



Evaluating the impact of financial performance of merged banks of India on economic growth

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Abstract

The objective of this research paper was to evaluate impact of financial performance of recently merged bank of India on Indian economy. On 1st April 2019 two public sector banks namely Vijya Bank and Dena bank merged with Bank of Baroda so sample for this research paper are these three banks. In this research seven financial independent variables of recently merged banks and three dependent variables were used to evaluate impact of financial performance on growth of economy of India over the period from 2010 to 2019. Descriptive analysis was used to describe the variables of the research. Pearson correlation test was used to check significant relationship between the variables at 1% and 5% significant level and result showed that seven variable has significant relationship out of ten variables. Regression analysis was also used and result showed that independent financial variable has significant impact on dependent variables except fiscal balance % of GDP at 1%, 5% and 10% significant levels. Out of seven independent variable six variables has statistically significant impact on GDP except growth of deposits. Similarly all financial variables have significant impact with CPI except Credit to deposit ratio, growth in deposit ratio and change in number of branches ratio. From the above study it is recommended that banks should pay attention on growth of advances, profit per employee and return on assets for strong and better economy of India. Further study can be done with all the public and private sector banks to evaluate impact of financial performance on economy.

Keywords: financial performance, GDP, CPI, banks, merger, economy growth

Introduction

Financial system of any country plays very important role to develop and growing an economy of a country. Banks, financial institutions and capital markets falls under financial system. Financial institutions contribute through financial channels in the allocating resources to firms. Banks play very vital role between financial development and economic growth by providing resources to firms. In other words banks borrow money from individuals and lend it to firms, farmers and households this way banks play crucial role for creating capital formation. Currently in India banking sector contribute around 7.5% GDP of total GDP by creating credit creation, promoting saving habits, supporting agricultural activities, investing activities, facilitating cashless services, increasing employment, factor payments and facilitating foreign exchange services. (Alshubiri, 2017) ^[7] said that “bank is the intermediaries and the main role of that is to distribute resources and added economic value in the market so the first step is collection of information for investment, determining the size and cost of investment and then allocating these resources and control to maintaining these resources by efficiency method of financial intermediaries to increase cost reduction” (Shun-Jen Hsueh, 2013) ^[20]. (Ragonmal, 2015) ^[16] indicated allocating resources and mobilization of saving are important function of the financial sector in developing countries which helps to grow an economy of a country. Banks are providing saving facilities to household to store and secure their money in the banks. Households allow money to put in productive use and this way household’s saving play a significant role for economic growth (De-Gregorio, 1996) ^[9].

Literature Review

(Alshubiri, 2017) ^[7] indicated that the economic growth of Oman is influenced by the growth of the financial sector. He also said that banking sector is the main engine indicator of economic development. Flexible credit facility of a bank contributes positively to GDP, which allows firms co-operating with the banking sector continuity and staying in the market as a strong competitor. (Ajibike, 2016) ^[4] indicated that any change in bank’s profitability represented by return on capital employed and return on equity will significantly cause a change in gross domestic product. (Ally, 2014) ^[5] indicated that profitability of banks in Tanzania is mostly affected by internal factor of banks and macroeconomic factors do not seems to significantly affect on profitability. (Paun, Musetescu, Topan, & Danuletiu, 2019) ^[14] indicated that the domestic monetary and credit expansion have a negative impact on economic growth. However net foreign assets, stock traded, number of branches, sophistication of financial system and financial inclusion has positive impact on economic growth. (Abida, Sghaier, & Zghidi, 2015) ^[2] indicated that banks are more profitable during expansion and less profitable during recession and also advised that be careful in allocating resources during recession period. (Raju Ahmed, 2019) ^[17] indicated that private sector credit has strong effect on economic growth and advices monetary authority should develop an efficient credit system in order to sustain economic growth. (Abdulsalam Abubakar, 2013) ^[1] conclude that credit to private, government expenditure and interest rate has negative impact on growth of economy and other hand financial instrument other than bank credit are playing a positive role for growth of economy.

Research Methodology

The present study evaluates impact of financial performance of recently merged bank of India on economy of India over the period from 2010 to 2019. The sample consists recently merged three public sector banks namely bank of baroda, Vijaya bank and Dena bank amongst all public and private sector banks. All secondary financial data for this study were collected from annual reports of the banks and all economic data of India for this study were collected from CIEC. The predictive model for this study was developed on the basis of six financial independent variables of profitability of banks and four dependent variables that explain the economic growth of India.

Pearson correlation test was used to find out significant level between the variables. For the predictive model regression test was used. Six independent variables for this study are expenses per employee (Exp/Emp), Profit per Employee (Pro/Emp), Return on Assets (RoA), Credit to deposits ratio (C/D Ratio), Growth of Deposits (GD) and Growth of Advances (GA). Four dependent variables are Gross Domestic Product (GDP), Growth of Consumer Price Index (CPI), Fiscal Balance % of GDP and Debt to GDP ratio.

