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Profitability of Indian Scheduled Commercial Banks

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Abstract: This study is meant to be exploratory and diagnostic research. the essential objective of this study is to research the profitability of Indian scheduled commercial banks. Data are collected from the Data Release of Federal Reserve Bank of India (2017), actuarial table concerning Banks in India, and various problems with RBI Bulletins. For assessing the profitability of banks, various statistical methods are used, like average, variance, standard error, boundary, and boundary. additionally, to the present, the ANOVA test has been applied at a 95% level of confidence for testing significant differences amongst the varied sorts of incomes and profits through SPSS software. The study reveals a big difference amongst three groups of banks in terms of interest income, non-interest income, net interest income, operating profit, and return on assets. However, the difference was insignificant in terms of return on equity. Moreover, the foreign banks attained the very best net interest income, non-interest income, operating profit, and return on assets, but the very best return on equity was attained by private sector banks. .

Key Words: Net interest income, Interest Income, Return on Equity, Return of Asset and ANOVA

INTRODUCTION:

Scheduled commercial banks in India are one of the foremost important ingredients of the existing economic system and around two-third of monetary resources are accumulated and allocated by the active participation of those banks.

This industry had already seen various ups and downs before independence, but nationalization gave some boost and stability to the present sector leading to acceleration of the economic process, especially after reforms in 1991 and this step led the category banking to the mass banking, and therefore the new private sector banks were allowed to run the banking business in India. Besides, following India's commitment to the WTO, foreign banks were also permitted to open more branches with effect from 1998-99. With the accelerated competition and high emphasis on profitability, the general public sector banks started adopting an economic-oriented model rather than a social approach followed for many years. Thus, restructuring of public sector banks and therefore the emergence of the latest private sector banks exacerbated the professionalism within the banking sector, and this increased presence of the private and foreign banks during the last decade led to the competitive pricing of services, narrow spreads, and improvement within the quality of services. Consequently, the general public sector banks (Nationalized banks and SBI Group), which had dominated the banking sector for many years, started feeling the warmth of intense competition from private and foreign banks. But still banking system is dominated by public sector banks as an example, almost two-thirds of deposits and advances are shared by the public sector and only one-third is left for the private and foreign banks. Also, poor profitability of public sector banks(PSBs), Non-performing

Assets NPAs, nexus amongst banks officials, corporates and politician, and lack of consistency has always been major bottlenecks for this growing and vibrant industry.

Furthermore, the efficiency and profitability of the banking sector have attained huge importance thanks to intense competition, high customer demand, and accelerated reforms in India. Therefore, this study, is an effort to live the relative performance of Indian scheduled commercial banks on the idea of selected parameters viz. interest income, operating profit, and return of assets, etc.

LITERATURE REVIEW:

Ramachandran, Ismail, and Kavitha (2006) assessed the profitability of scheduled commercial banks in India. All the scheduled commercial banks were divided into three groups namely, SBI group, Nationalized Banks, and personal Banks. The study identified certain prominent factors to the profitability of banks and a few suggestions were also made to extend the profit of all groups of banks. Yadav, M.S. (2007) within their study revealed that the existing level of NPAs publicly sector banks affects one-half of the profitability of banks and this has led to the reduction in the efficiency and productivity of public sector banks in terms of operating profit per employee and business per employee. Chaudhary, K. and Sharma, M. (2011) analyzed how efficiently Indian public sector banks and personal sector banks manage their NPAs and reached a conclusion that NPAs management publicly sector banks was deteriorating continuously. Ayyappam, S. & Sakthivadivel, M. (2012) revealed that the compound rate of growth of personal sector banks was better than public sector banks and it had been also identified that at the current rate of growth, private sector banks can pose a challenge within the market place. Kumar, V. (2012) found that foreign banks on the mean, were more efficient followed by private sector banks and public sector banks. The profitability of public sector banks was weak as compared to the opposite scheduled commercial banks. Bapat, D.M. (2013) assessed the expansion, profitability, and productivity for Indian public sector banks and a significant difference was observed amongst the scheduled commercial banks in terms of business per employee and profit per employee for 4 out of 7 years. Rani, S. (2013) assessed the performance and growth of Indian scheduled commercial banks during the amount from 2009 to 2012. The study found that in the worldwide depression, the Indian commercial banks maintained a positive trend for development. Makkar, A. & Singh, S. (2013) compared the financial performance of Indian scheduled commercial banks. The study concluded that an enormous, the difference wasn't significant in terms of the monetary performance of the general public and personal sector banks in India. Naser, A. V. (2014) revealed that the financial performance and employee efficiency of foreign banks, working in India is best than other commercial banks. The general public sector banks revealed low profitability, but comparatively high stability. Haque, A. (2014) examined the comparative financial performance of economic banks in India. The study included three parameters namely, return on Assets, Return on Equity, and Net Interest Margin. Besides, the ANOVA technique was wont to determine significant differences amongst the various groups of banks. The difference was insignificant amongst the chosen groups of banks in terms of ROA and NIM, but the difference was noticeable in terms of Return on Equity.

