

## **“India's Private Commercial Banks' Financial Performance: Multiple Regression Analysis”**

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### **Abstract**

Every nation's economic development depends heavily on banks, particularly private ones. Thus, the performance of the three main private sector banks that are listed on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) is the focus of this study. Bank performance is statistically analysed using financial ratios. The financial performance of the chosen private banks has been evaluated using three key indicators: return on equity (ROE), a crucial profitability ratio that investors use to gauge how much of a bank's income is returned as shareholder equity; Tobin's Q model (price/book ratio), which measures market-based performance; and return on assets (ROA), which measures internal-based performance.

The data was chosen for the chosen banks' 2019–2024 timeframe. The three indices of financial performance—bank size, credit risk, asset management, operational efficiency, and debt ratio were determined using the multiple regression technique. The findings show that the financial performance of private commercial banks is impacted by each of the chosen ratios.

**Keywords:** Operational Efficiency, Credit Risk, ROA, ROE, Tobin's Q Ratio,.

### **INTRODUCTION**

Banks are the most important and active participants in the financial system, particularly in the financial markets, out of all the other financial institutions (Guisse, 2012). It supplies funds for infrastructure, innovation, employment development, and general prosperity. It is becoming an essential component of our society, affecting both businesses and individual customers. The Indian financial system has accomplished a number of noteworthy feats over the last thirty years. Its wide reach, even to the most isolated regions of the nation, is the most remarkable. Its emphasis on implementing an integrated approach to risk management has been growing. Most banks currently meet Basel III capital requirements, according to the RBI (Economic Times, June 20, 2017). The framework for managing loans, derivatives, and asset-liability match has already been established by state-run banks. In addition to seeking to maximise profits, banks are also responsible for boosting customer happiness and raising the value of shareholders' equity (state-run banks maintain an equity ratio of 8.5%; Economic Times, June 20, 2017). The banking sector is essential to long-term economic expansion. Understanding and assessing banks' financial performance is crucial in this situation, and financial ratios can be used to do so. The outcomes are typically shown in the bank's operational income, earnings before interest and taxes, return on assets, return on equity, return on investment, return on net worth, and so on.

Any nation's trade and development are significantly impacted by the banks' performance. It must oversee a high volume of transactions. In order to give credits, loans, and investments, industry stakeholders, investors, stockholders, and other policy makers must be aware of a bank's financial performance. In order to fully apply international capital standards, the government and RBI looked for other solutions. Since ratio analysis is the most rational method of analysing the current and forecasting the future positions of any banks, it is imperative that the financial state of banks be examined in this situation. Additionally, it assesses the bank's performance, operational effectiveness, and capacity to fulfil its current commitments.

In addition to aiding in decision-making, these measures highlight the internal standing of banks and their market performance in relation to other banks. Thus, the purpose of this research is to analyse the financial performance in three main areas: internal performance, market performance, and performance associated with bank revenue. A company can

assess its financial performance in terms of profitability and viability by creating a secure relationship between the variables. The current study uses a number of important financial ratios to assess the performance of three sizable private sector banks: HDFC, ICICI, and AXIS BANK.

## LITERATURE REVIEW

Sharifi and Akhter (2016) considered the credit deposit ratio as a barometer of progress of a financial institution like commercial banks. According to them, it indicates the level credit deployment of banks in relation to deposits mobilized by them. A high credit deposit ratio indicates that banks are generating more credit from its deposits and vice-versa. Further, they say that the outcome of this ratio reflects the ability of the bank to make optimal use of the available resources. They carried out a study with a purpose to present the performance of public sector banks through the credit-deposit ratio based on the secondary data collected from 26 public sector banks for a 7 year period (2008-2015). The data were analysed using a descriptive statistics and panel data regression model. Their findings and analysis reveal that the CDR impact positively on public sector bank's financial performance.

Jilkova and Stranska (2017) analysed the effect of the economic situation of the Czech Republic on the performance and profitability of the banking market through selected determinants in their study. They have focussed on measuring the performance and profitability of the banking sector using the method of "Multiple linear regression model". They not only studied the overall fitness of model but also determined which independent variables have the greatest and the smallest effect on the dispersion of the dependent variables. Their paper clarifies the structure of the Czech banking sector and it is focused on the performance and profitability in the defined time period and also compares with the selected banking sector and indicators in other countries.

