Zafar Iqbal,[*] Hafiz Abdul Rashid[**] Aftab Hussain Tabassam [***]

Analyzing the Financial Performance of Pakistani Banks By using Inflation, financial ratios and Corporate Governance

Abstract

The study tends to examine the financial performance of Pakistani banks by using financial ratios, inflation and corporate governance. To examine the impact of ratios, inflation and corporate governance on performance of banks, data of seventeen years from 2000 to 2016 of financial sector of Pakistan is used. The major sources of data used in this study are World Bank, IMF and Pakistan Statistics Bureau. However major data is collected from the financial reports issued by State Bank of Pakistan i.e. FSA and BSA. The study tend to used descriptive summary and correlation matrix for diagnostic testing. However linear regression method also applied to examine the cause and effects relationship. Regression result analyze that CG have significant relationship with profitability. Inflation rate also has significant relationship with profitability of firms. Financial ratios i.e. cost income ratio, loan loss reserve ratio and total loan ratio have significant relationship with profitability of firms. There are some limitations in this study as there are factors other than inflation rate and corporate governance that affect performance of banks which are not included in this study. This study provide a clear thoughtful to the policy makers, researchers and corporations. They can build their assurance and can make more rational decisions towards policy formulation after understanding the financial performance of banks accurately. They will also be able to understand the role of inflation rate and CG in measuring the performance of banks.

Keywords: *Inflationary Risk, Corporate Governance, Profitability*

Introduction

Financial institutions represent the nerve of any economy as well as backbone for the development of a country. The Basel Committee on Banking Supervision (BCBS) was established to improve the performance of banking sector. It has introduced several improvements regarding bank capital sufficiency, confession and precision and empowering supervisory authorities. It devises the principles for good corporate governance in banks to increase bank permanence and soundness worldwide (Basel 2006). Banks are normally catalytic and progressive institutions, for emerging economy. In Pakistan, they are not efficient and effective in their operations as they are facing the issues regarding non-performing loans, advances and inflationary risk.

It has been observed that inconsistent credit administration, lack of clearness and responsibility along with space plaster of financial statements directed to projection of nonperforming loans Agene (1999). Moreover poor corporate governance also creates hurdles in attaining corporate goals and economic growth. It is generally considered that bad governance of corporations becomes main reason of their failures. Omondi (2014) found that increase in inflation lead to increase lending rate. It happens because high inflation reduces purchasing power of money which compels banks to demand high lending rate to cover credit risk. Increase in base lending cause reduction in taking of loans. As a result, inflation influences loan default rate and compels banks to increase interest rate which affect ability of customers to service their loans. High inflation rates are caused by unnecessary expansion of money supply in the economy in contrast to the speed of economic development. Less rate of inflation is thus preferred to minimize

[*] Dr. Zafar Iqbal, Mirpur University of Sciences and Technology (MUST) Mirpur-10250 (AJK), Pakistan

[**] **Dr. Hafiz Abdul Rashid,** Assistant Professor, Hailey College of Commerce, University of the Punjab, Lahore

[***] Aftab Hussain Tabassam, Assistant Professor University of the Poonch Rawalakot (UPR)

strictness of economic collapse by permitting the employees to adjust more quickly in a down turn. Banking industry is not only affected by inflation but corporate governance also hinders its development because improper ways of handling business affairs and mismanagement of board of directors badly influence the day to day operations. All these problems arose due to poor management and their poor policies. The aim of this research is to measure the influence of inflation risk and CG on commercial banks performance as both are crucial factors while measuring performance of banking sector especially in case of a developing country like Pakistan.

