PERFORMANCE EVALUATION OF PUBLIC, PRIVATE AND FOREIGN BANKS IN INDIA; AN EMPIRICAL ANALYSIS

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Abstract

The Banks are the major segment of the financial sector in India. The various reforms measure are aiming at improved performance of banks. The liberalization has changed the Indian banking industry. Liberalization results out significant improvement and the competitiveness of Indian Banking system. In the Present study, an attempt has been made to estimate the impact of Liberalization on the performance of public, private and foreign banks. The study shows whether the selected variable had contributed towards the profitability or not? For this purpose, regression analysis, ANOVA test, Durbin Watson test, have been worked out. The Return on Assets has been considered as measure of profitability in banks. After the liberalization, banks are paying more attention to increase their Return on Assets**.** To measure the performance of scheduled commercial banks, average financial ratios are taken for the study for the period 2002-2017. In the present study, it was concluded that the liberalization had significant impact on the performance of public sector banks, private sector banks and foreign banks in India.

Keywords: Financial Performance, Liberalization, Return on Assets, Reforms.

Introduction

Financial sector reforms introduced since the early 1990s have brought about a significant improvement in the financial system. The commercial banking sector, which constitutes the most important segment, has witnessed a remarkable improvement both in stability and efficiency parameters such as capital position, asset quality, spread and overall profitability. It is significant to note that the improvement has been noticed in respect of all bank groups. The most significant achievement of financial sector reforms has been a marked improvement in the financial health of the commercial banking sector, which constitutes the most important segment of the Indian financial system. Asset quality of commercial banks, which before the initiation of reforms, was at a very precarious level, improved significantly even as norms were tightened over the years and the economy slowed down. The capital position of commercial banks also improved significantly and was somewhat higher than the prescribed level. Profitability of the commercial banking sector improved despite decline in spread, which itself is a measure of efficiency, although commercial banks still face the problem of overhang of NPAs , high spread and low profitability in comparison with banks in other emerging market economies, reforms have been successful in enhancing the performance of commercial banks in terms of both stability and efficiency parameters. The implementation of various reform measures in the Banking sector coupled with path-breaking reform initiatives taken in the other financial sectors like capital and debt markets and the slew of economic reform measures have enabled the country to rapidly come out of the deep economic crisis of 1991 and emerge as the third largest global economy in the world.

Review of Literature

Das and **Drine (2011)** attempted to explore the efficiency levels and the performance of the Indian banking sector in the context of financial liberalization and found that there have been significant changes in the performance of the banking sector in India. The relative importance of the public sector banks has been declining with the emergence of the domestic private sector banks and more foreign banks. The assets, deposit and the credit share showed that the share of public sector has been declining and the share of the private banks has been increasing, which implies that there has been a declining concentration and increasing competition. The foreign banks are found to be the more profitable in comparison to the domestic private and the public sector banks. **Mishra (2012)** analyzed the performance of 12 public and private sector banks over a period of 11 years in the Indian banking sector. For this purpose, CAMEL approach has been used and it is established that private sector banks are at the top of the list, with their performances in term of soundness being the best. Public sector banks like union bank and SBI have taken a back seat and display low economic soundness in comparison. **Mistry (2012** explored that bank with higher total capital, deposits, and credit or total assets does not always mean that it has better financial performance. It was found that assets size, assets utilization and operational efficiency have impact on return on assets and interest income. It also depicted that return on assets and interest income size have negative relationship with operational efficiency and positive relationship with asset management and bank size.

Ibrahim (2013) analyzed that sound financial position of a bank is the guarantee not only to its depositors but equally important for the whole economy of the Nation. Several committees have emphasized the need to improve the performance of the commercial banks. In India, the priorities in banking operations underwent far reaching changes since the banking sector reforms have been set in motion

Pandya (2014) tried to know the determinants of profitability of selected Nationalized banks. Relationship between financial ratios of the different banks have been studied using statistical techniques such as correlation analysis, multiple regression technique, factor analysis and trend analysis. It was concluded that profitability of Nationalized banks mostly influenced by overall business productivity factor.

