An Overview of Indian Banking Sector Performance

Siva Nagendra C [1], Bhawana Bharti [1], Hari Charan T [1]

[1]Student, MBA Finance, Universal Business School, Karjat, Maharashtra, India.

Corresponding Author: siva.nagendra@ubs.org.in

Abstract: The current research paper focuses on the Indian Banking Sector from the year 2016 to 2021 in the perspective of Assets, Liabilities, Earnings, Expenses, Non-Performing Assets. It also focuses on the significant improvements from year to year by using statistical analysis like mean, median, mode, range and interquartile range and calculated the regression and correlation.

Key Words: —*Foreign bank, Private bank, Commercial bank, Public Sector bank, Cooperative bank, Assets, Liabilities, Earnings, Expenses, Non-performing Assets, Statistical analysis.*
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I. INTRODUCTION

Banks can be classified into various types.

Given below are the bank types in India,

- Central Bank
- Cooperative Banks
- Commercial Banks
- Regional Rural Banks (RRB)
- Local Area Banks (LAB)
- Specialized Banks
- Small Finance Banks
- Payments Banks

1.1 Central Bank

The central bank's primary duties include serving as the government's bank and directing and supervising all other financial institutions in the nation.

1.2 Cooperative Bank

The main goal of Cooperative Banks is to promote social welfare by providing concessional loans.

1.3 Commercial Banks

In accordance with the 1956 Banking Companies Act.

Their primary Objective is profit, and they function on a commercial basis. They are held by the federal, state, or any private body and have a uniform structure.

There are 3 types of commercial banks,

- *Public sector Banks* – A bank where the majority stakes are owned by the Government or the central bank of the country.
- *Private sector Banks* – A bank where the majority stakes are owned by a private organization or an individual or a group of people
- *Foreign Banks* – The banks with their headquarters in foreign countries and branches in our country, fall under this type of bank.

(Anon., n.d.)

II. LITERATURE REVIEW

The development of the Indian banking industry is intriguing right now. Numerous chances exist to expand into new industries and markets, find new methods of operation, increase productivity, and provide better customer service. *(kamath, 2003)*

The performance of the bank is measured using proxy variables such as return on equity and return on assets. These factors are substantially correlated with net profit, return on advances adjusted to cost of funds, ratio of cash deposits, total borrowing, and profit per employee, according to empirical data based on a panel-corrected standard estimate model. *(Haralayya, 2021)*

The growth of the Indian economy is significantly influenced by the banking industry. To enhance penetration and boost production and efficiency, banks must use technology. Growth and progress are multiplied by the effective

application of technology. Through distribution channels, technology enables transactions to take place more quickly and with unparalleled ease. *(Sawant, 2011)*

2.1 Objectives

1. To study the INDIAN BANKING SECTOR performance using Statistical tools.

2. To perform the Correlation and Regression test on Banks.

III. RESEARCH METHODOLOGY

DATA TYPE	Secondary Data
COLLECTION METHODS	Past Research papers, RBI Data

3.1 Scope of The Study

This was the secondary research conducted on Indian Banking Sector Performance as a part of our Academic study.

3.2 Research Design

This was descriptive research conducted on foreign sector banks, public sector banks, private sector banks and small bank using RBI Data.

3.3 Data Analysis – Data Taken from Government Website

To study the INDIAN BANKING SECTOR performance.

Assets of foreign banks in india

	2016	2017	2018	2019	2020
assets in Rs.(in crores)	814457.69	824610.92	869556.34	1056374.7	1265304.23
mean	966060.778				
median	869556.34				
mode	#N/A				
range	450846.54				
first quartile	824610.92				
third quartile	1056374.71				
inter quartile range	231763.79				
quartile deviation	115881.895				
coefficient of quartile deviation	0.123214014				
mean deviation	155822.9536				
standard deviation	193654.2764				
coefficient of covariance	0.200457653				

assets of foreign banks in india(2016-2020)
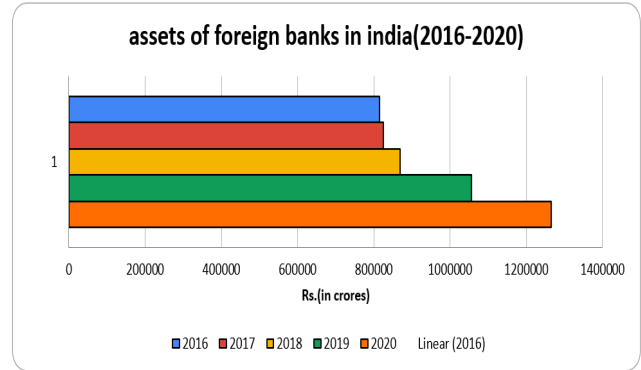
liabilties of foreign banks in india