Dependent and Independent variables used in this research

Table 1

Dependent Variables	Independent Variable
Gross Domestic Product – GDP	Expenses per Employee-EE
Consumer Price Index- CPI	Profit per Employee-PE
Fiscal Balance % of GDP-FBG	Return on Assets-RoA
	Credit to Deposit Ratio-CD
	Growth of Deposits-DG
	Growth of Advances-AG
	Change in no. of Branches-NB

The model equations for this study were below:

$$GDP(Y) = a0+a1 EE+a2 PE+a3 RoA+a4 CD+a5 DG+a6 AG+a7NB+\epsilon$$

$$CPI(Y) = a0+a1 EE+a2 PE+a3 RoA+a4 CD+a5 DG+a6 AG+a7NB+\epsilon$$

$$FBG(Y) = a0+a1 EE+a2 PE+a3 RoA+a4 CD+a5 DG+a6 AG+a7NB+\epsilon$$

Where dependent variables GDP, CPI and FBG

Analysis

Table 2: Descriptive Analysis of variables

Variables	Minimum	Maximum	Mean	Std. Deviation
GDP	53.12	115.05	79.83	20.84
CPI	83.95	140.40	114.0770	20.23333
FBG	-6.57	-3.40	-4.5050	1.07828
EE	4301.98	9472.45	7785.84	1804.96
PE	-461.42	840.83	297.49	503.08
RoA	-0.48	0.91	0.32	0.55
CD	66.11	72.53	69.48	1.70
DG	-2.10	23.34	11.94	9.80
AG	-1.80	24.79	12.37	9.86
NB	89.00	920.00	433.20	258.61

Table 2 shows descriptive analysis of three dependent variables and seven independent variables of a sample from 2010 to 2019. The descriptive result indicates that there is a difference between minimum value and maximum value of dependent variables. There is a huge difference between maximum and minimum value of GDP of India because of private consumption, investments, government expenditure and export increased over the last ten years. Consumer price index of India also increased to compare 2009 to 2019 because of increase in retail price of goods and other items. The result shows that there is a huge difference between minimum and maximum number of profit per employee - 461.42 to 840.83, growth of deposits -2.10 to 23.34 and growth of advances -1.80 to 24.79. Minimum value of profit per employee, return on assets, growth of deposits and growth of advances shows in negative numbers. Higher rate of growth of advances indicates strong economic activity where as slower growth of advance indicates lower economic activity.

Table 3: Pearson Correlation Test of Dependent and Independent Variables

Variables	Dependent Variables			Independent Variables						
	GDP	CPI	FBG	EE	PE	RoA	CD	DG	AG	NB
GDP	1									
CPI	.971**	1								
FBG	.892**	.926**	1							
EE	.795**	.911**	.860**	1						
PE	-.837**	-.814**	-.745*	-.648*	1					
RoA	-.916**	-.926**	-.859**	-.808**	.968**	1				
CD	-0.2111	-0.3287	-0.4112	-0.3550	0.2495	0.2884	1			
DG	-.806**	-.833**	-.757*	-.747*	.899**	.904**	0.3759	1		
AG	-.745*	-.817**	-.773**	-.793**	.790**	.829**	0.5945	.942**	1	
NB	-0.5221	-0.3555	-0.3274	0.0075	0.5844	0.4731	0.0607	0.4649	0.3409	1

** .Significant at 1% level

*.Significant at 5% level

Table 3 indicates pearson correlation test of dependent and independent variables to check correlation between the variables at 1% significant levels and 5% significant levels. It can be observed that there is a significant relationship between seven variables out of ten variables at 1% and 5% significant levels except CD ratio and change in NB ratio. From above test it can be observed that only five variables are found correlation with GDP and significant correlation

GDP to EE 0.795, GDP to PE -0.837. GDP to RoA -0.916 and GDP to DG -0.806 are significant at 1% significant level where as GDP to AG -0.745 is significant at 5% significant level. Similarly it can be observed that only five variable found significant relationship with another dependent variable CPI and significant correlation between CPI to EE 0.911, CPI to PE -0.814, CPI to RoA -0.926, CPI to DG -0.833 and CPI to AG -0.817 are significant at 1%

significant level. Significant correlation between dependent variable FBG to EE 0.860, FBG to RoA -0.859 and FBG to AG -0.773 are significant at 1% level where as FBG to PE -0.745 and FBG to DG -0.757 are significant at 5% level. From above study pearson correlation analysis shows that independent variables have higher association with dependent variables.

