Profitability of Indian Scheduled Commercial Banks: A Comparative Evaluation

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ABSTRACT
This research is intended to be both exploratory and diagnostic. Analyzing the profitability of Indian scheduled commercial banks is the main goal of this study. Data were gathered from the Reserve Bank of India's data release from 2017, the Statistical Table Relating to Indian Banks, and various RBI Bulletin issues. Numerous statistical techniques, including average, standard deviation, standard error, lower bound, and upper bound, have been employed to evaluate the profitability of banks. Additionally, the SPSS programme was used to apply the ANOVA test at a 95% level of confidence to determine whether there were any significant differences between the various forms of earnings and profits. According to the study, there are significant differences between the three groups of banks in terms of net interest income, operating profit, interest income, and return on assets. However, in terms of return on equity, the distinction was insignificant. In addition, foreign banks had the most net interest income, non-interest income, operating profit, and return on assets, but private sector banks generated the highest return on equity.

Key words: Interest Income, Net Interest Income, Return of Assets, Return on Equity and ANOVA

INTRODUCTION

One of the most significant components of the country's current financial system is its scheduled commercial banks, which actively participate in the accumulation and distribution of about two thirds of all financial resources. Before independence, this sector had already experienced some ups and downs, but nationalization gave it a boost and brought stability, which accelerated economic growth, especially after reforms in 1991, which turned class banking into mass banking and allowed the new private sector banks to operate the banking business in India. In addition, international banks were permitted to open more branches beginning in 1998-99 as a result of India's WTO commitment. Due to increased competition and a focus on profitability, public sector banks began switching from their long-standing social orientation to an economic-oriented model. Thus, the restructuring of public sector banks and the emergence of new private sector banks exacerbated the professionalism in the banking sector, and the increased presence of private and foreign banks over the past ten years has resulted in competitive pricing of services, narrow spreads, and improvements in service quality. Due to the intense rivalry from private and foreign banks, the public sector banks (Nationalized banks and SBI Group), which had long controlled the banking industry, began to feel the heat. However, public sector banks continue to dominate the banking business. For instance, the public sector accounts for over two thirds of deposits and advances, leaving only one third for private and international banks. Second, there have always been significant impediments for this expanding and active business, including poor profitability of public sector banks, rising NPAs, nexus between bank officials, corporations, and politicians, and lack of consistency. Furthermore, due to fierce rivalry, increasing client demand, and India's fast reforms, the efficiency and profitability of the banking system have achieved enormous importance. As a result, this study aims to compare the operating results of Indian scheduled commercial banks based on a few key metrics, including as interest income, operating profit, and asset return.

REVIEW OF LITERATURE

Ramchandran, Ismail and Kavitha (2006) evaluated the Indian scheduled commercial banks' profitability. The SBI group, Nationalized Banks, and Private Banks were the three groups formed from all the scheduled commercial banks. The study noted a few significant contributors to banks' profitability and offered some recommendations for raising bank profits across the board.

Yadav, M.S. (2007) found that the current level of NPAs in public sector banks has a 50% impact on bank profitability, which has resulted in public sector banks being less productive and efficient in terms of revenue per employee and operating profit per employee.

Kheechee, D.S. (2011) examined the scheduled commercial banks in India's relative profitability. In general, three parameters—Return on Fund, Cost of Fund, and Net Interest Margin—were chosen. Foreign banks had the highest net interest margin, followed by private banks and nationalised banks. According to the study, there are big differences between the three groups of banks in terms of return on investment, cost of investment, and net interest margin.

Ibrahim, M.S. (2011) stated that India's scheduled commercial banks have greatly improved their financial performance, and that increases in the investment-deposit ratio and the proportion of total credit going to priority sectors can also result in increases in operational effectiveness and profitability.

Chaudhary, K. and Sharma, M. (2011) evaluated how effectively Indian public sector banks and private sector banks manage their non-performing assets (NPAs) and came to the conclusion that public sector banks' handling of NPAs was progressively deteriorating.

Ayyappam, S. & Sakthivadivel, M. (2012) demonstrated that private sector banks' compound growth rates were higher than those of public sector banks, and it was determined that at their current rate of expansion, private sector banks could present a challenge in the market.

