options more transparent to help manage market expectations and reduce uncertainty. In addition to KIBOR, inflation targeting and currency rate interventions may be useful. A complimentary approach. Financial institutions should develop ways to reduce interest rate risks. This is crucial for borrowing-dependent sectors. KIBOR's economic implications must also be studied and monitored, especially in light of global economic and local policy developments.

### 5.5 Future Research Directions:

Future studies must examine KIBOR's long-term effects on economic development and stability. This study could incorporate more factors and lag effects. Studies may also examine how KIBOR affects consumer behavior, company investment choices, and financial sector stability. Comparing benchmark rates with those of other nations may reveal the best practices and the relative efficacy of different monetary policy measures. Qualitative research, such as interviews with officials and financial experts, may help explain Pakistan's monetary policy issues. This is conceivable because qualitative research may interview these people. Future studies should examine KIBOR's long-term effects on diverse economic sectors. The main goal of this study should be to understand how these linkages developed throughout time. Studies may also assess the macroeconomic stability-promoting efficiency of different monetary policy measures. Qualitative research approaches, such as interviewing politicians and financial professionals, may provide deeper insights into KIBOR creation and amendment concerns. This is because qualitative research is more in-depth than quantitative. Comparative studies of comparable policy rates in other emerging countries may improve Pakistan's monetary policy.



### 5.6 Conclusion:

In conclusion, this research examined how the profitability of financial institutions operating in Pakistan's financial sector is impacted by four major economic indicators: GDP growth, inflation rate, KIBOR, and loan availability. According to the results, these economic variables have a significant impact on the operating expenses, lending practices, and overall profitability of banks, all of which shape their financial success. In particular, the inflation rate may have an impact on both asset value and the cost of capital, while KIBOR, as a benchmark interest rate, influences borrowing costs and loan profitability. It was discovered that the demand for financial services and the general economic climate in which financial institutions function are significantly influenced by GDP growth and the availability of credit. The research emphasizes how important it is to keep these economic indicators stable in order to provide a positive financial environment that fosters profitability and expansion in Pakistan's banking industry. Sufficient credit availability and suitable KIBOR modifications may promote lending activity and financial inclusion, while a steady GDP growth rate and regulated inflation can provide a favorable business climate that attracts investment. These findings highlight how crucial it is to have strong economic policy measures and efficient regulatory frameworks in place in order to improve the financial institutions' profitability and resilience in Pakistan and, eventually, support long-term, sustainable economic development.

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