Chirag and Thakarshibhai (2014) made a comparative analysis of profitability between public sector and personal sector banks on the idea of selected parameters viz. net income Margin, Return on Assets, and Return on Long-term Fund. The study revealed a big difference between private and public sector banks in terms of Net Interest Margin, Return on Long-term Fund, and Return on Assets Ratio. Paul, P. (2015) assessed the working performance of all the commercial banks for the amount of ten years from 2004 to 2013. The parameters selected for this study were Aggregate Deposit, Current-Deposit Ratio, Investment-Deposit Ratio, and share of Scheduled Commercial Banks within

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the priority sector lending. Besides, the study revealed a big improvement within the working performance.

Malyadan.P. and Sirisha. S. (2015) examined the trend and progress on the idea of varied parameters like Profit per Employee, Interest Income, Other Income and Return on Assets, etc. This study found strong evidence that the private sector banks surpass the opposite group of banks and got the very best position altogether the parameters, while public sector banks and foreign banks found lagging. Some parameters were selected to look at the profitability like operating profit as a percentage of the working fund and net income as a percentage of the total deposit and total income. The study concluded that net income to working fund is best than operating profit to working fund and net income to total income is best than net income to the total deposit. After reviewing the prevailing studies, it’s concluded that the available studies are indecisive, incomplete, and don’t make the comparison of profitability amongst different groups of banks on the idea of parameters selected under this study, which is why this study was further proceeded to fill the gap. The specific objectives are:

1) To look at the interest income, non-interest income, net interest income of three groups of scheduled commercial banks.

2) To research the operating profit, return on assets and return on equity of selected groups of banks.

3) To research the profitability of all the groups of banks on the idea of assessed parameters and draw final inferences

METHOD:

The present study is meant to be diagnostic and exploratory research, and therefore the secondary data are taken into consideration for ten years from 2009-10 to 2018-19 and it’s thoroughly supported quantitative chemical analysis. All the scheduled commercial banks are selected and categorized into three groups namely, public sector banks, private sector banks, and foreign banks. Data are collected from data release of the Federal Reserve Bank of India (2017), actuarial table concerning Banks in India (Bank Group-Wise Select Ratios of Scheduled Commercial Banks), and various problems with RBI Bulletins. Furthermore, the collected data are suitably re-arranged, classified, and tabulated consistent with the need of this study. Under this study, an effort is formed by the researcher to assess the profitability of scheduled commercial banks on the idea of selected parameters viz. Interest Income to Total Assets, Net Interest Income, Non-interest Income to Total Assets, Operating Profit to Total Assets, Return on Assets, and Return on Equity.

HYPOTHESIS:

Null Hypothesis H_{01}: The difference wasn't significant amongst three groups of banks in terms of interest income, non-interest income, and net interest income.

Null Hypothesis H_{02}: The difference wasn't significant amongst the three groups of banks in terms of 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. For assessing the collected data for all the scheduled commercial banks, some statistical methods are used, like Mean, variance, and Standard Error, boundary, and boundary additionally to the present, ANOVA test has been applied at a 95% level of confidence for testing the significant difference in terms of profit amongst three groups of banks through Excel and SPSS software.

ANALYSIS:

Table-1 shows the comparison of varied ratios on the idea of the mean for the amount under the investigation. Moreover, the tables given below are divided into two parts; the Upper part reveals the info taken from the RBI website and the lower part shows an analysis in terms of mean, variance, and standard error, etc.

