

# Original Research Article

## PERFORMANCE ANALYSIS USING THE CAMEL APPROACH REFERENCE TO SELECT BANKS IN TAMILNADU DURING COVID 19 – AN EMPIRICAL STUDY

### Abstract

*The series of a thriftiness is unfathomably reliant upon organization as well as ideal utilization of cash safes and most extreme to a great extent practical capacity of the beautiful areas, of which the financial area has a genuinely imperative influence. The financial area helps in the incitement of capital compliance, creation, and adaptation notwithstanding the assistance of monetary approach. It's basic to exactly gauge and take apart the presentation of banks to guarantee a solid financial framework and a powerful moderation. surveying the Indian financial area is definitely not a simple errand. There are so various variables, which should be dealt with while discerning great banks from awful bones. To assess the presentation of the financial area we've picked the CAMEL model since it estimates the exhibition of banks from every one of the significant boundaries like Capital Adequacy, implies Quality, Management Efficiency, Earning Quality, and Liquidity. The current review centers around the assessment of the presentation of two public area banks in Tamil Nadu. The information of the example banks for a three-time frame period from 2019-2021 has been gathered from the intermittent reports of the banks.*

**KEYWORDS:** CAMEL, PERFORMANCE. COVID19. BANKS,

### 1. Introduction

The monetary area has a genuinely significant impact in the improvement of the thriftiness of a country. Banks are fundamental elements of any monetary framework and thusly the security of the financial area has acquired a ton of importance, particularly after the worldwide financial limit in 2008. As editorialized by RabiN. Mishra, S. Majumdar, and Dimple Bhandia, security in the financial area is an important condition for keeping up with monetary strength. Evaluation of the monetary exhibition of the financial area is a viable and fundamental measure to pass judgment on the strength of the monetary arrangement of a moderation. The unpredictability of the financial solicitations, the brutal contest among the banks in the destiny of the beneficial advancement, and the broadening of banking administrations into regions like protection and ventures have expanded the danger and difficulties looked by banks. Considering this, it's critical to have a successful managerial framework that guarantees the security and adequacy of banks.

In India, RBI is liable for covering the monetary state of attractive banks and for managing non-administrative ethics on these banks significant of the data required for observing is assembled from the reports put together by the banks at normal stretches. in any case, this data must be validated with spot on assessments which certify the delicacy of the reports and furthermore help to accumulate farther data required by RBI. RBI's way to deal with oversight after the beneficial

advancement has moved towards prudential guideline and management keeping on top of smart transnational practices.

In addition, RBI has initiated a Prompt Corrective Action (PCA) framework for commercial banks. Under this framework, certain trigger points have been specified in three areas i.e. capital to risk-weighted assets ratio (CRAR), net nonperforming assets (NPA), and Return on Assets (RoA). RBI initiates certain structured and discretionary actions when banks hit these trigger points.

### **Camel Rating System**

The CAMEL rating system was adopted first by the United States in the 1980s to conduct the onsite examination of their banks' performance. In India, RBI set up the Padmanabhan Working Group (1995) which recommended the adoption of two models for bank supervision viz., the CAMEL method for Indian banks and the CACS method for Foreign-based banks. The CAMEL rating framework judges the banks on five different parameters viz. Capital Adequacy, Asset Quality, Management, Earnings, and Liquidity. The CAMEL model was subsequently revised to CAMELS in 1996 to accommodate another parameter —SI which is —Sensitivity to Market Risk. The CAMELS ratings help to determine a bank's overall financial condition and to identify its strengths and weaknesses. RBI has been following the CAMEL model for evaluating bank performance since 1997.

The CAMEL ratings are based on a scale of 1 to 5 where 1 represents the highest rating and 5 represents the lowest rating. A rating of 1 or 2 indicates strong performance and sound management with no cause for supervisory concern. A rating of 3, 4, and 5 presents a weakness in one or more parameters, indicating weakness in performance and causing supervisory concerns. The banks are normally examined once a year. In the case of banks with low ratings, the assessment may be more frequent. Each CAMEL parameter has several subparameters under it. Each sub-parameter is given a rating of 1 to 5. A composite rating, which is an abridgment of the individual component ratings, is assigned again on a scale of 1 to 5 to obtain the composite rating. The CAMEL composite rating given by the regulator involves a certain amount of subjectivity based on the regulator's assessment of the individual components and the overall assessment of the organization.