	2016	2017	2018	2019	2020
laibilties in Rs.(in crores)	814457.69	824610.2	869556.34	1056374.7	1265304.23
mean	966060.632				
median	869556.34				
mode	#N/A				
range	450846.54				
first quartile	824610.2				
third quartile	1056374.7				
inter quartile range	231764.5				
quartile deviation	115882.25				
coefficient of quartile deviation	0.12321444				
mean deviation	155823.066				
standard deviation	193654.407				
coefficient of covariance	0.20045782				

liablties of foreign banks in india(2016-2020)
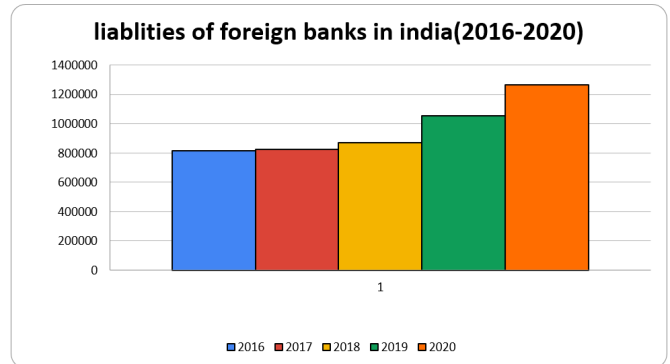
earnings of foreign banks in india

	2016	2017	2018	2019	2020
earnings in Rs.(in crores)	64856.3	67182.7	63670.4	69900.9	83223.1
mean	69766.7				
median	67182.7				
mode	#N/A				
range	19552.8				
first quartile	64856.3				
third quartile	69900.9				
inter quartile range	5044.64				
quartile deviation	2522.32				
coefficient of quartile deviation	0.03744				
mean deviation	5436.28				
standard deviation	7890.63				
coefficient of covariance	0.1131				

earnings of foreign banks in india(2016-2020)
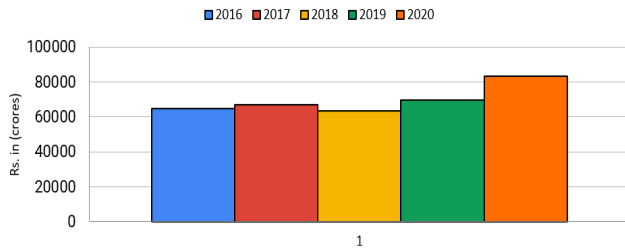
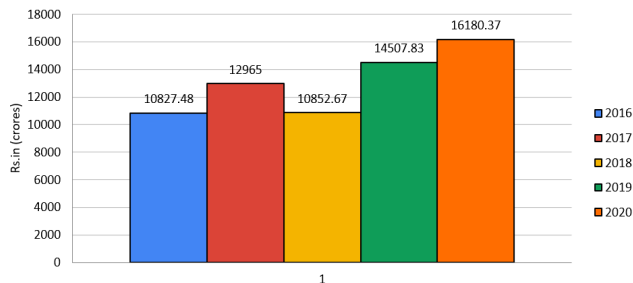
NPA(non performing assets) of foreign banks in india(2016-2020)
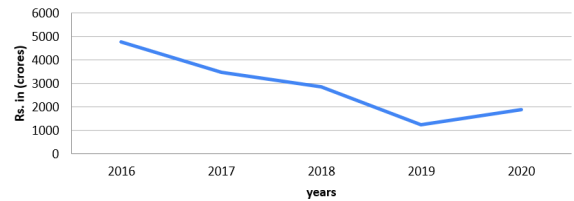
expenses of foreign banks in india

