

**Role of Financial Performance on Banking sector in India by Using
CAMEL Model Analysis -With Special Reference to Bandhan Bank Ltd
-An Empirical Evidence.**

Dr. R S Ch Murthy Chodisetty

Associate Professor, Vardhaman College of Engineering, Hyderabad, Telangana.
chodisetty.b4u@gmail.com

P Harika

Research Scholar, UCMH, Jawaharlal Nehru Technological University Hyderabad
harika_rao2001@yahoo.co.in

ABSTRACT

In today's world, if you have money, you must have a bank account in the best bank in India. Also, after the Pradhan Mantri Jan Dhan Yojna – A Financial Inclusion Program by Government of India – chances of individuals not having a bank account are pretty slim. But do you know about the best bank in India or public sector banks in India or about the top banks in India? If not, then don't worry, because we will be telling you about some of the best bank in India which includes the top 10 banks in India in both categories of public and private banks in India and their banking products in a detailed way. In the contemporary globally competitive market companies must portray themselves as socially responsible companies. Through globalization companies pursue growth, and active involvement in socially beneficial programs provides competitive advantages to the company in pursuing such goals. Companies operating in multiple nations are often required to play a significant role in social issues of the respective nations, otherwise government regulations, environmental restrictions, labor exploitation issues and more can cost companies millions of dollars CAMEL Model analysis is an important tool to analyze the banks' and financial institutions' performance and to suggest the necessary measures for its improvement where it is required. In the present study, Indian banks- five public and five private sector banks based on its total assets have been considered. This study is taken up for the five year period from 2017-2022. The present study analyses the financial performance of the select banks. Five parameters of CAMEL- Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability and Liquidity are considered to rank the banks on its performance. The study found that Kotak Mahindra has performed better and ranked first among all the banks and Punjab

National bank ranked the least position. Among all, private sector banks have outperformed compared to public sector banks. This Paper is Identifying of ICICI Bank Performance using CAMEL Model.

Keywords: Financial Performance, CAMEL Model, Bandhan Bank Ltd, Profitability.

JEL Codes: G1, F21, F43, O43, O47.

1. Introduction:

There are certain rates set by the central bank which every bank has to follow and maintain. BPLR- Benchmark Prime Lending Rate is the interest rate that commercial banks generally charge their most credit worthy customers. As per RBI rates earlier banks were free to fix their BPLR for their credit limits. But due to some circumstances and the consequences faced by the banks and public, to bring the transparency in the lending rates RBI has introduced modified rate called as base rate. Base rate is the minimum interest rate which a bank has to charge on its loans lent. Banks cannot charge less than the base rate. On July 1, 2010 BPLR has been replaced by base rate. The base rate calculations were more transparent which were not with the case of benchmark prime lending rate.

Every bank is required to maintain a certain percentage of its total deposits with the Reserve Bank of India as cash reserves. The Capital Reserve Ratio limits the bank's ability to pump more money into the economy. The present CRR rate is 4%. Banks need to maintain some amount of liquid assets like precious metals or other approved securities other than cash. The Statutory Liquidity is used to limit the expansion of bank credit, for ensuring solvency of the banks. The present SLR rate is 19.5%. Repo rate also known as benchmark interest rate is the rate at which the RBI lends the money to every bank for a short term. When this rate increases, then borrowing from the Reserve Bank of India will become more expensive. If the RBI wants to make the rate more expensive for the banks to borrow the money, it increases the repo rate. Current repo rate is 6.25%. Reverse Repo rate is the short term borrowing rate at which RBI borrows money from banks. Repo Rate signifies the rate at which liquidity is injected in the banking system by RBI, whereas Reverse Repo rate signifies the rate at which the central bank absorbs liquidity from the banks.

