

**CHAPTER – 4**

**RESEARCH METHODOLOGY**

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**4.1 Initiation**

**4.2 Title:-Research Problem**

**4.3 Research:-Questions**

**4.4 Objectives:-Study**

**4.5 Sources:-Data**

**4.6 Span:-Study**

**4.7 Sample:-study**

**4.8 Scope:-Study**

**4.9 Utensils& Techniques**

**4.9.1Accounting:-technique**

**4.9.2 Statistical:-techniques**

**4.9.3 Graphical:-techniques**

**4.10 Hypothesis:-Study**

**4.11 Methodology:-Research**

**4.11.1 Approach:-Research**

**4.11.2 strategy:-Research**

**4.11.3 Design:-Research**

**4.12 Significance:-Study**

**4.13 Limitations:-Study**

**4.14 Future scope:-study**

**4.15 Organization:-chapters**

**References:**

## 4.1 INITIATION

The banking zone shows a pivotal contribution in a Territory's economy by allocating savings from the public & channeling into productive funding's and other economic activities. It serves as the backbone of the economy. The pecuniary zone reforms initiated in 1991, known as Liberalization, Privatization, and Universalization have remarkable influenced and transformed the operational style and approach banking zone over the past 24years.

Both the government& rib have prioritized nurtured this zone as a fundamental necessity, leading to continuous adaptation to current needs. Today, the banking zone suggests a multitude of latest services beyond traditional ones, reflecting universal Diligence trends. This zone in India faces challenges like intense rivalry, regulatory changes, and slow economic progress, impacting its dynamics.

After a recent downturn marked by record Nonperforming-Assets (NPAs) and restructuring demands, the zone anticipates better times ahead. The rib has extended deadlines as per BaselIII compliancy which is in the process of issuing latest banking licenses to private entities, intensifying rivalry. Increased rivalry presents both challenges and opportunities to explore latest areas and expand banking services. Focus areas include customer satisfaction, service innovation, and technology-driven banking.

All together, the banking zone has witnessed positive progress in recent years, yet it must remarkable strengthen itself across all facets to reach future rivalry and economic demands. In this context, examining the execution of the Indian banking zone all together or by segment remains an intriguing area for investigators.

This study aims to analyze the pecuniary execution privatized banks over a specific span.

## **4.2 TITLE:-RESEARCH PROBLEM:**

Today, the Indian pecuniary zone faces dual challenges of improving its pecuniary execution and enabling technology-driven rustic banking. Concerns about the asset quality in the banking zone add to the urgency of scrutiny its pecuniary execution. In this study, the banking zone is examined broadly, focusing on ten obtained private banks due to constraints for instance time and resources.

The research problem obtained for this study is titled

"Comparative financial performance of selected private sector banks in India through CAMEL model. “

This study will focus on the following areas:

1. Capital Adequacy of obtained sample banks
2. Assets quality of obtained sample banks
3. Management coherence of obtained sample banks
4. Earnings of obtained sample banks
5. Liquidity of obtained sample banks

The research problem identifies a difficulty or question that needs resolution, whether theoretical or practical. In the current scenario, the Indian banking arrangement, especially banks, has undergone remarkable changes due to reforms, regulations, and standards. C.A.M.E.L.configuration is a meritorious utensil for considering bank execution. This study employs the C.A.M.E.L.configuration to analyze pecuniary execution obtained privatized banks and compare them across different zones and timeframes.

## **4.3 Research:- Questions**

The execution of any pecuniary institution cannot be fully reflected solely through its pecuniary statements. Therefore, the pivotal question arises: Do these institutions have

ample resources, regulatory coherence, and proper controls to accurately represent their Altogether execution?