Problem Statement

The financial institutions plays fundamental role in the wellbeing of a country. Sound money making financial system is identification for stabilization of economy. Banking sector of Pakistan has been facing a series of success and failures. Development to financial institutions and its interaction with real development is the most debated topic among researchers and economic regulatory authorities. Banking sector is a basic requirement to be taken into consideration before formulating policies of financial liberalization. An undeveloped and unstable financial system minimizes the opportunities of financing of economy. Many educations consume been conducted in past to measure performance of banking sector but no one has attempted any study to measure factors which put any influence on performance of banks. This study fills the gap by identifying corporate governance and inflationary risk as factors which affect performance of banks. Ratios have also been used to measure the efficiency of banks. To measure performance of banks analysis of ratios as determinants of banks is essential. Different ratios have been rummage-sale to extent performance of banks i.e Return on Assets (ROA), Cost / Income Ratio, Loan Loss Reserves-to- Gross Loans Ratio, Total Loans/Total Assets ratio (TL/TA). So, measuring the performance of banking sector of Pakistan by using financial ratios is main concerned area of this study. Moreover measurement of performance by using inflationary risk and corporate governance is novelty of study as well as my contribution to fill the concerned gap.

Research Objectives

- To measure the impact of inflationary risk on Banks financial performance.
- To measure the effect of corporate governance on Banks financial performance.
- To analyze banks financial performance by using financial ratios.

Research Questions

- How inflation can affect performance of financial institutions?
- How corporate governance influence performance of financial institutions?
- How ratios can be used to measure performance of banks?

Significance of the study

This study investigates the financial performance of banks by using inflationary risk and corporate governance which will be significant for researchers, policy makers and corporations. Researchers can get help and tries to explore more factors which would affect performance of banks. They will become able to carry out more extensive research about many other factors and ratios which could affect performance. Policy makers consider all factors before formulating policies. They will come to know which factors create hurdles for boosting financial system and which measurements should be adopted to establish a strong and sound financial system. Moreover they will also take steps to remove the weaknesses of immature and vulnerable financial system. Corporations will play their role for financial development by choosing source of financing to their projects. Their interest towards investment will bring success to expansion of banking zone.

Literature Review

The significance of banking sector' development and its evolution have convert more attentive in recent years. There are several depictions to verify growth of economic institutions i.e. size depth, entrée productivity and firmness of economic system. A strong pecuniary system contracts with high capital gathering, swapping and examining diversified group choices which horizontal up and excite the inflow of foreign capital.
Many researchers tried to find out the factors which could affect the performance of banks. Like, Sogut (2008) verified that for short profits countries monetary growth is completely associated to public division credits. For highly developed countries the association has been built among monetary expansion and price which creates an optimistic consequence of GDP. Monetary association includes capital and money market to boost the speed of expansion. Monetary growth engages in exercise an important role in growth. Financial development is prejudiced credit to public sector as per capital income to GDP, price rises and real interest rate favors to provide credit at confidential division. If the stage of public debt is high then worldwide economy point out economic situation is defenseless. Household bank also engage in recreation a significant role in rising growth.

Dagh, et al. (2016) showed in study to measure the overall efficiency of forty financial institutes for time period of twenty years by using DAE (Data envelopment analysis). They found that performance of banks improved after the introduction of reforms. Alashatti, (2015) performed a study to extent the monetary performance of Jordanian commercial banks. Financial performance of banks for five years 2012 to 2015 has been analyzed. He used financial ratios to measure financial performance of banks. Financial ratios indicated improvement in profitability of banks. Sanghani, (2014) measured performance of financial institutions by using financial ratios. These ratios include current ratio, liquid ratio, and cash flow ratio calculated from balance analysis and cash flow analysis. Hakimi and Zaghdoudi (2017) investigated financial performance of Nigerian banks covering time period of 2004 to 2012. Results revealed that liquidity has optimistic influence on presentation of banks.

Khan and Ali, (2016) conducted study in Pakistan to measure the association among liquidity and effectiveness of banks for time period of 2008 to 2014. Statistical results showed that liquidity ratio has significant and positive impact on profitability of banks which indicate that financial ratios improve the performance of banks. Mushtaq et al, (2016) studied the impact of financial ratios on performance of banks by taking data from 2004 to 2015. Sample size consists of eight commercial banks. Regression and correlation analysis measured significant and positive impact of financial ratios and profitability. Ismail (2016) measured the financial performance of non-financial firms.