Monetary policy is the important aspect set up by the monetary authority of the country where it controls the flow of money in the country. It is the process of controlling cost of very short term borrowing, often targeting inflation rate or interest rate to ensure stability in

the price and general trust in the currency. Monetary policy is referred as being contractionary or expansionary. Monetary decisions consider- short and long term interest rates, exchange rates, credit quality, velocity of money through economy, bonds and equities, government and private sector spending and savings, financial derivatives like contracts, futures, options and swaps, etc. and international capital flows of money on large scales.

One of the most important things in banking system is the percentage on its non-performing assets. The banks which have less percentage of NPAs are the better performing banks based on NPA ratio as well as rating systems used to rank. NPA refers to a classification for loans in the books of financial institutions that are in default or are in arrears on scheduled payments of principal or interest or both. In most of the cases, debt is classified as non-performing when loan payments have not been made for the period of ninety days, the amount of elapsed time may be shorter or longer depending on the terms and conditions set forth in each loan.

2. Review of Literature:

- ❖ **Balaji (2022)** has analysed that public sector banks have been exposed to competition from the new banks set up in the private sector with the latest technology, core banking and aggressive marketing strategies by them.
- ❖ **Padma (2022)** has examined the profitability ratios, solvency ratios and management efficiency ratios on SBI and ICICI bank in order to compare their efficiency and solvency position and inferred that SBI have an extensive operation than ICICI bank because of difference in terms of deposits, advances, investments, net profits and total assets.
- ❖ **Jagjeet Kaur (2020)** has evaluated the financial performance of public and private sector banks in India based on market capitalization and dealt with an analysis of bank performance and corporate social responsibility initiative. He has suggested that below-average banks are closely to be monitored to ensure their viability.
- ❖ **Sri Hari (2020)** examined the distinction of public and private sector banks which provides the satisfying services to its customers or account holders and as a result of this the customers and employees expect the quality services from such intermediaries that is from the financial institutions.

- ❖ **Malihe Rostami (2018)** has opined that banks performance or rather solvency or insolvency has been given much attention both at local and international level and concluded that there is significant relation between each category of banks performance.
- ❖ **Harikrishna (2018)** used the confirmatory factor analysis to test the hypothesis that is this relationship between observed variables and their underlying latent constructs existing and also used conjoint analysis to tell how important each of the given attribute or factor is to be individual responding consumer.
- ❖ **KVN Prasad (2017)** analysed 14 nationalized banks of India for period ranging from 2005-10. All the banks were first individual event based on the sub parameters of each parameter. Finally, the composite rankings for the banks were arrived at after computing the average of these group averages and applied CAMEL ratio is to analyse the performance of the banks.
- ❖ **Dr Jayasree Krishnan (2017)** has opined that the performance of banks can be improved by reducing the NPA by complying with international accounting standards and by following effective integrated risk management. Also analysed that the performance of the selected public sector banks of India differs based on their asset portfolio.
- ❖ **Chanchal Chatterjee (2016)** analysed 26 public and 20 private sector banks operating in India for the period 2004-13 considering EBT as dependent variable and nine independent variables. The author has used regression model to find a relationship between the variables and applied ANOVA and F-test to test the hypothesis and to investigate the linkages between assets and liabilities composition and EBT of the banks.
- ❖ **Dr SM Tariq Zafar (2014)** examined qualitative and quantitative relevancy of various factors involving in evaluation of financial performance of Indian commercial banks and has judged and justified the adequacy of CAMELS and assigned overall ratings through CAMEL model. The author has opined that banks have become sensitive and responsive to customer's needs and have very well migrated to Basel II norms.

