

# A Study of Determinants of Performance in Indian Commercial Banks From 1990-91 to 2015-16

## Abstract

For the growth of a developing economy there must be mature banking system as the financial sector serves as a bridge between the savers and the inverters. Asset generation is crucial for the growth and development of the economy as a whole. This research paper is associated with the study of commercial banks operating in India that consist of public, private and foreign banks. Multiple regression technique of data analysis is used to find out the determinants of performance of commercial banks. Return on assets has been used as a proxy for performance of financial institutions. The research work concluded that operating efficiency has positive relationship with ROA, whereas, other independent variables are inversely correlated with ROA.

**Keywords:** Determinants, Commercial Banks, Performance

## Introduction

For economic growth as well as development financial services are fundamental. Financial services are those economic services which are facilitated by finance industry, which includes banks, insurance companies, stock brokerage companies, investment funds, mutual fund companies etc. financial services provide the way to save or invest the money in most appropriate way that this money provides optimal profit to the customers. In India the functioning of banks, financial institutions, insurance companies and national pension system are worked under the supervision of ministry of finance. Financial system in a country is established to enable financial transactions. These financial transactions are performed by financial institutions for example banks, mutual funds, insurance companies etc. These financial transitions are performed in financial markets like money market, capital market and Forex market by the way of financial assets like loans, deposits, bonds, equities etc.

## Review of Literature

Ongore and Kusa (2013) in their study, "Determinants of Financial Performance of Commercial Banks in Kenya" explained about the profitability measurement and determinants of profitability of banks. For this purpose they have used ROA (Return on Assets) and ROE (Return on equity) and NIM (Net Interest Margin) as the indicators to measure the performance of banks operating in Kenya. The study was rely on secondary sources of data and for this purpose data was collected from CBK, IMF and World Bank publications from 2001 to 2010. The study concluded that capital adequacy, asset quality and management efficiency have significant affect the performance of commercial banks in Kenya in contrast liquidity was not having strong effect on performance of banks.

Narwal and Pathneja (2015) in the paper titled, "Determinants of Productivity and Profitability of Indian Banking Sector: A Comparative Study" described about the various determinates of productivity and profitability of Indian banks. The study divided into two different periods from 2003-04 to 2008-09 and 2009-10 to 2013-2014. For the purpose of analysis Malmquist index was applied to measure total factor productivity of groups and sub-group banks. The study discovered that private banks were more efficient and productive than public banks. Apart from this, profitability was positively connected with total factor productivity but the association was found to be insignificant. However, diversification is positively associated with productivity and it was also significant. Moreover, small sized banks were found to be more productive than the large sized banks.

Bhullar and Gupta (2017) in their research paper entitled, "Empirical Analysis of Determinants of Profitability of Banks: Evidence from

## Parmod Kumar Aggarwal

Assistant Professor,  
Deptt.of Economics,  
Punjabi University,  
Patiala

## Amandeep Kaur

Research Scholar,  
Deptt.of Economics,  
Punjabi University,  
Patiala

Indian Public Sector Banks” have explained about the affect of bank-specific determinants on the profitability of public sector banks in India. CAPITALINE database was used to collect the necessary data from 2006-07 to 2015-16. Regression test was used to calculate the required results. The study found out that the independent variables were responsible for 53 percent variation in dependent variables. The study suggested that there should be reduction in liquidity risk and it will lead to positive affects in performance of commercial banks in India.

Kedia in his paper, “Determinates of profitability of Indian public sector banks” mainly focused on the factors which determine the profitability of banks. For this purpose data has been collected from RBI (Reserve Bank of India). Further data was analyzed by applying multiple regression method. The study revealed that credit deposit ratio and interest rate both were highly explanatory powers and on the other hand operating expenses and non-performing assets were found to be having low explanatory powers.

The survey of existing literature is indicative of the fact that most of the studies done so far, on Indian Economy, are too aggregative or even if the disaggregate level has been achieved, the coverage is too small.

**Performance of Commercial Banks in India**

India’s financial services sector has been one of the fastest growing sectors in the economy. Huge investment has been done on Human Resources (HR)

and Information and Communication Technology (ICT). Organizations are interested in finding determinants of performance. Human resources in the form of intellectual capital and technology in the form of information and communication technology play an important role in determining the performance. So, this research work done to find out the determinants of performance.

**Objectives of the Study**

1. To examine the performance of banks in India.
2. To find out determinates of performance.

**Methodology**

The study covers Public sector banks, private banks and foreign banks operating in India for the period of 1990-91 to 2015-16. To meet the objective of the study data has been collected from annual reports of IBA. For this research work return on total assets (ROA) has been used as the proxy of financial performance. On the other hand variables like operating efficiency (OPEFF), liquidity and size of the banks have been used to measure the impact of these variables on financial performance. The data has been used on SPSS using multiple regressions. The model for the same is:

$$ROA=a+b1OPEFF+b2LIQ+b3SIZE+e$$

ROA= Return On Assets

a= Intercept

b= Slope

OPEFF= Operating Efficiency

LIQ- Liquidity

SIZE= Size of the business

**Table No.1: The Variables, their Labels and Expected Signs and Relationships are presented below:**

Variables	Variable Labels	Variable Definition	Expected Sign and Relationship
Return on Asset (Dependent Variable)	ROA	$\frac{\text{Net Income}}{\text{Total Assets}}$	+/-
Independent variables	Variable labels	Variable Definition	Expected Sign and Relationship
Operating Efficiency	OPEFF	$\frac{\text{Total Interest Income}}{\text{Total Operating Expense}}$	OPEFF must have positive relationship with ROA.
Liquidity	LIQ	$\frac{\text{Loan}}{\text{Total Deposit}}$	LIQ may have positive or negative relationship with ROA.
Size	SIZE	LN(Total Assets)	SIZE may have positive and negative relationship with ROA.

