



## **Significance of Bank Specific and Macroeconomic Determinants on Performance of Indian Private Sector Banks**

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### **ABSTRACT**

A sound financial system has vital influence on the economic development of a country. Banking system constitutes an important component of the financial system of the country; therefore, the economic importance of banks may not be underestimated. Performance evaluation of the banking system is an effective measure and indicator to check the strength of financial system of an economy. The overall objective of the present study was to explore the influence of bank specific factors and macroeconomic factors on the performance of private sector banks in India. To examine the effect of external or macroeconomic factors, growth rate of gross domestic product [GDP] and average annual inflation rate were considered. For the analysis, 7 years panel data of 20 private sector banks was analyzed using linear multiple regression model. The financial performance of banks was expressed by return on assets (ROA) variable. Using multiple regression technique the analysis of sample data for the time period 2008-2014 revealed that except capital adequacy ratio (CAR) variable all other bank specific variables (asset quality, management efficiency, earning quality and liquidity) and macroeconomic variable GDP had significantly influenced the financial performance of sample banks in India and inflation was statistically insignificant in case of its effect on ROA. The implications of the study revealed that in spite of optimum CAR maintained by private sector banks, the other variables related with management and governance of banks had significant effect on the financial performance of the banks.

**Keywords:** Capital Adequacy Ratio, Asset Quality, Management Efficiency, Earning Quality, Liquidity, Gross Domestic Product, Inflation

**JEL Classifications:** G21, G24, G28

### **1. INTRODUCTION**

In the era of globalization, for the economic growth and development of a country a sound and healthy financial system is indispensable. The banking sector of a country is considered as an important component of financial system because banks play crucial role in mobilization of deposits and disbursement of credit to different sectors of the economy. The banking system injects fuel in the economic system in the form of fund flow which impels economic efficiency. Banks by acting intermediary play a significant role in the optimal and well-organized allocation of funds of an economy by mobilizing resources for productive activities. Arun and Turner (2004) highlighted that the significance of banks is more vital in developing countries because financial

markets are generally weak and immature, and banks are typically the foremost source of finance for the bulk of the firms and are usually the main depository of economic savings (Athanasoglou et al., 2008). Gurley and Shaw (1955), and McKinnon (2010) expressed the significance of banking system on the level and growth rate of national income in fostering economic development via the identification and funding of productive sector. Sound financial health of banks provides the assurance not only to its depositors but is equally significant for its stakeholders and economy as a whole. Assessment of financial performance of the banking sector is an efficient measure and indicator to judge the strength of financial system of an economy. Berger and Humphrey (1997) highlighted that an efficient financial system is a primary requirement for country's economic development. Hence, the

measurement of banking efficiency and their performance in any economy is significant for operational purposes. Marshall (2009) argued that good bank performance rewards the shareholders with sufficient return for their investment. A good return accelerates the process of investment which, in turn, results higher economic growth. On the other hand, poor banking performance has a negative impact on the economic growth and development of an economy. Poor performance of financial system can lead to hardships, failures, economic meltdown and crises.

Sundararajan et al. (2002) in their study revealed that the financial systems, especially the banks are exposed to diverse risks and uncertainties. The economic downturn of 2008 which resulted in bank failures, were triggered in U.S. and then wildly dispersed across the world. Therefore, it is urgently needed that the banks should be frequently examined for their financial performance. Over a period of time there has been a substantial improvement in the supervisory system of banking sector in terms of recovery, management efficiency (ME), assets quality, earning quality (EQ) and liquidity. The policy makers and researchers have recommended bank supervision by using capital adequacy, asset quality (AQ), management quality, earnings, liquidity and sensitivity (CAMELS) rating criterion to assess and examine the performance and financial soundness of the bank. (Al-Tamimi and Hussein, 2010 and Aburime, 2008) argued that the performance of banks may be influenced by internal and external factors. The internal factors include individual bank specific characteristics which are mainly influenced by the internal resolution of management and board. The external or macroeconomic factors are sector specific or nationwide factors which are beyond the scope of the banks and influence the profitability of banks. Several studies were conducted to assess the bank financial performances of banks were based on CAMEL methodology which undertakes bank specific factors that affect the overall performance of banking sector Aspal and Malhotra (2013); Dhawan and Aspal (2014); Mishra and Aspal (2013) and Chantapong (2005). The current study primarily highlights the effects of internal and external factors on the financial performance of Indian Private Sector Banks for period of 7 years from 2008-2014. For this purpose the variables used in CAMEL approach are considered to assess the financial performance of Indian Private Sector Banks. As contribution to banking literature, this study also incorporated the macroeconomic variables (gross domestic product [GDP] and inflation) to judge their influence on the financial performance of Indian Private Sector Banks.