3. Statement of the Problem:

This study attempts to measure the financial performance of public sector banks in Afghanistan for the period of four years (2017 to 2022) using CAMEL approach. CAMEL stands for Capital Adequacy, Asset Quality, Management Soundness, Earning Quality and Liquidity To accomplish the task, I have chosen three banks out of four banks operating in public sector in Afghanistan. Financial statements of the selected banks are then examined and evaluated for the period of 4 years (from 2017 to 2022) with the help of some ratios. Nowadays, banking sector in Afghanistan is facing the problem of default culture, which is the result of inefficient performance of most banks. The performance of the banks are dependent more on the management's ability in formulating strategic plans and the efficient implementation of these plans. The findings of this study can be very helpful for the management of the banks to improve their financial performance and formulate

4. Research Gap:

The primary function of any public sector bank or private sector bank is to receive deposits and lend money to needful individuals and businesses. Banks are considered to be a synonym of trust across the world. When any individual deposits money in the nationalized banks in India, it doesn't matter what the amount is, the individual knows that the money will be safe in the bank as compared to anywhere else. Top Banks in India help you in putting your hard-earned money in a place that will also give you interest on that amount. This study is undertaken for the period of five years from 2017-22. The top public and private sector banks are chosen for the study based on their Total Assets.

4. Research Questions:

- ❖ How the public banks are competing with each other?
- ❖ What is the performance of selected banks in the study?
- ❖ How well the performance of banks can be improved?
- ❖ Public sector banks in india

5. Objectives of the Study:

- ❖ To study the Impact of Financial performance of Bandhan Bank Ltd in India.
- ❖ To compare and rank Bandhan Bank Ltd through CAMEL Model.

6. Hypotheses of the Study:

H0: There is no Impact of financial performance of Bandhan Bank Ltd in India.

H1: There is an Impact of financial performance of Bandhan Bank Ltd in India.

7. Research Methodology:

❖ **Sources of Data:** The secondary data were obtained from the annual reports of the ten public sector banks. Additional data for analysis and verification were sourced from www.moneycontrol.com. The data were subjected to certain fundamental mathematical operations such as computing the ratios, before being used for the analysis.

❖ **Period of the Study:**

The study period is 5 years, between 2017 and 2022. Therefore, Public Sector Banks (PSBs) have been the backbone of the Indian economy. From government schemes like Jan Dhan etc to zero balance accounts of the lower-middle class of the country, PSBs have always been at the forefront since their nationalization. During the Covid-19 pandemic too, PSBs coupled with the NPCI made digital transactions easier.

8. Limitations of the study:

- ❖ This study is limited to only five select public and private sector banks each in India.
- ❖ This study is made only by considering financial statements of the banks which could have undergone through window dressing.
- ❖ This study is undertaken only for five years.

9. Scope of the Study:

The scope of this study is to analyze the performance of banking industry in India. The performance of the banks are analysed and examined by using CAMEL model ratios.

SI No	Bank Name	Headquarter	Tag Line
1	Bandhan Bank Ltd Ltd	Mumbai	Let's make money simple.

10. Result and Discussion:

Capital Adequacy (C): It refers to statutory minimum reserves of capital a bank or other financial institutions must have available with them. This is assessed through capital trend analysis. For higher rating, financial institutions must comply with interest and dividend rules and practices.

Asset Quality (A): It is a review or evaluation that assesses the credit risk associated with a particular asset. This is checked by the fair market value of investments compared with

the bank's book value of investments. This is reflected by the efficiency of bank's investment policies and practices.

Management Efficiency (M): It refers to the ability of the financial institution to properly react to its financial stress. This component is reflected by the management's capability to point out, measure and to look after and control the risks of institution's daily activities.

Earnings Ability (E): It refers to the institution's ability to create appropriate returns to be able to expand and retain competitiveness and adding capital.


Liquidity (L): It measures the ability of the institution to convert assets to cash easily depending on short term financial resources.

