The Determinant of Financial Performance of Indian Public Sector Banks- A Panel Data Approach

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Abstract

In the accelerated development of an economy, the role of a vibrant banking system and financial structure is considered as highly indispensable. The banking sector is recognized as an important element to portrait the financial and economic strength of a country. The economic importance of the banking system may be considered in the form of capital formation, inspiring innovation, monetization, and facilitator of monetary policy. The present research work investigates the association between banks' profitability and the banks' specific factors of Indian Public Sector Banks. The research work is based on secondary data drawn from annual reports of banks from the period of 2015 to 2019. The panel data regression statistical technique has been employed to vindicate the influence of explanatory variables viz. Capital Adequacy, Human Capital, Liquidity, Management Efficiency, Asset Quality, and Earning Quality, which have been employed as independent variables and Return on Equity, as the dependent variable. Panel data regression model results have reported that the regression coefficients are found statistically significant and the high value of adjusted R- square expresses the overall best fit of the fixed effects model. A significant positive relationship has been found between the financial performance of bank (ROE) and human capital, liquidity, management efficiency, and asset quality. Whereas capital adequacy and earning quality of the banks have an insignificant impact on the profitability of banks. Hence, the financial performance evaluation enables the banks to analyze their financial strength and to follow necessary protective initiatives for its sustainability.

Keywords: return on equity, capital adequacy, human capital, liquidity, management efficiency, asset quality, earning quality

1. Introduction

Sustainable growth of a nation depends upon several factors, in which the role of the financial system is highly important, especially in developing countries. India is a developing country and acknowledges as the fastest growing economy (Economic survey of India 2018-19). The banking sector is termed as a lifeline of an economy and its people (Shabani et al 2019; Mohapatra & Jha, 2018). In this way, the efficient banking sector classified as a prerequisite in the emergent of the important economic and social sectors in the country and pushed the economy towards the new horizons of developed economies (Debnath & Shankar 2008; Dhawan & Aspal 2014; Koley 2019).

Banking and financial institutions are considered as the network of personal savings and distributions of micro and macro credits, contributing to the implementation of economic planning and government financial policies (Ariccia & Marquez, 2004). In addition to this, it serves the important function of relocating and stimulates the funds into different investment options (King & Levine, 1993). The financial sector enables financial operations by mobilizing deposits to the economic activities, which accompanying to "stimulates a country's economic growth by allocating financial resources into suitable financial demand" (Levine, 2005). The role banking sector in stabilizing the prices and generating employment is highly recognized (Mistry & Savani, 2015). The banking and financial sector facilitated by the growth of the different economic sectors by playing a leading role in transforming their growth and development. Furthermore, it facilitates an economy to organize and circulate the required funds to the different government and non-government economic initiations for rapid growth in the economy (Ebong 2005; Patrick 1996).

The Indian banking sector has noticed a significant rise and expansion after the liberalization policy all through supporting the other major industries. The role of the efficient banking system at the micro and macro level can be recognized (Al-Homaidi et al. 2018). In the highly competitive market, banks strive its functioning to earn more profits to survive and the profitable banking sector helps the economy to absorb the global financial crises and provide stability in the system. It reflects a brighter and glorious side of the financial sector, but the recent emerged cases of the financial crisis and bank defaulter in India, also confirmed the question mark on the banks' performance at national as well as at international levels. It creates a situation to think and there is an urgent need to supervise and understand the performance of the financial institutions, as it significantly influences the country's economy (Barth et al. 2006).

2. Review of Literature

Numerous academician, research professionals, economists and policymakers have investigated and analyzed the performance and profitability of banks around the globe (Abba, et al, 2018; Klaassen & Eeghen 2014; Kosmidou et al., 2005; Kosak & Cok, 2008; Akhavein, Berger, & Humphery, 1997; Athanasoglou et al., 2006). The financial performance indicators such as ROA, CAR, and the equity-to-asset ratio has a great influence and significant role in the banks' profitability (Klaassen & Eeghen 2014; Abba et al. 2018). The growth rate of GDP, rate of unemployability of a country, and the profitability of banks move congruently (Tan & Floros, 2012). It has also been observed that the wider span of branches network and size of the bank in term of net worth, influence the performance and profitability (Akhavein, et al, 1997; Sufian & Habibullah, 2009; Zardkoohi & Kolari, 1994; Kosak & Cok, 2008).