In the light of the above discussion the main objective of the study is to explore the effect of bank specific factors on the performance of Indian Private Sector Banks. Apart from this the study will also examine the impact of macroeconomic variables on the performance of Indian Private Sector Banks.

## 2. REVIEW OF LITERATURE

For the high economic growth the sound banking system is a pre requisite for a country. Since the inception of Structural Adjustment Programs in early nineties the Indian banking environment has undergone various regulatory and financial reforms. The structure of the Indian Banking industry has undergone sea change and there

has been significant progress. The Indian banking system is now primarily consist of Commercial banks, Private Sector Banks and Co-operative banks. In India Padmanabhan Working Group (1995) suggested two supervisory rating models named CAMELS and capital adequacy, assets quality, compliance, systems and controls for evaluation and financial performance of Indian commercial banks and foreign banks operating in India.

Veni (2004) studied the capital adequacy requirement of banks and the measures adopted by them to strengthen their capital ratios. The author highlighted that the rating agencies using CAMEL model lays emphasis on capital adequacy ratios (CARs) of banks in order to rate the bank's certificate of deposits, fixed deposits and bonds. For assessing the financial performance of banks extensive empirical studies have been carried out to assess the determinants that influence the performance and profitability of banks (Goddard et al., 2004; Kosmidou et al., 2005 and Athanasoglou et al., 2008). Under the influence of economic reforms followed by India since 1991, there has been significant change in the performance and profitability of commercial banks. Bodla and Verma (2006) recommended that performance evaluation would help the Reserve Bank of India to identify the banks whose performance needs special supervisory attention. Poor performance of banking sector may lead to the breakdown of the economic sector. Banking calamity can result into financial turbulence which roots the economic meltdown as happened in USA in 2007 (Marshall, 2009). Milligan (2002) concluded that many banks are not aware of how to assess their ratings but there is a great need to understand, the work of the banks and what to do when something goes wrong. It is very crucial to assess the soundness of banks and financial institutions through evaluation of financial performance. Thus, to avoid financial crisis due attention was given to banking performance. Aburime (2008) investigated that the enormity of profitability of banks can be evaluated at the micro and macro levels of the economy. At the micro level, profit is assumed as critical condition for competitiveness of banking sector. Therefore, the primary goal of bank management is to maximize profits for sustainability and competitiveness. At the macro level (Flamini et al., 2009) found that a well-developed and profitable banking sector can capable to take up the negative shocks and contribute to the strength of the financial system.

The above literature concludes that the bank performance is influenced by internal as well as external factors. Athanasoglou et al., (2008) highlighted that the internal factors like size of the bank, capital adequacy, ME, risk management ability, and the major external factors like rate of interest, inflation, economic growth and ownership etc. Dahiyat (2012) scrutinized internal factors which influence the bank performance are capital adequacy, quality of assets, management quality, earning, liquidity and sensitivity to market risks, on the other hand Naceur (2003) revealed that the internal factors which have effect on bank performance are capital adequacy, operating expenses, market share, liquidity etc. while external factors are financial composition, inflation rate, economic growth etc.