## **2. Review of literature**

**Rao( 2022)** examines the exhibition and adequacy examination of named private area banks in the radiance of extreme rivalry and innovation up degree. Right from the foundation of Royal Chartered bank, the Indian financial area has seen courageous development, particularly after freedom. The nationalization of banks in 1969 and 1980 had added energy to the development. The New Economic approach, of 1991 has changed the points of the financial area. The entryways are available to the private and unfamiliar banks in India and the administrations are dissipated and spread to bright

regions like abundance activity, protection, aggregate funds, and forex exchanging. The investigation set up that has been performing great among the given three banks when contrasted and the other two banks.

**Reddy and Sreeram(2022)**, test the Banking area having an imperatively significant impact in the quickly developing thriftiness of India. It can not be envisioned without the fact of the financial area in our country. as of now banks are confronting so various difficulties. The investigation of utilitarian execution and productivity of Bank of Baroda with examination of the camel model plans to know the practical exhibition and benefit examination of BOB. This study utilizes the CAMEL framework to track down the outperformance of keeps money with boundaries First Capital Adequacy, Second Asset Quality, Third Management Efficiency, Fourth Earning Quality, Fifth Liquidity, and Sixth Sensitivity.

**Raj( 2022)**, dove the exhibition assessment of the financial area as a significant measure and file to test the strength of monetary molding of a moderation. In this review, an endeavor has been made to survey the presentation and financial soundness of named Private and Public Banks in India in the time 2018. CAMEL ways have been utilized to check out at the monetary strength of the picked banks. Composite Rankings and Average has been implemented then to accomplish an end through the family member and critical investigation of brilliant boundaries of CAMEL. HDFC bank is positioned first under the CAMEL examination followed by Axis bank. ICICI excited the third position. The fourth position is excited by SBI, the fifth by Bank of Baroda, and the last position is enchanted by Bank of India among every one of the named banks.

**Kumar( 2022)**, examined that the Indian financial area is the foundation of the Indian thriftiness. Indian financial area helps in the capital adaptation, development, and magnate force in the country. In this present circumstance, it's critical to definitively gauge and analyze the exhibition of the banks to safeguard a solid financial framework and a compelling moderation. This ongoing investigation endeavors to assess the presentation of select Public Sector Banks in India utilizing the CAMEL Standing System. The investigation is grounded on an example of 18 Public area banks for five-time span from 2015 to 2019. This standing framework is one of the most well known styles for estimating banking execution. CAMEL incorporates boundaries like Capital worthiness, Asset quality, Management quality, Earnings quality, and Liquidity. The investigation shows that general Bank of Maharashtra has performed a la mode among the named banks and positioned top situation with a compound ordinary of 14.85 and IDFC First Bank Ltd involves the last situation among all named keeps money with a compound typical of 20.60.

**Chandrika and Rukmini( 2021)**, estimated the financial area as one of the emerging and developing areas in India. In India, banks relate of public, private, and unfamiliar areas. Evaluating any area of the banks is an abecedarian undertaking. Thus, this paper reviews to know the impact of CAMEL factors on the financial execution of Indian Overseas Banks, a confidential bank. CAMEL's significant pointers comparable as capital agreeableness, resource quality, activity adequacy, and

bank liquidity are estimated. The investigation test of Indian Overseas Bank thinks about over the multiple times, from 2016 to 2020. The discoveries determine bank's net benefit isn't on par, activity adequacy is better.

**Dadhichetal.(2021)**, Attesting to the improvement of the general strength of attractive banks, account-grounded pointers show healthy monetary execution. The review endeavors to assess the monetary presentation of named private and public attractive banks in India for the period from 2015-19. The endeavor contains 10 attractive banks of India, the main 5 recorded attractive banks of public and confidential parts each, grounded on their solicitation capitalization and absolute resource esteem. In the present tumultuous content, it's material to analyze the conspicuous pointers of the named manages an account with assistance of the CAMEL model that envelops capital agreeableness, resource quality, activity viability, acquiring execution, and liquidity position by utilizing the board information assessments.