Kedia (2016) Studied about determinants of profitability of Indian public sector banks, which reveals four independent variable that affect the net profit. i.e Non performing assets, credit deposit raio, Net Interest Income and operating expenses. The study was based on multiple regression analysis to analyze the impact of determinants on the profitability of the banks. It was concluded that credit deposit ratio and net interest income affect the net profitability of Indian public sector banks in major way.

Vadrale and katti (2017) attempted to shed the light on the profitability performance of public and private sector banks for the period 2001-2015. The study was based on various profitability ratios of banks like return on assets, return on investment, cost of deposit and cost of borrowing etc. Top ten banks from net profit point of view were selected for the study. The study is based on secondary data only. The merit ranking was used for rated the banks based on their performance. In the light of various indicators, it was concluded that profitability position of private sector banks was better than public sector banks. It was suggested in the study, that public sector banks should focus on reducing the cost of funds with controlling cost of deposit and cost of borrowing. .

Objectives of the study

1. To analyze the financial Performance of Banking sector in India.
2. To estimate the impact of Liberalization on the Profitability of public, private and foreign banks.

Hypothesis of the study

$H_0$1;There is no significant relationship of financial parameters cash deposit ratio, credit deposit ratio, business per employee, profit per employee, Net NPA to Net advance, Net Interest margin with profitability (ROA) of public sector banks

$H_0$2 : There is no significant relationship of financial parameters cash deposit ratio, credit deposit ratio, business per employee, profit per employee, Net NPA to Net advance, Net Interest margin with profitability (ROA) of private sector banks

$H_0$3: There is no significant relationship of financial parameters cash deposit ratio, credit deposit ratio, business per employee, profit per employee, Net NPA to Net advance, Net Interest margin with profitability (ROA) of Foreign Banks.

Research Methodology

To achieve the research objective, the data for the study is collected from the annual reports of the banks. The annual data for selected banks durng 2002-2017 used for calculating key financial ratios to analyze the Financial Performance of Banks. Based on the data, the relationship between dependent variable profitability (ROA) and independent variables (cash deposit ratio, credit deposit ratio, business per employee, profit per employee, Net NPA to Net advance, Net Interest margin) are found out by using regression analysis.

Regression Model

The regression model used in the study as follows;

$$Y = a + b*CDR + c*CRDR + d*BPE + e*PPE + f*NNNA + g*NIM$$

Where;

Y (Dependent variable) = Return on Assets (ROA)

Independent variable; CDR = Cash deposit ratio, CRDR = Credit deposit ratio, BPE = Business per employee, PPE = Profit per employee, NNNA = Net NPA to Net advance, NIM = Net Interest Margin.

a = constant and b, c, d, e, f and g are regression coefficients

Sources of Data

The study used secondary data collected from RBI Bulletin, Annual Reports of RBI, Handbook of Statistics on the Indian Economy, Banking Statistics - Basic Statistical Returns, Report on Trend and Progress of Banking in India and websites of various banks. The period covered by study extends to 15 years ranging from 2002-2017.

Tools of Analysis

For accomplishing the research objective, Regression analysis, ANOVA test, Durbin Watson test, have been worked out.