Bassey and Moses, (2015) conducted a study in Nigeria. Main aim of study is to examine the performance of financial institutions covering time period from 2010 to 2010.Ordinary least square method has been adopted to measure the impact of liquidity and current ratio on profitability. Results showed significant and positive relationship between ratios and profitability. Baig, Usman&Owais (2014) investigated the performance of investment banking industry during current financial crises.

Another study conducted by Khizer et.al. (2011) invention out almost same results. They measured monetary enactment of banks for the period of 2006 to 2009. Findings showed that effectiveness has straight relationship with benefit management ratio while size has negative relationship with profitability. Sidqui and Shoaib,(2011)measured the performance of banks through capital structure and concluded that size of the bank is considered an important element while analyzing performance of banks. Tobin's Q model is also used in this study to check financial performance of banks. Results found positive impact of Tobin's Q on performance of banks. Leverage ratio and investment ratio have also been measured which showed helpful and substantial impact on presentation of banks. Angeloni and Faina (2013) conducted a study to measure the relationship between inflation and development of banking sector. Results indicated that inflation increases bank leverage and risk.
Zemzem, and Kacem, (2014) examined the factors influencing the board ability of financial institutions to function efficiently. They measured the relationship between board structure and performance of banks. Results indicated that size of the board and performance of banks has significant relationship. Belkhir, (2009) dignified the effect of BS on performance of banks. He checked the performance of twenty commercial banks for time period often years.

Results suggested that large banks have larger board size including all independent directors. So, more expenses required to fulfill the needs of bank which would affect its performance. Staikouras et al., (2007) tested the impact of board independence on performance of seven banks. They concluded that performance of banks has not showed any improvement by increasing the number of independent directors. So, there exists no significant relationship between bank performance and board size. In the light of above literature following hypothesis has been formulated.

Hypothesis of the study

H1; The relationship between CG and financial performance of Commercial Banks in Pakistan is significant and positive.
H2; The relationship exist between Cost / Income and financial performance of Commercial Banks in Pakistan is statistical significant and positive.
H3; There is significant positive/ negative association exist between inflantry and financial performance of Commercial Banks in Pakistan.
H4; There is significant positive/ negative association exist between total loans/ total assets and financial performance of Commercial Banks in Pakistan.
H5; There is significant positive/ negative relationship exist between loan loss reserve to Gross loss reserve and financial performance of Commercial Banks in Pakistan.

Research Methodology

The data concerning with the Analyzing the financial performance of Pakistani banks by using inflationary risk and corporate governance has taken from the website of state bank and Pakistan economic survey. The data has been collected during the time period of 2000-2016. The data has taken from the financial statements analysis of state bank of Pakistan`s publication. This document consists of full information about the listed financial corporation of stock exchange. This document has been issued by statistics department of state bank and provides full information about the financial statement.

Dependent variable; **ROA (Profitability):** The dependent variable is performance of banks which is checked by analyzing profitability of banks. ROA is used to measure profitability which is checked by the formula **ROA = Annual net income / Average total assets**

Independent Variables:

a) Inflation Rate: Inflation is considered an important element for progress of financial development as price stability is a basic necessity of financial development. Inflation rates for years 2010 to 2016 will be reported. Moderate inflation rates with less volatility create problems of bankruptcy for financial institutions because financial institutions do not engage themselves in price war to maximize their deposits (Flaherty, M., & Law, S. H. 2012).

b)Corporate Governance (CG); The study used CG as independent variable. The measurement method used in CG are the *size of the board, by the natural log of Board of Directors* the *Board Independence* (the ratio of independent directors to the board after Mallette and Fowler, (1992)), and *Institutional Ownership (IO)* (the percent of shares owned by organizations divided by The total number of shares) accordance with Jiambalvo et al. (2002) and *President / CEO Bi* (the Board Chairman and CEO are separated and measured by dummy variable.

