P: ISSN NO.: 2394-0344 RNI No.UPBIL/2016/67980 VOL-6* ISSUE-8* November-2021
E: ISSN NO.: 2455-0817 *Remarking An Analisation*

A Camel Model Analysis of Public Sector Banks in India

Paper Submission: 10/11/2021, Date of Acceptance: 23/11/2021, Date of Publication: 24/11/2021

Urmila Bharti
Assistant Professor,
Dept. of Commerce,
Zakir Husain Delhi College, (Evening),
University of Delhi,
Delhi, India

Rajanikant Verma
Associate Professor,
Dept. of Commerce,
Zakir Husain Delhi College (Evening),
University of Delhi,
Delhi, India

Abstract

The banking industry is seen as a focal point and a barometer of the financial system. Many industrialized nations are now using a unified financial rating system which is otherly know as CAMEL Rating in conjunction with other current methods and methodologies to evaluate the operation of banks. The CAMEL model has the benefit of highlighting the essential components of a bank that an analyst should be concerned with—capital, asset quality, profitability, and liquidity. The CAMELS rating system is utilized in this study to choose essential and effective indicators in each area.

CAMELS grading model is a tool for admitting where an organization may be successful and where it has flaws. The results reveal that Bank of Baroda leads in the majority of the metrics, along with different banks like Andhra & Bank, BMB. CBI, IOB, UBI, and PNB, on the other hand, are the least efficient banks. It might also be inferred that the banks with the lowest rating need to enhance their performance for reaching the different criterion. The process of improving the banking system must be regarded as ongoing. With India being more linked into the world-wide finance related affairs, the Indian financial sector needs a huge improvement to be in the competition in near future.

Keywords: CAMELS, Public Sector Banks, Model, Ratios

Introduction

A country's financial system is an essential institutional and functional instrument for economy related enhancement. Economic prosperity of any nation is highly dependent on the finance related aspects, which includes its financial institutions, share market, insurance industry, provident fund, and the government led financial institutions with jurisdiction, or at least influential factors, over money and bank rates. Both the sides of economy related factors function closely in industrialized countries to generate prosperity while avoiding excessive price inflation. While a country is developing, in its early stages of development, the scarcity of a robust, stable finance related structure typically functions against the economic conditions of the nation.

System De Banques

Banking sectors are the foundation of a country's finance related structure. This sector, as a cornerstone of the economic system, plays a critical part in the growth of the economic structure at gross and enterprise sector in specific. According to Schumpeter, “the banking system, along with entrepreneurs, acts as a major factor in the process of economic growth." As a growth enabler, the financial sector may play a critical role.

The banking industry is seen as a focal point and a barometer of the financial system. Their primary functions are to offer a much-secured refuge to people' profits and to lend to organisations whenever fund is required, either to start or to continue in operation. Businesses would fight to continue developing and earning profit for the company partners and other investors if this source of accessible cash was not available. Banks contribute to general economic growth and development through directing funds into the corporate sector through loans, as well as giving loans to people to purchase automobiles and homes.

In India, there are now twenty-seven public sector banks, 19 of them are national banks and six of which are SBI and its affiliate banks. Furthermore, the RBI has classified two banks as "Other Public Sector Banks." This group includes IDBI Bank and Bhartiya Mahila Bank. Apart from the aforementioned, India has 21 privately owned banks and 45 international banking segments. There are a total of 93 commercial banks In India. (March 31, 2017 – RBI)

Model Camel

The CAMEL rating model was formulated in the 70s which was introduced by the United States' three federal banking supervisors being a segment of the regulators' "UFIRS" for offering a safe summary of bank situation during on-site examination. The financial institutions were evaluated based on five distinct criteria, denoted by the initials C-A-M-E-L:

Review of Literature

Academicians, academics, and administrators applied this model to evaluate the finance related performance of banking sectors, both public & private, during previous decade. The following is an overview of some of the studies:

Das (2009) uses the CAMELS framework to compare the performance of public sector banking sectors with private and international banking sectors. The research's findings reveal that privately owned /international banks outperformed public sector banks on the majority of CAMELS criterion during the research. Management soundness and earnings and profitability were the two elements that contributed to private/foreign banks' improved performance.

Kaur's (2010) said in his article ranks the various commercial banking sectors of our country. Financial institutions of our country are divided into three types: public, private, and international banks. For the purposes of profitability study, twenty-eight publicized banks, 26 private sector banks, and twenty-eight international banks were considered. The CAMEL analysis approach was utilized for ranking purposes.

Siva et al. ,2011 experimentally measured the application of CAMEL standards & their influence on SBI Group performance. The research found that yearly CAMEL scanning assists commerce related banks in diagnosing their financial health and alerting them to take preventive measures to ensure their long-term viability.

By examining asset quality, Chaudhry et al. (2012) investigated the impact of economic regulation on the stability of banking sector. The analysis identified corporate governance, NPA rates, overall cost strategic planning, and wealth creation as key contributors.