Results and Analysis

Measuring the performance of public sector banks

The public sector banks form major part of Indian financial system. The public sector banks have made significant progress after the Liberalization. But, the entry of new private sector banks and foreign banks had given the tough competition to public sector banks. The public sector banks needs to improve productivity, profitability, prudential norms of capital adequacy, build good asset quality for survival in the Liberalized and Globalized economy

Results of Regression Analysis for selected variables of public sector bank in India

Table 1
Regression results

Model	R	R Square	Adjusted R Square	Durbin Watson	F change
1	.992*	.984	.969	1.9888	62.74

Source; computed results based on financial ratios collected from RBI

Table 2
Regression Coefficients

Model		Unstandardized Coefficients		Standardized coefficients	T	Sig.
		B	Std. Error	Beta		
1	**Constant**	1.601	.908		1.764	.128
	Cash deposit ratio	.024	.026	.076	.907	.399
	Credit deposit ratio	-.009	.010	-.114	-.905	.401
	business per employee	-.002	.002	-.175	-.796	.457
	Profit per employee	.405**	.157	.334	2.580	.042
	Net NPA to Net Advance	-.121**	.045	-.582	-2.683	.036
	Net Interest Margin	-.036	.117	-.031	-.306	.770

Dependent variable ; return on assets

*1 percent level of significance

** 5 percent level of significance

Table3
ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	**Regression**	2.229	6	.371	62.743	.001
	Residual	.036	6	.006		
	Total	2.264	12			

a. Dependent Variable: ROA

b. Predictors: (Constant), cash deposit ratio, credit deposit ratio, Business per employee, profit per employee, Business per Employee, Net Interest Margin

Source; Research Findings

The regression results R Square is .984, which is a significant value. It shows that 98.4 percent of the performance of the bank is explained by the six independent variables. The rest of the performance can be attributed to other factors. The regression results in table indicate that cash deposit ratio and profit per employee is positively related to ROA as cash deposit ratio has significant positive coefficient .024 and profit per employee has significant positive coefficient .405. While, credit deposit ratio, business per employee, Net NPA to Net advance and Net Interest Margin are negatively related to return on assets. The ANOVA results has been exhibited in table 3. It depicts that a significant model emerged. It shows that the F statistic is 62.743, while the p value is 0.001 and less then the significance value of 0.005.

Measuring the performance of Private sector Banks

With the arrival of private sector banks, there has been a lot of progress in the banking sector, due to which private sector banks is going on a lot of heights. private sector banks maintained its efficiency at highest level. In order to understand the banking sector, it would prove useful to measure the performance of private sector banks. The private sector banks changed the landscape of banking in India

Regression results for the selected variables of Private sectorBanks in India

Table 4 Regression results					
Model	**R**	**R Square**	**Adjusted R Square**	**Durbin Watson**	**F change**
1	.979	.958	.916	2.894	22.896
Source					

Table 5 Regression Coefficients						
Model		**Unstandardized Coefficients**		**Standardized coefficients**	**T**	**Sig.**
		B	**Std. Error**	**Beta**		
1	**Constant**	-.205	.952		-.215	
	Cash deposit ratio	.010	.018	.082	.565	.330
	Credit deposit ratio	.017	.015	.364	1.111	.065
	business per employee	-.004	.003	-.421	-1.399	.077
	Profit per employee	.613	.259	.788	2.361	.063
	Net NPA to Net Advance	-.147	.073	-.389	-2.020	.188
	Net Interest Margin	.039	.120	.046	.322	.345

Dependent variable ; return on assets

*1 percent level of significance

** 5 percent level of significance

Table 6 ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	.421	6	.070	22.896	.001
	Residual	.018	6	.003		
	Total	.439	12			

a. Dependent Variable: ROA

b. Predictors: (Constant), cash deposit ratio, credit deposit ratio, Business per employee, profit per employee, Business per Employee, Net Interest Margin

Source; Research Findings.

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The regression results R Square is .958, which is a significant value. It shows that 95.8 percent of the performance of the bank is explained by the six independent variables. The rest of the performance can be attributed to other factors. The regression results in table indicate that cash deposit ratio, credit deposit ratio, profit per employee and Net Interest Margin is positively related to ROA as cash deposit ratio has significant positive coefficient .010, credit deposit ratio has .017 positive coefficient, profit per employee has significant positive coefficient .613 and Net Interest Margin has positive coefficient .039. while, business per employee and Net NPA to Net advance are negatively related to return on assets. the Durbin Watson statistic is significantly less than 2, there is indication of positive serial correlation. The ANOVA results depict that a significant model emerged. The ANOVA results has been exhibited in table. It depicts that a significant model emerged. It shows that the F statistic is 22.896, while the p value is 0.001 and less then the significance value of 0.005.

