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PERFORMANCE ANALYSIS OF PRIVATE SECTOR BANKS IN INDIA – A STUDY

KEY WORDS: Banks, private sector, performance, profit, analysis

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ABSTRACT

Modern banking in India started in the middle of the eighth century. After the liberalisation banks have grown in a smoother way. In today's scenario banks are the backbone of our economy. Private Banks in India passing through with latest technology, innovations and monetary tools and techniques. To survive in the competitive world there will be a need of retaining customers and attracting customers. Today a number of banks provide attractive rates of interest for the deposits and introduced various other schemes too. Banks should deal with a multitasking procedure because they need to fulfil the customer needs along with RBI norms. As we know profitability and liquidity are the main objectives of banks, there will be a need to meet requirements of customers too. In this study we made an attempt to analyse the performance of top ten private sector banks in India. Through using Mean, Standard deviation and One-way ANOVA it was found that HDFC Bank is one the more efficient Private sector Bank among the banks under study.

INTRODUCTION

A bank is a financial institution and a financial intermediary that accepts deposits and channels those deposits into lending activities, either directly by loaning or indirectly through capital markets. A bank may be defined as an institution that accepts deposits, makes loans, pays checks and provides financial services. A bank is a financial intermediary for the safeguarding, transferring, exchanging, or lending of money. A primary role of banks is connecting those with funds, such as investors and depositors, to those seeking funds, such as individuals or businesses needing loans. A bank is a connection between customers that have capital deficits and customers with capital surpluses.

The Indian Banking System comprises two major sectors of Banks. i.e., Public and Private Sector Banks. The former is controlled by the Government and the latter's shares or equity are held by private shareholders. The Private Sector Banks in India are divided into two groups. They are Old Private Sector Banks and New Private Sector Banks. Old Private Sector Banks existed prior to the nationalization in 1969 and kept their independence because they were either too small or specialist to be included in nationalization. The new private sector banks are those that have gained their banking license since the liberalization in the 1990s.

Literature Review

Dr. Divyang Joshi, Mr. Samir Thakkar, Ravina Macchi, Devyesh Chauhan (2021) studied in their research paper 'Financial performance Analysis of Banking sector in India'. They have taken information about net profit, total income, total expenses, networth for the period of 2016-2020. Here they included two public sector and two private banks of India.

M Selvakumar, H Janani, V Satyalakshmi, R Mohammad Abubakkar Siddique (2019) in their article 'Performance Analysis of New generation Private Sector Banks in India' concluded that the Kotak Mahindra Bank was the largest bank in India. The time period of study was 2008-2015 and included nine private sector banks in India.

Nataraja N.S, Nagaraja Rao Chilale, Ganesh L (2018) measured Return on Assets, Return on Equity, Market based performance by using Tobin Q in their paper 'Financial Performance of Private Commercial Banks in India – Multiple Regression Analysis.

Dr A.K Singh, Richa Jain (2017) studied CAMEL model in their research paper 'A Multidimensional Performance Analysis of Private Sector Banking in India'.

Brindadevi V (2013), measured the performance analysis of

four private sector banks through Return on Assets, Interest Spread. The study period included 2003-2012.

OBJECTIVES OF THE STUDY

The main objective of the study is to measure the performance of major private sector banks in India. The specific objectives of the study are to compare profitability position of private banks under study and to compare the financial performance of private banks under the study.

Hypothesis

- H₀ = There is no significant difference in the performance of the private banks under study
- H₁ = There is significant difference in the performance of the private banks under study

Scope Of The Study

The study deals with the performance analysis of Private Banks of India. Since it is a comparative study, a comparison of the performance of top seven Indian Private banks is made. The study period is five years from March 2017 to March 2021.

Research Methodology

The entire study is based on secondary data collected from sources like books and websites. The sample size of the study is seven Private banks in India selected on the basis of judgemental sampling technique. Descriptive statistics like mean and standard deviation are used for the effective analysis. In addition to descriptive statistics, One Way ANOVA test is also used to test the hypothesis framed in the study

Data Analysis And Interpretation

Table 1 - Net Profit (in crores) of the banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	72906.08	21305.75	15,882.63	24,564.94	-20,072.00	7,524.55	2,557.34
2020	63338.23	11757.15	7,416.30	20,650.31	-38,416.90	11,316.09	2,544.89
2019	53981.5	2197.42	15,688.64	17,507.54	6,318.02	9,504.94	2,130.52
2018	49766.49	24337.24	25,167.41	14,834.71	12,111.67	10,570.71	1,382.94
2017	38013.86	27019.91	27,369.58	11,619.01	8,880.16	7,526.12	1,269.35
MEAN	55601.23	17323.49	18304.91	17835.30	-6235.81	9288.48	1977.01
SD	13278.76	10232.96	8070.57	5024.08	22078.18	1733.46	619.79