**Hymavathi(2021)**, dissected Public and Private Sector Banks have a prevailing impact in depicting the financial arrangement of a moderation. A Frugality's wellbeing not entirely set in stone by the circumstances winning in the financial framework. To keep a solid monetary framework, it's important to analyze the banks consistently to the ID of their Strengths and end of certain weaknesses. Banks go about as energy for the smooth and powerful working of a moderation's monetary framework. The ideal of my review is to survey and vary the monetary, practical, and executive wellbeing of named public and confidential area banks. For the review, just three public area banks which incorporate State Bank of India, Bank of Baroda, and Union Bank, and three confidential area banks which incorporate HDFC, ICICI, and Axis Bank are thought about. CAMEL approach is considered for examining and contrasting the exhibition of the banks. CAMEL represents C-Capital Acceptability, A-Asset Quality, M-activity effectiveness, E-Earnings, and L-Liquidity.

**Mohan et al( 2021)**, pointed CAMEL model examination as an imperative device to take apart the banks and monetary organizations. The monetary exhibition is to propose the essential measures for its upgrade where it's required. Indian banks the two public and confidential banks were named to analyze the exhibition of banks multiple times period from 2015 to 2019. The financial presentation of banks examined by utilizing five boundaries of the CAMEL model Capital Adequacy, Asset Quality, Management Efficiency, Earnings Capability, and Liquidity are thought of.

**Mayakkannanetal.( 2020)**, surveyed the financial area is influential for ensure the monetary soundness of a thriftiness. Considering the overall financial quandary lately, the CAMEL approach is a valuable instrument to look at the security and sufficiency of banks. The current review endeavors to show the relative monetary position and execution of named public and confidential financial areas and results more than five times from 2015 to 2020. This study focused on the main ten public and confidential area banks grounded on the appraisal of measurable data of net fringe, complete means, and solicitation position. Lately, the confidential area banks give a genuinely extreme contest with regards to Capital Adequacy, Asset Quality, Management Efficiency, Earning Capacity, and Asset

Quality, Hence the CAMEL model has been decided for the review. The total review is grounded on the auxiliary information, conveyed, and evacuated from the monetary assertions of the named banks. The gathered data is dissected utilizing bright financial rates and factual devices.

**Dhanaraj and Ponmani( 2020)**, made sense of CAMEL Parameters are the practical viability of a file, which will help not just people in general for to the activity, regulators, and chairmen to the overall adequacy of the players battling in the financial area. accordingly, this study endeavors to apply CAMEL Capital rates, implies rates, Management adequacy, and liquidity rates to labeled attractive banks in India.

**Singhal( 2020)** dug banks structure the abecedarian component of the monetary arrangement of any thriftiness. The sufficiency of the financial area is, subsequently, fundamental for a solid and energetic moderation. right now, the monetary arrangement of the Indian thriftiness is completely associated with the financial area. Thus, it's important to gauge and quantify the strength of the financial assiduity with the goal that our thriftiness improves productively. In this review, an endeavor has been made to gauge the financial position and execution of public area banks, positioning them thusly. For this reason, 21 Indian public area banks have been thought about, for more than ten times. The CAMEL model has been utilized to gauge the exhibition of the banks. Discoveries from the examination demonstrate that Indian public area banks are raising a hell toward keeping up with OK capital, and in times to come, all banks ought to endeavor toward accomplishing farther than the expected position.

### **3. Need for the Study**

In the age of globalization, banking sectors play a vital role in the development of the economy of any country. Banks, as financial institutions contributed toward economic stability for a long time, especially during crisis times, During the COVID period Banks and financial institutions assisted the common man as well as Business Community by way of providing a Moratorium that affects the financial health of a bank in terms of Liquidity, Asset Quality, and Efficiency. stakeholders need to know about the financial performance and the financial position of the banks to understand the prospects of the Bank. For this purpose, Analysis of financial statements through the CAMEL approach to identify the financial soundness of select banks.

### **4. Objectives of thestudy**

- To dissect the fiscal performance of the selected public sector banks in Tamil Nadu using CAMEL model during COVID 19
- To probe the fiscal position of Indian Overseas Bank and Indian Bank by using CAMEL Model.

### **5. Scope of thestudy**

The present study covers only 2 public sector banks that operated from 2019 to 2021. This study has used financial ratios to investigate banking performance namely: Capital adequacy ratios Asset quality ratios Management efficiency ratios, Earnings quality ratios, and Liquidity ratios. CAMEL ratios are used to evaluate their performance and efficiency to conclude which bank is leading position in performance and efficiency. All the required data have been collected through annual reports published by the selected banks and websites.