Das (2013) studied real GDP growth rate and inflation as supplementary variables in the analysis. Alabede (2012) concluded

that in the presence of the effect of global financial condition, only assets quality and market concentrations are significant determinants of the Nigerian banks' performance. The study suggested reducing nonperforming assets and introducing a policy to encourage fair competition among the banks. In the view of the above discussion, the current study endeavors to employ this practice to determine the influences of internal as well as external factors on the performance of Indian Private Sector banks.

### 3. BANK PERFORMANCE INDICATORS

The primary objective of private banks is to earn profits. In order to achieve this crucial objective the banks pursue different strategies/plans and perform a range of activities. Investigators have followed a variety of ratios to evaluate the profitability of banks. Among the different ratios determining profitability of banks, ROA is a significant ratio (Berger, 1995; Naceur, 2003 and Flamini et al., 2009). ROA is defined as ratio of Income to its total asset. It measures the potential of management of banks' to generate revenues by optimally utilizing resources of banks. Alternatively, it shows the efficiency of a bank how it uses available assets to earn maximum revenue (Khravish, 2011).

The factors which determine the financial performance of banks are classified into two categories viz. bank specific (internal) and macroeconomic (external) factors. Internal factors are bank's specific characteristics which have significant impact upon the profitability. The macroeconomic or external factors are aggregate factors which are beyond the control of the banks but they have an influence on the profitability Aburime (2008), Al-Tamimi and Hussein (2010) and Flamini et al. (2009).

#### 3.1. Bank Specific (Internal) Factors

Researchers have followed CAMEL model as an alternative to the bank specific factors which influence the profitability (Dang, 2011). CAMEL model, which characterizes capital adequacy, assets quality, ME, earning performance and liquidity, was developed by US Federal Deposit Insurance and recommended by Basle Committee on Banking Supervision. Aspal and Malhotra (2013); Dhawan and Aspal (2014); Mishra and Aspal (2013); analyzed the performance of Indian banks by adopting the CAMEL Model and investigated the relationship between the CAMEL ratings and financial bank performance. The components of CAMEL model are discussed below.

#### 3.2. Capital Adequacy

The most significant banks' specific factor influencing financial health of a banking system is Capital adequacy. Capital adequacy highlights the overall financial position and ability of bank to fulfill the need for additional capital. Capital adequacy is defined as percentage ratio of a bank's primary capital to its assets (loans and investments), used as a measure of its financial strength and stability. Bank for International Settlements has established capital adequacy standard, which is a primary capital base equal at least to 8% of their assets. Higher the CAR ratio, indicates stronger the bank and the more will be the protection of investors. The banks need to maintain a 9% CAR as per latest RBI norms.  $CAR = (\text{Tier-I Capital} + \text{Tier-II Capital})/\text{risk weighted assets}$ .

Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential losses and protect the bank's debtors. Dang (2011) opined that CAR reflects the internal strength of the bank to withstand losses during crisis. CAR is directly proportional to the resilience of the bank to crisis situations.

#### 3.3. AQ

The financial strength of bank is represented by quality of assets possessed by it. The quality of assets is used as benchmark to determine the proportion of non-performing assets in total assets. Poor AQ leads to capital erosion and increased credit and capital risks. AQ of the banks is based upon evaluation of credit, monitoring and collection within each bank.

The most standard measure to evaluate quality of assets is the determined as net non-performing assets as a percentage of net advances.  $\text{Net NPAs} = \text{Gross NPAs} - \text{Net of provisions on NPAs} - \text{interest in suspense account}$ . Nazir (2010) reflected that the major concern of all commercial banks is to keep the amount of non-performing loans to low level. This is so because high non-performing loan influences the banks' profitability. Thus, low non-performing loans to total loans reveals that the good health of the portfolio of a bank. Lower the ratio the better the bank performing.