	2016	2017	2018	2019	2020
expenses in Rs.(in crores)	10827.48	12965	10852.7	14507.8	16180.4
mean	13066.67				
median	12965				
mode	#N/A				
range	5352.89				
first quartile	10852.67				
third quartile	14507.83				
inter quartile range	3655.16				
quartile deviation	1827.58				
coefficient of quartile deviation	0.144128				
mean deviation	1821.944				
standard deviation	2329.065				
coefficient of covariance	0.178245				

Assets of Private banks in india

	2016	2017	2018	2019	2020
assets in Rs.(in crores)	3146733.82	3601424.38	4298921.49	5297936.79	5832139.13
mean	4435431.122				
median	4298921.49				
mode					
range	2685405.31				
first quartile	3601424.38				
third quartile	5297936.79				
inter quartile range	1696512.41				
quartile deviation	848256.205				
coefficient of quartile deviation	0.190633055				
mean deviation	903685.4704				
standard deviation	1125794.403				
coefficient of covariance	0.253818484				

expenses of foreign banks in india(2016-2020)
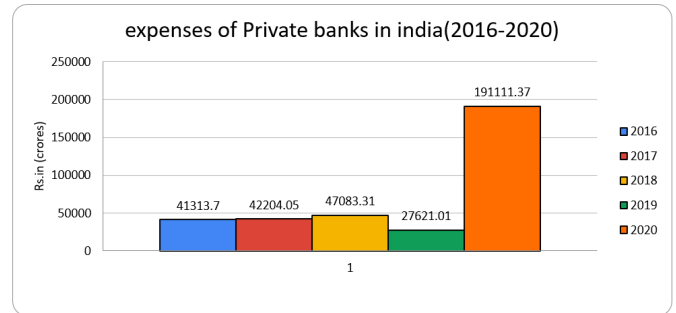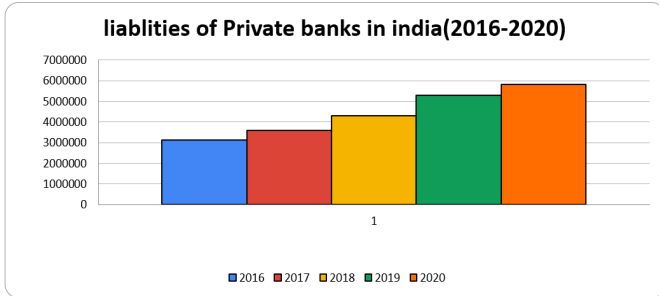

assets of Private banks in india(2016-2020)
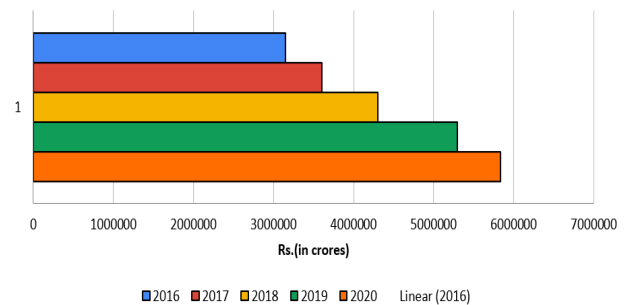
NPA(non- performing assets) of foreign banks in india

	2016	2017	2018	2019	2020
NPA(non performing assests) in Rs.(in crores)	4770.75	3478.82	2860.27	1241.58	1879.45
mean	2846.17				
median	2860.27				
mode	#N/A				
range	3529.17				
first quartile	1879.45				
third quartile	3478.82				
inter quartile range	1599.37				
quartile deviation	799.685				
coefficient of quartile deviation	0.29849				
mean deviation	1028.53				
standard deviation	1379.65				
coefficient of covariance	0.48474				

liabilties of Private banks in india

	2016	2017	2018	2019	2020
laibilties in Rs.(in crores)	3146733.82	3601424.38	4298921.49	5297936.79	5832139.13
mean	4435431.122				
median	4298921.49				
mode	#N/A				
range	2685405.31				
first quartile	3601424.38				
third quartile	5297936.79				
inter quartile range	1696512.41				
quartile deviation	848256.205				
coefficient of quartile deviation	0.190633055				
mean deviation	903685.4704				
standard deviation	1125794.403				
coefficient of covariance	0.253818484				