Table 4: Regression Analysis of Group of Independent Variable and Gross Domestic Product (GDP)

Independent Variables	Un-standardized Co-efficient		Standardized Co-efficient	t Value	Sig.
	B	Std. Error	Beta		
EE	-5.527	.814	-4.787	-6.793	0.0209**
PE	39.803	4.944	9.608	8.050	0.0150**
RoA	-49143.838	6009.102	-12.965	-8.178	0.0146**
CD	668.020	104.886	.545	6.369	0.0237**
DG	14.332	37.596	.067	.381	0.7397
AG	-418.933	70.105	-1.981	-5.976	0.0268**
NB	5.183	1.243	.643	4.169	0.0530*

***. Significant at 1% level
 **. Significant at 5% level
 *.Significant at 10% level

Table 4 indicates regression analysis of each group of independent financial variables and GDP of India at different significant level 10%, 5% and 1%. Table 3 shows that there are significant impact on all variables except only one variable namely growth of deposits (DG), so for other variables alternative hypothesis is accepted. Exp/emp (EE), pro/emp (PE), return on assets (RoA), credit to deposits ratio (CD) and growth of advances (AG) are significant at 5% level and t value of this variables -6.793, 8.050, -8.178, 6.369, -5.976 respectively. Change in number of branches (NB) is significant at 10% level and t value of this variable is 4.169. Above analysis shows that financial variable of banks work together effectually and efficiently and helps to increases GDP of India.

Table 5: Regression Analysis Group of Independent Variables and Consumer Price Index (CPI)

Independent Variables	Un-standardized Co-efficient		Standardized Co-efficient	t Value	Sig.
	B	Std. Error	Beta		
EE	-.032	.010	-2.860	-3.186	0.0859*
PE	.259	.061	6.447	4.240	0.0500**
RoA	-320.795	74.316	-8.717	-4.317	0.0497**
CD	3.386	1.297	.284	2.611	0.1207
DG	-.023	.465	-.011	-.049	0.9656
AG	-2.574	.867	-1.254	-2.969	0.0971*
NB	.034	.015	.438	2.227	0.1559

***. Significant at 1% level
 **. Significant at 5% level
 *.Significant at 10% level

Table 5 indicates the result of regression analysis of each group of financial independent variable of merged banks and consumer price index at significant level of 1%, 5% and 10%. It can be seen that from above analysis there are significant impact in all variable except credit to deposit ratio, growth in deposit ratio and change in number of branches ratio. Exp/ emp (EE) ratio and growth in advances (AG) ratio is significant at 10% level and t value of this variable is -3.186 and -2.969 respectively. Pro/Emp (PE) and RoA is significant at 5% level and t value of this variable is 4.240 and -4.317 respectively. This analysis indicates, return on assets and profit per employee ratio

works positively in the market and contribute to develop strong economy of a country.

Table 6: Regression Analysis Group of Independent Variables and Fiscal Balance % of GDP

Independent Variables	Un-standardized Co-efficient		Standardized Co-efficient	T value	Sig.
	B	Std. Error	Beta		
EE	-.002	.003	-2.723	-.551	0.6370
PE	.013	.018	6.237	.745	0.5340
RoA	-16.601	21.810	-8.465	-.761	0.5260
CD	.079	.381	.125	.209	0.8541
DG	.013	.136	.118	.095	0.9331
AG	-.126	.254	-1.153	-.496	0.6692
NB	.002	.005	.384	.354	0.7569

***. Significant at 1% level
 **. Significant at 5% level
 *.Significant at 10% level

Table 6 reveals regression analysis of independent financial variables and fiscal balance % of GDP at significant level of 1%, 5% and 10%. It can be shown from above regression analysis is that there is no any significant impact of all independent financial variables on fiscal balance % of GDP. T value of EE, PE, RoA, CD, DG, AG and NB are -0.551, 0.745, -0.761, 0.209, 0.095 and -0.496 respectively.

Conclusion, Limitations and Scope for Further Research

This study aims to focus on recently merged three public sector bank’s financial performance and its impact on economy. The study was analyzed with financial ratios of banks which directly and indirectly playing important role for growth of economy. The result of the descriptive analysis shows that there is a huge difference between financial variables over the period from 2010 to 2019 that means this banking financial variable playing significant role to develop an economy from the last ten years. The result of correlation test shows that there are statistically significant relationship between dependent and independent variables and seven variables has significant relationship out of ten variables. The result of regression analysis shows that all the financial variable has significant impact on dependent variable except growth of deposits, credit to deposits and change in number of branches in terms of GDP and CPI at significant level 1%, 5% and 10%. The results also show that there is no significant impact between all financial variable and fiscal balance % to GDP. Finally the finding shows that financial variables of banks like growth of advances, profit per employee, expenses per employee, return on assets, change in number of branches and credit to deposit ratio play a vital role in economic development.