Mohiuddin (2014) attempted to measurement of the finance related performance of two largest banks (NCB and PCB) functioning in Bangladesh. This study was carried out utilizing CAMEL Parameters, the most recent financial analysis model. This model demonstrates that the banks under investigation have a solid and adequate position in terms of asset sufficiency, quality of asset, managerial competency, and liquidness.

Gupta (2014) evaluates and analyzes bank performance in order to preserve a financial system stability and a successful economy. The CAMEL technique is used in the research to scrutinize the performance of banks of our country for five years till 2013.

Rostami (2015) investigates several key ratios for assessing performance of Indian banking segment. The data utilized in this study was obtained from an Iranian bank's yearly financial reports. The data is then compared to the ratios and reports of other banks.

Gadhia (2015) attempted to explain the notion of the model for evaluating bank performance in India in his article. The CAMEL model evaluates bank performance by taking into account important variables such as capital sufficiency, financial leverage, financial performance, earning quality, and solvency.

Muralidhara and Lingam (2017) studied the impact of a sample of national Indian banks. The performance of five banks, BOB, PNB, BOI, CBI, and BOM, is examined utilizing weight age methodologies from five years period of 2006-2012 to 2015-2016, with a focus on capital sufficiency, credit risk, management efficiency, earnings, and cash flow.

Objective of The Study

The study's major goal is to use the CAMEL model to examine the finance related situation and performance of India's publicized banks. The following are specified as sub-objectives to attain the primary goal:

1. To investigate the finance related result of public sector banks through the CAMELS model.
2. To rate the banks in terms of financial performance using the CAMELS model.
3. To offer recommendations for improving the performance of publicized banks with the help of CAMELS model

Methodology Of Research

To assess performance, the CAMEL analysis method was used. CAMEL is a ratio-based technique for analyzing bank performance that takes into account various aspects such as bank profitability, capital adequacy, management efficiency, earnings, and stability. The current research is a comparative research study that takes an analytic research approach.

Collection Of Data The Study's Objective

This research relies on secondary data. Data were gathered from a variety of sources, including journals, IBA bulletins, RBI data, financial detail of banks, and dThis analysis is having a base of data from the government led banks of our country during a five-year period, from 2012-13 to 2016-17.
ata collected from different digital bas

Major Ratios With Camel Framework

CAMELS is essentially a ratio-based methodology for evaluating bank performance. The following are the many ratios that comprise this model:

Capital Sufficiency - C

Depositors' risk assessment of financial institutions is aided by the capital basis of the institutions. It is also a critical metric for financial managers to use in order to maintain sufficient levels of capitalization. The ability of financial organizations to deal with shocks to their balance sheets is ultimately determined by capital adequacy. A strong capital foundation boosts depositors' confidence. The ratio was used to protect customers while also promoting the stability and effectiveness of global financial industry.
Capital adequacy has been measured using the following ratios:
CRAR is an acronym for capitals finance ratio. RBI requires banks to maintain a minimum CRAR of nine percent on an ongoing basis for default risk, market volatility, and business risk are all factors to consider., as opposed to the 8 percent stipulated in Basel guidelines.
Capital/Total Risk Weighted Credit Exposure = CRAR

TABLE 1: Average Capital Adequacy Ratios for the period 2012-13 to 2016-17

S. No.	Bank	CAR	Rank	Total Adv./ TA	Rank	Avg Rank
1	ALLAHABAD BANK	10.78	18	0.63	7	12.5
2	ANDHRA BANK	11.43	13	0.66	1	7
3	BANK OF BARODA	12.72	3	0.55	19	11
4	BANK OF INDIA	11.17	15	0.59	14	14.5
5	BANK OF MAHARASHTRA	11.54	10	0.65	3	6.5
6	BHARATIYA MAHILA BANK LTD.	183.39	1	0.21	21	11
7	CANARA BANK	11.51	11	0.59	15	13
8	CENTRAL BANK OF INDIA	10.72	19	0.57	16	17.5
9	CORPORATION BANK	11.39	14	0.61	11	12.5
10	DENA BANK	11.10	16	0.60	13	14.5

11	IDBI BANK LIMITED	11.79	6	0.57	17	11.5
12	INDIAN BANK	13.08	2	0.63	6	4
13	INDIAN OVERSEAS BANK	10.58	21	0.60	12	16.5
14	ORIENTAL BANK OF COMMERCE	11.57	8	0.63	5	6.5
15	PUNJAB AND SIND BANK	11.43	12	0.62	8	10
16	PUNJAB NATIONAL BANK	11.88	5	0.61	10	7.5
17	SYNDICATE BANK	11.55	9	0.65	2	5.5
18	UCO BANK	11.91	4	0.56	18	11
19	UNION BANK OF INDIA	10.96	17	0.64	4	10.5
20	UNITED BANK OF INDIA	10.65	20	0.53	20	20
21	VIJAYA BANK	11.72	7	0.61	9	8