Kumar, V. (2012) discovered that private sector banks and public sector banks were, on average, less efficient than international banks. Comparing public sector banks to the other scheduled commercial banks, the profitability of the former was poor.

Bapat, D.M. (2013) For four out of the seven years that data on the growth, profitability, and productivity of Indian public sector banks was evaluated, a substantial difference was seen between the scheduled commercial banks in terms of business and profit per employee.

Rani, S. (2013) evaluated the development and performance of Indian scheduled commercial banks from 2009 to 2012. The study discovered that Indian commercial banks maintained a favourable development trend throughout the global economic crisis.

Makkar, A. & Singh, S. (2013) compared the financial results of the Indian commercial banks that are scheduled. According to the study's findings, the financial performance of India's public and private sector banks did not differ significantly on the whole.

Naser, A. V. (2014) indicated that international banks operating in India have superior financial performance and personnel efficiency than other commercial banks. Low profitability but relatively good stability were found in the public sector banks.

Haque, A. (2014) compared the financial performance of Indian commercial banks. Three parameters—Return on Assets, Return on Equity, and Net Interest Margin—were examined. Additionally, the ANOVA method was utilised to identify significant differences between the various groups of banks. In terms of ROA and NIM, there was little variation between the selected groups of banks, however there was a difference in terms of Return on Equity.

Chiragand Thakarshibhai (2014) compared the profitability of public and private sector banks based on a few key metrics, including net profit margin, return on assets, and return on long-term funds. The study found that private and public sector banks significantly differed in terms of Net Interest Margin, Return on Long-Term Fund, and Return on Assets Ratio.

Paul, P. (2015) analysed the operational effectiveness of all commercial banks for the ten-year period from 2004 to 2013. Aggregate Deposit, Current-Deposit Ratio, Investment-Deposit Ratio, and Share of Scheduled Commercial Banks in the Priority Sector Lending were the variables chosen for this study. The study also showed a notable improvement in working performance.

Malyadan.P. and Sirisha. S. (2015) analysed the development and trend in light of other metrics, including Profit per Employee, Interest Income, Other Income, and Return on Assets, among others. In this study, it was clearly demonstrated that private sector banks outperform all other groups of banks and rank top across all criteria, while public sector banks and foreign banks were found to be lagging behind.

Pallauvi and Sluja, R (2017) evaluated the Indian scheduled commercial banks' profitability. The profitability was examined using a few factors, including operating profit as a percentage of working capital and net profit as a percentage of total deposits and total income. According to the study's findings, net profit to working capital is superior to operational profit to working capital and net profit to total revenue is superior to net profit to total deposit.

After analysing the previous research, it was determined that the studies are inconclusive, lacking, and do not compare the profitability of various bank groups using the parameters chosen for this study. As a result, this study was carried out in order to close the gap.

OBJECTIVES OF THE STUDY :

- To examine the interest income, non-interest income, net interest income of three groups of scheduled commercial banks.
- To analyze the operating profit, return on assets and return on equity of selected banks.
- To analyze the profitability of all the banks on the basis of evaluated parameters and make final judgments.

DATA AND METHODOLOGY

The current study is intended to be a diagnostic and exploratory investigation, and it is firmly grounded in quantitative analysis. Secondary data were considered for 5 years, from 2016–2017 to 2020-2021. Public sector banks, private sector banks, and foreign banks are the three groups into which all the scheduled commercial banks have been divided. Additionally, consolidated statistics for all the scheduled commercial banks have been compared side by side.

The Reserve Bank of India released data in 2017, Statistical Table Relating to Banks in India (Bank Group-Wise Select Ratios of Scheduled Commercial Banks), and different RBI Bulletin Issues were used to compile the data. Additionally, the collected data have been appropriately rearranged, categorized, and calculated in accordance with the requirement of study.

In this study, the researcher attempts to evaluate the profitability of regularly scheduled commercial banks based on a number of parameters, including the ratios of interest income to total assets, net interest income to total assets, non-interest income to total assets, operating profit to total assets, return on assets, and return on equity.