liablities of Private banks in india(2016-2020)

expenses of Private banks in india(2016-2020)

earnings of Private banks in india

	2016	2017	2018	2019	2020
earnings in Rs.(in crores)	524142.42	527359	372079.54	467058.34	546041.15
mean	487336.09				
median	524142.42				
mode	#N/A				
range	173961.61				
first quartile	467058.34				
third quartile	527359				
inter quartile range	60300.66				
quartile deviation	30150.33				
coefficient of quartile deviation	0.060639188				
mean deviation	54213.72				
standard deviation	70883.85357				
coefficient of covariance	0.145451681				

earnings of Private banks in india(2016-2020)

NPA(non- performing assets) of Private banks in india

	2016	2017	2018	2019	2020
NPA(non performing assests) in Rs.(in crores)	18004.21	35243.9	44906	68084.01	83651.42
mean	49977.908				
median	44906				
mode	#N/A				
range	65647.21				
first quartile	35243.9				
third quartile	68084.01				
inter quartile range	32840.11				
quartile deviation	16420.055				
coefficient of quartile deviation	0.317824197				
mean deviation	20711.8456				
standard deviation	26109.71537				
coefficient of covariance	0.522425136				

NPA(non performing assets) of Private banks in india(2016-2020)
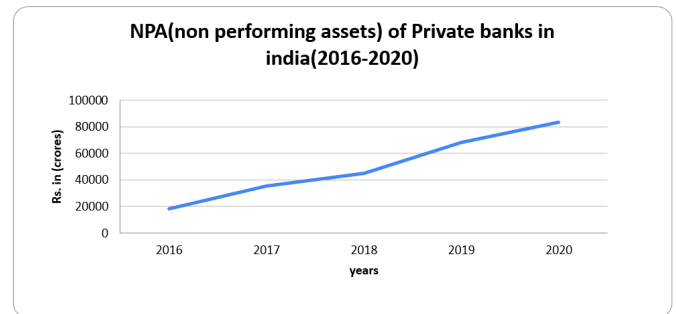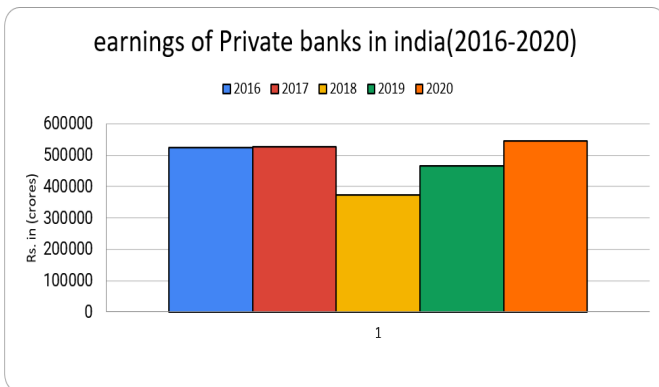
expenses of Private banks in india

	2016	2017	2018	2019	2020
expenses in Rs.(in crores)	41313.7	42204.05	47083.31	27621.01	191111.37
mean	69866.688				
median	42204.05				
mode	#N/A				
range	163490.36				
first quartile	41313.7				
third quartile	47083.31				
inter quartile range	5769.61				
quartile deviation	2884.805				
coefficient of quartile deviation	0.065269289				
mean deviation	48497.8728				
standard deviation	68162.57624				
coefficient of covariance	0.975609095				