The ratio of interest income to total asset				
year	PSB	PVB	FB	All SCB
2010	7.6	7.6	5.99	7.37
2011	7.52	7.59	6.15	7.44
2012	8.55	8.71	6.67	8.45
2013	8.54	9.04	6.89	8.53
2014	8.31	8.9	6.6	8.32
2015	8.12	8.81	6.71	8.18
2016	7.74	8.63	6.67	7.88
2017	7	8.27	6	7.42
2018	8	8.44	7	7.94
2019	7.95	8.54	6.55	8.02

Table 1. The ratio of Interest Income to Total Assets (In %)

95% Confidence Interval for Mean

mean	7.953	8.453	6.556	7.955
Standard Error	0.140752344	0.159262537	0.0998132	0.135943207
Median	7.975	8.585	6.635	7.98
Mode	#N/A	#N/A	6.67	#N/A
Standard Deviation	0.445097992	0.503632362	0.3156369	0.429890167
Sample Variance	0.198112222	0.253645556	0.0996267	0.184805556
Kurtosis	-0.796936008	-0.04615297	-0.279648	-1.40543538
Skewness	-0.15198248	-0.988589349	-0.566669	-0.2074415
Range	1.35	1.45	1.01	1.16
Minimum	7.2	7.59	5.99	7.37
Maximum	8.55	9.04	7	8.53
Sum	79.53	84.53	65.56	79.55
Count	10	10	10	10
Confidence Level(95.0%)	0.318403922	0.360276888	0.2257931	0.3075249

reserve

Note: the info for Tables 1 to six was collected from Reserve Bank of India (2019), actuarial table concerning Banks in India, www. Rbi.org.in/scripts/annulpublication.asp

The private sector banks attained the very best interest income to total assets i.e. 8.45 percent as compared to other scheduled commercial banks. the general public sector banks got 7.95 percent followed by foreign banks 6.55 percent. The percentage of all scheduled commercial banks (7.95) was above public banks and foreign banks, but lesser than private sector banks. If analyzed consistently wise nationalized banks were found slightly more consistent (0.445097992) than private sector banks i.e. 0.503632362. Comparatively, foreign banks had more variation within the interest income while all scheduled commercial banks had rock bottom variation i.e. 0.429890167.

On both the parameters, foreign banks seemed to be rock bottom performers i.e. less interest income and highest inconsistency.

Table 2. The ratio of Net Interest Income to Total Assets (In %)

	The ratio of Net Interest income to total asset					
year		PSB	PVB	FB	ALL SCB	
2010		2.29	2.9	3.96	2.54	
2011		2.77	3.1	3.86	2.91	
2012		2.76	3.09	3.89	2.9	
2013		2.57	3.22	3.83	2.79	
2014		2.45	3.31	3.54	2.7	
2015		2016	3.37	3.54	2.64	
2016		2.23	3.41	3.59	2.58	
2017		2.12	3.38	3.41	2.51	
2018		2.44	3.22	3.7	2.69	
2019		2.42	3.26	3.67	2.93	

95% Confidence Interval for Mean

Mean	2.44	3.226	3.699	2.719
Standard Error	0.067148	0.050248	0.057202	0.049586
Median	2.43	3.24	3.685	2.695
Standard Deviation	0.212341	0.158899	0.18089	0.156805
Sample Variance	0.045089	0.025249	0.032721	0.024588
Kurtosis	-0.51388	0.480577	-1.21356	-1.53803
Skewness	0.35921	-0.88839	-0.05462	0.164804
Range	0.65	0.51	0.55	0.42
Minimum	2.12	2.9	3.41	2.51
Maximum	2.77	3.41	3.96	2.93
Sum	24.4	32.26	36.99	27.19
Count	10	10	10	10
Confidence Level(95.0%)	0.1519	0.113669	0.129401	0.112171

Table 2 shows net interest income, which is nothing but the difference between interest income and interest expenditures. Net interest margin was highest just in the case of foreign banks (3.69) followed by private sector banks (3.22) and public sector banks (2.44). Although private sector banks attained the very best interest income and foreign banks got rock bottom interest income, that foreign banks emerged as the simplest performer due to their cost-efficiency. it's also been noted that the net interest margin of all scheduled commercial banks (2.71) was less than foreign banks and personal banks, but it had been above public sector banks. Hence, it is often realized that public sector banks are lagging behind the foreign banks and personal sector banks on the parameters of cost. Variation-wise, public sector banks (0.212) were most consistent closely followed by private banks (0.158) and foreign banks (0.180).