#### 3.4. ME

Any financial institution's performance is determined by the efficiency of its management. It is one of the crucial component of the CAMEL model that determines expansion and survival of a bank. ME is assessed by the follow up of defined norms, capability to plan and respond to dynamic environment and administrative ability of the bank. Nazir (2010) highlighted that the performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, and control systems. For determining the efficiency of management, the expenditure to income ratio is used. This ratio expresses the relationship between operating expenses to net interest income and other income. It reflects the capability of a bank to fulfill its operating expenses from its revenues. The lower the ratio, the better for the bank and vice versa. Athanasoglou et al., (2008) remarked that the higher the operating profits to total income (revenue) the more the efficient management is in terms of operational efficiency and income generation. The ratio of operating expenses to total asset is expected to be negatively associated with profitability.

#### 3.5. EQ

The quality of earnings is a very crucial banks' specific factor which reflects the quality of income generated from various activities of the bank. To determine the EQ the ratio non-interest income to total assets ratio is used. This ratio shows how much the bank is earning on total assets through non-interest income. The higher it is the better it is for the bank and vice versa. It is calculated as total non interest income divided by total assets. Non-interest income includes deposit and transaction fees, insufficient funds (NSF) fees, annual fees, monthly account service charges, inactivity fees, check and deposit slip fees, etc. Institutions charge

fees that provide non-interest income as a way of generating revenue and ensuring liquidity in the event of increased default rates. DeYoung and Roland (2001) revealed that the recent increase in the importance of non-interest income has come from several sources. First, banks have expanded into less traditional fee for service products such as insurance and mutual fund sales and investment banking activities. Second, banks now charge explicit fees for financial services which traditionally had been bundled together with deposit accounts and which customers previously had paid for by accepting lower interest rates on deposits and third, the growth of securitization in mortgage, credit card, and other loan markets.

### 3.6. Liquidity

Bank's capability to fulfill its financial obligations and to sustain adequate level of liquid assets is assessed through its liquidity position. Duttweiler (2011) emphasized that the liquidity communicates the degree to which a bank is able to honoring its respective obligations.

In present study liquidity is calculated by the ratio of credit to deposit ratio. A commonly used statistic for assessing a bank's liquidity by dividing the banks total loans by its total deposits. If the ratio is too high, it means that banks might not have enough liquidity to cover any unforeseen fund requirements; if the ratio is too low, banks may not be earning as much as they could be. The credit to deposit ratio is used a measure of liquidity. The credit to deposit ratio can be used by banks to determine the short term financial viability.

### 3.7. Macroeconomic Factors

To analyze the influence of macroeconomic environment on the financial performance of banks two variables viz. GDP and inflation are considered. The demand for banks assets is influenced by the trend of GDP of a country. For example, during the situation of boom in an economy the GDP growth is high and it has positive effect on the credit demand. On the contrary, during the situation of recession or depression the GDP growth rate declines. And demand for credit falls, which in turn has a negative effect on the profitability of banks (Athanasoglou et al., 2008).

The economic theory suggests that the nominal interest rates rise with an increase in anticipated inflation rate. It means the nominal interest rate has impact on creditors and debtors, who deal in nominal financial instruments, expect to receive or pay when loans mature. If this hope is comprehended, all nominal values will be of higher amount at maturity. While doing the financial transactions banks act as creditors as well as debtors. In the light of this argument, we had tried to analyze the impact of inflation on profitability of banks in India. Aburime (2008) also investigated the influence of macroeconomic variables on bank profitability using 154 Nigerian banks covering the period from 1980 to 2006 and observed that interest rate; inflation, monetary policy and exchange rate had significant impact on bank performance in Nigeria. Athanasoglou et al. (2008) highlighted in relation to the Greek situation that the relationship between inflation level and banks profitability is remained to be debatable.