HYPOTHESES FOR THE STUDY

- Null Hypothesis H_{01}: There was no difference among the three groups of banks relating to interest income, non-interest income, and net interest income.
- Null Hypothesis H_{02}: There was no difference among the three groups of banks relating to operating profit, return on assets and return on equity.
- Null Hypothesis H_{03}: The profitability of all the groups of scheduled commercial banks is uniform.

  Statistical techniques including mean, standard deviation, standard error, lower bound, and upper bound have been utilized to evaluate the data collected for all the scheduled commercial banks. Additionally, using Excel and SPSS software, the ANOVA test has been used to test for significant differences in profit among three groups of banks at a 95% level of confidence.

RESULT AND DISCUSSION

Table-1 compares various ratios based on the mean value for the time period under examination. Additionally, the tables below are split into two sections; the upper section displays data obtained from the RBI website, and the lower section displays an analysis in terms of mean, standard deviation, and standard error.

Table 1: Ratio of Interest Income to Total Assets (In %)

YEARS	PUBLIC BANKS	PRIVATE BANKS	FOREIGN BANKS	ALL SC BANKS
2016-17	7.200	8.270	6.270	7.410
2017-18	6.680	7.730	5.960	6.950
2018-19	6.870	7.910	5.770	7.160
2019-20	6.840	8.070	5.740	7.220
2020-2021	6.280	7.380	5.000	6.610
95% Confidence Interval for Mean				
Mean	6.6675	7.7725	5.6175	6.985
Std. Deviation	0.271462091	0.29624033	0.423034672	0.275499546
Std. Error	0.135731045	0.148120165	0.211517336	0.137749773
Lower Bound	6.235543236	7.301115528	4.944357436	6.546618743
Upper Bound	7.099456764	8.243884472	6.290642564	7.423381257
Minimum	6.28	7.38	5	6.61
Maximum	6.87	8.07	5.96	7.22

Note: The data for Tables 1 to 6 was collected from Reserve Bank of India (2021), Statistical Table Relating to Banks in India, www. Rbi.org.in/scripts/annulpublication.asp

Compared to other scheduled commercial banks, the private sector banks achieved the highest interest revenue to total assets, or 7.7725 percent. The public sector banks got 6.6675 percent followed by foreign banks 5.6175 percent. Percentage of all scheduled commercial banks (6.985) was higher than public banks and foreign banks, but lesser than private sector banks. If analyzed consistency wise public sector banks were found 0.271462091, private sector banks were 0.29624033, foreign banks were 0.423034672 and scheduled commercial banks were 0.275499546.

Table 2: Ratio of Net Interest Income to Total Assets (In %)

YEARS	PUBLIC BANKS	PRIVATE BANKS	FOREIGN BANKS	ALL SC BANKS
2016-17	2.120	3.380	3.380	2.510
2017-18	2.080	3.320	3.430	2.500
2018-19	2.330	3.260	3.230	2.700
2019-20	2.370	3.430	3.260	2.810
2020-2021	2.450	3.580	3.300	2.910
95% Confidence Interval for Mean				
Mean	2.3075	3.3975	3.305	2.73
Std. Deviation	0.159661099	0.140564339	0.088128694	0.175689119
Std. Error	0.07983055	0.070282169	0.044064347	0.08784456
Lower Bound	2.053443562	3.17383077	3.164767582	2.450439406
Upper Bound	2.561556438	3.62116923	3.445232418	3.009560594
Minimum	2.08	3.26	3.23	2.5
Maximum	2.45	3.58	3.43	2.91

Table 2 shows the difference between interest income and interest expenses, which is also known as net interest income,. Net interest margin was highest in case of private sector banks (3.3975) followed by foreign banks (3.305) and public sector banks (2.3075). Although private sector banks attained the highest interest income and public sector banks got the lowest interest income, in spite of that private sector banks emerged the best performer because of their cost efficiency. It has also been noted that net interest margin of all public sector banks (2.3075) was lower than foreign banks private banks and public sector banks. Hence, it can be realized that public sector banks have been lagging behind the foreign banks and private sector banks on the parameters of cost. Variation-wise, public sector banks (0.159661099) were most consistent closely followed by private banks(0.140564339) and foreign banks (0.088128694).