Cost / Income Ratio: Cost / income ratio is also used as independent variable and it is calculated through the formula.

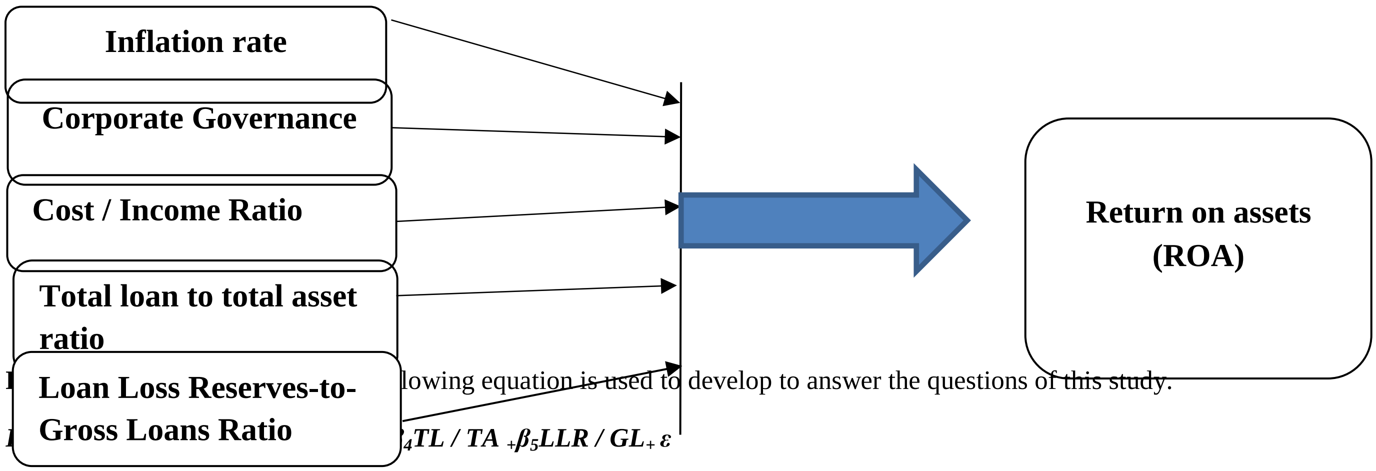
C/I = Operating Expanses / Operating Income

Total Loans-to-Total Assets Ratio: Total loan to total asset ratio is also used as independent variable and it is calculated through the formula. **TL/TA = Total loans / Total assets**

Loan Loss Reserves-to- Gross Loans Ratio: Total loan to total asset ratio is also used as independent variable and it is calculated through the formula.
LLR/GL = Loan loss reserves / gross loans

Research Model

Following model has been drawn to analyzing the financial performance of Pakistani banks by using inflationary risk and corporate governance.



...llowing equation is used to develop to answer the questions of this study.

$$... \beta_4 TL / TA + \beta_5 LLR / GL + \varepsilon$$

Data Analysis: The software used for interpreting results was Eviews 8. The relationship between dependent and independent variables has measured by correlation analysis and Johnson co-integration. Regression analysis has performed for checking the specification of model.