## 6. Research Methodology

This section, elaborates the analysis that are performed for ratcheting towards the taken objectives. As per the problem statement it is evident that outcome concentrates more of whether a financial performance and financial position. CAMEL model is adopted for this sublime problem. CAMEL model is ratio-based model for evaluating the performance of banks. It is a management tool that measures capital adequacy, assets quality, management efficiency, earnings quality, and liquidity of financial institutions. The present study adopts an analytical research design. Data used for the study was secondary were collected from the annual reports of the selected banks during the COVID period. Altman Z score is used to identify the bankruptcy potential of firms.

## 7. Results and Discussion

Table 1: CAMEL Ratings (2019-21): Capital Adequacy

Banks	Capital Adequacy Ratio		Debt-Equity Ratio		Advance to Assets Ratio		Government Securities to Total Investments		Group Rank	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Indian Overseas Bank	12.08	2	0.74	2	48.63	2	87.94	1	1.75	2
Indian Bank	14.35	1	0.30	1	61.14	1	41.32	2	1.25	1

Source: Statistical Tables relating to Banks in India, published by the Reserve Bank of India.

### Interpretation

The two banks have kept up with higher CAR than the recommended level. It is found that Indian Bank protected the top situation with the most elevated typical CAR of 14.3 and Indian Overseas Bank with the most un-normal CAR of 12.08. As far as Debt-Equity Ratio, Indian bank was at the top situation with least normal of 0.30, Indian Overseas Bank had the most noteworthy Debt-Equity Ratio of 0.74 During the review time frame. On account of Advances to Assets, Indian Bank was at

the principal position with the most noteworthy normal of 61.14, trailed by Indian Overseas Bank (48.63). Indian Overseas bank was at the top situation in Government protections to Investments with the most elevated normal of 87.94, Indian Bank was at the last situation with the most un-normal of 41.32. In light of gathering midpoints of four sub-boundaries of capital sufficiency, Indian Bank was at the top situation with a gathering normal of 1.25 and Indian Overseas Bank (1.75).

**Table 2: CAMEL Ratings (2019-21): Assets Quality**

Banks	Net NPAs to Net Advances		Net NPAs to Total Assets		Total Investments to Total Assets		Group Rank	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Indian Overseas Bank	6.69	2	3.26	2	30.82	2	2	2
Indian Bank	3.39	1	2.08	1	26.55	1	1	1

Source: Statistical Tables relating to Banks in India, published by the Reserve Bank of India.

### Interpretation

On account of Net NPAs to Net Advances, Indian Bank was at the top situation with the most un-normal of 3.39 and Indian Overseas Bank with the most elevated normal of 6.69. Indian Bank was at the top situation with a typical Net NPAs to Total Assets of 2.08, and Indian Overseas Bank was at the last situation with a normal of 3.26. As far as Total Investment to Total Assets, Indian Bank was at the main situation with a normal of 26.55, trailed by Indian Overseas Bank (30.82).

Based on bunch midpoints of sub-boundaries of resources quality, Indian Bank had the most elevated bunch normal of 1 and Indian Overseas Bank (2).

**Table 3: CAMEL Ratings (2019-21): Management Efficiency**

Banks	Business per Employee		Profit per Employee		Credit Deposit Ratio		Return on Net Worth		Group Rank	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Indian Overseas Bank	14.27	2	-15.29	2	55.65	2	-23.57	2	2	2
Indian Bank	22.29	1	5.10	1	71.43	1	5.93	1	1	1

Source: Statistical Tables relating to Banks in India, published by the Reserve Bank of India



Overseas Bank	10.92	1	27.10	1	12.50	1	108.89	2	1.25	1
Indian Bank	7.23	2	10.97	2	8.46	2	123.20	1	1.75	2

Source: Statistical Tables relating to Banks in India, published by the Reserve Bank of India.

### Interpretation

Indian Overseas Bank was in first spot in Quite a while to Total Assets with the loftiest typical of 10.92, trailed by Indian Bank (7.23). On account of Govt. Protections to Total Assets, Indian Overseas Bank got the main situation with the loftiest ordinary of 27.10, trailed by Indian Bank (10.97). In the challenge of Liquid Assets to Total Deposits, Indian Overseas Bank was at the top with a typical of 12.50, trailed by Indian Bank (8.46). Indian Bank was at the top situation in Liquid Assets to Demand Deposits with an ordinary of 123.20, trailed by Indian Overseas Bank (108.89). On the foundation of gathering standards of 4 sub-boundaries of Liquidity, Indian Overseas Bank was at the top and Indian Bank gets the approaching position.