- Capital adequacy ratios of the obtained privatized banks
- Asset quality of the obtained privatized banks
- Regulatement coherence of the obtained privatized banks
- Earning capacity of the obtained privatized banks
- Liquidity regulatement of the obtained privatized banks

#### **4.4 OBJECTIVE: - STUDY**

##### **Relative Scrutiny of C.A.M.E.L. Parameters:**

- To considering for the pecuniary conduct of obtained privatized banks using the five parameters of the C.A.M.E.L. structure.
- The study covers the following phases:
  - a) Relative scrutiny of the capital adequacy of obtained privatized banks in India.
  - b) Relative scrutiny of the asset quality of obtained privatized banks.
  - c) Relative scrutiny of the regulatement capabilities of obtained privatized banks.
  - d) Relative scrutiny of the earnings potential of obtained privatized banks.
  - e) Relative scrutiny of the liquidity of privatized banks in India.
- To identify substantial execution differences among privatized banks based on the C.A.M.E.L. rating arrangement.
- To provide valuable info to financiers or creditors who cannot independently appraise the reliability of banks using external rating arrangements.
- To propose recommendations for enhancing the pecuniary execution of privatized banks.

## 4.5 SOURCE AND METHOD:-DATA COLLECTION

The study heavily relies on secondary data gathered to the a number of credible resources for instance the RBI website, annual reports, banking journals, published material from the Indian Banks' Association (IBA), panicles, books, RBI publications, relevant websites, latest papers, accounting literature, and reports.

## 4.6 SPAN: - STUDY

Study appraises the execution of obtained privatized banks using through C.A.M.E.L. structure over a ten-year span, spanning from 2013-14 to 2022-23.

## 4.7 SAMPLE:-STUDY

Study utilizes non-probable sampling methods, specifically convenience and purposive sampling. Banks are obtained based on the characteristics of the population and the study's objectives. Specifically, we have chosen 10 privatized commercial banks each year based on high average asset values.

Table no. 4.1 - List of Obtained Privatized Bank.

Company Name	Total Assets	Total Branches
1. H.D.F.C.	2466081.47	7860
2. I.C.I.C.I.	1584206.65	5266
3. A.B.	1317325.53	4594
4. K.M.B.	489862.48	1604
5. I.I.B. Bank	457804.05	2015
6. Y.B.	354786.13	1070
7. I.D.B.I.	330502.17	1937
8. F.B.	260341.83	1272
9. J.K.B.	145962.26	975
10. S.I.B.	107,698.18	935

Source: moneeycontrol

## **4.8 SCOPE :-**

The current examination aims for exploring the comparison privatized banks of India using C.A.M.E.L. rating arrangement. It focuses on each C.A.M.E.L. parameter and employs 22 regulatory and accounting ratio. The study encompasses 10 banks and specifically examines pecuniary execution through ratio scrutiny, indicating a broad scope for the research.

## **4.9 UTENSILS AND TECHNIQUES:-**

A number of accounting and statistical techniques are being used for scrutiny the collected data in this study. Specifically, the C.A.M.E.L. structure, which comprises both accounting ratios and profit aptitude ratios, serves as a key utensil for the scrutiny process.

### **4.9.1 Accounting Techniques:-**

Numerous accounting and statistical methods are employed for scrutiny the collected data. Specifically, the study utilizes a variety of utensils and techniques for scrutiny. It should be noted that the C.A.M.E.L. structure, a ratio-based configuration, incorporates both accounting ratios and profit aptitude ratios.

The ratios categorized according to the C.A.M.E.L. parameters for considering pecuniary reliability of banks:

C – Capital Adequacy

A- Asset Quality

M- Management Quality

E- Earnings Capacity

L- Liquidity Management

#### **(1) Measures of Capital Adequacy**

1. Capital Adequacy to Risk Weighted Assets Ratio (CRAR)
2. Debt Equity Ratio
3. Total Advance to Total Asset Ratio



4. Government Securities to Total Investments
5. Coverage Ratio

2) Measures of Asset Quality

1. Net NPA to Net Advances Ratio
2. Net NPA to Total Assets Ratio
3. Total Investments to Total Assets Ratio
4. % Change in the growth of NPA Ratio