Descriptive Summary Results;

	INF	CEO_D	BOARD	BS	OW	CI	LLR	TLR	PRO
Mean	10.32636	0.625	0.489148	0.89611	0.13393	19.35962	1.285583	3.251344	0.063959
Median	8.61	1.00	0.571429	0.90309	0.110050	4.053212	1.015000	3.265241	0.056128
Maximum	45.53201	2.00	0.875	1.079181	0.556400	63.89224	4.666000	4.307997	0.252915
Minimum	2.4	0.001	0.002	0.845098	0.000100	1.682943	0.048000	2.177086	-0.11648
Std.Dv	6.501672	0.48752	0.288857	0.062407	0.129030	20.85561	0.934256	0.630930	0.067868

Skewness	2.429797	-0.5164	-0.46789	1.349664	1.244981	0.729403	1.107782	0.053778	0.335652
Kurtsos	13.2452	1.266667	1.976041	4.030542	4.253577	1.962803	4.169538	1.927278	3.595574

Above table indicates that the highest mean value of cost income ratio (19.35962) and (0.063959) which means both variables play a vital role in the determination of return on asset. The highest value of median for inflation is (8.610000) and lowest (0.015000) is. The maximum value for cost income (63.89224) and lowest value (0.252915) for return on asset. The minimum value for total loan (2.177086) and lowest value (0.000000) for CEO duality and (0.000000) board independence. The value of standard deviation (20.85561) is highest for cost income ratio which means that highest variation is observation for cost income ratio this variation could be due to date used in this study. Broad size has been observe to show the lowest variation in standard deviation value is (0.062407).Skewness tells us the asymmetric patter of the data as inflation CEO duality. Board size. Total loan ratio. Loan reserve ratio .cost income ratio .ownership and return on asset are positively skewed and board size is negatively skewed. Kurtosis indicates the peakness and flatterness of data.

Correlation Matrix;

Correlation	CEO	CI	IND	INF	ISE	LLR	LOAN	OWN	PRO
CEO	1								
CI	-0.05866	1							
IND	-0.22487	-0.05148	1						
INF	-0.03851	0.095704	0.043675	1					
ISE	-0.04372	0.396105	0.178283	-0.0335	1				
LLR	-0.21307	-0.09696	-0.05107	-0.17199	-0.02536	1			
LOAN	-0.15442	-0.29508	0.073547	-0.28237	0.22705	0.41574	1		
OWN	0.032476	-0.24063	-0.15884	-0.20399	0.180422	0.307959	0.411387	1	
PRO	0.110451	-0.03596	0.08643	-0.05279	0.181326	-0.23117	0.303531	0.004553	1

The problem of multicollinearity between variables is checked in the above table. It provides the result of correlation coefficient analysis among the variables. Correlation analysis indicates that there is no serious concern about multicollinearity between variables. None of the variables are excluded from the model. This table indicates that the duplication of the CEO and the cost-revenue relationship have a negative relationship to value (-0.058658). Board independence and CEO Duality have a strong and negative relationship with value (-0.224865). The independence of the Board of Directors and the cost to income ratio are strongly and negatively correlated with value (-0.051479). Inflation risk and CEO Duality are negatively and strongly correlated with the value (-0.038514).Inflation risk and cost income ratio has value (0.095704) which shows that these two variables are positively and strongly correlated. Inflation risk and Board independence have positively correlated with each other having value (0.043675). Board size and CEO duality (-0.043721) are negatively correlated. Board size and cost income ratio having value 0.396105

indicating that both of these variables are positively and strongly correlated. Board size and board independence (0.178283) are positively correlated. Board size and inflation risk are positively correlated having value (-0.033499).

Long loan reserve ratio and CEO have value (-0.213068) showing that both are negatively correlated. Long loan reserve (-0.096964) has negative correlation with cost income ratio and it also has negative correlation with board independence (-0.051070). Long loan reserve and inflation has value (- 0.171986) which shows that these two variables are negatively and strongly correlated. Long loan reserve and board size is negatively correlated with the value (-0.025359). Total loan and CEO Duality (-0.154418) are negatively correlated. Total loan and cost income ratio are negatively and strongly correlated with the value (-0.295076).Total loan and board independence (0.073547) are positively correlated. Total loan and inflation risk are negatively correlated having value (-0.282369).Total loan and inflation risk are negatively are strongly correlated having value (-0.282369).