To understand the complexity of the banks' performance, and its importance, researchers have developed different scientific models and techniques, through which the performance of banks can be analyzed. The CAMEL methodology is a highly preferable and effective technique to analyze the banks' Performance (Aspal & Malhotra, 2013; Al-Tamimi, 2010; Dhawan & Aspal, 2014; Aburime, 2008; Mishra & Aspal, 2013; Chantapong, 2005; Veni (2004). Karri, et al. (2015) applied the concepts of the CAMEL model ("Capital Adequacy, Asset Quality, Management Efficiency, Earning Ability and Liquidity") to examine Indian banks' performance. Saif, et al. (2017) examined the impression of the CAMEL model on the NIM, ROE, and ROA of the banks. Nagarkar (2015), implemented the principle component analysis technique to explore the banks' performance in India. Likewise, in numerous studies, ROA and ROE of the banks are the true representation of the banks' financial strength (Sporta, 2018). The financial determinants such as; Board Size and corporate governance, Bezawada, (2020); risk management, (Bastom et al. 2017); operational efficiency; asset utilization; asset size (Mistry & Savani, 2015) and size of the bank (Ngware et al. 2020), can be useful parameters for examining the bank's financial stability and profitability.

Along with the banks' specific factors, the researcher has also taken the macroeconomic factor to analyze its impact on the profitability such as; demonetization (Almaqtari et al. 2018); inflation rate, oil price, market capitalization and rate of GDP rate, (Robin et al. 2018); (Chowdhury & Rasid. 2017); competitive market and economy growth (Petria et al. 2015); the rate of interest and rate of tax (Dietrich & Wanzenried, 2011); Inflation Rate and Financial Crisis, (Bouzgarrou et al. 2017); GDP and Inflation, (Tan, 2016); political factors, (Yahya et al. 2017) inflation and unemployment (Singh & Sharma 2016). Majumder & Rahman (2016) implemented the CAMEL technique to analyze the financial stability in Bangladesh's banking system. Similarly, many researchers evaluated banks' profitability worldwide such as; How et al., (2005); Shaari & Fadhilah, (2001); AbdusSamad & Hassan, (1999) on the Malaysian banking industry; Tan & Floros (2012) on the banks in China; Seref (1995) on the Bahrain Islamic Bank; Zardkoohi, A., & Kolari, J. (1994) on the banks of Finland; Bashir (2003) on the Middle Eastern countries; Naceur & Goaied (2001) on the Banks in Tunisia; Sporta, (2018) & Ngware et al. (2020) on banks of Kenya; Saif et al. (2017) on Saudi Arabian banks; and Balaji & Kumar (2016) on Indian Banking system.

2.1 Objectives and Rationale of the Study

On reviewing the literature and based on above discussions, the prime objective of the present study is to analyze the effects of banks' specific factors on the financial performance in Indian Public Sector Banks. The volatile market situations of the country influenced the banking industry most, as the Indian public sector banks faced a lot of challenges in the last five year, in from of increase NPAs and other fiscal issues. Findings from different research papers provide a mixed result and we observe that many of the studies are confirmatory studies in different countries and different time frames. In Indian context, less literature was observed linking the major deterrents to bank profitability in a wider time frame. Thus, in the recent period there is a need to analysis the banks' profitability and its determinants. Hence, an analysis to ascertain the influence bank specific factors focused on the Capital Adequacy, Human Capital, Liquidity, Management Efficiency, Asset Quality, and Earning Quality on the profitability of Indian public sector banks with the balanced panel data results for the period 2015-2019 has been undertaken.

3. Research Methodology

3.1 Data Collection

To attain the above objective, the financial data for the year 2015 to the year 2019 of public sector banks, published in the annual reports, has been used as the secondary data. For the present study, 19 Indian banks have been selected as a sample. All banks chosen as the sample in research are the public sector banks "Allahabad Bank, Andhra Bank, Bank of Baroda, Bank of India, Bank of Maharashtra, Canara Bank, Central Bank Of India, Corporation Bank, Dena Bank, Indian Bank, Indian Overseas Bank, Oriental Bank of Commerce, Punjab And Sind Bank, Punjab National Bank, Syndicate Bank, UCO Bank, Union Bank of India, United Bank of India and Vijaya Bank".