3) Measures of Management Quality

1. Business per Employee
2. Profit per Employee
3. Total Advance to Total Deposit Ratio
4. Return on Net worth Ratio

4) Measures of Earnings Ability

1. Return on Asset
2. Net Interest Margin Ratio
3. Interest Income to Total Income
4. Operating Profit to Total Income Ratio
5. Net Profit Margin Ratio

5) Measures of Liquidity

1. Liquid Assets to Total Assets
2. Liquid Assets to Total Deposit
3. Government and Approved Securities to Total Assets Ratio
4. Liquid Assets to Demand Deposit

#### 4.9.2 Statistical Techniques:-

A number of quantification utensils and techniques have been employed as per the requirements of the study. The collected data has been appropriately categorized, organized, and analyzed using relevant statistical method parametric & non-parametric tests have been apply. The data has been analyzed using a number of utensils and techniques for instance averages, index numbers, regression scrutiny, graphical representation, F-testANOVA, and others as per the study's needs. Hypotheses have been tested at a significance level of 5%.

1. **Extents of Central Tendency:** These provide an Altogether extent of a dataset, representing its typical value.
2. **Arithmetic mean.** Calculated as the total of observations which is divided by total number of observations, it is the most used extent of central tendency.
3. **Variance:** Extents the spread of data points around the C.T. by averaging the squared differentiations from the C.T...
4. **Standard Deviation:** Specifies how much the data deviates from the C.T., providing an extent of dispersion.
5. **Coefficient of Variation:** Represents ratio of to the C.T., explain as a percentage.
6. **One-way scrutiny of Variance (ANOVA):** Accustomed examine relationships between multiple groups of data to determine if there are statistically remarkable differentiations.
7. **T-testScrutiny:** Specifically used for comparing C.T.s between two groups when sample sizes are small (least 30n), suitable for hypothesis testing in your study.

#### 4.9.3 Graphical Presentation:-

It is visualization technique of an Altogether message much better than a list of tables.

- Common Statistical Graphs
- Histogram-vertical bar chart of frequencies
- Frequency Polygon-line graph of frequencies

## **4.10 HYPOTHESIS:-STUDY**

### **1. Capital Adequacy Ratios:**

- Null Hypothesis (H0): There is no remarkable differentiation included in Capital Adequacy Ratios of the obtained privatized banks in India.
- Alternative Hypothesis (H1): There is a remarkable differentiation included in Capital Adequacy Ratios of the obtained privatized banks in India.

### **2. Asset Quality Ratios:**

- Null Hypothesis (H0): There is no remarkable differentiation included in Asset Quality Ratios of the obtained privatized banks in India.
- Alternative Hypothesis (H1): There is a remarkable differentiation included in Asset Quality Ratios of the obtained privatized banks in India.

### **3. Regulateme nt Quality Ratios:**

- Null Hypothesis (H0): There is no remarkable differentiation included in Regulateme nt Quality Ratios of the obtained privatized banks in India.
- Alternative Hypothesis (H1): There is a remarkable differentiation included in Regulateme nt Quality Ratios of the obtained privatized banks in India.

### **4. Earnings Aptitude Ratios:**

- Null Hypothesis (H0): There is no remarkable differentiation included in Earnings Aptitude Ratios of the obtained privatized banks in India.
- Alternative Hypothesis (H1): There is a remarkable differentiation included in Earnings Aptitude Ratios of the obtained privatized banks in India.

### **5. Liquidity Regulateme nt Ratios:**

- Null Hypothesis (H0): There is no remarkable differentiation included in Liquidity Regulateme nt Ratios of the obtained privatized banks in India.
- Alternative Hypothesis (H1): There is a remarkable differentiation included in Liquidity Regulateme nt Ratios of the obtained privatized banks in India.

### **6. All together Execution (C.A.M.E.L. Structure Ratios):**

- Null Hypothesis (H0): There is no remarkable differentiation in CAMEL model Ratios of the obtained privatized banks in India.

- Alternative Hypothesis (H1): There is a remarkable differentiation in the CAMEL model Ratios of the obtained privatized banks in India.

These hypotheses are formulated to test whether there are statistically remarkable differentiations in each category of ratios included in obtained privatized banks in India.