MAXI MUM	72906.08	27019.91	27369.58	24564.94	12111.67	11316.09	2557.34
MINIMUM	38013.86	2197.42	7416.3	11619.01	-38416.9	7524.55	1269.35
RANK	1	4	2	3	7	5	6

Source – Moneycontrol.com

It is clear from the above table that HDFC bank has the highest average net profit (55,601.23 crore), followed by Axis bank (18,304), Kotak Mahindra Bank (17,835.30). Net profit of IndusInd bank came down in the year 2021. Average net profit of Yes bank is in negative figure. Standard deviation of net profit is highest for Yes bank.

Table 2 - Total Assets or Total liabilities (in crores) of the banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	17,46,870.53	12,27,339.08	9,96,184.1	3,83,488.63	2,73,542.76	3,62,659.14	2,01,362.38
2020	15,30,511.27	10,95,250.28	9,15,64.82	3,60,251.68	2,57,826.91	3,06,737.97	1,80,633.03
2019	12,44,540.69	9,61,14.63	8,00,96.52	3,12,208	3,80,826.17	2,77,493.88	1,59,334.98
2018	10,63,934.31	8,76,85.97	6,91,29.57	2,64,339	3,12,445.61	2,21,263.96	1,38,308.94
2017	8,63,840.20	7,68,49.32	6,01,67.66	2,14,589.96	2,15,059.92	1,78,273.82	1,14,971.92
MEAN	12,89,939.40	9,85,87.86	8,01,15.40	3,07,715	2,87,940.27	2,69,285.75	1,58,922.25
SD	35403.416	18030.625	16042.565	68960.46	62557.87	72072.70	34019.23
MAXIMUM	17,46,870.53	12,27,339.08	9,96,184.1	3,83,488.63	3,80,826.17	3,62,659.14	2,01,362.38
MINIMUM	8,63,840.20	7,68,49.32	6,01,67.66	2,14,589.96	2,15,059.92	1,78,273.82	1,14,971.92
RANK	1	2	3	4	5	6	7

Source – Moneycontrol.com

It is crystal clear from the above table HDFC bank has the highest total assets/liabilities. All banks under study increased their total assets/liabilities year to year except Yes bank. The total assets of Yes bank fell down in the year 2019. Federal bank has the lowest average of Total assets/liabilities. The standard deviation of total assets/liabilities is highest for HDFC bank.

Table 3 - Total Income (in crores) of the banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	1,46,063.12	98,086.80	78,483.49	32,299.46	23,382.56	35,558.41	15,702.81
2020	1,38,073.47	91,246.94	78,171.72	32,301.72	37,923.09	35,734.14	15,142.16
2019	1,16,597.93	77,913.35	68,116.11	28,547.24	34,214.90	27,907.87	12,770.04
2018	95,461.66	72,385.52	56,747.40	23,800.71	25,491.25	22,030.85	10,911.98
2017	81,602.46	73,660.76	56,233.47	21,176.09	20,581.40	18,577.16	9,759.19
MEAN	1,15,559.73	82,658.67	67,550.44	27,625.04	28,318.64	27,961.69	12,857.24
SD	27365.27	11410.56	10925.23	5019.62	7403.30	7768.02	2583.97
MAXIMUM	1,46,063.12	98,086.80	78,483.49	32,301.72	37,923.09	35,734.14	15,702.81
MINIMUM	81,602.46	72,385.52	56,233.47	21,176.09	20,581.40	18,577.16	9,759.19
RANK	1	2	3	6	4	5	7

Source – Moneycontrol.com

Table 3 shows the total income of banks under study. According to the above table HDFC has the highest average income and Federal bank has lowest average income. Standard deviation of total income is more for HDFC bank. Except Kotak Mahindra bank, Yes bank and IndusInd bank all other banks gain the highest income in 2021.