SMALL BANKS

YEAR	ASSETS	LIABILITIES	EARNINGS	EXPENSES	NON PERFORMING ASSETS	INVESTMENTS
2020	132768.23	132768.23	19219.08	1967.96	-618.59	1.84
2019	83507.63	83507.63	10897.95	1081.77	324.75	-0.6
2018	51654.96	51654.96	6699.19	296.86	2860.27	-3.88
2017	11966.16	11966.16	1457.86	119.17	101.95	4.66
MEAN	69974.245	9977169.274	9568.52	866.44	667.095	0.505
MEDIAN	67581.295	10034900.57	8798.57	689.315	213.35	0.62
MODE						
RANGE	120802.07	1614921.32	17761.22	1848.79	3478.86	8.54
COEFFICIENT OF RANGE	0.834646624	0.080943914	0.858986871	0.885804909	1.551898576	10.94871795
FIRST QUARTILE	41732.76	9736605.03	5388.8575	252.4375	-78.185	-1.42
THIRD QUARTILE	95822.78	10163225.99	12978.2325	1303.3175	958.63	2.545
INTER QUARTILE RANGE	54090.02	426620.96	7589.375	1050.88	1036.815	3.965
QUARTILE DEVIATION	27045.01	213310.48	3794.6875	525.44	518.4075	1.9825
COEFFICIENT OF QUARTILE DEVIATION	0.39322313	0.021438421	0.413205086	0.675479108	1.177603371	1
MEAN DEVIATION	38163.685	419854.7152	5489.995	658.425	1096.5875	2.745
STANDARD DEVIATION	51077.62455	591568.2105	7503.700259	845.0931208	1516.530192	3.628383478

ASSETS

LIABILITIES
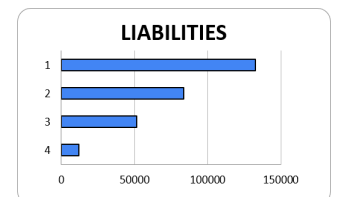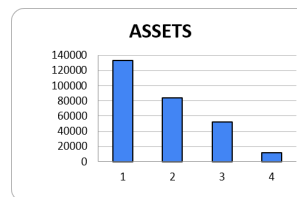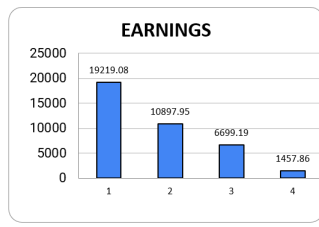
EXPENSES

EARNINGS

PUBLIC SECTOR BANKS

| YEAR	ASSETS	LIABILITIES	EARNINGS	EXPENSES	NON PERFORMING ASSETS	INVESTMENTS
2020	10783018.05	10783018.05	834319.78	-26015	173739.17	3702.18
2019	10163225.99	10163225.99	775330.71	-66608.01	230619.53	7405.64
2018	10034900.57	10034900.57	775117.53	-85370.52	272212.62	25232.89
2017	9736605.03	9736605.03	794065.78	-11388.733	166329.27	6447.02
2016	9168096.73	9168096.73	772543.7	-17993.01	153883.97	4087.09
MEAN	9977169.274	9977169.274	790275.5	-41475.0546	199356.912	9374.964
MEDIAN	10034900.57	10034900.57	775330.71	-26015	173739.17	6447.02
MODE						
RANGE	1614921.32	1614921.32	61776.08	73981.787	118328.65	21530.71
COEFFICIENT OF RANGE	0.080943914	0.080943914	0.038445133	-0.764596508	0.277703818	0.7441043
FIRST QUARTILE	9736605.03	9736605.03	775117.53	-66608.01	166329.27	4087.09
THIRD QUARTILE	10163225.99	10163225.99	794065.78	-17993.01	230619.53	7405.64
INTER QUARTILE RANGE	426620.96	426620.96	18948.25	48615	64290.26	3318.55
QUARTILE DEVIATION	213310.48	213310.48	9474.125	24307.5	32145.13	1659.275
COEFFICIENT OF QUARTILE DEVIATION	0.021438421	0.021438421	0.01207523	-0.574638462	0.161961089	1
MEAN DEVIATION	419854.7152	419854.7152	19133.824	27611.36832	41647.3304	6343.1704
STANDARD DEVIATION	591568.2105	591568.2105	26085.39993	32611.66886	50249.84519	9000.930505

ASSETS

LIABILITIES

EARNINGS

NON PERFORMING ASSETS
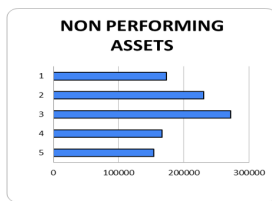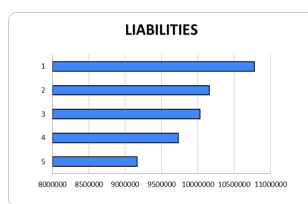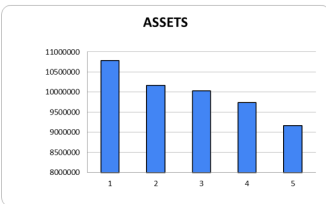
OVERALL BANKING PERFORMANCE