Total loan ratio and board size having value (0.227050) indicating that both are of these variables are positively are strongly correlated. Total loan ratio and long loan reserve ratio (0.415740) are positively correlated. Ownership (0.032476) has positively correlation with CEO Duality and it also has the negatively correlation with cost income ratio (-0.240631). Ownership and board independence are negatively correlated having value (-0.158841).Ownership (-0.203986) has negatively correlation with inflation and it also has the positively correlation with board size (0.180422). Ownership and long loan reserver (0.307959) are positively and strongly correlated. Ownership (0.411387) is positively correlated with total loan ratio. Profitability is positively correlated with CEO Duality (0.110451), Cost income ratio (-0.03596), Inflation risk (–0.052786), Long loan reserve (-0.231169). While negatively correlates with Board independence, Board size, Total loan, Ownership.

It is sumarriased that the issue of multicollinearity exist when two or more variables highly or more than 70% correlate with each other. In above discussion there is no single value is greater than 70% among the variables. It is stated that there is no issue of multicollinearity exist in the data.

OLS Regression:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.109280	0.120143	-0.909578	0.0365
CEO	0.017904	0.016051	-1.115462	0.0589
Board. Ind	0.005138	0.027628	-0.185970	0.0531
Board size	0.071707	0.149798	0.478695	0.0338
Ownership	0.036186	0.068015	-0.532021	0.0566
Inflation	-9.46E-05	0.001183	-0.079917	0.0366
Cost/ income	4.34E-05	0.000449	0.096539	0.0234
Long loan reserve	-0.031775	0.009094	-3.494109	0.0009
Total loan	0.051830	0.015281	3.391797	0.0012

In line with above results the R-square is 0.271326 and adjusted R-square is 0.178796. The F-statistics is 2.932302 and probability of f-statistics is 0.007546. The r-square shows the strength of model. The Watson is near about 2.

The result of regression analysis shows that the duality of the CEO has a positive and important association with the profitability of Beta (B = 0.017, P = 0.05). Therefore, the results supported the duplication of Chief Executive positively linked to the significant profitability. Regression results to determine the relationship between board independence and profitability show that board independence with empirical values (B = 0.005, P = 0.05) has a positive and significant relationship with profitability. The result of the analysis indicates that the size of the board has a positive and significant relationship with profitability. Therefore, taking into account the relationship between painting size and profitability has been accepted. The result of regression analysis shows that the ownership has a positive and significant relationship.

Hence the results supported that ownership is positively and significantly related to the profitability. All four proxies of corporate governance i.e., BS, CEO duality and ownership have positive and significant relationship with profitability which means that CG has significant and optimistic impact on financial development. The results of regression analysis show that inflation has a negative and significant relationship to its profitability (B = -9.46, P = 0.03). Therefore, the results supported the hypothesis that inflation is negatively correlated significantly with profitability. Thus the hypothesis is accepted. Therefore, the results show that the cost to income ratio has a significant and positive impact on profitability. Therefore, the results supported the hypothesis. The result of regression analysis shows that the long-term loan reserve has a significant negative relationship with profitability. Hence the results supported the hypothesis that long loan reserve is negative and significantly related to the profitability. Thus the hypothesis is accepted. The results of analysis indicate that total loan has a positive and significant relationship with profitability having beta value (B=0.05, P= 0.00). Hence the results prove that total loan ratio has a significant and positive impact on profitability. Thus the results supported the hypothesis.