Pandya (2015) analysed the impact of priority sector advances of scheduled commercial banks operating in India on their profitability. Author, considered all the scheduled commercial banks operating in India for this purpose. Ratios of Priority sector advances to total advances (PSATA) of all commercial banks during the study period taken as an independent variables whereas, Return on Assets (ROA), Return on Investment (ROI), Return on Equity (ROE), Ratio of Operating Profit to Total Assets, (OPTA) and Ratio of Interest Income to Total Assets (INTTA) were taken as dependent variables. Linear regression models were used to examine the relationship between independent and dependent variables. The study reveals that there exists a statistically significant relationship between PSATA and ROI, ROA, OPTA, INTTA. The results thus imply that priority sector advances have bearing on bank profitability. Further, the study reveals that priority sector advances affect ROA and ROI of the banks. Therefore, author suggests the banks should exercise caution while advancing loans to priority sector else it would be adversely affecting the profitability of the banks.

Narwal and Pathneja (2015) discussed the different determinants of productivity and profitability of banks functioning in India. They have studied the performance of public and private sector banks in terms of productivity and profitability in two different time periods (2003-2004 to 2008-2009 and 2009-2010 to 2013-2014). Regression analysis was applied to discover the determinants of different bank groups. The results of the study disclose that private sector banks are more productive than public sector banks over the whole study period and also observed no significant difference in the profitability of two bank groups. The author's reason of more productivity of private sector banks is the better utilization of technology than the public sector banks.

Adam (2014) conducted the study to investigate financial performance of Erbil Bank for Investment and Finance, Kurdistan Region of Iraq during the period of 2009-2013. author has used statistical tool for analysis purpose of several variables which would affect the banking system in general in order to know whether these variables are significantly correlated with the financial performance for the bank. The findings of the study show the positive behaviour of the financial position for Erbil Bank and some of their financial factors variables influence the financial performance for the bank. Author also noticed that the overall financial performance of Erbil Bank is improving in terms of liquidity ratios, assets quality ratios or credit performance, profitability ratios (NPM, ROA and ROE). Further, the study suggests a set of recommendations regarding the development and enhancing of some banking operations which will boost the bank's profitability and improve the financial performance for the bank.

Karim and Alam (2013) measured the performance of selected private sector banks in Bangladesh by using financial ratios which mainly indicate the adequacy of risk based capital, credit growth, credit concentration, non-performing loan position, liquidity gap analysis, liquidity ratio, return on assets (ROA), return on equity (ROE), net interest margin (NIM). Multiple regression analysis was carried out to apprehend the impact on credit risk, operational efficiency and asset management and created a good-fit regression model to predict the future financial performance of these banks.

The literature review above makes it abundantly evident that understanding bank performance is crucial for making any kind of decision. The majority of research focusses on using statistical models to analyse banks' financial performance. Additionally, the assessments show that a number of important financial factors—such as turnover, profitability, capital, liquidity, and risk—have a direct or indirect impact on a company's financial performance. Policymakers or investors can evaluate its financial performance in terms of liquidity, profitability, and viability by establishing a close relationship between variables (Ramaratnam & Jayaraman, 2010).

By 2019, banks will also be able to issue capital and equity to comply with Basel III standards. The entire banking industry need Rs. 5 lakh crore in capital, according to RBI estimates (Economic Times, June 20, 2017). This would limit banks' capacity to lend. Under these conditions, it is essential to research bank performance. Using statistical model analysis, the current study attempts to examine three dimensions of performance—internal, market, and income—for the three major private banks in India: HDFC, ICICI, and AXIS banks.

## RESEARCH OBJECTIVE AND HYPOTHESIS

### Objective

Analysing the financial performance of the chosen Indian private sector banks is the study's primary goal. Particular goals are:

1. To assess the Internal- based performance of banks by using ROA;
2. To study the market-based performance by using Tobin's Q;
3. To examin and understand the amount of a Bank's income that is returned as shareholder equity ROE.

### Data and Methodology

The goal of the current study is to examine the financial performance of three significant Indian private sector banks that are listed on the BSE and NSE: HDFC, ICICI, and AXIS BANKS. The three banks that were chosen from among India's private sector banks have substantial market capitalisations and asset sizes, which are regarded as performance indicators. Thus, only three banks are included in this analysis.

Bloomberg and bank annual reports for the five-year period from 2019 to 2024 served as the secondary sources of the data (financial ratios).