YEAR	ASSETS	LIABILITIES	EARNINGS	EXPENSES	NPA	INVESTMENTS
2020	180148874.9	180148874.9	1482857.92	10910.69	259888.63	15426.47
2019	16601045.12	16601045.12	1323187.92	-23397.39	300269.87	10896.49
2018	15255033.37	15255033.37	1217566.63	-32437.68	320624.34	29593.21
2017	14174606.55	14174606.55	1205345.34	43899.5	205161.83	8304.38
2016	13129288.24	13129288.24	1135038.06	34148.17	176658.93	4703.7
MEAN	15434969.64	15434969.64	1272799.174	6624.658	252520.72	13784.85
MEDIAN	15255033.37	15255033.37	1217566.63	10910.69	259888.63	10896.49
MODE						
RANGE	4885586.66	4885586.66	347819.86	76337.18	143965.41	24889.51
COEFFICIENT OF RANGE	0.156870057	0.156870057	0.132862368	6.6601273	0.289503827	0.725707068
QUARTILE 1	14174606.55	14174606.55	1205345.34	-23397.39	205161.83	8304.38
QUARTILE 3	16601045.12	16601045.12	1323187.92	34148.17	300269.87	15426.47
INTER QUARTILE RANGE	2426438.57	2426438.57	117842.58	57545.56	95108.04	7122.09
QUARTILE DEVIATION	1213219.285	1213219.285	58921.29	28772.78	47554.02	3561.045
COEFFICIENT OF INTERQUARTILE RANGE	0.078842801	0.078842801	0.046605114	5.352687	0.188171893	0.300119465
MEAN DEVIATION	1498392.299	1498392.299	104178.9968	27633.754	49288.272	6979.992
STANDARD DEVIATION	1933436.195	1933436.195	135316.7402	33884.057	61176.47858	9662.357662

Correlation Analysis Of 2 Banks in Terms of Stock

date	SHARE PRICE HDFC BANK Ltd	SHARE PRICE ICICI BANK
Dec-15	1500	752.25
Dec-14	1502.45	758.65
Dec-13	1511.15	754
Dec-10	1522.55	758
Dec-09	1526.85	755
Dec-08	1553.8	753.4
Dec-07	1525.7	734.65
Dec-06	1503.8	709.55
Dec-03	1513.55	716.3
Dec-02	1525.75	722.4
Dec-01	1504.65	727.7
Nov-30	1493.55	714.35
Nov-29	1501.25	718.4
Nov-26	1489.9	722.2
Nov-25	1525.95	751.05
Nov-24	1518.05	760.2
Nov-23	1515.55	751.85
Nov-22	1515.35	752
Nov-18	1539.4	762.9
Nov-17	1530.8	761.3
Nov-16	1548	764.05

SHARE PRICE OF HDFC BANK LTD.

ICICI
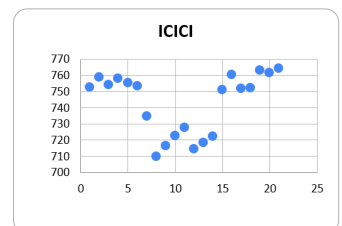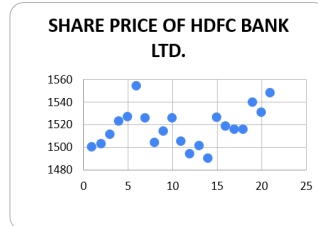
	Column 1	Column 2
Column 1	1	
Column 2	**0.57126**	1

There is a semi positive correlation between the stocks.

IV. CONCLUSION

From the above statistical analysis and Graphs, we can conclude that there is a slight increase in the assets, liabilities, earnings and expenses. Indian banking has responded positively and encouragingly to financial sector changes. new private bank entry and increased competition among public sector banks. India's financial system is now more in line with international norms thanks to the financial sector reforms. The Indian banking industry still has to catch up to its counterparts

despite India's expanding integration with the global financial system.

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