KEY FINDINGS AND CONCLUSION

This study attempted to develop an integrated model that determines the relationship between financial ratio, inflation risk, corporate governance and profitability. Three measurements were chosen: cost to income ratio, total loan ratio and long loan reserve ratio to measure financial ratios. Duplication of the CEO has been used for the size of the plate, the independence plate and property to measure the corporate government. The return on capital was used to measure the performance of financial development. The result of the regression analysis shows that the CEO of Duality has a positive and significant relationship to the profitability of a trial version (B = 0.017, P = 0.05). Therefore, the results supported that the CEO of Duality is positively correlated with profitability. Regression results to determine the relationship between board independence and profitability it was found that board independence with experiential values (b = 0.005, p = 0.05) has a optimistic and important relationship with effectiveness. The outcome of the analysis indicates that the size of the plate has a positive and significant relationship with profitability indicates that the size of the plate has an experimental value (B = 0.07, P = 0.03). Therefore, c considering the relationship between board size and profitability has been accepted. The result of regression analysis shows that the property is regarding positive profitability and significant association with the value of beta as (B = 0.036, P = 0.05). Therefore, the results supported that the drug is positively and significantly associated with profitability. The four forces of corporate governance - the duality of the CEO, the size, independence and ownership of the Board of Directors - have a positive and significant relationship with profitability, which means that corporate governance has a significant impact. And positive in financial development. Results are consistent with previous studies (Okoi and Stephen's Ocheni (2014), as they measure the positive impact and it is important for CGS on profitability, and the results are consistent with Inyanga (2009) , which highlighted corporate governance as an important element also influence the performance of banks. Consistent results also with previous studies conducted by (Kolk is & Pinkse, 2010). The second hypothesis that measure the relationship between inflation and profitability. Regression analysis results show that inflation has a negative and significant relationship

with the presence of profitability (B = - 9.46, p = 0.03) . Therefore, supported the results of the hypothesis that the inflation negatively associated largely with the performance. Thus, it accepts the premise of the H2 . and Allant Ij consistent with previous studies of tan and Floros (2012) and Angeloni and Faina (2013) . The results also c in accordance with the study carried out Zamzam and Kassem (2014) who have suffered a negative and significant relationship between inflation and corporate profitability. Represents a negative sign that the bank 's profitability decreases with increasing profitability. the third hypothesis that measure the relationship between the cost to income ratio and profitability. analysis results indicate that the relationship cost income has nothing positive and significant yield contains beta - like value (B = 4.34, p = 0.02). Therefore, the results indicate that the cost-income ratio has a significant impact and positive profitability. Therefore, the results supported the hypothesis and led to the acceptance of H3. The fourth hypothesis measures the relationship between long-term loan reserves and profitability. The result of regression analysis shows that the long-term loan reserve has a significant negative relationship to return (B = -0.03, P = 0.00). Therefore, the results supported the hypothesis that the long-term loan reserve is negative and is highly correlated with profitability. This is how the H4 hypothesis is accepted. The fifth hypothesis measures the relationship between the total loan price and profitability. The results of the analysis indicate that the rate and total loan has a positive and significant relationship with the return has a beta value (B = 0.05, P = 0.00). Therefore, the results indicate that the total loan rate has a significant impact and positive profitability. The results are consistent with previous studies of Hakimi and Zaghdoudi (2017) and Khan and Ali (2016). The results are consistent with studies also Pasi and Moses, (2015) which concluded that ratios play an important role for the analysis of banks' performance.

References

Adu, D. T., et al. (2016). "Is inflation a threat on financial sector performance." European Journal of Business and Management **8**(33): 59-71.

Al-Musali, M. A. and K. N. I. K. Ismail (2016). "Cross-country comparison of intellectual capital performance and its impact on financial performance of commercial banks in GCC countries." International Journal of Islamic and Middle Eastern Finance and Management

Bagh, T., et al. (2017). "The causative impact of liquidity management on profitability of banks in Pakistan: An empirical investigation." International Journal of Academic Research in Economics and Management Sciences **6**(3): 153-170.

Basel-Vanagaite, L., et al. (2006). "Mutated nup62 causes autosomal recessive infantile bilateral striatal necrosis." Annals of Neurology: Official Journal of the American Neurological Association and the Child Neurology Society **60**(2): 214-222.