3.2 Research Design

The foremost purpose of every commercial bank is to generate and maximize revenues. In pursuing the prime objective, the banks follow different strategies and perform a wide variety of activities. These commercial activities are the source of revenues for the bank and have an impact on the bank's performance. So, the present research work is undertaken to analyze the relationship between the banks' specific factors and the Indian Public Sector Banks' financial performance.

3.3 Model Specification

To explore the current study, banks' profitability is taken as the dependent variable for assessing its relationship with banks' specific variables. The banks' specific explanatory variables include "Capital Adequacy", "Human Capital", "Liquidity", "Management Efficiency", "Asset Quality", and "Earning Quality", which have been employed as independent variables.

3.3.1 Bank Performance Indicator

Numerous researchers have used various financial ratios to examine the commercial banks' profitability, of which "Return on Equity" (ROE) is the prominent ratio (Flamini & Schumacher, 2009; Al-Tamimi, 2008; Beck, et al., 2005; Murthy & Sree, 2003; Berger, 1995). ROE represents the relationship between profit earned by the bank and the sum of shareholders' equity. In other words, it represents the expectations of shareholders in return for their investment. It means a high ratio of "Return on equity" represents the high returns on investment and generates maximum profits and termed as the better organization Khrawish (2011). Numerous research scholars have applied ROE as a gauge to measure financial performance (Bagchi and Khamrui, 2012; Beneda, 2009; Brigham and Daves, 2007; San and Heng, 2011).

3.3.2 Independent Variable Description and Hypothesis

In numerous empirical research studies, various researchers have opined that profitability influences the bank's growth and survival. The independent variables generally determine the profitability of banks. (Al-Tamimi, 2010; Aburime, 2009; Flamini et al., 2009) In the present study, the following ratios have employed as independent variables. "Capital Adequacy" is the first independent variable, represents the loss bearing capacity of the banks. To provide the safety against the losses, RBI has imposed the guideline to maintain the CAR of 9 %. Higher the ratio means more security for the investments and represents the financial well-being of the organization. The second independent variable of the study chosen as "Human Capital" represented the total cost and expenses incurred on the employees. The employees are value creator and should be acknowledged as the capital as other physical and financial capital resources (Pulic, 2008). Thus, in the modernized business model, the expenses incurred on the workforce not considered as the cost, rather it assumed as the investment on the employees for the business development. The ratio of the total wages to total is applied to measure human capital. The third variable of the study is the "Liquidity", another factor which determines the bank's financial performance. It represents the financial ability to transform their current assets into liquid assets to fulfill the cash flow requirements and credit demands. A fourth important variable to analyze the financial performance is "Management Efficiency". It represents the administrative capabilities and competencies of the bank's administration regarding strategic implementation and responsiveness towards the dynamic environment. The fifth independent variable of the study chosen as "Asset Quality", which represents the financial strength of the banks. "Quality of earning" is also an independent variable used in the present study that highlights the revenues earned from lending business. For achieving the objective of the study, the hypotheses have been tested:

H_{1A}: "Capital Adequacy has a significant influence on the banks' profitability".

H_{2A}: "Human Capital has a significant influence on the banks' profitability".

H_{3A}: "Liquidity has a significant influence on the banks' profitability".

H_{4A}: "Management Efficiency has a significant influence on the banks' profitability".

H_{5A}: "Asset Quality has a significant influence on banks' profitability"

H_{6A}: "Earning Quality has a significant influence on the banks' profitability".

Table 1. Selected variable's description for the study

Variables	Description	Notation
Dependent Variable		
Return on Equity	Profits after tax and Preference dividends/ net worth	ROE
Independent Variable		
Capital Adequacy	Capital Adequacy Ratio	CAR
Human Capital	Ratio of Wages to Total Income	HC
Liquidity	Ratio of Deposits to Total Liability	LQ
Management Efficiency	Ratio of Demand and Savings Bank deposits to Total Deposits	ME
Asset Quality	Ratio of Net NPA to Net Advances	AQ
Earning Quality	Cost of Borrowing Ratio	EQ

3.3.3 Econometric Specification

The panel data regression equations have been estimated to explore the influence of the bank's specific factors on return on equity.