## METHODOLOGY

To achieve the aforementioned goals, the analysis has taken into consideration three regression models, which will assess the financial performance of the chosen private commercial banks in India. Before choosing the regression models, correlation was used to determine the relationship between the variables in each instance. Based on five identical explanatory variables bank size, credit risk, operational efficiency, asset management, and debt ratio the first regression model determines ROA, which measures internal-based financial performance; the second model determines Tobin's Q, which measures market-based financial performance; and the third model determines ROE, which measures the portion of a bank's income that is returned as shareholder equity.

### Variables in the Study

Three dependent variables are ROA, Tobin's Q and ROE:

ROA=Return on Assets;

Tobin's Q=it is the ratio of market value of banks to book value of equity;

ROE=Return on Equity;

The five independent variables considered in our study are Bank size (which is the log of total assets), Credit risk, Operational efficiency, Asset management and Debt ratio.

### ANALYSIS AND FINDINGS

**Framework for Analysis** A method for simulating the linear relationship between a dependent variable and one or more independent variables is multiple linear regression analysis. It is among the most used statistical techniques. Regression analysis is a widely used technique in banking and finance literature to identify the factors that influence bank performance. Based on the five common independent variables, three models are fitted for three distinct dependent variables in the current study. The multiple regression equation can be expressed generally as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon$$

Where as:

Y = dependent (explained variable)

$X_i$  = ith independent (explanatory variable),  $i = 1, 2, \dots, k$

$\beta_0, \beta_1, \beta_2, \beta_3, \dots, \beta_k$  are the partial regression coefficients of respective independent variables. These are estimated using least squares method from the input data.

When the independent variable,  $X_i$  ( $i = 1, 2, \dots, k$ ), changes by one unit while the other independent variables stay constant, the dependent variable, Y, changes as well, as indicated by the coefficient of independent variable. The coefficients of independent variables can be viewed as elasticities if both the dependent and independent variables are expressed in natural logarithms. Therefore, if the independent variable changes by one percent, these coefficients will display the dependent variable's percent change.

### Empirical Results of Three Models

First Model: Corresponding to first objective, the null and alternative hypothesis may be defined as

H0: Bank size, Credit Risk (CR), Operational efficiency (OE), Asset management (AM) and Debt Ratio (DR) have no impact on ROA.

It is clear from Table 1 that ROA and asset management are positively correlated, while all other explanatory variables are negatively correlated. This suggests that as asset management and bank size values rise, ROA rises as well (Table 2).

**Table 1**  
**CORRELATION VALUES AMONG ROA, BANK SIZE, OE, CR, AM AND DEBT RATIO**

Correlations						
	ROA	Credit risk	Operational efficiency	Asset Management	Log(TA)	Total debt/TA

ROA	Pearson Correlation	1	-0.467**	-0.453**	0.625**	0.212	-0.337*
	Sig. (2-tailed)		0.004	0.006	0.000	0.214	0.045
	N	36	36	36	36	36	36

**Table2**  
**ESTIMATION OF PARAMETERS FOR ROA MODEL**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.798	1.062		0.752	0.458
	Credit risk	-0.268	0.053	-0.622	-5.085	0.000
	Operational efficiency	-1.263	0.429	-0.371	-2.944	0.006
	Asset Management	22.206	6.047	0.378	3.672	0.001
	Log(TA)	0.233	0.138	0.228	1.682	0.103
	Total debt/TA	-0.006	0.007	-0.122	-0.926	0.362

a. Dependent Variable: ROA

Model is  $ROA = \beta_0 + \beta_1 CR + \beta_2 OE + \beta_3 AM + \beta_4 \text{Bank size} + \beta_5 DR + \epsilon$

i.e.,  $ROA = 0.798 - 0.268CR - 1.263OE + 22.206 AM + 0.233\text{Bank Size} - 0.006DR$

**Table 3 MODEL SUMMARY**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.885 <sup>a</sup>	0.784	0.748	0.175534727

a. Predictors: (Constant), Total debt/TA, Asset Management, Operational efficiency, Credit risk, Log(TA)

It is evident from the preceding Table 3's corrected R<sup>2</sup> value that the explanatory variables account for 74.8% of the variation in the dependent variable (ROA). This suggests that the regression model has a high level of explanatory power.