Table 4 - Total expenses (in crores) of the banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	1,30,649.44	98,108.52	88,791.31	28,246.33	36,557.16	41,517.52	15,762.14
2020	1,23,958.55	97,369.36	95,078.41	28,570.71	87,099.56	35,968.33	14,771.55
2019	1,03,069.85	94,211.20	75,470.51	24,644.30	38,272.19	27,714.42	12,382.02
2018	78,364.10	66,793.22	56,028.33	19,722.28	21,312.98	18,578.51	10,980.30
2017	67,116.27	63,773.04	52,630.35	17,771.19	17,245.91	16,064.49	9,546.80
MEAN	1,00,631.64	84,051.07	73,599.78	23,790.96	40,097.56	27,968.65	12,688.56
SD	27705.06	17228.24	19000.57	4904.50	27839.33	10926.06	2582.08
MAXIMUM	1,30,649.44	98,108.52	95,078.41	28,570.71	87,099.56	41,517.52	15,762.14
MINIMUM	67,116.27	63,773.04	52,630.35	17,771.19	17,245.91	16,064.49	9,546.80
RANK	1	2	3	6	4	5	7

Source – Moneycontrol.com

According to table 4 it is clear that HDFC bank has spent more for their various activities and Federal bank has lowest expenses. Compared to the initial year of the study and last year all banks increased their expenses. Standard deviation of total expenses is highest for Yes bank and lowest for Federal bank.

Table 5 - Net Profit Margin Ratio (%) of banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	25.74	20.46	10.35	25.94	-17.27	9.78	11.55
2020	22.86	10.6	2.59	22.08	-62.98	15.34	11.67
2019	21.29	5.3	8.5	20.32	5.8	14.82	10.89
2018	21.79	12.33	0.6	20.68	20.84	20.86	9.01
2017	20.99	18.09	8.26	19.27	20.27	19.9	9.57
MEAN	22.53	13.36	6.06	21.66	-6.67	16.14	10.54
SD	1.72	5.41	3.77	2.32	31.37	3.98	1.07
MAXIMUM	25.74	20.46	10.35	25.94	20.84	20.86	11.67
MINIMUM	20.99	5.3	0.6	19.27	-62.98	9.78	9.01
RANK	1	4	6	2	7	3	5

Source – Moneycontrol.com

Net profit of the banks under study are presented in Table 5. It indicates that HDFC bank has the highest return (22.53%), followed by Kotak Mahindra Bank (21.66%), IndusInd Bank (20.86%). Yes bank offers negative returns (-6.67) but improved from 2020 to 2021. ICICI bank has doubled their net profit margin ratio from 2020 to 2021.

Table 6 - Return on Net worth (%) of banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
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2021	15.27	11.21	6.48	10.95	-10.42	9.78	9.86
2020	15.35	6.99	1.57	11.86	-75.56	15.34	10.63
2019	14.12	3.19	7.01	11.47	6.39	14.82	9.37
2018	16.45	6.63	0.43	10.89	16.4	20.86	7.2
2017	16.26	10.11	6.59	12.35	15.09	19.9	9.29
MEAN	15.49	7.63	4.42	11.50	-9.62	16.14	9.27
SD	0.93	3.17	3.15	0.62	38.38	4.45	1.27
MAXIMUM	16.45	11.21	7.01	12.35	16.4	20.86	10.63
MINIMUM	14.12	3.19	0.43	10.89	-75.56	9.78	7.2
RANK	2	5	6	3	7	1	4

Source – Moneycontrol.com

Return on net worth indicates the profitability of the company by providing the picture of how much return it earns on its capital. IndusInd bank has the highest return of net worth (16.14%), but while comparing with other years in 2021 it earned low return on net worth. ICICI bank increased its return on net worth in a rapid growth from 2020 to 2021.

Table 7- Earning Per Share of banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	27.96	-0.03	-33.64	20.25	-5.26	-77.05	-0.3
2020	25.74	-9.46	-60.94	18.49	-39.18	-3.38	1.86
2019	49.68	-25.28	-28.6	20.45	-17.53	3.21	1.95
2018	65.88	8.7	2.8	21.4	18.14	57.52	-0.35
2017	56.53	16.98	15.04	18.5	73.07	42.01	1.23
MEAN	45.16	-1.82	-21.07	19.82	5.85	4.46	0.88
SD	17.69	16.40	30.32	1.28	42.92	52.28	1.13
MAXIMUM	65.88	16.98	15.04	21.4	73.07	57.52	1.95
MINIMUM	25.74	-25.28	-60.94	18.49	-39.18	-77.05	-0.35
RANK	1	6	7	2	3	4	5

Source – Moneycontrol.com

Earnings per share is presented through table 7. EPS is a share of a company's profit that is distributed to each share of stocks. According to the above table HDFC bank has the highest EPS (45.16). EPS of Axis Bank (-21.07) and ICICI bank (-1.82) are in negative. Standard deviation of EPS is highest for IndusInd bank and least for Federal Bank.