**Table .6: Composite Ranking: Overall Performance**

Banks	C	A	M	E	L	Average	Rank
Indian Overseas Bank	2	2	2	2	1	1.8	2
Indian Bank	1	1	1	1	2	1.2	1

It is obvious from Table.6 that Indian Bank has positioned at top situation with composite normal 1.2, trailed by Indian Overseas Bank 1.8.

**ALTMAN Z SCORE** - Altman Z score is utilized to distinguish ruin possibility of ventures. in any case, the first model created by Altman doesn't assist in visualizing with destroying of banks. For that, we want to involve Altman's tweaked model for banks.

Altman Z Score for banks

Altman fostered the Z score as a device for anticipating the liquidation of a bank.

**Z score is processed as the amount of 6.56 (A) +3.26 (B) +6.72 (C) +1.05 (D) + 3.26.**

A - Working Capital/Total Assets

B - Retained Earnings/Total Assets

C - EBIT/Total Assets

D - Market Value of Equity/Book Value of Debt

The high level the score of a bank in these factors, the better its security outskirts for financial backers. In the event that the Z score is lower than 1.10, the bank is a ruin searcher; assuming the Z score is above 2.60, the bank is out of the ruin danger; assuming that the Z score is between 1.10 and 2.60, the bank is in the argentine zone and foreseeing its ruin possibility is

sensitive. The arrangements to add up to resource rate utilized in the model for assembling endeavors aren't viewed as in that frame of mind for banks. Further, 3.26 is added to adjust for emerging solicitation banks.

**Table 7 :Comparative accounts for Banking parameters**

<b>BANKS(2022)</b>	<b>Indian Overseas Bank</b>	<b>Indian Bank</b>
Working Capital	186685.75	472228.63
Total Asset	288229.96	660681.95
Retained Earning	-10418.66	28368.89
EBIT	12197.79	26271.06
Market Value of Equity	33740.79	20942.07
Book Value of Debt	276376.77	629119.51

**Z SCORE:**

Indian Overseas bank

$$= 6.56 (0.65) + 3.26 (-0.03) + 6.72 (0.04) + 1.05 (0.12) + 3.26$$

$$= 7.81$$

Indian Bank

$$= 6.56 (0.71) + 3.26 (0.04) + 6.72 (0.03) + 1.05 (0.03) + 3.26$$

$$= 8.36$$

**Interpretation:**

The Z score of Indian Overseas bank is 4.55 (without adding 3.26 for emerging solicitations) and 7.81 (with an expansion of 3.26) and Indian Bank is 5.1 (without adding 3.26 for emerging solicitations) and 8.36 (with an expansion of 3.26) which demonstrates that the banks are more secure for financial backers. However the segments might change in the event that we run the model utilizing current information, the entomb and intra-correlation of a bank in these four factors might offer further clearness on the financial execution of a bank.

**8. Suggestions**

From the underneath examination the accompanying ideas would be material for the banks to apply to see a positive effect. The banks ought to adjust themselves snappily to the changing ethics according to the legal circumstances and banks ought to likewise keep up with clarity. The banks ought to focus on limiting NPA to a reasonable opportunity to continuously progress and effective money management or making quality means which procure returns via premium and gains and furthermore ought to focus on strategically pitching of bright monetary items to improve the working benefit and to upgrade the executive adequacy. To conquer rivalry among private banks, the public area banks ought to focus on different client parts like HNAI/rich gathering, NRI banking, MSME credit division, vehicle backing, etc., the banks ought to track

down additional roads to fence traps as the solicitation is genuinely delicate to danger of any sort. Have great examination hacks, framework, and legitimate development to guarantee that banks are over the danger.

## 9. Conclusion

Because of revolutionary changes in the financial area lately, national banks each all over the planet have bettered their management quality and ways. In surveying the capability of the banks, various of the created nations are presently following an invariant financial standing framework( CAMEL remaining) alongside other being techniques and ways. The ongoing review has been led to look at the productive maintainability of an example of two banks in Tamil Nadu utilizing the CAMEL model during the COVID time frame. The review presumes that Select Banks in Tamil Nadu are monetarily sound and keep up with the standards in accordance with the legal Conditions.

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