Table 3. The ratio of Non-Interest Income to Total Assets (In %)

The ratio of Non-interest income to total asset				
Year	PSB	PVB	FB	ALL SCB
2010	1.19	1.87	2.26	1.14
2011	0.99	1.64	2.38	1.21
2012	0.89	1.62	2.02	1.11
2013	0.87	1.62	1.83	1.09
2014	0.87	1.67	1.95	1.11
2015	0.91	1.72	1.99	1.15
2016	0.92	1.73	1.6	1.15
2017	1.2	1.88	1.95	1.42
2018	0.98	1.91	2.15	1.46
2019	0.95	1.98	2.27	1.49
95% Confidence interval for mean				
Mean	0.977	1.764	2.04	1.233
Standard Error	0.038616	0.042353	0.07347	0.0501343
Median	0.935	1.725	2.005	1.15
Mode	0.87	1.62	1.95	1.11
Standard Deviation	0.122116	0.133932	0.232331	0.1585385
Sample Variance	0.014912	0.017938	0.053978	0.0251344
Kurtosis	0.45229	-1.54602	0.021459	-1.1309892
Skewness	1.307357	0.410929	-0.36089	0.9273085
Range	0.33	0.36	0.78	0.4
Minimum	0.87	1.62	1.6	1.09
Maximum	1.2	1.98	2.38	1.49
Sum	9.77	17.64	20.4	12.33
Count	10	10	10	10
Confidence Level(95.0%)	0.087356	0.095809	0.1662	0.1134116

Table 3 reveals the ratio of non-interest income to total assets. Foreign banks got the very best non-interest income in terms of mean as compared to the private sector banks (1.764) and public sector banks (0.977). The non-interest income of all scheduled commercial banks (1.233) was above public sector banks and less than private banks and foreign banks. This difference indicates that foreign banks and personal sector banks have outperformed public sector banks not only in terms of primary banking activities but also in secondary banking activities. Secondly, private sector banks were found the foremost consistent followed by public sector banks (0.122) and foreign banks (0.2323) respectively.

Table 4. The ratio of Operating Profits to Total Assets (In %)

The ratio of Operating Profit to Total Asset				
year	PSB	PVB	FB	ALL SCB
2010	1.87	2.68	3.7	2.11
2011	2.05	2.58	3.52	1.94
2012	2.05	2.51	3.44	2
2013	1.87	2.64	3.33	2.04
2014	1.71	2.79	3.28	2.13
2015	1.7	2.86	3.36	2.24
2016	1.51	2.92	3.13	2.26
2017	1.68	3.02	3.27	2.17
2018	1.88	3.13	3.32	2.21

2019	1.97	3.21	3.37	2.29
95% confidence interval for mean				
Mean	1.829	2.834	3.372	2.139
Standard Error	0.055606754	0.074865806	0.049007936	0.037012
Median	1.87	2.825	3.345	2.15
Standard Deviation	0.175843997	0.236746465	0.154976701	0.117042
Sample Variance	0.030921111	0.056048889	0.024017778	0.013699
Kurtosis	-0.5718449	-1.137830947	1.599164327	-0.96306
Skewness	-0.38162688	0.258972231	0.843847745	-0.42698
Range	0.54	0.7	0.57	0.35
Minimum	1.51	2.51	3.13	1.94
Maximum	2.05	3.21	3.7	2.29
Sum	18.29	28.34	33.72	21.39
Count	10	10	10	10
Confidence Level(95.0%)	0.125791217	0.169358219	0.110863653	0.083727

Table-4 shows the 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. 3.372 percent. Next is that the place of personal sector banks 2.834 percent and public sector banks 1.829 percent. Even on this parameter, public banks were found lagging behind foreign banks and personal sector banks. mean of all scheduled commercial banks was 2.13 percent, above public sector banks. Contrary to the present, public sector banks (0.1758) were found most consistent followed by private banks (0.2367) and foreign banks (0.1549).