#### **4.10 RESEARCH METHEDODOLOGY:-**

The C.A.M.E.L. configuration is primarily a ratio related structure used which consider pecuniary adequacy of banks. It functions as techniques for appraise regulatemet internals work inside pecuniary institutions.

Study adopts an exploratory research approach with a scientific methodology focused on quantitative scrutiny. You are utilizing the C.A.M.E.L. structure extensively rate and analyze execution pecuniary institutions based on these critical parameters.

##### **4.10.1 RESEARCH APPROACH:**

Study examines the distinctive features of analytical thinking in valuing the pecuniary zone and draws conclusions regarding specific bank ratings based on all together execution. This approach underscores our adherence to a rational research methodology.

##### **4.10.2 RESEARCH STRETAGY: -**

Primarily focus on quantitative scrutiny, emphasizing numerical data, figures, and the application of a number of ratios in a structured manner. Our approach follows a rational methodology, aligning with the objectives and hypothesis of the study. This choice reflects our commitment to quantitative research methods

##### **4.10.3 RESEARCH DESIGN: -**

Research design is exploratory and descriptive, centering on the ratio scrutiny of obtained parameters inside the C.A.M.E.L. structure. We characterize our study as exploratory, aimed at layout money negating the broader pecuniary Diligence context and specific

banks through C.A.M.E.L. ratings. The primary aim for a clearer long sight into the ratings obtained privatized banks.

#### **4.11SIGNIFICANCE:-**

This study appraises the execution of privatized banks in India, aiming to analyze their pecuniary strengths and feeble nesses across a number of key standard. It provides future visions into capital adequacy, asset quality, regulaterial cap aptitude, earnings potential, liquidity, and all together execution based on the C.A.M.E.L. structure. The research is valuable for regulators, clients, creditors, pecuniary experts, latest entrepreneurs, academicians, and investigators interested in enhancing the effectiveness of the private banking zone in India.

#### **4.12LIMITATIONS:-**

The spans a study is ten years.

The sample size for this study is restricted to ten privatized banks in India.

#### **4.13 FUTURE SCOPE:-**

In the future, the study could expand its scope by containing other category of banks for instance public zone banks, cooperative banks, rustic banks, and bank outside India's as part research criteria.

Additionally, future scope of this examination could involve exploring alternative structures apart from the C.A.M.E.L. structure to conduct research and scrutiny.

#### **4.14ORGANIZATION OF STUDY: -**

The structure of study is organized into 7 chapters, each focusing on different phases related to the Indian banking Diligence and the application of the C.A.M.E.L. structure:

##### **1. Chapter 1: Recapitulation of Indian Banking Diligence**

- Background of the study
- Recapitulation of the Indian banking Diligence

2. **Chapter 2: Execution Appraisal and Conceptionual Configuration of C.A.M.E.L. Structure**
  - Execution appraisal of the C.A.M.E.L. structure
  - Conceptionual configuration of the C.A.M.E.L. structure
  - Laws and Acts related to the C.A.M.E.L. structure rating arrangement
3. **Chapter 3: Review of Literature**
  - Review of literature discussing previous analyses and discussions on C.A.M.E.L. scrutiny in the form of theses and journals
  - Scrutiny of existing gaps in the literature
4. **Chapter 4: Research Methodology**
  - Research problem
  - Objectives and hypotheses
  - Research design, approach, and strategy
  - Sampling methodology
  - Data collection procedures and span of study
  - Data processing and scrutiny utensils and techniques
5. **Chapter 5: Profile of the Sampling Banks**
6. **Chapter 6: Execution Scrutiny of Banking Diligence through C.A.M.E.L. Structure Rating Arrangement**
7. **Chapter 7: Findings, Suggestions, Conclusions, and Future Prospects of Research**
  - Findings of the study
  - Conclusions drawn
  - Recommendations
  - Significance of the study
  - Limitations encountered
  - Future prospects for further research

This structured approach safeguards a comprehensive exploration and scrutiny of the Indian banking zone using the C.A.M.E.L. structure