$$ROE_{it} = \alpha_0 + \beta_1 CAR_{it} + \beta_2 HC_{it} + \beta_3 LQ_{it} + \beta_4 ME_{it} + \beta_5 AQ_{it} + \beta_6 EQ_{it} + e_{it} \qquad (1)$$

Where:

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

α_0 = Intercept term

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

HC_{it} = Human Capital of bank i at time t

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

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

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

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

e_{it} = Stochastic error term

4. Data Interpretation

In the above equation "Panel Data Regression Model" has been applied, in which the impact of the different factors analyzed on the dependent variable. The validity of various regression assumptions and specification tests for regressions models has also been analyzed. In the second step, the regression analysis has been estimated "Fixed Effects Model", "Random Effects Model" and "Pooled Ordinary Least Squares". These three assessment models get compared to obtain the best fit model using the two specification tests such as the "Hausman Test" and the "Redundant Fixed Effect Test".

4.1 Diagnostic Tests

The various fundamental regression assumptions have been satisfied to validate the regression model. A series of analytical tests are also applied to check the presence of the Normality of data, Multicollinearity, Homoscedasticity, Autocorrelation, and Stationarity in the regression models which may influence the efficacy of the estimators.

4.1.1 Testing of Normality

The normality test has been assessed for the data, which is the prime fundamental assumption for many statistical tests. It is the primitive requirement that data must have the characteristic of normal distribution. In the present study, the

value of the "Jarque–Bera Test" observed as 3.460 with a p-value of 0.177, which signifies that data is normally distributed.

4.1.2 Multicollinearity Test

The multicollinearity test has applied to analyze the correlation and multicollinearity of the independent variables. It is suggested that the independent variables must satisfy the conditions of no high correlation and no multicollinearity for better results. The "Pearson correlation coefficient matrix" and the "Variance Inflation Factor" (VIF) have been analyzed to prove the statement. "The closer the value of VIF of one, the lesser will be the degree of multicollinearity and vice-versa" (Gujarati, 1995).

The calculated VIF values presented in table 2. All the calculated values observed less than 10, which are under the accepted parameter (Gujarati, 1995), and the average VIF value is calculated as 1.65, which signified the no multicollinearity.

Table 2. Multicollinearity test for all independent variables ("Variance Inflation Factor")

Variable	Variance Inflation Factor
Capital Adequacy	1.24
Human Capital	1.76
Liquidity	1.62
Management Efficiency	1.80
Asset Quality	1.59
Earning Quality	1.92

The average value of the VIF score is 1.65, which represents that the problem of multicollinearity has not been found among independent variables. Moreover, Table 3 depicts that the Pearson correlation coefficients between independent & dependent variables have been found lower than the standard. So, the above correlation matrix highlights that the multicollinearity problem is ruled out.

Table 3. Correlation matrix

	ROE	CAR	EQ	HC	LQ	ME	AQ
ROE	1.000	0.172	-0.270	0.073	-0.286	0.156	0.025
CAR	0.172	1.000	-0.311	-0.339	-0.278	-0.143	-0.294
EQ	-0.270	-0.311	1.000	0.397	0.602	0.164	0.370
HC	0.073	-0.339	0.397	1.000	0.258	0.550	0.373
LQ	-0.286	-0.278	0.602	0.258	1.000	0.034	0.143
ME	0.156	-0.143	0.164	0.550	0.034	1.000	0.512
AQ	0.025	-0.294	0.370	0.373	0.143	0.512	1.000

4.1.3 Testing of Homoscedasticity

Another assumption underlying multiple regression analyses that must be satisfied with the regression model to be valid is Homoscedasticity. During the analysis, it has been found that the Chi-Square (p-value 0.6598), which is more than 0.05, statistically proves that there is not the problem of Heteroscedasticity in the data and data is Homoscedastic.

4.1.4 Testing of Autocorrelation

Auto Correlation testing (Durbin-Watson Statistic) has also been tested in the study. It has been observed by the many researchers that the variable must be tested for the autocorrelation, and accepted values must be between 1.4 to 2.6. In the present study, statistic value 1.90 is calculated from the given test, which approves the conditions of autocorrelation and satisfies the standard rules of acceptance given by Luo and Nichols (2003). Hence, there is no autocorrelation among the variables has been found during the study.