Bassey, B. E., et al. (2015). "Impact of a nationwide measles immunization campaign and routine immunization in Nigeria, 2006-2010: A critical review of South-South, Nigeria." Sci. J. Public Health **3**(5): 693-698.

Belkhir, M. (2009). "Board structure, ownership structure and firm performance: evidence from banking." Applied financial economics **19**(19): 1581-1593.

Erkonak, H., et al. (2008). "Treatment of olive mill wastewater by supercritical water oxidation." The Journal of Supercritical Fluids **46**(2): 142-148.

Flaherty, D. L. (1982). "The Effect of Inflation on Seamen's Maintenance Awards." S. Tex. LJ **22**: 533.

Gani, L. and J. Jermias (2006). "Investigating the effect of board independence on performance across different strategies." The International Journal of Accounting **41**(3): 295-314.

Hamdi, H., et al. (2017). "Diversification, bank performance and risk: have Tunisian banks adopted the new business model?" Financial innovation **3**(1): 22.

Jiambalvo, J., et al. (2002). "Institutional ownership and the extent to which stock prices reflect future earnings." Contemporary accounting research **19**(1): 117-145.

Khan, R. A. and M. Ali (2016). "Impact of liquidity on profitability of commercial banks in Pakistan: An analysis on banking sector in Pakistan." Global Journal of Management and Business Research.

Khizar, M. and E. Buzzi (2020). Hybrid nanoreinforced liner for microwave oven, Google Patents.

Kolk, A. and J. Pinkse (2010). "The integration of corporate governance in corporate social responsibility disclosures." Corporate social responsibility and environmental management **17**(1): 15-26.

Mallette, P. and K. L. Fowler (1992). "Effects of board composition and stock ownership on the adoption of "poison pills"." Academy of Management journal **35**(5): 1010-1035.

Naceur, S. B. and S. Ghazouani (2007). "Stock markets, banks, and economic growth: Empirical evidence from the MENA region." Research in International Business and Finance **21**(2): 297-315.

Obeten, O. I., et al. (2014). "The effects of corporate governance on the performance of commercial banks in Nigeria." International Journal of Public Administration and Management Research **2**(2): 219-234.

Obiero, C. O. (2019). Effects of Portfolio Diversification on the Financial Performance of Investment Companies Listed At the Nairobi Securities Exchange, United States International University-Africa.

Omondi, P. A. o., et al. (2014). "Changes in temperature and precipitation extremes over the Greater Horn of Africa region from 1961 to 2010." International Journal of Climatology **34**(4): 1262-1277.

Saadati, H., et al. (2016). "Geochemical characteristics and isotopic reversal of natural gases in eastern Kopeh-Dagh, NE Iran." Marine and Petroleum Geology **78**: 76-87.

Sanghani, D. A. (2014). The effect of liquidity on the financial performance of non-financial companies listed at the Nairobi securities exchange.

Shoaib, A. (2011). "Measuring performance through capital structure: Evidence from banking sector of Pakistan." African Journal of Business Management **5**(5): 1871-1879.

Staikouras, P. K., et al. (2007). "The effect of board size and composition on European bank performance." European Journal of Law and Economics **23**(1): 1-27.

Tahir, M. and M. Mushtaq (2016). "Determinants of dividend payout: evidence from listed oil and gas companies of Pakistan." The Journal of Asian Finance, Economics and Business (JAFEB) **3**(4): 25-37.

Tan, Y. and C. Floros (2012). "Bank profitability and inflation: the case of China." Journal of Economic Studies.

Zamzam, Y. A., et al. (2014). "A multifactorial study of some markers involved in the pathogenesis and the prognosis of schistosomal versus nonschistosomal bladder cancer." Egyptian Journal of Pathology **34**(2): 155-161.

Zemzem, A. and O. Kacem (2014). "Risk management, board characteristics and performance in the Tunisian lending institutions." International Journal of Finance & Banking Studies (2147-4486) **3**(1): 186-200.