Table 1. Description of CAMEL parameters



Category	Ratios	Formula	Significance	Evaluation Criteria
Capital Adequacy	CAR	Tier-1 and Tier-2 Capital/Aggregate of Risk Weighted Assets (RWA)	It measures the bank's ability in absorbing the losses arising from the risk assets	Higher the ratio Better is the financial condition of the bank
	Debt/Equity Ratio	(Deposits + Borrowings + Other liabilities)/ (Capital + Reserves)	It indicates the bank's financial leverage	Lower the ratio Better it is
	Coverage Ratio	(Net Worth-Net NPAs)/ Total Assets	It indicates the availability of capital to meet any incidence of loss assets in NPAs	Higher the ratio Better it is
Asset Quality	Net NPA/Net Advances Ratio	NPAs/Net Advances	It indicates the level of NPAs in the net advances	Lower the ratio Better it is
	Govt Securities/Investment Ratio	Government Securities/ Total Investments	It indicates the bank's strategy: High profits=High risk or Low profits=Low risk	Higher the ratio Safer it is
	Standard Advances/Total Advances Ratio	Standard Advances (Net of Total Assets and Gross NPAs)/ Total Advances	It indicates higher earnings if the bank assets are highly performing	Higher the ratio Better it is
Management Quality	Total Advances/Total Deposits Ratio	Total Advances/Total Deposits	It indicates the bank's ability to convert its deposits into higher earning advances	Higher the ratio Better it is
	Business per Employee	Total Advances and Total Deposits/No of Employees	It measures whether the bank is relatively over or under staffed	Higher the ratio Better it is
	Profit per Employee	Profit/No of Employees	It measures the efficiency of the bank's employees in	Higher the ratio Better it is

			maximizing the profits	
Earnings Ability	Return on Assets	Net Profit after tax/Total Assets	It indicates the returns earned from the assets of the bank	Higher the ratio Better it is
	Income Spread/Total Assets Ratio	Interest Income Earned-Interest expended)/ Total Assets	It indicates how much a bank can earn for every rupee of investments made in assets	Higher the ratio Better it is
	Operating Profit/Total Assets Ratio	Operating Profit/Total Assets	It indicates the bank's ability to earn after meeting its operating expenses for the investments made in assets	Higher the ratio Better it is
	Cost/Income Ratio	Operating Expenses/Net Income	It indicates the bank's ability to meet its operating expenses from revenue generated	Lower the ratio Better it is
Liquidity	Cash Asset/Total Assets Ratio	Cash Asset/Total Assets	It measures cash in proportion to total assets	Higher the ratio Better it is
	Govt Securities/Total Assets Ratio	Govt Securities/Total Assets	It measures govt securities in proportion to total assets	Higher the ratio Better it is
	Liquid Assets/ Total Deposits Ratio	Liquid Assets/ Total Deposits	It indicates the bank's ability to meet its deposit obligations with available liquid funds	Higher the ratio Better it is

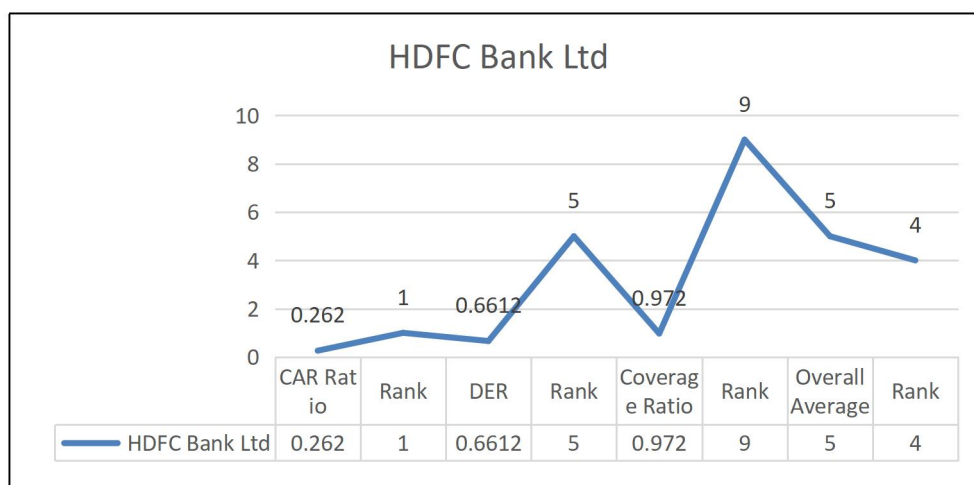
Table 2. Ranking under Capital Adequacy Parameter of Bandhan Bank Ltd