**Table 4 SIGNIFICANCE OF ROA MODEL**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.355	5	0.671	21.779	0.000 <sup>b</sup>
	Residual	0.924	30	0.031		
	Total	4.280	35			

a. Dependent Variable: ROA

The results of the ANOVA method used to compare our null hypothesis against the alternative hypothesis are shown in Table 4. At the 5% selected level of significance (0.000005), the sig. value unequivocally shows that the model is significant. Hence, the null hypothesis, according to which the internal-based financial performance (ROA) of a few private sector banks is significantly impacted by credit risk, operational efficiency, asset management, bank size, and debt ratio, is accepted. Additionally, Table 2's t sig value can be used to evaluate each explanatory variable's significance for ROA. According to Table 2, ROA is significantly impacted by the explanatory variables credit risk, operational efficiency, and asset management (p-values 0.05).

**Second Model**

According to second objective, the null may be stated as:

H0: Bank size, credit risk, operational efficiency, asset management and debt ratio have no impact on Tobin's Q.

<b>Table 5</b>							
<b>CORRELATION VALUES AMONG TOBIN'S Q, BANK SIZE, OE, CR, AM AND DR</b>							
<b>Correlations</b>							
		<b>Tobin's Q</b>	<b>Credit risk</b>	<b>Operational efficiency</b>	<b>Asset Management</b>	<b>Log(TA)</b>	<b>Total debt/TA</b>
Tobin's Q	Pearson Correlation	1	-0.512**	0.244	0.038	-0.490**	-0.689**
	Sig. (2-tailed)		0.001	0.151	0.825	0.002	0.000
	N	36	36	36	36	36	36
** Correlation is significant at the 0.01 level (2-tailed)							
* Correlation is significant at the 0.05 level (2-tailed)							

Table 5 makes it clear that Tobin's Q has a negative association with the other three variables while having a positive correlation with asset management and operational efficiency. This suggests that Tobin' Q rises as asset management and operational efficiency do, but the values of the other three variables fall. Additionally, the table makes it evident that there is a considerable correlation between Tobin's Q and credit risk, bank size, and debt ratio.

<b>Table 6</b>						
<b>ESTIMATION OF TOBIN'S Q MODEL</b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
2	(Constant)	12.484	5.194		2.404	0.023
	Credit risk	0.004	0.258	0.003	0.017	0.987
	Operational efficiency	-2.212	2.098	-0.199	-1.054	0.300
	Asset Management	-6.183	29.574	-0.032	-0.209	0.836
	Log(TA)	-0.960	0.677	-0.288	-3.418	0.016
	Total debt/TA	-0.104	0.033	-0.616	-3.128	0.004
a. Dependent Variable: Tobin's Q						

As per the estimation, the model can be fit as:

$$\text{Tobin's Q} = \beta_0 + \beta_1 \text{CR} + \beta_2 \text{OE} + \beta_3 \text{AM} + \beta_4 \text{Bank size} + \beta_5 \text{TDT} + \varepsilon$$

$$\text{i.e., Tobin' Q} = 12.484 + 0.004\text{CR} - 2.212\text{OE} - 6.183 \text{ AM} - 0.960\text{Bank Size} - 0.104\text{TDT}$$

<b>Table 7 MODEL SUMMARY</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
2	0.717 <sup>a</sup>	0.514	0.433	0.858484908
a. Predictors: (Constant), Total debt/TA, Asset Management, Operational efficiency, Credit risk, Log(TA)				

It is evident from the preceding Table 7's modified R2 value that the explanatory factors account for 43.3% of the variation in the dependent variable (Tobin's Q). This suggests that the regression model has a respectably high explanatory power.

<b>Table 8</b>						
<b>SIGNIFICANCE OF TOBIN'S Q MODEL</b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
2	Regression	23.376	5	4.675	6.344	0.000 <sup>b</sup>
	Residual	22.110	30	0.737		
	Total	45.486	35			
a. Dependent Variable: Tobin's Q						
b. Predictors: (Constant), Total debt/TA, Asset Management, Operational efficiency, Credit risk, Log(TA)						

The results of the ANOVA method used to compare our null hypothesis against the alternative hypothesis are shown in Table 8. At the 5% selected level of significance (0.0000.05), the sig. value unequivocally shows that the model is significant. Therefore, Tobin' Q (market-based financial performance) of a few private sector banks is significantly impacted by credit risk, operational efficiency, asset management, bank size, and debt ratio. Furthermore, Table 6's t-sig value can be used to evaluate each explanatory variable's significance on Tobin' Q. Tobin' Q is found to be significantly impacted by bank size and debt ratio (p-values 0.05).