## 4. RESEARCH METHODOLOGY

The present study makes use of secondary data for analysis obtained from published financial statements of 20 Indian Private Sector Banks for period of 7 years from 2008 to 2014. The panel data is examined to study the financial performance of Indian Private sector Banks. The multiple linear regression model was applied using SPSS package to determine the relative significance of each banks' specific variables and macroeconomic variables in affecting the financial performance of Indian Private sector Banks. The data was modified in terms of various ratios used for the purpose of analysis.

### 4.1. Model Specification

In the present study the financial performance or profitability of the banks is determined by the ratio ROA and this is taken as dependent variable in the regression model. The banks' specific explanatory variables include capital adequacy, AQ, ME, EQ and liquidity which were proxied by selected ratios such as CAR, Net NPA to Net advances ratio, expenditure to total income ratio, non-interest income to total asset ratio and credit to deposit ratio respectively. Besides these GDP growth rate and average annual Inflation Rate were also used as independent variables to determine the effect of macroeconomic environment on the profitability of banks.

The multiple regression model is specified as:

$$ROA_{it} = \alpha_0 + \beta_1 CAR_{it} + \beta_2 AQ_{it} + \beta_3 ME_{it} + \beta_4 EQ_{it} + \beta_5 LQ_{it} + \beta_6 GDP_{it} + \beta_7 INFL_{it} + e_{it} \quad (1)$$

Where:

$ROA_{it}$  = Financial Performance indicator of bank  $i$  at time  $t$

$\alpha_0$  = Intercept term

$CAR_{it}$  = Capital Adequacy of bank  $i$  at time  $t$

$AQ_{it}$  = Asset Quality of bank  $i$  at time  $t$

$ME_{it}$  = Management Efficiency of Bank  $i$  at time  $t$

$EQ_{it}$  = Earning Quality of Bank  $i$  at time  $t$

$LQ_{it}$  = Liquidity of Bank  $i$  at time  $t$

$GDP_{it}$  = Gross Domestic Product at time  $t$

$INFL_{it}$  = Average annual inflation rate at time  $t$

$e_{it}$  = Stochastic error term

The specified model was tested for normality, multicollinearity and heteroscedasticity using appropriate diagnostic tests.

### 4.2. Description of Independent Variables

Table 1 highlights the descriptive statistics of the bank specific and macroeconomic factors that influence the financial performance of

**Table 1: Descriptive statistics of independent variables**

Variables	Observations	Mean±standard deviation
Capital adequacy	140	15.518±5.914
Asset quality	140	0.839±0.843
Management efficiency	140	79.317±7.605
Earning quality	140	1.357±0.500
Liquidity	140	73.052±11.12
GDP	140	6.975±2.383
Annual inflation rate	140	9.531±1.787

GDP: Gross domestic product

**Table 2: Correlation table**

Variables	ROA	CAR	AQ	ME	EQ	LQ	GDP	INFL
Proxy variable	Return on assets	Capital to risk-weighted assets ratio	Net NPAs to net advances ratio	Expenditure to income ratio	Operating profit to total asset ratio	Liquid assets to total asset ratio	GDP (growth rate)	Average annual inflation rate
ROA	1.000							
CAR	0.206*	1.000						
ASSQ	-0.697*	-0.137	1.000					
MGTEFF	-0.830*	-0.261*	-0.495*	1.000				
ERNQ	0.171*	-0.071	-0.052	-0.253*	1.000			
LIQ	0.182*	0.193*	0.042	-0.136	0.432	1.000		
GDP	-0.030	0.080	-0.122	-0.096	0.025	-0.060	1.000	
INFL	-0.002	0.067	-0.038	-0.068	0.087	-0.099	-0.087	1.000

GDP: Gross domestic product

Indian Private Sector Banks. As depicted in the table, the average CAR of Indian Private Sector Banks is 15.51. This figure is higher than the statutory requirement of 9% as prescribed by Reserve Bank of India.

