

An Empirical analysis on factors influencing Financial Performance of selected commercial banks in India

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Abstract: Banking is the backbone of economy of a country. It works as a originator for achieving sustainable economic growth with the help of monetary intermediation. The financial performance of bankshave critical implications for economic growth of the nation. Profitability of banking is one of the important parameters from which funds providers can understand performance of the institutions. Financial performance depends on various factors. In order to investigate the factors influencing the financial performance, four commercial banks which include two public sector and two private sector banks have been taken as sample covering the period of time 2010-11 to 2020-21 . Data have been retrieved from Reserve Bank of India and CMIE for the respective years and Factor analysis has employed to assess the most influencing factors influencing financial performance of each bank.

KEYWORDS:Banking,sustainable economic growth ,Profitability ,Financial performance,commercial banks,Reserve Bank of India,Factor analysis.

1.1 INTRODUCTION

The role of banks in any economic development cannot be overemphasized. Banks serve as an important channel for economic growth through mobilizing financial savings from within and outside a country, allocating the financial resources to the most productive use by transforming different risks and banks play key roles in expanding and enhancing trade, commerce and industry. Efficient and profitable banks maximize shareholders' value and encourage the shareholders to make additional investments. As a result of which, more employment opportunities will be created and more goods and service will be produced and ultimately bring about economic growth.

The Indian economic development takes place in the realistic world from 1991“Liberalization, Privatization and Globalization” policy. As per “LPG” policy allrestriction on the Indian economy was totally dissolved and the soundest phasefor the Indian banking system adopt over here. This also changed the scenario of the macroeconomic world. The budget policy and suggestion provided by shriDr Man Mohan Singh and the Governor of Reserve Bank of India.

At present, financial regulation in India is oriented towards product regulation, i.e. each product is separately regulated. For example, fixed deposits and other banking products are regulated by the Reserve Bank of India (RBI), small savings products by the Government of India (GoI) etc.The enactment of the Banking Laws Amendment Act 2012 has made the regulatory and supervisory powers of the RBI more effective and facilitate banks in raising funds from the capital market required for expansion of banking business. It will also facilitate finalization of guidelines by the RBI for providing licenses for new banks, which is essential for achieving the objective of financial inclusion in the current perspective.

1.2 REVIEW OF LITERATURE:

Ketkar and Ketkar (2008) investigated the efficiency of Indian banks since systemic reforms began in the 1990s. By using data envelopment analysis on bank-specific data from 1997 to 2004, the study reported that the foreign banks to be the most efficient followed by new private banks. While the efficiency scores of all banks have increased over the reform period, the nationalized banks have registered the strongest gains due to infusion of new capital and the increase in competition. The study using the regression analysis showed that the mandates on priority sector lending have hurt the efficiency of state-owned and nationalized banks but bank branch expansion mandates have not hurt their efficiency.

Flamini et al. (2009) carried out a detailed study on the “The Determinants of Commercial Bank Profitability in Sub-Saharan Africa” by using a sample of 389 banks in 41 Sub-Saharan African countries. The study found that the bank specific factors that influenced the profitability included credit risk, higher returns on assets, bank size, activity diversification, and ownership. Bank returns are also affected by macroeconomic variables such as inflation and GDP suggesting that macroeconomic policies that promote low inflation and stable output growth influenced credit expansion and profitability.

Manoj (2010) did an empirical study on the determinants of profitability and efficiency of Old Private Sector Banks in India with a focus on banks in Kerala State and reported that the banks in Kerala had shown enhanced profitability, operational efficiency and risk management capability, particularly credit risk management. The study also found that non-interest income was a significant determinant of the profitability of old private sector banks in Kerala.