4.1.5 Testing of Stationarity

In the present study, the test of stationarity has also the major concern, as in time series data there is the problem of Non-stationary exist, which does not provide the authenticity in the results. To check data free from Non-stationary "Augmented Dickey-Fuller Test" has been tested and presented in table 4, which signifies that data is stationary. All the calculated values found significant.

Table 4. Test of stationarity

Variables	t-Statistic	p-value
ROE	-3.581236	0.008*
CAR	8.076479	0.000*
HC	-6.526719	0.000*
LQ	-5.785279	0.000*
ME	-3.887540	0.003*
AQ	-3.435038	0.012*
EQ	-5.549823	0.000*

* Significant at 5% level of significance

4.2 Specification Tests for Regression Model

The specification tests for all related regressions models have been applied to verify and select the appropriate regression model.

4.2.1 Redundant Fixed Effect Test

In the present study, the "Redundant Fixed Effect Test" has been employed to select an appropriate model between Panel data regression and Pooled OLS regression. For this purpose, cross-section, period effects, and total effects have been checked. The assumption of the test states the redundant effects of the variables. The statistical value highlights the acceptance of the panel data regression model over the pooled OLS model. Regarding ROE, the financial performance indicator, the χ^2 value 10.433 (p-value = 0.000) reflects the rejection of the null hypothesis.

4.2.2 Hausman Test

The purpose of applying the "Hausman Specification Test" is to select an appropriate model between the fixed effect model and the random effect model. In the case-independent variable (ROE), the result has confirmed the rejection of the null hypothesis (χ^2 = 53.252, p-value = 0.000). Consequently, the fixed effect model has been selected as compared to the random effect model.

4.3 Panel Data Regression Model Analysis

From the above specification tests, it has been found that the fixed effect model is more appropriate and best fit for the regression analyses. The calculated findings of regression analyses revealing the relationships among the variables presented in the following Table 5.

Table 5. Panel data analysis results

Independent Variable	Pooled OLS			Panel (FEM)			Panel (REM)		
	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.
CAR	0.0832	1.3654	0.1756	0.0231	0.5171	0.6067	0.0479	1.1579	0.2500
Human Capital	0.0557	1.4655	0.1463	0.0555	1.8625	0.0667**	0.0520	1.9209	0.0580
Liquidity	0.0592	1.3053	0.1952	0.0569	1.8071	0.0750**	0.0179	0.6027	0.5482
Management Efficiency	0.0096	0.6410	0.5232	0.0485	2.9922	0.0038*	0.0279	2.1872	0.0314
Asset Quality	0.0189	0.5487	0.5846	0.0628	2.3850	0.0198*	0.0518	2.1579	0.0337
Earning Quality	0.0885	-1.7845	0.0778	-0.0023	-0.0639	0.9492	-0.0553	-1.6323	0.1062
Observations	95			95			95		
R-squared	0.1657			0.7734			0.2198		
Adjusted R-squared	0.1089			0.6958			0.1666		
F-statistic	2.9146			9.9595			4.1324		
Prob. (F-statistic)	0.0122			0.0000*			0.0010		
Redundant Fixed Effect Test									
Chi-Square Statistic				10.4331					
Prob.				0.000					
Hausman Test									
Chi-Sq. Statistic				53.2525					
Prob.				0.000					

* Significant at 5 %level of significance

** Significant at 10 % level of significance

The statistical values of all regression models are depicted in table 5, have revealed that the regression coefficients of the FEM model are reported statistically significant. The banks' specific factors like; human capital, liquidity, asset quality, and management efficiency are found a significant and positive relationship with the performance (ROE). Whereas the other two determinants such as capital adequacy and earning quality insignificantly influenced the profitability. The results of the present study are supported by the finding of Sporta, (2018), also found a negative influence of capital adequacy on the performance of banks. The results of the present study are conflicting in the study of Iranian Banks, suggested that the CAR ratio bears a positive effect on the performance (Bateni, et al. 2014). The high value of adjusted R2 (69.58) expresses the overall best fit of the model, which is further substantiated by F-statistics (p = 0.0000), is statistically significant. The finding of the present research work is in concurrence with the earlier research investigations. Like, the results supported by the findings of Kosmidou (2008). It has been observed that the banks' profitability (ROE) significantly influenced by human capital. Similarly, the liquidity of the banks has also shown a positive effect on the banks' profitability. The results found consistent with the observations of Ongore & Kusa (2013), which found liquidity has a significant effect on and banks' performance. Besides, management efficiency demonstrated a positive effect on banks' profitability (ROE). The results have been also found consistent with the observations of Ongore & Kusa (2013), who also highlighted significant effects of management efficiency on the banks' financial wellbeing. Further, the influence of the banks' asset quality on maintaining financial strength is found statistically significant. The similar results also highlighted by Flamini, et al. (2009), in which the observations between the assets quality and financial performance observed positively associated. On the other side results of the study opposed the finding of Berger (1995), where the effects of banks' asset quality on performance observed statistically insignificant. Surprisingly, the earing quality of the banks with the return of equity is found insignificant.