It implies that Indian Private Sector Banks have sufficient capital in comparison to the statutory minimum requirement. The average AQ of the Indian Private Sector Banks, which is proxied by net non-performing assets to net advances ratio was 0.839. This highlights the exposure to credit risk and its relationship with the profitability of the banks is expected to be negative. Another important banks' specific variable is ME, which is measured by expenditure to total income ratio was 79.317 on average. The higher value of this ratio indicates the good efficiency of banks. Another significant factor to determine the financial performance of sampled banks is EQ, which is proxied by non-interest income to total asset ratio. The average for this variable came to be 1.357. Another crucial variable effecting banks' profitability is liquidity, which is measured by proxied ratio credit to deposit ratio; the ratio for the same is 73.52%. The high liquidity ratio reveals that banks have enough liquidity to meet unforeseen funding requirements. The average GDP growth be 6.975 and it is proposed that high GDP rate will have positive impact upon the financial performance private sector banks. Average annual inflation rate for the mentioned period was 9.53, which is assumed to be high and it supposed that it will have negative effect on lending operations.

#### 4.2.1. Diagnosis of multi-collinearity and heteroscedasticity in regression analysis

The existence of the problem of multi-collinearity and heteroscedasticity cause estimates to become inefficient. In order to avoid such situation in the present study, the problem of multi-collinearity was tested using correlation coefficient test and variance inflation factor (VIF) test. The correlation coefficient value between independent variables above 0.8 signifies the existence of the problem of multi-collinearity (Gujarati, 2009) and (Cooper and Schindler, 2009). From the Table 2 it is clear that almost all the correlation coefficients values are less than 0.8 and the problem of multi-collinearity is ruled out. Further, this argument is strengthened on the basis of VIF scores given in Table 3, which are <10 (Gujarati, 2009).

The problem of heteroscedasticity is avoided using GLS method for estimating regression coefficient. The GLS technique is

**Table 3: VIF scores of regression analysis**

Variables	VIF values (ROA)
Capital adequacy	1.195
Asset quality	1.367
Management efficiency	1.529
Earning quality	1.408
Liquidity of bank	1.389
GDP	1.042
Annual inflation rate	1.069

VIF: Variance inflation factor, GDP: Gross domestic product

preferred to OLS because in this weights are assigned to each observation and this method provides estimates which are best, linear, unbiased and efficient (Gujarati, 2009).

## 5. RESULTS AND DISCUSSION

The effect of bank specific and macroeconomic factors on the performance of Indian Private Sector banks are presented in the Table 4. The regression results were estimated using the null hypotheses that the bank specific factors have no significant effect on the performance of Indian Private Sector banks. The alternative hypothesis framed signifies that the banks' specific factors have significant influence on the financial performance of the sampled banks.

The regressions results indicate that  $R^2$  is 0.833 which signifies the good fit of regression. In case of banks' specific variables asset quality, ME and liquidity (LQ) the null hypothesis is rejected at 5% level of significance. This reveals that these three variables have significant influence on the financial performance measured with the help of ROA. The other variables such as capital adequacy (CAR) and EQ are not statistically significant at 5% level, which leads to the acceptance of null hypothesis  $H_{01}$ . It implies that CAR and EQ do not have significant influence on the bank performance. However the variable EQ is significant at 10% level of significance.

In order to examine the impact of macroeconomic variables on the performance of Indian Private Sector banks, the null hypothesis framed is that macroeconomic factors have no significant influence on the financial performances of Indian Private Sector banks. The regression results highlight that variable GDP is statistically significant at 5% level, where as the variable inflation is statistically insignificant. From this it can be inferred that the increasing growth

**Table 4: ROA as dependent variable**

Explanatory variables	Constant	CAR	AQ	ME	EQ	LQ	GDP	INFL
Proxy variables		Capital adequacy ratio	Net NPAs to net advances ratio	Expenditure to income ratio	Operating profit to total asset ratio	Liquid assets to total asset ratio	Gross domestic product	Average annual inflation rate
$\beta_i$	5.693 (0.000)	-0.004 (0.302)	-0.305* (0.000)	-0.055* (0.000)	0.094** (0.084)	0.008* (0.001)	-0.035* (0.000)	-0.007 (0.598)
t-values	14.290	-1.036	-9.656	-14.884	-1.739	3.310	-3.574	-0.529
R <sup>2</sup>	0.833	Adj. R <sup>2</sup> 0.824						
F-Test	93.839							

\*Statistically significant at the 5% level. \*\*Statistically significant at the 10% level

rate of GDP positively affects the banks' performance, where as the variable inflation has no statistically significant influence on it.