Measuring the performance of Foreign Banks

In this chapter, an attempt has been made to know the Impact of liberalization on the financial performance of banking sector in India. Due to lower branch expansion, Foreign banks could not create confidence in the minds of public. Due to restricted deposit schemes, the bank does not built confidence and led to the decline in the growth after liberalization in India.

Regression results for the selected variables of Foreign Banks in India

Table 7

Regression results

Model	R	R Square	Adjusted R Square	Durbin Watson	F change
1	.780	.608	.217	1.743	1.553
Source					

Table 8
Regression Coefficients

Model		Unstandardized Coefficients		Standardized coefficients	T	Sig.
		B	Std. Error	Beta		
1	Constant	2.559	1.101		2.324	.059
	Cash deposit ratio	-008	.046	-.060	-.178	.865
	Credit deposit ratio	-.006	.005	-.312	-1.066	.327
	business per employee	-.003**	.001	-1.269	-1.933	.101
	Profit per employee	.160	.106	.965	1.500	.184
	Net NPA to Net Advance	-.313	.217	-.428	-1.443	.199
	Net Interest Margin	.036	.261	.041	.137	.896

Dependent variable ; return on assets

*1 percent level of significance

** 5 percent level of significance

Table 9
ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.061	6	.177	1.553	.303
	Residual	.683	6	.114		
	Total	1.743	12			

a. Dependent Variable: ROA

b. Predictors: (Constant), cash deposit ratio, credit deposit ratio, Business per employee, profit per employee, Business per Employee, Net Interest Margin

Source; Research Findings

The regression results R Square is .780, which is a significant value. It shows that 78.0 percent of the performance of the bank is explained by the six independent variables. The rest of the performance can be attributed to other factors. The regression results in table indicate that profit per employee and Net Interest Margin is positively related to ROA as profit per employee has insignificant positive coefficient .160 and Net Interest Margin has positive insignificant coefficient .036. while, cash deposit ratio, credit deposit ratio business per employee and Net NPA to Net advance are negatively related to return on assets. Durbin Watson statistic is significantly less than 2, there is indication of positive serial correlation. The ANOVA results depict that an insignificant model emerged. The ANOVA results has been exhibited in table. It shows that the F statistic is 1.553, while the p value is .303 and higher than the significance value of 0.005 at 5 percent level of significance.

Conclusion

The study may help to the policy makers of the banks to improve the financial position of the banks. The importance of public sector banks has been declining due to the arrival of private sector banks and foreign banks. Therefore, the share of public sector banks are at declined stage. The regression analysis used in the study to estimate the impact of Liberalization on the profitability of banks, specifically the public sector banks is significantly and positively influenced by the profit per employee and Negatively and significantly influenced by Net NPA to Net advance**.** In case of private sector banks, we can say that ROA is positively related to cash deposit ratio, credit deposit ratio, profit per employee, net interest margin and having negative relationship with business per employee and Net NPA to net advance. While, in case of foreign banks, ROA is positively related to Profit per employee and net interest margin. The study also proven that there is a negative relation of ROA with cash deposit ratio, credit deposit ratio, Business per employee, Net NPA to net advance of foreign banks. It also reveals that have significant and negative relation of ROA with Business per employee. The Results of the study suggested the bank policy makers to improve their financial performance, which is the base for efficiency of the banks. In this study, selected variables was taken to measure the financial performance of the banks. Therefore, inclusion of more financial parameters will change the result of performance of Banking sector in India. The study was based on quantitative aspect only, inclusion of qualitative aspects will lead to effective analysis of banks.

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