Capital Adequate Ratio (CAR) Formula

$$= \frac{(\text{Tier 1 Capital} + \text{Tier 2 Capital})}{\text{Risk Weighted Assets}}$$



Banks	CAR Ratio	Rank	DER	Rank	Coverage Ratio	Rank	Overall Average	Rank
Bandhan Bank Ltd Ltd	17.118	2	6.538	1	1.542	4	2.33	2



From the above table and graph, it is interpreted that Industrial housing development finance corporation (HDFC) shows the Capital Performance is 15.96 and the rank is 3. Overall Performance of the HDFCI Bank is good.

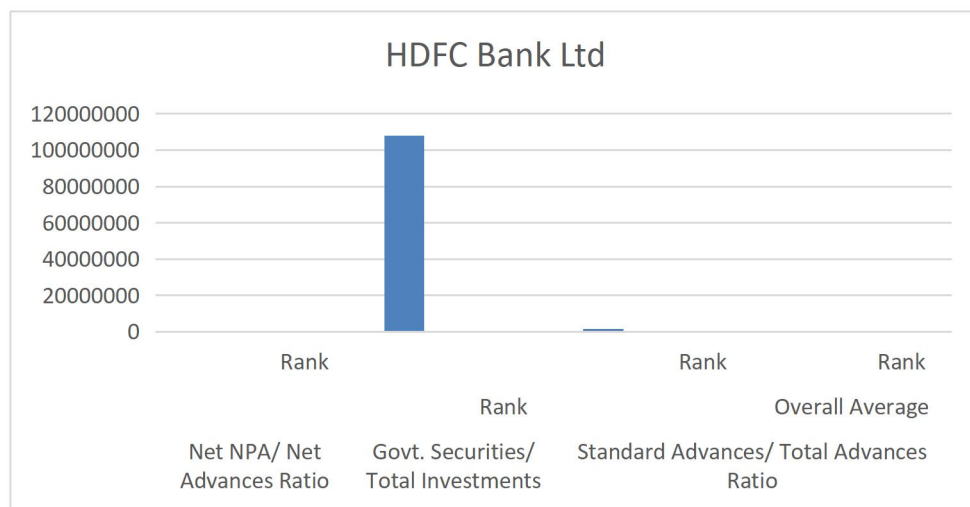
Table 3. Ranking under Asset Quality Parameter of Bandhan Bank Ltd

NNPA Formula

$$\text{NNPA Ratio} = \frac{\text{Total NNPA}}{\text{Total Advances}}$$

NNPA=GNPA minus the provision made by the bank

Name of the Bank	Net NPA/ Net Advances Ratio	Rank	Govt. Securities/ Total Investments	Rank	Standard Advances/ Total Advances Ratio	Rank	Overall Average	Rank
Bandhan Bank Ltd Ltd	0.908	4	0.8904	1	1.882	8	4.33	1



From the above table and graph, it is interpreted that Industrial housing development finance corporation (HDFC) shows the Capital Performance is 15.96 and the rank is 3. Overall Performance of the ICICI Bank is good.

Table 4. Composite Ranking (CAMEL)

Bank Name	Rank (C)	Rank (A)	Rank (M)	Rank (E)	Rank (L)	Overall Average	Rank
Bandhan Bank Ltd Ltd	X	1	7	2	3	3.00	1

From the above table, the composite rankings of the banks i.e., based on the five parameters interpret housing development finance corporation (HDFC) shows the Capital Performance is 15.96 and the rank is 4. Overall Performance of the ICICI Bank is good.