The overall goal of this study is to analyze the influence of banks' specific determinants and macroeconomic factors on the financial performance of private sector banks in India. In order to achieve these objectives the panel data for 20 Indian Private Sector Banks for period of 7 years from 2008 to 2014 was analyzed using multiple linear regression model. In the analysis ROA was used as indicator of bank performance. The same variable was used by Alabede (2012) in his study for analyzing the effect of global financial conditions on the bank performance in Nigeria. In our regression analysis CAR is negatively correlated to ROA but statistically insignificant, which implies that the results fail to support the alternative hypothesis  $H_1$ . This result is consistent with the results of Flamini, et al. (2009) on banks in Sub-Saharan Africa and opposite to the findings of Berger (1995), Naceur (2003), Aburime (2008) and Athanasoglou et al. (2008), which suggested that CAR has positive influence on bank performance.

Further the AQ has significant and negative effect on the financial performance of private sector banks in India. The results are inconsistent with the findings of Flamini, et al. (2009), which reported positive correlation between AQ and ROA but our findings are consistent with the results of study conducted by Olweny and Shipho (2011) on the Kenyan banks. These results imply that the increment in non-performing assets will lead to low financial performance of banks. This also suggests that deteriorating AQ in terms of high non-performing assets is a cause of concern for the banks in India. In addition the independent variable ME has negative relation with ROA but the regression indicates significant negative association.

Our results are inconsistent with the findings of Ongore and Kusa (2013), who suggested positive association between ME and ROA. The possible reason for the present result is that the expenditure of the private banks is higher in comparison to their income. The association between EQ and ROA came out be positive and statistically significant at 10 percent. This result matches with the findings of the positive correlation between operating profits and ROA by Flamini, et al. (2009). In the present analysis the liquidity management is also positively related to ROA and leads to the acceptance of alternative hypothesis. This result is contrary to the findings by Ongore and Kusa (2013) for commercial banks in Kenya, in which they reported that liquidity has insignificant impact on ROA.

So for the relationship between GDP and ROA is negative but is significant. This result supports the view that GDP growth is not necessarily positively correlated with financial performance of banks (Flamini, et al., 2009). The other macroeconomic variable is negatively correlated with the financial performance of the private sector banks. This is probably due to the reason that inflation could affect the value for money, purchasing power of people and the interest rates that banks charge and receive.

## 6. CONCLUSION

The results of the study reveal that the bank specific internal factors viz. Capital Adequacy, AQ, ME, EQ and liquidity have mixed influence on the financial performance of private sector banks in India. The relationship between bank performance and capital adequacy was found to be negative but statistically insignificant. AQ has negative and significant relationship with profitability of banks, this indicated that poor AQ or high non-performing assets are caused of poor financial performance of banks. Thus it is possible to conclude that banks with high AQ and less non-performing assets are more capable to earn high profits.

The ME measured by expenditure to income ratio has negative but significant influence on the profitability of banks. From this it is concluded that for increasing the profits, banks have to reduce their operating expenses. Furthermore EQ and liquidity management has positive and significant influence on financial performance of banks. From this it is inferred that those banks that have more operating profits and better liquidity management are able to report high profits. So for as macroeconomic variables viz. GDP and inflation are concerned, both are negatively correlated with bank performance. It is possible to state that the influence of macroeconomic variables on the financial performance of private banking sector was inconclusive.

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