RamjiGautam(2018) examined the determinants of financial performance of commercial bank in Nepal. In order to investigate the determinants of financial performance, 10 commercial banks have been taken as sample covering the period of time 2006/07 to 2016/17. Data are collected from annual report of the respective banks. Multiple linear regression models have been employed for the analysis of data. The result shows a positive relationship of return on assets with capital adequacy ratio, management efficiency and gross domestic product whereas negative with assets quality and liquidity management. It is evident from the findings that financial performance of commercial banks are strongly affected by capital adequacy ratio, management efficiency, gross domestic product, liquidity management and assets quality

1.3 PERIOD OF THE STUDY

The study covered a period of 10 financial years from 2010-11 to 2020-21. The financial year starts from 1st day of April of a year and ends on 31st day of March of the following year.

1.4 SCOPE OF THE STUDY

The scope of the study is wide in nature. It covers the selected public sector and private commercial banks that operate in India.

1.5 RESEARCH METHODOLOGY

The financial data and relevant information required for the study are drawn from the various secondary source. The Prowess' corporate databases developed by CMIE (Centre for Monitoring Indian Economy) and CLP (Capital Line Plus) have been used as principal sources. The other relevant data are collected from Journals, Magazines, Dailies namely The Financial Express and The Economic Times. According to the RBI and prowess corporate database developed by CMIE, (Centre for Monitoring Indian Economy) there are 20 public sector banks (including state bank group) and 22 private sector banks are operating India and listed in both Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). Out of these Public sector and private sector banks State Bank of India, Punjab national Bank, ICICI bank and HDFC Bank have been selected and 10 years data are available for all the 4 banks.

1.6 FACTOR ANALYSIS

Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. The information gained about the interdependencies between observed variables can be used later to reduce the set of variables in a dataset. Computationally this technique is equivalent to low rank approximation of the matrix of observed variables. Factor analysis originated in psychometrics, and is used in behavioral sciences, social sciences, marketing, product management, operations research, and other applied sciences that deal with large quantities of data. Factor analysis is related to principal component analysis (PCA). Latent variable models, including factor analysis, use regression modelling techniques to test hypotheses producing error terms. In the present study factor analysis is employed to group related financial variables of selected banking sector

TABLE No.1
FACTOR LOADING OF STATEBANK OF INDIA(SBOI)
MEASUREMENT SCALE ITEMS ON EXTRACTED FACTORS

FACTORS	Component		
	1	2	3
PBDIT/Net Assets	0.969	-0.104	-0.154
Sales/Net Assets	0.965	-0.058	-0.059
PBIDT/Sales(%)	0.931	-0.150	-0.169
Interest Income / Total Funds (%)	0.902	0.331	0.081
EV/EBIDTA	0.886	-0.227	-0.289
Interest Expended / Total Funds (%)	0.844	-0.425	-0.235
Net Assets/Net Worth	0.805	0.215	0.279
Price Earning (P/E)	0.725	-0.271	-0.575
Price/Cash EPS (P/CEPS)	0.735	-0.172	-0.615
Investment / Deposit (%)	-0.730	0.405	0.288
Net Interest Income / Total Funds (%)	0.096	0.905	0.379
Price to Book Value (P/BV)	-0.388	0.904	-0.122
Profit before Provisions / Total Funds (%)	-0.113	0.887	0.434
PAT/PBIDT(%)	0.032	0.858	0.505
Interest Expended / Interest Earned (%)	0.318	-0.851	-0.377
RONW (%)	0.184	0.837	0.513
ROE(%)	0.184	0.837	0.513
Net Profit / Total funds (%)	0.180	0.835	0.517
Market Cap/Sales	-0.526	0.827	-0.137
Operating Expenses / Total Funds (%)	0.230	0.381	0.869
Operating Expenses / Total Income (%)	-0.436	0.084	0.853
Non Interest Income / Total Funds (%)	-0.295	0.409	0.827
Cash / Deposit (%)	0.237	0.519	0.776
Credit-Deposit(%)	0.353	-0.403	-0.770
Other Income / Total Income (%)	-0.571	0.294	0.725

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Table shows the factor loadings of **SBOI** for the period from 2008-09 to 2017-18. It can be observed from table that there are 10 prime factors PBDIT/Net Assets, Sales/Net Assets, PBIDT/Sales(%), Interest Income / Total Funds (%), EV/EBIDTA, Interest Expended / Total Funds (%), Net Assets/Net Worth, Price Earning (P/E), Price/Cash EPS (P/CEPS), Investment / Deposit (%) are accounted by Factor I with the values ranging from 0.969 to 0.730.