Table 5. Ranking under Management Efficiency Parameter

Banks	Total Advances/ Total Deposit Ratio	Rank	Business per Employee	Rank	Profit per Employee	Rank	Overall Average	Rank
Bandhan Bank Ltd Ltd	0.8904	2	74,147,024.13	10	884,866.21	5	5.67	7

From the above table, it is interpreted that among all the banks and among private sector banks followed by Bandhan Bank Ltd was comparatively better than other k were the least at management efficiency.

Table 6. Ranking under Earnings Ability Parameter

Banks	Return on Asset	Rank	Income Spread/ Total Assets Ratio	Rank	Operating Profit/ Total Assets Ratio	Rank	Cost/ Income Ratio	Rank	Overall Average	Rank
Bandhan Bank Ltd Ltd	1.876	2	8.64	2	(0.02)	2	36.66	6	3.00	2

From the above table, it is interpreted that among all the banks was performing well having highest earnings ability ratio, followed by were comparatively better than other the least at earnings ability.

Table 7. Ranking under Liquidity Parameter

Banks	Cash Asset/ Total Asset Ratio	Rank	Government Securities/ Total Asset Ratio	Rank	Liquid Asset/ Total Deposit Ratio	Rank	Overall Average	Rank
Bandhan Bank Ltd	0.0664	6	0.2418	1	0.0956	6	4.33	3

From the above table, it is interpreted that among all the banks stood first in maintaining absolute liquidity every bank required to maintain to better respond immediately to the critical conditions at the time of huge withdrawals by the customers.

Table:8.CAMEL RATIOS.

Year	2017-18	2018-19	2019-20	2020-21	2021-22	Average
CAR Ratio	16.05	18.87	17.56	16.34	16.77	17.118
Debt/ Equity Ratio	7.56	5.86	6.15	6.66	6.46	6.538
Coverage Ratio	1.47	1.54	1.58	1.46	1.66	1.542
Net NPA/ Net Advances Ratio	0.55	0.88	0.79	1.06	1.26	0.908

Government Securities/ Total Investments Ratio	0.819	0.828	0.916	0.932	0.957	0.8904
Standard Advances/ Total Advances Ratio	1.27	1.63	1.56	2.36	2.59	1.882
Total Advances/ Total Deposit Ratio	0.95	0.898	0.884	0.856	0.864	0.8904
Business per Employee (in Cr.)	73,702,03 6.37	70,062,47 6.19	78,345,01 1.89	81,919,23 5.15	66,706,361 .07	74,147,024. 13
Profit per Employee (in Cr.)	1,007,938 .67	939,074.3 8	1,036,654 .78	665,322.8 3	775,340.41	884,866.21
Return on Asset	2.10	2.10	2.26	1.19	1.73	1.876
Income Spread/ Total Assets Ratio	9.82	9.52	8.38	7.86	7.64	8.64
Operating Profit/Total Assets Ratio	0.23	0.11	(0.15)	(0.27)	(0.03)	(0.02)
Cost/ Income Ratio	32.65	35.57	37.33	39.07	38.68	36.66
Cash Asset/ Total Asset Ratio	0.044	0.068	0.059	0.056	0.105	0.0664
Government Securities/ Total Asset Ratio	0.283	0.241	0.236	0.248	0.201	0.2418
Liquid Asset/ Total Deposit Ratio	0.072	0.101	0.084	0.078	0.143	0.0956

11. Findings of the Study

- ❖ The study found that Yes bank and Bandhan Bank Ltd have the lowest net NPA ratio compared to other banks. Punjab National Bank has the highest net NPA ratio among other banks. (Table 4)
- ❖ The study found that Kotak Mahindra has utilized more government securities followed by Canara Bank. Bandhan Bank Ltd could not invest more in government securities. (Table 4)
- ❖ The study found that standard advances to total advances ratio of Punjab National bank is highest among all the other selected banks. Yes bank is the weakest in this compared to other banks. (Table 4)
- ❖ The study found that among all the banks and among private sector banks, Bandhan