Table 3: Ratio of Non-Interest Income to Total Assets (In %)

YEARS	PUBLIC BANKS	PRIVATE BANKS	FOREIGN BANKS	ALL SC BANKS
2016-17	1.20	1.880	1.930	1.420
2017-18	1.160	1.690	1.550	1.330
2018-19	0.910	1.480	1.490	1.150
2019-20	1.130	1.750	1.430	1.350
2020-2021	1.110	1.540	1.420	1.280
95% Confidence Interval for Mean				
Mean	1.0775	1.615	1.4725	1.2775
Std. Deviation	0.113541476	0.126095202	0.060207973	0.089953692
Std. Error	0.056770738	0.063047601	0.030103986	0.044976846
Lower Bound	0.896830175	1.414354395	1.37669568	1.134363603

Upper Bound	1.258169825	1.815645605	1.56830432	1.420636397
Minimum	0.91	1.48	1.42	1.15
Maximum	1.16	1.75	1.55	1.35

Table 3 shows ratio of non-interest income to total assets. Private sector banks got the highest non- interest income in terms of mean value as compared to the public sector banks (1.0775) and foreign banks (1.4725). Non-interest income of all scheduled commercial banks (1.2775) was higher than public sector banks, and lower than private banks and foreign banks. private sector banks were found the most consistent followed by public sector banks (0.113541476) and foreign banks (0.089953692) respectively.

Table 4: Ratio of Operating Profits to Total Assets (In %)

YEARS	PUBLIC BANKS	PRIVATE BANKS	FOREIGN BANKS	ALL SC BANKS
2016-17	1.680	3.020	3.250	2.110
2017-18	1.570	2.820	2.860	1.990
2018-19	1.510	2.540	2.780	1.910
2019-20	1.660	2.900	2.830	2.510
2020-2021	1.750	2.990	2.980	2.250
95% Confidence Interval for Mean				
Mean	1.6225	2.8125	2.8625	2.165
Std. Deviation	0.105	0.194486503	0.085	0.271968135
Std. Error	0.0525	0.097243252	0.0425	0.135984068
Lower Bound	1.455421569	2.503028573	2.727246032	1.732238006
Upper Bound	1.789578431	3.121971427	2.997753968	2.597761994
Minimum	1.51	2.54	2.78	1.91
Maximum	1.75	2.99	2.98	2.51

Table 4 shows ratio of operating profit to total assets and operating profit is calculated by deducting operating expenditures from total income (Net Interest Income and Non-Interest Income). The foreign banks outperformed all the Indian banks (Private Banks and Public Banks) in terms of operating profit to total assets ratio i.e. 2.8625 percent. Next is the place of private sector banks 2.8125 percent and public sector banks 1.6225 percent. Even on this parameter public banks found lagging behind foreign banks and private sector banks. Mean value of all scheduled commercial banks was 2.165 percent, higher than public sector banks. Contrary to this, foreign banks (0.085) were found most consistent followed by private banks (0.194486503) and public sector banks (0.105).

Table 5: Return On Assets (In %)

YEARS	PUBLIC BANKS	PRIVATE BANKS	FOREIGN BANKS	ALL SC BANKS
2016-17	-0.100	1.300	1.610	0.360
2017-18	-0.840	1.140	1.340	-0.150
2018-19	-0.650	0.630	1.560	-0.090
2019-20	-0.230	0.510	1.550	0.150
2020-2021	-0.280	1.170	1.560	0.660
95% Confidence Interval for Mean				
Mean	-0.5	0.8625	1.5025	0.1425
Std. Deviation	0.29405215	0.341504026	0.108435849	0.368544434

Std. Error	0.147026075	0.170752013	0.054217924	0.184272217
Lower Bound	0.967902588	0.319090887	1.329954367	-0.443936436
Upper Bound	0.032097412	1.405909113	1.675045633	0.728936436
Minimum	-0.84	0.51	1.34	-0.15
Maximum	-0.23	1.17	1.56	0.66

Table 5 clearly indicates that foreign banks attained the highest return on assets i.e. 1.5025 percentfollowed by private sector banks 0.8625 percent, while public sector banks (-0.5) got the lowest return on assets even lesser than all scheduled commercial banks i.e. 0.1425 percent. Furthermore, it has also been noted that from 2016-17 to 2020-21 public sector banks got the negative return on assets. and these facts manifest the alarming situation in the public sector banks. Secondly, due to ups and downs in return on assets, public sector banks were found unstable i.e. 0.29405215 percent, while private sector banks and foreign banks were found comparatively stable i.e. 0.341504026 and 0.108435849 respectively. By and large, it can be inferred from the above analysis that foreign banks have been lagging behind the private sector banksand public banks.