### Third Model

<b>Table 9</b>						
<b>CORRELATION VALUES AMONG ROE, BANK SIZE, OE, CR, AM AND DR</b>						
<b>Correlations</b>						
		<b>ROE</b>	<b>Credit risk</b>	<b>Operational efficiency</b>	<b>Asset Management</b>	<b>Log(TA)</b>
ROE	Pearson Correlation	1	-0.790**	0.225	0.271	-0.548**
	Sig. (2-tailed)		0.000	0.187	0.110	0.001
	N	36	36	36	36	36
** Correlation is significant at the 0.01 level (2-tailed)						
* Correlation is significant at the 0.05 level (2-tailed)						

For the third objective of our study, the null hypothesis taken as,

H0: Independent variables have no impact on ROE

It is clear from Table 9 that ROE has a positive association with asset management and operational efficiency while having a negative correlation with the other three explanatory factors. This suggests that ROE rises with rising operational efficiency and asset management values while falling with rising values of the other three factors. The table also makes it evident that there is a considerable correlation between ROE and debt ratio, bank size, and credit risk.

<b>Table 10 ESTIMATION OF ROE</b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
3	(Constant)	49.703	12.694		3.915	0.000

	Credit risk	-3.186	0.630	-0.622	-5.060	0.000
	Operational efficiency	-3.123	5.129	-0.077	-0.609	0.547
	Asset Management	263.533	72.287	0.377	3.646	0.001
	Log(TA)	-4.990	1.654	-0.410	-3.018	0.005
	Total debt/TA	0.018	0.081	0.030	0.225	0.823
a. Dependent Variable: ROE						

Estimation shows the model of ROE as

$$ROE = \beta_0 + \beta_1 CR + \beta_2 OE + \beta_2 AM + \beta_2 \text{Bank size} + \beta_2 TDT + \epsilon$$

i.e.,  $ROE = 49.703 - 3.186CR - 3.123OE + 263.533AM - 4.990\text{Bank Size} + 0.018TDT$

Table 11 MODEL SUMMARY					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
3	0.884 <sup>a</sup>	0.782	0.746		2.098347911
a. Predictors: (Constant), Total debt/TA, Asset Management, Operational efficiency, Credit risk, Log(TA)					

It is evident from the preceding Table 11's corrected R<sup>2</sup> value that the explanatory factors account for 74.6% of the variation in the dependent variable (ROE). This suggests that the regression model has a very high explanatory power.

Table 12 SIGNIFICANCE OF ROE MODEL						
Model		Sum of Squares	Df	Mean Square	F	Sig.
3	Regression	474.417	5	94.883	21.549	0.000 <sup>b</sup>
	Residual	132.092	30	4.403		
	Total	606.509	35			
a. Dependent Variable: ROE						
b. Predictors: (Constant), Total debt/TA, Asset Management, Operational efficiency, Credit risk, Log(TA)						

The results of the ANOVA method used to compare our null hypothesis against the alternative hypothesis are shown in Table 12. At the 5% selected level of significance ( $0.000 < 0.05$ ), the sig. value unequivocally shows that the model is significant. Therefore, the ROE (the portion of a bank's income that is returned as shareholder equity) of a few private sector banks is significantly impacted by credit risk, operational efficiency, asset management, bank size, and debt ratio.

Furthermore, Table 10's t sig value can be used to evaluate each explanatory variable's significance for ROE. It demonstrates that the explanatory factors of bank size, asset management, and credit risk significantly affect ROE (p-values 0.05).

## DISCUSSION AND CONCLUSION

The current study thoroughly investigates banks' performance in three different ways. Internal performance comes first, followed by market performance, and finally by a bank's revenue that is distributed as shareholder equity.

ROA, also referred to as the profitability or productivity ratio, examines internal performance. Banks can use ROA as a useful metric to assess their performance in relation to internal targets. The ROA ratio shows how well management or the bank is using all of the resources or assets of the business to increase revenue (profit). The more effectively a bank or



management uses its asset base, the higher the return. All of a company's assets, including those resulting from creditors' obligations and investor contributions, are included in ROA calculations.