Similarly, it is seen that there are nine factors influencing factor 2 which includes Net Interest Income / Total Funds (%), Price to Book Value (P/BV), Profit before Provisions / Total Funds (%), PAT/PBIDT(%), Interest Expended / Interest Earned (%), RONW (%), ROE(%), Net Profit / Total funds (%) and Market Cap/Sales .

Finally Factor three has six ratios which includes Operating Expenses / Total Funds (%), Operating Expenses / Total Income (%), Non Interest Income / Total Funds (%) Cash / Deposit (%), Credit-Deposit(%) and Other Income / Total Income (%) respectively.

TABLE No.2

**FACTOR LOADING OF PUNJAB NATIONAL BANK(PUNB)
MEASUREMENT SCALE ITEMS ON EXTRACTED FACTORS**

FACTORS	Component				
	1	2	3	4	5
Non Interest Income / Total Funds (%)	-0.983	-0.044	0.090	-0.134	-0.019
Other Income / Total Income (%)	-0.956	-0.126	0.162	-0.181	0.099
Investment / Deposit (%)	-0.951	-0.185	0.081	-0.080	-0.182
Sales/Net Assets	0.925	0.309	0.097	0.152	0.047
Credit-Deposit(%)	0.920	0.046	-0.060	-0.042	0.372
Net Assets/Net Worth	-0.886	-0.425	-0.008	0.037	-0.094
Interest Income / Total Funds (%)	0.828	0.278	-0.253	0.252	-0.323
PBDIT/Net Assets	0.818	0.558	0.014	0.091	-0.041
Net Interest Income / Total Funds (%)	0.780	0.156	0.095	0.589	-0.083
Operating Expenses / Total Funds (%)	0.664	0.073	0.630	-0.049	-0.359
Interest Expended / Total Funds (%)	0.567	0.309	-0.546	-0.221	-0.469
Cash / Deposit (%)	-0.535	0.411	0.226	0.385	0.363
Net Profit / Total funds (%)	0.176	0.969	0.047	0.123	0.089
RONW (%)	0.129	0.960	0.095	0.214	-0.003
ROE(%)	0.129	0.960	0.095	0.214	-0.003
PAT/PBIDT(%)	0.159	0.944	0.126	0.133	0.215
PBIDT/Sales(%)	0.185	0.940	-0.179	-0.219	0.004
EV/EBIDTA	-0.407	-0.897	0.094	-0.025	-0.123
Operating Expenses / Total Income (%)	-0.019	-0.265	0.907	-0.295	0.062
Market Cap/Sales	-0.196	0.281	0.856	0.212	0.265
Price to Book Value (P/BV)	-0.161	0.226	0.844	0.331	0.265
Profit before Provisions / Total Funds (%)	0.205	0.218	-0.052	0.951	-0.002
Interest Expended / Interest Earned (%)	-0.511	0.002	-0.409	-0.730	-0.182
Price Earning (P/E)	0.085	0.161	0.327	0.036	0.917
Price/Cash EPS (P/CEPS)	0.275	0.644	0.101	0.011	0.702

a. Rotation converged in 7 iterations.

Table shows the factor loadings of **PUNB** for the period from 2008-09 to 2017-18. It can be observed from table that there are 12 prime factors are accounted by Factor 1 Non Interest Income / Total Funds (%), Other Income / Total Income (%), Investment / Deposit (%), Sales/Net Assets, Credit-Deposit(%), Net Assets/Net Worth, Interest Income / Total Funds (%) PBDIT/Net Assets, Net Interest Income / Total Funds (%), Operating Expenses / Total Funds (%), Interest Expended / Total Funds (%) and Cash / Deposit (%). Similarly, it is seen that there are six factors influencing factor 2 which includes Net Profit / Total funds (%), RONW (%), ROE(%), PAT/PBIDT(%), PBIDT/Sales(%), and EV/EBIDTA respectively .