Table 6: Return On Equity (In %)

YEARS	PUBLIC BANKS	PRIVATE BANKS	FOREIGN BANKS	ALL SC BANKS
2016-17	-2.05	11.870	9.120	4.160
2017-18	-14.620	10.120	7.160	-2.810
2018-19	-11.440	5.450	8.770	-1.850
2019-20	-4.160	3.300	8.760	0.780
2020-2021	4.670	10.330	9.200	7.730
95% Confidence Interval for Mean				
Mean	-6.3875	7.3	8.4725	0.9625
Std. Deviation	8.57383374	3.490740132	0.898716678	4.760051645
Std. Error	4.28691687	1.745370066	0.449358339	2.380025823
Lower Bound	20.03038275	1.745453483	7.042441215	-6.611804385
Upper Bound	7.255382752	12.85454652	9.902558785	8.536804385
Minimum	-14.62	3.3	7.16	-2.81
Maximum	4.67	10.33	9.2	7.73

Table 6 measures the return on equity in terms of mean value. The most efficient utilization of equity share holders fund was done by foreign banks since this sector has got the highest return on equity i.e. 8.4725percent followed by private sector banks (7.3). Besides, public sector banks on this parameter were found to be the lowest performer i.e. -6.3875 percent only, and return forall scheduled commercial banks was 0.9625 percent, higher than public banks and lower than foreign banks and private sector banks. While public sector banks were ahead of private sector banks in terms of return on equity, but, this sector had to face negative return and these negative facts had caused a huge variation in the return i.e 8.57383374 percent, comparatively very high since variation in case of private banks (3.490740132) and foreign banks (0.898716678) was lesser than average of all scheduled commercial banks i.e. 4.760051645 percent.

Table 7: Hypothesis Testing For Profitability (ANOVA)

Parameters	Banks	Sum of Squares	DF	Mean Square	F	Sig.	Null
Ratio of Interest Income to Total Assets	Between Groups	11.5602	3	3.8534	28.5591	0.05	Rejected
	Within Groups	2.1588	16	0.1349			
	Total	13.719	19				
Net Interest Income to Total Assets	Between Groups	4.3095	3	1.4365	71.0969	0.05	Rejected
	Within Groups	0.3233	16	0.0202			
	Total	4.6328	19				
Non-interest Income to Total Assets	Between Groups	0.9798	3	0.3266	13.995	0.05	Rejected
	Within Groups	0.3734	16	0.0233			
	Total	1.3532	19				
Operating Profits to Total Assets	Between Groups	5.7245	3	1.9082	55.5346	0.05	Rejected
	Within Groups	0.5498	16	0.0344			
	Total	6.2743	19				
Return on Assets	Between Groups	10.9084	3	3.6361	42.1491	0.05	Rejected
	Within Groups	1.3803	16	0.0863			
	Total	12.2887	19				
Return On Equity	Between Groups	664.557	3	221.519	9.6375	0.05	Rejected
	Within Groups	367.7612	16	22.9851			
	Total	1032.3182	19				

Table 7 shows that profitability of the three categories of banks is not similar therefore hypothesis has been rejected for interest income, net interest income, non-interest income, operating profit, return of asset and return on equity which demonstrate insignificant difference among the three groups of banks. Utmost foreign banks accomplished the highest profit as compare to other groups of banks.

CONCLUSION

The following outcomes have been drawn from the above analysis.

Out of three groups of banks, private sector bank performed well in comparison with foreign banks and public banks on the parameter of interest income and non-interest income. However, private sector banks attain the highest interest income, but foreign banks established itself as most cost-efficient banking institutions resulting into the highest net interest income. Besides, foreign banks managed secondary banking activities more efficient than private banks and public banks. To sum-up, public sector banks were found linger behind the private and foreign banks.

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