Table-5. Return On Equity (In %)

Return On Equity				
Year	PSB	PVB	FB	ALL SCB
2010	17.47	11.94	7.34	14.31
2011	16.9	13.7	10.25	14.96
2012	15.33	15.25	10.79	14.6
2013	13.48	16.46	11.53	13.84
2014	8.48	16.22	9.03	10.69
2015	7.76	15.74	10.24	10.42
2016	-3.47	13.81	8	3.58
2017	-2.05	11.87	9.12	4.16
2018	1.56	14.37	9.53	5.23
2019	12.45	14.59	10.5	5.96
95% Confidence interval for mean				
Mean	8.791	14.395	9.633	9.775
Standard Error	2.450671	0.509918	0.408248	1.466765
Median	10.465	14.48	9.885	10.555
Standard Deviation	7.749702	1.612502	1.290995	4.638319
Sample Variance	60.05788	2.600161	1.666668	21.51401
Kurtosis	-1.21482	-0.77505	-0.36786	-1.94995
Skewness	-0.56039	-0.44657	-0.46997	-0.21016
Range	20.94	4.59	4.19	11.38
Minimum	-3.47	11.87	7.34	3.58
Maximum	17.47	16.46	11.53	14.96
Sum	87.91	143.95	96.33	97.75

Count	10	10	10	10
Confidence Level(95.0%)	5.543803	1.153514	0.923522	3.318054

Table-5 measures the return on equity in terms of the mean. the foremost efficient utilization of equity shareholders fund was done by private sector banks since this sector possesses the very best return on equity i.e. 14.39 percent followed by public sector banks (8.79). Besides, foreign banks on this parameter were found to be rock bottom performers i.e. 9.63 percent only, and return for all scheduled commercial banks was 9.775 percent, above public banks and foreign banks. While public sector banks were before foreign banks in terms of return on equity, but in 201617 and 2015-16, this sector had to face negative return i.e. 17.47 and -3.47 percent respectively, and these negative facts had caused an enormous variation within the return i.e. 7.749 percent, comparatively very high since variation just in case of personal banks (1.61) and foreign banks (1.29) was lesser than average of all scheduled commercial banks i.e. 4.638 percent.

Table 6: Hypothesis Testing For Profitability (ANOVA)

parameter	Bank	Sum S.	DF	Mean square	F	Sig.	Null
The ratio of Interest Income to Total Assets	Between Groups	20.01357	3	6.671189	36.24711		Rejected
	Within Groups	6.62571	36	0.184048			
	Total	26.63928	39				
Net Interest Income to Total Assets	Between Groups	9.30474	3	3.10158	97.1927		Rejected
	Within Groups	1.14882	36	0.031912			
	Total	10.45356	39				
Non-Interest Income to Total Assets	Between Groups	7.06065	3	2.35355	84.08372		Rejected
	Within Groups	1.00766	36	0.027991			
	Total	8.06831	39				
Operating profit to Total assets	Between Groups	14.44933	3	4.816443	154.5135		Rejected
	Within Groups	1.12218	36	0.031172			
	Total	15.57151	39				
Return on Equity	Between Groups	192.8081	3	64.26937	2.99489		Accepted
	Within Groups	772.5484	36	21.45968			
	Total	965.3565	39				

Table-6 Reveals that the profitability of three groups of banks isn't uniform or identical since the hypothesis has been rejected for interest income, net interest income, non-interest income, operating profit, and return of asset. However, the framed assumption has been accepted for one parameter viz. return of equity, which shows insignificant difference amongst three groups of banks. In nutshell, foreign banks attained the very best profit followed by private banks and public sector banks.

CONCLUSION:

The following inferences are drawn from the above analysis.

Out of three categories of banks, private banks outperformed the foreign banks and public banks on the parameter of interest income, while the foreign bank was found better than private banks and public banks on net interest income and non-interest income. However, private banks got the very best interest income, but foreign banks emerged as the most cost-efficient banking institutions resulting in the very best net interest income. Besides, foreign banks managed secondary banking activities better than private banks and public banks since their non-interest income was also higher. By and enormous, public banks were found lagging behind private and foreign banks. Second, the foreign banks performed better than private banks and public sector banks in terms of operating profit to assets ratio and return on assets ratio. While Indian banks (private and public banks) earned interest income quite from foreign banks, but foreign banks succeeded and surpassed Indian banks in minimizing the interest expenditure and operating expenditures resulting in higher operating profit to assets and return on assets. Thus, the expenditure management in foreign banks is best than in Indian private banks and public banks.

Thirdly, private banks have completely outperformed foreign banks and public banks on the parameters of return on equity, which marked efficient utilization of monetary resources generally and borrowed funds, especially under private sector banks. Hence, it is often inferred that efficient financial management led to the very best return on equity for personal sector banks. In nutshell, private banks performed better than public sector banks in terms of profitability, and foreign banks were found better than Indian private banks for an equivalent.

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