Table 8 - Capital adequacy ratio of the banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	18.79	19.12	19.12	22.26	17.5	17.38	14.62
2020	18.52	16.11	17.53	17.89	8.5	15.04	14.35
2019	17.11	16.89	15.84	17.45	16.5	14.16	14.14
2018	14.82	18.42	16.57	18.22	18.4	15.03	14.7
2017	14.55	17.39	14.95	16.77	17	15.31	12.39
MEAN	16.76	17.59	16.80	18.52	15.58	15.38	14.04
SD	2.00	1.20	1.61	2.16	4.02	1.20	0.95
MAXIMUM	18.79	19.12	19.12	22.26	18.4	17.38	14.7
MINIMUM	14.55	16.11	14.95	16.77	8.5	14.16	12.39
RANK	4	2	3	1	5	6	7

Source – Moneycontrol.com

Capital Adequacy Ratio is the measurement ratio that assesses the ability of banks to absorb losses. Table 8 represents the capital adequacy ratio. It is clear from the above table Kotak Mahindra has the highest capital adequacy ratio (18.52%) and Federal bank has the least capital adequacy ratio (14.04). We can see there is not much difference in capital adequacy ratios of different banks under study. Standard deviation of capital adequacy ratio is highest for Yes bank and least for Federal bank.

Table 9 - Cash Deposit Ratio of banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	6.83	4.77	10.15	4.05	4.75	6.88	4.25
2020	5.75	5.14	10.1	4.17	5.03	5.96	4.38
2019	8.85	5.85	7.04	4.73	5.19	6.04	4.68
2018	9.95	6.17	7.64	4.69	5.35	6.73	4.63
2017	5.71	6.45	6.89	4.86	5	5.59	4.72
MEAN	7.42	5.68	8.36	4.50	5.06	6.24	4.53
SD	1.90	0.70	1.63	0.36	0.22	0.55	0.21
MAXIMUM	9.95	6.45	10.15	4.86	5.35	6.88	4.72
MINIMUM	5.71	4.77	6.89	4.05	4.75	5.59	4.25
RANK	2	4	1	7	5	3	6

Source – Moneycontrol.com

Cash Deposit ratio (CDR) is the ratio of how much a bank lends out of the deposits it has mobilised. According to Table 9 Axis bank has the highest cash deposit ratio (8.36%), followed by HDFC bank (7.42%). Kotak Mahindra Bank has the lowest Cash deposit ratio (4.50%). The standard deviation of Cash deposit ratio is highest for HDFC bank and least for 0.21.

Table 10 - Credit Deposit Ratio of banks under study

YEAR	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK	INDUSIND BANK	FEDERAL BANK
2021	85.66	80.95	88.7	81.68	126.1	91.52	78.21
2020	87.56	86.52	89.71	87.06	124.02	99.06	80.94
2019	86.32	90.54	93.25	89.7	103.9	95.62	81.87
2018	84.68	92.92	93.63	87.35	97.73	92.75	78.84
2017	85.64	98.69	92.17	86.04	90.53	91.77	74.32
MEAN	85.97	89.92	91.49	86.37	108.46	94.14	78.84
SD	1.06	6.68	2.18	2.94	15.90	3.19	2.93
MAXIMUM	87.56	98.69	93.63	89.7	126.1	99.06	81.87
MINIMUM	84.68	80.95	88.7	81.68	90.53	91.52	74.32
RANK	6	4	3	5	1	2	7

Source – Moneycontrol.com

Credit Deposit Ratio is the ratio of how much a bank lends out of the deposits it has mobilised. Table 10 represents the credit deposit ratio. According to the above table, Yes Bank has the highest credit deposit ratio (108.46) and Federal bank least credit deposit ratio (78.84).

Testing Of Hypothesis

Following is the hypothesis tested in the study:

- H₀ = There is no significant difference in the performance of the private banks under study
- H₁ = There is significant difference in the performance of the private banks under study

One way ANOVA test is used to test the hypothesis and the results of the hypotheses tested presented in Table 11.

It can be observed from Table 11 that calculated F value for all variables used for the purpose of measuring the performance of the banks under study are greater than the critical value (2.44525) except Return on Net worth and Earning per Share at 5% level significance. Hence except Earning Per Share and Return on Net worth all eight calculated F values lies in the rejection, the hypothesis is rejected.