5. Results Summary

For the attainment of objectives, hypotheses with the predicted assumption of having an influence of banks' specific determinants on the banks' financial performance have been formulated. In Table 6, the results summary of the hypotheses tested has been presented.

Table 6. Results of the tested hypotheses

Hypotheses	Description	p-values	Result
H_{1A}	"Capital Adequacy has a significant influence on banks' profitability"	**0.5171** (0.6067)	Not Supported
H_{2A}	"Human Capital has a significant influence on banks' profitability"	**1.8625** (0.0667)	Supported
H_{3A}	"Liquidity has a significant influence on banks' profitability"	**1.8071** (0.0750)	Supported
H_{4A}	"Management Efficiency has a significant influence on banks' profitability"	**2.9922** (0.0038)	Supported
H_{5A}	"Asset Quality has a significant influence on banks' profitability"	**2.3850** (0.0198)	Supported
H_{6A}	"Earning Quality has a significant influence on banks' profitability"	**-0.0639** (0.9492)	Not Supported

In the above Table 6, the regression coefficients of the relationship between the banks' financial performance (ROE) with management efficiency, liquidity, human capital, and asset quality are found statistically significant. Thus, the hypotheses H_{2A}, H_{3A}, H_{4A}, and H_{5A} are accepted. Whereas regression coefficients of capital adequacy and earning quality is found insignificant with the banks' financial performance. Hence, the hypothesis H_{1A} and H_{6A} have been rejected. It implies that the determinants such as management efficiency, human capital, asset quality and liquidity help to maintain and increases the profitability of the banks in India. But, on the contrary, the capital adequacy and earning quality insignificantly influenced banks' financial performance.

6. Conclusion

The primary function of the banks is the allocating and utilizing of financial resources of an economy for the collective growth of a nation. Thus, the banks' financial performance can be an efficient mechanism to analyze the financial strength of a country. The present research works have been initiated to examine the banks' financial performance by focusing on the influence of specific determinants such as capital adequacy, human capital, liquidity, management efficiency, asset quality, and earnings quality. The finding revealed that the banks' profitability influenced by human capital, liquidity, management efficiency, and asset quality. Whereas the capital adequacy and earning quality does not affect the profitability of sample banks. The results are supported by the finding of Kosmidou (2008). Capital adequacy has found to have an insignificant influence on profitability, which has been found contrary to the finding of Berger (1995), where capital adequacy has a positive impact on the banks' profitability. It is observed that the banks that follow the humanistic approach gain the financial growth and development of their employees. In the study, human capital reported a significant influence on banks' portability. As far as, liquidity of the banks is concerned, the higher the liquidity expresses good financial strength (Rudolf, 2009). On the other hand, banks' liquidity significantly influenced the profitability. Management efficiency considered as the major determinant to ensure the profitability and survival of the bank. In the study, it has been evident from the results that the management efficiency of banks significantly influenced the banks' profitability. whereas the banks' asset quality which a crucial determinant of financial performance which signifies the banks' effectiveness of evaluation, monitoring, and collection of loans. The results highlighted the significant effects of banks' asset quality on profitability. On the contrary, insignificant influence is observed between the earning quality factor of performance measurement and the banks' profitability. On the bases above discussed inferences, most of the banks' internal component is the significant determinant for the banks' profitability. The results of the present study in concurrence and supported by many studies as discussed above. Hence, the periodical financial performance scanning facilitates the banks to analyze the financial strength and to take precautionary measures for sustainable. So, far as macroeconomic variables concern viz. GDP and inflation, it has an impact on the banks' performance, which cannot be ignored. It gives the further scope for the study, to include all micro and microeconomic factors to examine its influence on Indian commercial banks.

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