**Operating Efficiency**

It is the ability of the bank to minimize or manage its expenses in a way to produce output without hampering the quality. Thus theoretically a bank which can manage its expenses efficiently and effectively is expected to be more profitable. In this work total income to total operating expense ratio is considered as proxy of a bank’s operational efficiency. A high operational efficiency is positively correlated with the profitability of bank.

**Liquidity**

Liquidity is measure as loan to deposit ratio. This ratio represents the availability of cash in the hand of banks to meet the demand of deposit holders. If substantial portion of deposited amount is used for

sanctioning loan by a bank then it will cause a high liquidity ratio and thus the bank might not be able to cover any unforeseen withdrawals, thus will create a risk. Again on the other hand if the bank keeps too much money to maintain high liquidity, it might be forgoing chances of earning more profits.

**Size**

Size has a positive relationship with the performance of the bank by economies of scale, reduce the cost of gathering information etc. however, extremely larger banks might have a negative relationship between size and performance due to agency costs, the overhead of bureaucratic process and high cost to manage the larger firms.

**Table No. 2 : Model Summary for Commercial Banks in India from 1990-91 to 2015-16**

Model 1	Public Sector Banks		Private Sector Banks		Foreign Banks	
	Value	Sig	Value	Sig	Value	Sig
F Statistic	13.485	0.000	17.514	0.000	31.077	0.000
R Square	0.648		0.628		0.809	
Adjusted R Square	0.6		0.665		0.783	

**Source:** Calculated from Performance Highlights of Banks, IBA.

The values of F Statistic and the respective values of sig. imply that the used model fit significantly for public, private as well as foreign banks. The table 1 shows the R square for public sector banks is .648 for private banks it is .628 and for foreign banks the value is .809. The significant value for all types banks is .000. The result indicates 64.8% variation in financial performance of public sector banks, 62.8% variation in financial performance of private sector banks and 80.9% variation in financial performance of foreign banks are due to (independent variables) Operating efficiency, liquidity and Size.

**Table No.3: Results of Coefficients for commercial banks in India from 1990-91 to 2015-16**

Variables	Public Sector Banks		Private Sector Banks		Foreign Banks	
	b	Sig	b	Sig	b	Sig
Constant	.192	.000	.070	.000	.223	.000
OPEFF	.011	.003	.013	.000	.004	.117
LIQUID	-.061	.005	.056	.066	.000	.983
SIZE	-.007	.001	-.005	.026	-.011	.000

**Source:** Calculated from Performance Highlights of Banks, IBA.

Table 2 indicates the operating efficiency of the public, private and foreign banks. The operating efficiency has a positive impact on the performance of banks. So the higher operating efficiency indicates better performance, more profits. Whereas, lower operating efficiency indicates poor performance and fewer profits. In case of all the banks output is consistent. This research work found significant positive relationship between operational efficiency and performance of the banks. The value for b= .011, p<0.05 for public sector banks, for private banks value is b=.013, p<0.05 and for foreign banks value is b=.004, p<0.05 which is consistent. If we see the case of liquidity it is negative in public sector banks and positive in private as well as foreign banks. The size of the banks shows a negative relationship in all the banks.

#### Findings

1. Operating efficiency is directly related to the performance of public, private and foreign banks.
2. Liquidity is inversely associated with the performance of all commercial banks.

3. Size is negatively correlated with the performance of all commercial banks.

#### Conclusion

In a nutshell, the research work shows that operating efficiency is positively related to the financial performance of all the banks, higher operating efficiency leads to higher rate of profits as well as higher profits. On the other hand, if banks keep more liquid assets it will lead to decrease their performance level. Same is the case of size if the size of the banks increases to extreme it will negatively affect the financial performance of banks.

#### References

1. Bansal, S. (2005), *Impact of Liberalization on Productivity and Profitability of Public Sector Banks in India*, An unpublished Ph.D. Thesis submitted to UBS, Panjab University, and Chandigarh.
2. Bharathi, B.Y. (2007), "Indian Banks – Banking on Growth", *Chartered Financial Analyst, Dec.*, pp.100-101.
3. Dr. Sonika Chaudhary and Priti Kiran (2011), "Life Insurance Industry in India - Current Scenario", *IJMBS Vol. 1, Issue 3*.
4. Fantal, A. B., Kemal, K. S., & Waka, Y. K. (2013), *Corporate Governance and Impact on Bank Performance*, *Journal of Finance and Accounting*, pp. 19-26.
5. Karam Pal Narwal and Shweta Pathneja (2015) "Determinants of Productivity and Profitability of Indian Banking Sector: A Comparative Study" *Eurasian journal of business and economics*, pp.35-58.
6. Pritpal Singh Bhullar and Pardeep K. Gupta, "Empirical Analysis of Determinants of Profitability of Banks: Evidence from Indian Public Sector Banks" *international journal of accounting and financial reporting*, Vol.7, pp. 404-416.
7. Yesmine, S. (2013), *Identifying Ethical Identity of Islamic Banks Operating in Bangladesh*. *Journal of Banking and Financial Services*, University of Dhaka, National Bureau of Economic Research, pp.73-107.
8. Vincent Okoth Ongore (2013) "Determinants of Financial Performance of Commercial Banks in Kenya" *International Journal of Economics and Financial Issues*, Vol.3, pp.237-252.