It is also observed that Factor 3 is influenced by Operating Expenses / Total Income (%), Market Cap/Sales and Price to Book Value (P/BV). Factor 4 and 5 is primarily influenced by two variables each namely Profit before Provisions / Total Funds (%), Interest Expended / Interest Earned (%) and Price Earning (P/E), Price/Cash EPS (P/CEPS) ratio with the values of 0.951, -0.730, 0.917 and 0.702 respectively.

TABLE No.3
FACTOR LOADING OF ICICI Bank Ltd(ICBL)
MEASUREMENT SCALE ITEMS ON EXTRACTED FACTORS

	Component			
	1	2	3	4
Non Interest Income / Total Funds (%)	-0.965	-0.061	-0.139	-0.024
Net Assets/Net Worth	0.945	-0.129	0.170	0.098
Investment / Deposit (%)	0.919	0.027	0.129	0.353
Other Income / Total Income (%)	-0.916	-0.216	0.212	-0.166
Sales/Net Assets	-0.844	0.246	-0.459	-0.041
PBIDT/Sales(%)	0.842	0.083	-0.213	0.476
Profit before Provisions / Total Funds (%)	-0.791	0.598	0.019	-0.069
PAT/PBIDT(%)	0.173	0.926	0.185	0.159
ROE(%)	0.281	0.896	-0.196	0.255
Net Interest Income / Total Funds (%)	-0.393	0.879	-0.068	-0.236
Net Profit / Total funds (%)	0.362	0.856	-0.087	0.318
Credit-Deposit(%)	-0.187	0.795	-0.382	0.354
RONW (%)	0.471	-0.766	0.098	0.377
Cash / Deposit (%)	0.346	-0.709	0.235	0.432
Interest Expended / Interest Earned (%)	0.498	-0.660	-0.315	0.459
Price/Cash EPS (P/CEPS)	-0.037	-0.190	0.954	-0.184
Price Earning (P/E)	-0.048	-0.281	0.935	-0.148
Market Cap/Sales	0.300	0.229	0.893	0.105
Interest Income / Total Funds (%)	0.168	0.398	-0.827	0.335
Price to Book Value (P/BV)	0.202	0.493	0.815	0.109
Interest Expended / Total Funds (%)	0.427	-0.223	-0.730	0.475
PBDIT/Net Assets	-0.547	0.342	-0.713	0.185
Operating Expenses / Total Funds (%)	-0.470	0.163	-0.664	-0.470
Operating Expenses / Total Income (%)	-0.134	-0.165	0.138	-0.910
EV/EBIDTA	-0.513	-0.070	0.458	-0.718

"Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization."

a. Rotation converged in 7 iterations.

Table shows the factor loadings of **ICBL** for the period from 2008-09 to 2017-18. It can be observed from table that there are 7 prime factors are accounted by Factor I which includes Non Interest Income / Total Funds (%), Net Assets/Net Worth, Investment / Deposit (%), Other Income / Total Income (%), Sales/Net Assets, PBIDT/Sales(%) and Profit before Provisions / Total Funds (%).

Similarly, it is seen that there are eight factors influencing factor 2 which includes PAT/PBIDT(%), ROE(%), Net Interest Income / Total Funds (%), Net Profit / Total funds (%), Credit-Deposit(%) RONW (%), Cash / Deposit (%) and Interest Expended / Interest Earned (%)

It is also observed that Factor 3 is influenced by eight variables namely Price/Cash EPS (P/CEPS), Price Earning (P/E), Market Cap/Sales Interest Income / Total Funds (%), Price to Book Value (P/BV), Interest Expended / Total Funds (%) PBDIT/Net Assets and Operating Expenses / Total Funds (%).