Table 11 – One Way ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
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NET PROFIT							
Between Groups	115709	6	1928486	15.656	03	8.4E-08	2.445259
Within Groups	344899	28	1231784				
	7928		97.4				
TOTAL ASSET/TOTAL LIABILITIES							
Between Groups	5.7546	6	9.59106	33.804	1.41E-		2.445259
	4E+12		E+11	04	11		
Within Groups	7.9443	28	2837253				
	1E+11		3544				
TOTAL INOME							
Between Groups	424312	6	7071869	43.217	6.91E-		2.445259
	15744		291	38	13		
Within Groups	458177	28	1636348				
	5695		46.2				
TOTAL EXPENSES							
Between Groups	345948	6	5765812	17.170	3.19E-		2.445259
	73239		206	87	08		
Within Groups	940212	28	3357903				
	9504		39.4				
NET PROFIT MARGIN RATIO							
Between Groups	3045.5	6	507.595	2.6992	0.03395		2.445259
	74389		7314	09	9		
Within Groups	5265.4	28	188.053				
	9768		4886				
RETURN ON NETWORTH							
Between Groups	2297.5	6	382.919	1.7683	0.14217		2.445259
	15257		2095	33	3		
Within Groups	6063.1	28	216.542				
	8916		47				
EARNING PER SHARE							
Between Groups	12642.	6	2107.11	2.4262	0.05148		2.445259
	68399		3999	11	1		
Within Groups	24317.	28	868.479				
	41616		1486				
CAPITAL ADEQUACY RATIO							
Between Groups	67.270	6	11.2117	2.5176	0.04476		2.445259
	27429		1238	09	1		
Within Groups	124.69	28	4.45331				
	288		7143				
CASH DEPOSIT RATIO							
Between Groups	65.184	6	10.8640	10.405	4.52E-		2.445259
	26857		4476	7	06		
Within Groups	29.233	28	1.04404				
	32		7143				
CREDIT DEPOSIT RATIO							
Between Groups	2551.2	6	425.205	9.0025	1.63E-		2.445259
	30669		1114	68	05		
Within Groups	1322.4	28	47.2315				
	8296		3429				

FINDINGS AND CONCLUSION

The following are the major findings of the study

- All banks have surplus net profit except the Yes bank, it has the net loss (-6,235.81 Crore). HDFC bank has the highest net profit (55,601.23 Crore). Net Profit of IndusInd bank also came down compared to the year 2020.
- It is found that HDFC Bank has the highest total assets/liabilities (12,89,939.40 Crore) and Federal Bank has the lowest (1,58,922.25 crore). All banks have increased their total assets/liabilities but in 2019 to 2020 Yes Bank's total assets/liabilities fell down.
- HDFC Bank has the highest total income (115,559.73 Crore) and Federal Bank has the lowest total income (12,857.24 Crore).
- It is found that HDFC has spent more during the five-year period under the study (1,00,634.64 Crore), followed by ICICI Bank (84,051.07 Crore), Axis Bank (73, 599.78 Crore). Federal bank has the spent least amount (12,688.56 Crore)

- The study presented that HDFC Bank has the highest Net Profit Margin Ratio (22.53%) and Yes Bank has the negative Net Profit Margin Ratio (-6.67%). All banks have increased Net Profit Margin Ratio year to year except Yes bank and IndusInd Banks.
- IndusInd Bank has highest Return on Net worth (16.14%) followed by HDFC Bank (15.49%), Kotak Mahindra Bank (11.50%) and Yes Bank has lowest Return on Net worth (-9.62%)
- It is crystal clear that HDFC Bank has the highest EPS (45.16), it is followed by Kotak Mahindra Bank (19.82), Yes Bank (5.82). We can see a huge difference between the EPS of HDFC and other banks. Axis Bank has the lowest EPS (-21.07).
- It is found that Capital Adequacy ratio is highest for Kotak Mahindra Bank (18.52%) and Federal Bank has the least Capital Adequacy Ratio (14.04%). It is clear that all banks under study improved their Capital Adequacy Ratio from 2020-21.
- Axis Bank has the highest Cash Deposit Ratio (8.36%), followed by HDFC Bank (7.42%), IndusInd bank (6.24%) and Kotak Mahindra Bank offers the lowest Cash Deposit Ratio (4.50%). Cash Deposit Ratio has increased for four banks from 2020 to 2021 other three banks increased CDR from 2020-21.
- Credit Deposit Ratio is highest for Yes Bank (108.46) and lowest for Federal Bank (78.84). Yes Bank has the highest Standard Deviation (15.90) and Federal Bank has the lowest Standard Deviation (2.93).

The comparison of seven private sector banks under study reveals that HDFC Bank is the most efficient bank and Yes Bank and Federal Bank are the least efficient banks. While we compared the Earning Per Share of all banks under the study, we found that HDFC has offered two times more EPS than other banks under study. In a few cases Yes bank has negative figures, the reason may be the crisis that was faced by Yes bank in 2020. In this study we compared the performance of various banks through one way ANOVA, it is found that there is a difference in the performance of private sector banks under study. But we can see there is no difference in the case of Earning Per Share and Return on Net worth.

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