Bank Ltd are comparatively better than other public sector banks. Canara bank and Punjab National bank are the least at management efficiency. (Table 8)

- ❖ The study found that total advances to total deposit ratio of Bandhan Bank Ltd is higher than other banks and Bank of Baroda is the lowest among all. (Table 5)
- ❖ The study found that Business per employee of Bank of India is the highest compared to other banks, followed by Bank of Baroda. Kotak Mahindra is ranking last among all the banks. (Table 5)
- ❖ The study found that Yes bank is better among all banks in having highest profit per employee followed by HDFC.

12. Suggestions of The Study:

CAMELS model is important tool to evaluate the relative financial strength of a banking system and to suggest suitable remedies to improve the deficiencies. CAMELS model is a ratio-based model to appraise the performance of banks. Due to fundamental changes in the banking sector in the recent years, the central banks all around the world have improved their supervision quality and techniques. In evaluating the function of the banks, many of the developed countries are now following uniform financial rating system (CAMEL RATING) along with other existing procedures and techniques.

13. Conclusion of the Study

The above study is a humble effort to describe the various ratios which are helpful for the assessment of financial performance of banking sector. The ratios described in the present study are used by various researchers for the evaluation of banks performance in their respective studies. Different banks are ranked according to the ratings obtained by them on the five parameters. In the present study we used five important parameters like Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity for assessing financial performance of the selected private sector banks in India and to determine the factors that predominantly affect the financial performance of the Indian banking sector with efficiently and accurately...

14. References:

- ❖ T. Harikrishna, Modeling the Performance Enablers of Public Sector Banks Using CFA and Conjoint Analysis (2016)
- ❖ Malihe Rostami, Determination of CAMELS Model on bank's Performance (2015)

- ❖ K.V.N. Prasad, A CAMEL Model Analysis of Nationalized Banks in India (2012)
- ❖ Naresh Kedia, Determinants of Profitability of Indian Public Sector Banks (2016)
- ❖ Chanchal Chatterjee, Exploring the Linkage Between Profits and Asset-Liability Management: Evidence from Indian Commercial Banks (2016)
- ❖ Dr. S.M. Tariq Zafar, A Study of Ten Indian Commercial Bank's Financial Performance Using CAMELS Methodology (2012)
- ❖ Dr. R. Thamilselvan, Capital Adequacy Determinants and Profitability of selected Indian Commercial Banks (2014)
- ❖ Dr. Jayasree Krishnan, P. Nageswaran, Performance Analysis of Select Public Sector Banks in India (2016)
- ❖ Jagjeet Kaur, CAMEL Analysis of Selected Public Sector Banks (2016)
- ❖ Subhendu Dutta, Determinants of Return on Assets of Public Sector Banks in India: An Empirical Study (2013)
- ❖ S.K. Khatik, Analyzing Soundness of Nationalized Banks in India: A CAMEL Approach (2014)
- ❖ Mr. V. Sri Hari, A Study on Performance and ranking of Public Sector Banks vs. Private Sector Banks using CAMEL Rating System (2014)
- ❖ Anju Sharan, Analysis of Earning Quality of Public Sector Bank: A Study of Selected Banks (2016)
- ❖ M. Nandhini, An Analysis of Selective Indian Public Sector Banks Using CAMEL Approach (2015)
- ❖ CA. Ruchi Gupta, An Analysis of Indian Public Sector Banks Using CAMEL Approach (2014)
- ❖ **Dr. R S Ch Murthy Chodisetty & Dr. Vijaykumar Kaluvala (2022)**, Role Of Financial Performance on Banking Sector In India By Using Camel Model Analysis - With Special Reference To Axis Bank - An Empirical Evidence, Manager-TheBritish Journalof Administrative Management, ISSN - 1746 1278, Volume 58 Issue 152 July 2022,