Factor 4 is primarily influenced by Operating Expenses / Total Income (%) and EV/EBIDTA

TABLE No.4
FACTOR LOADING OF HDFC BANK LTD(HDBL)
MEASUREMENT SCALE ITEMS ON EXTRACTED FACTORS

FACTORS	Component			
	1	2	3	4
Price Earning (P/E)	-0.936	-0.142	-0.222	0.073
Profit before Provisions / Total Funds (%)	0.934	-0.167	-0.071	0.181
Price/Cash EPS (P/CEPS)	-0.913	-0.185	-0.234	0.237
PAT/PBIDT(%)	0.902	0.271	0.059	0.245
Net Profit / Total funds (%)	0.840	0.238	0.314	0.278
ROE(%)	0.798	0.460	0.293	0.130
EV/EBIDTA	-0.696	-0.124	-0.678	-0.131
PBIDT/Sales(%)	0.666	0.196	0.660	0.189
RONW (%)	0.222	0.938	-0.125	-0.211
Sales/Net Assets	-0.189	-0.922	-0.047	-0.103
Credit-Deposit(%)	-0.391	-0.897	-0.156	-0.029
Operating Expenses / Total Funds (%)	0.001	0.894	-0.033	0.063
Net Assets/Net Worth	0.201	0.890	0.287	-0.182
PBDIT/Net Assets	0.344	-0.824	0.400	-0.032
Non Interest Income / Total Funds (%)	0.567	0.709	-0.124	-0.111
Net Interest Income / Total Funds (%)	0.601	-0.669	0.005	0.409
Interest Expended / Total Funds (%)	0.162	0.017	0.975	-0.029
Interest Expended / Interest Earned (%)	-0.114	0.258	0.921	-0.196
Interest Income / Total Funds (%)	0.324	-0.174	0.918	0.095
Operating Expenses / Total Income (%)	-0.478	0.375	-0.756	-0.003
Other Income / Total Income (%)	0.267	0.653	-0.658	-0.130
Investment / Deposit (%)	0.481	0.487	0.542	0.451
Cash / Deposit (%)	-0.362	0.339	-0.503	-0.422
Market Cap/Sales	0.070	-0.079	-0.037	0.952
Price to Book Value (P/BV)	0.094	-0.030	0.005	0.944

"Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization."

Rotation converged in 5 iterations.

Table shows the factor loadings of **HDBL** for the period from 2008-09 to 2017-18. It can be observed from table that there are 8 prime factors are accounted by Factor I which includes Price Earning (P/E), Profit before Provisions / Total Funds (%), Price/Cash EPS (P/CEPS), PAT/PBIDT(%), Net Profit / Total funds (%), ROE(%), EV/EBIDTA and PBIDT/Sales(%)

Similarly, it is seen that there are eight factors influencing factor 2 which includes RONW (%), Sales/Net Assets, Credit-Deposit(%), Operating Expenses / Total Funds (%), Net Assets/Net Worth, PBDIT/Net Assets, Non Interest Income / Total Funds (%) and Net Interest Income / Total Funds (%)

It is also observed that Factor 3 is influenced by 7 variables namely Interest Expended / Total Funds (%), Interest Expended / Interest Earned (%), Interest Income / Total Funds (%), Operating Expenses / Total Income (%), Other Income / Total Income (%), Investment / Deposit (%) and Cash / Deposit (%).

Factor 4 is primarily influenced by Market Cap/Sales Price to Book Value (P/BV)

1.7 CONCLUSION

Financial performance is influenced by profitability ratios which are higher for the private sector banks. The performance of the private banks has been noteworthy considering the odds they faced in securing growth of their business. The private sector banks have taken banking service to a large number of centers and competed well with the public sector banks in spite of the inherent advantages the public sector banks have. It can be evident from the analysis that each bank has their own set of financial

Ratios which influence their performance in a greater extent. The banking management should focus more on these financial factors for making banks more profitable in long term.

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