ROA becomes even more useful as an internal measurement tool when liabilities are included. Analysing the advantages of expanding an existing system versus investing in a new one is another typical internal usage for ROA. The optimal option will ideally lower asset costs, boost income and productivity, and improve the ROA ratio. The aforementioned findings make it clear that ROA is significantly impacted by credit risk, operational effectiveness, and asset management. ROA has a negative link with credit risk, operational efficiency, and debt ratio, while it has a positive correlation with asset management and bank size. This suggests that ROA, or the performance of the bank, has increased in tandem with an increase in asset management and bank size.

Since it stands to reason that more effective asset management will result in a higher return on assets, asset management and ROA have a very strong positive link. In the second model, Tobin's Q, it is the ratio of a bank's share capital's market value to its replacement cost (i.e., the market valuation to replacement valuation) and it indicates profitability. A Tobin's Q value greater than one indicates that the stock is overpriced. A Tobin's Q below one indicates that the stock is cheap. An overvalued stock suggests to an investor that the market value exceeds the bank's declared book value. The market is selling the banks' assets for more than their declared book value, in other words. As a result, its stock is more costly than its assets, and its undervaluation suggests that the market value is less than the bank's declared book value. Stated differently, the assets of the bank are being sold by the market for less than their declared book value. According to current estimates, the five factors of credit risk, asset management, operational efficiency, bank size, and debt ratio are used to model Tobin's Q. The findings in Table 6 show that two important factors influencing Tobin' Q are bank size and debt ratio.

One of the most important profitability statistics, return on equity (ROE), shows how much net income is repaid as a percentage of shareholders' equity. By displaying the amount of profit a bank makes from the capital contributed by shareholders, it gauges its profitability. Stated differently, it can be applied to assess the management team's performance in handling the capital entrusted to the bank by its shareholders. High growth banks are anticipated to have a higher ROE. Additionally, a fuller picture of the bank's historical growth can be obtained by averaging the ROEs of previous years. Our findings in Table 10 demonstrate that ROE is significantly impacted by bank size, asset management, and credit risk. While bank size and credit risk have a negative correlation with ROE, operational efficiency and asset management have a positive correlation. This suggests that a rise in operational efficiency and asset management, as well as a fall in credit risk and bank size, would result in a higher ROE value. In summary, internal performance, market performance, and bank income are significantly impacted by bank size, credit risk, operational efficiency, asset management, and debt ratio. These factors collectively demonstrate the financial performance of the three private commercial banks in India that were chosen.

## REFERENCES

- 1) Adam, M.H.M. (2014). Evaluating the financial performance of banks using financial ratios: A case study of Erbil bank for investment and finance. *European Journal of Accounting Auditing and Finance Research*, 2(6), 162- 177.
- 2) Hadiwidjaja, R.D. (2013). The influence of the bank's performance ratio to profit growth on banking companies in Indonesia. *Review of Integrative Business and Economics Research*, 5(1).
- 3) Haque, A. (2014). Comparison of financial performance of commercial banks: A case study in the context of India, *Journal of Finance and Bank Management*, 2(2), 1-14.
- 4) Jilkova, P. & Stranska, P.K. (2017). Multiple linear regression analyses of the performance and profitability of the Czech banking sector. *Institute of Economic Research, Working Papers*, No. 41/2017.
- 5) Karim, A.R. & Alam, T. (2013). An evaluation of financial performance of private commercial banks in Bangladesh: Ratio analysis. *Journal of Business Studies*, 5(2).
- 6) Milhem, M.M. & Istaiteyeh, R.M.S. (2015). Financial performance of Islamic and conventional banks: Evidence from Jordan. *Global Journal of Business Research*, 9(3), 27-41.
- 7) Narwal, K.P. & Pathneja, S. (2015). Determinants of productivity and profitability of Indian banking sector: A comparative study. *Eurasian Journal of Business and Economics*, 8(16), 35-58.

- 8) Ongore, V.O. & Kusa, G.B. (2013). Determinants of financial performance of commercial banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252.
- 9) Pandey, B. (2015). Impact of priority sector advances on bank profitability: Evidence from scheduled commercial banks of India, BVIMSR's. *Journal of Management Research*, 7(2).
- 10) Sharifi, O. & Akhter, J. (2016). Performance of banking through credit deposit ratio in public sector banks in India. *International Journal of Research in Management & Technology*, 6(4).