The main limitation of this study is time period. The study is limited to only three recently merged public sector banks of India. Further studies can be done with all public and private sector banks to evaluate impact of financial performance of banks on economy of India. Future study also can be done with all financial variables of the banks and comparing with another indicators of economy like agriculture growth, industrial growth etc.

References

1. Abdulsalam Abubakar IM. Impact of Banking Sector Development on Economic Growth: Another Look at the Evidence from Nigeria. Journal of Business Management & Social Sciences Research, 2013, 47-57.
2. Abida Z., Sghaier IM, Zghidi N. Financial

- Development and Economic Growth: Evidence from North African Countries. *Economic Alternatives*, 2015, 17-33.
3. Abusharbeh MT. The Impact of Banking Sector Development on Economic Growth: Empirical Analysis from Palestinian Economy. *Journal of Emerging Issues in Economics, Finance and Banking*, 2017, 2306-2316.
 4. Ajibike O. The Effect of Banks Profitability on Economic Growth in Nigeria. *IOSR Journal of Business and Management*, 2016, 01-09.
 5. Ally Z. Determinants of Banks' Profitability in a Developing Economy: Empirical Evidence from Tanzania. *European Journal of Business and Management*, 2014, 363-375.
 6. Alrqaibat GA. Impact of Economic Variables on the Performance of the Jordanian Banking Sector. *Journal of Poverty, Investment and Development*, 2015, 107-114.
 7. Alshubiri FN. Evaluating the impact of Financial Banking Development on Economic Growth: An Empirical Investigation in Sultanate of Oman. *Indian Journal of Finance*, 2017, 50-61.
 8. Bandlamudi Kalpana TV. Role of Commercial Banks in the Economic Development of India. *International Journal of Management and Applied Science*, 2017, 1-4.
 9. De-Gregorio. Borrowing constraints, human capital accumulation, and growth. *Journal of Monetary Economics*, 1996;1(37):49-71.
 10. Dixit A. Impact banking financial sector reforms indian economy 1991 Social Sciences, Economics and Business, Business Finance. A thesis submitted to Chhatrapati Sahuji Maharaj University, 2005.
 11. Gariwala BJ. Impact of Regional Rural Banks on Rural Economy With Special Reference To Gujarat. A Thesis submitted to Maharaja Krishnakumarsinhji Bhavnagar University, 1987.
 12. Korkmaz S. Impact of Bank Credits on Economic Growth and Inflation. *Journal of Applied Finance & Banking*, 2015, 57-69.
 13. Kumar H. *Impact of deposit mobilization and credit creation by scheduled commercial banks in Indian economy since 1991 with reference to state bank of India in an input output framework*. A Thesis submitted to University of Mysore, 2013.
 14. Paun CV, Musetescu RC, Topan VM, Danuletiu DC. The Impact of Financial Sector Development and Sophistication on Sustainable Economic Growth. *Sustainability*, 2019, 1-21.
 15. Pierre Monnin TJ. The Impact of Banking Sector Stability on the Real Economy. *Swiss National Bank Working Papers*, 2010, 1-31.
 16. Ragonmal L. Impact of commercial banking sector development on economic growth in small Pacific countries: A case study of the Vanuatu Economy. Newzealand: A Thesis Submitted to Lincoln University Digital Thesis, 2015.
 17. Raju Ahmed MY. Banking Sector Development and Economic growth in Bangladesh: An Empirical Analysis. *Canadian Journal of researcher's Society*, 2019.
 18. Roger Antoun AC. Determinants of financial performance of banks in Central and Eastern Europe. *Business and Economic Horizons*, 2018, 513-529.
 19. S Santoshkumar BC. Determinant of Capital Structure: An Exclusive Study of Passenger Car Companies in India. *Indian Journal of Finance*, 2018, 43-53.
 20. Shun-Jen Hsueh CHT. Economic growth and financial development in Asian countries: A bootstrap panel Granger causality analysis. *Economic Modeling*, 2013, 294-301.
 21. Syed Muhmmad Hamza EA. Effect of Banking Sector Performance in Economic Growth: case study of Pakistan. *Journal of Applied Environmental and Biological Sciences*, 2014, 444-449.
 22. V Annapurna GM. Balanced Scorecard Evaluation of the Performance of Indian Public Sector Banks. *Indian Journal of Finance*, 2017, 7-21.
 23. Yusuf Hashim AM. Impact of Bank Lending on Economic Growth in Nigeria. *Research Journal of Finance and Accounting*, 2014, 174-182.
 24. <https://tradingeconomics.com/india/consumer-price-index-cpi>