Source: STR to Banks in India----------2012-13 to 2016-17

Overall Advance To Assets Ratio

It's a percentage of total advances divided by total assets. This percentage shows a bank's willingness to lend aggressively, which leads to increased profitability. A greater advance-to-bank-deposit ratio is preferred over a lower ratio. Total loans include arrears as well. The total asset value does not include the transformation of all resources.
Total Advances to Total Asset Ratio = Total Advances / Total Asset

TABLE 1 shows the average capital adequacy ratios from 2012-13 to 2016-17.
Bhartiya Mahila Bank Ltd ranks top on the basis of CAR, with a CAR of 183.39, followed by Ib (13.08) and BOB (12.72). CAR is the lowest at Indian Overseas Bank (10.58). Andhra Bank (0.66) leads the pack in terms of Total Advances to Total Assets, followed by Syndicate Bank (0.65) and Bank of Maharashtra (0.65). (0.65). A higher ratio is thought to be beneficial to the firm. Banks with exceptionally low ratings include Bhartiya Mahila Bank Ltd (0.21), United Bank of India (0.53), and Bank of Baroda (0.55).
On a total basis, Indian Bank ranks top, and Syndicate Bank in second place, and OBC in third place

Quality Of Assets – A

Financial performance measures a finance organization's health in a number of property price degradation. When liabilities are eventually wiped against the assets, exposing the institution's income ability, the deterioration of asset values, a major source of financial difficulty, spills over into other businesses. Against this context, asset quality is assessed in terms of the quantity and severity of NPA, the appropriateness of reserves, recovery, delivering parts, and so on. The ratio of NPL to total loans is among the financial performance indicators. A higher ratio indicates bad credit decision-making. The following main factors were utilized to assess financial performance:

Net Npa Ratio

Aggregate NPAs are an indicator of a return on assets. A high level of NPAs indicates a significant likelihood of a big number of bad loans, which damages financial performance and net worth while also lowering share price. Loans and advances are usually the primary asset of most banks. It keeps track of the institution's loan quality. The greater the ratio, the riskier the borrowing.

Ratio of Net Npa To Net Advances = Net Npa/Net Advances

The Gross Npa To Net Advances Ratio (Gnpa/Adv Ratio)

Aggregate Loans as a percentage of GNPA. The ratio is a measure of credit risk in situations where management has not planned for NPA losses. It reflects the caliber of the bank's advances. Gross NPAs are the sum of all loan assets categorized as NPAs by the RBI as of the balance sheet date. Net advances are calculated as a proportion of net advances to assess GNPA. A low ratio indicates that the bank has made reliable loans and that the advances are of high quality. Symbolically, the GNPA divided by the Net Advances equals the Gross NPA/ADV Ratio.

TABLE 2: Average Asset Quality Ratios for the period 2012-13 to 2016-17

S. No.	Bank	Net NPA	Rank	Gross NPA	Rank	Avg Rank
1	ALLAHABAD BANK	5.40	17	7.32	14	15.5
2	ANDHRA BANK	4.13	7	7.31	13	10
3	BANK OF BARODA	2.89	3	6.52	6	4.5
4	BANK OF INDIA	4.42	10	6.82	8	9
5	BANK OF MAHARASHTRA	4.97	14	5.63	2	8
6	BHARATIYA MAHILA BANK LTD.	4.48	11	9.47	21	16
7	CANARA BANK	3.91	6	6.11	3	4.5
8	CENTRAL BANK OF INDIA	5.56	18	8.99	18	18
9	CORPORATION BANK	4.29	9	6.33	4	6.5
10	DENA BANK	4.91	13	7.64	15	14
11	IDBI BANK LIMITED	5.39	16	8.38	16	16
12	INDIAN BANK	3.12	4	7.27	11	7.5
13	INDIAN OVERSEAS BANK	7.45	21	9.26	19	20
14	ORIENTAL BANK OF COMMERCE	4.82	12	6.52	6	9
15	PUNJAB AND SIND BANK	4.24	8	7.10	10	9
16	PUNJAB NATIONAL BANK	5.14	15	7.06	9	12
17	SYNDICATE BANK	2.78	1	6.47	5	3
18	UCO BANK	5.58	19	8.46	17	18

19	UNION BANK OF INDIA	3.69	5	7.29	12	8.5
20	UNITED BANK OF INDIA	7.07	20	9.28	20	20
21	VIJAYA BANK	2.79	2	4.12	1	1.5

Source: STR to Banks in India----------2012-13 to 2016-17

TABLE 2: Average Asset Quality Ratios for the period 2012-13 to 2016-17

According to the above mentioned table, the best bank in terms of NPAs to total assets is Syndicate Bank (2.78), Vijaya Bank (2.79) and BOB (2.71). (2.89). Vijaya Bank (4.12) is once again ranked first in terms of gross non-performing assets, making it the top bank in terms of asset quality. Bank of Maharashtra (5.63) and Canara Bank (5.63) are in second and third place, respectively (6.11). On average, Vijaya Bank ranks first, followed by Syndicate Bank. It demonstrates that the loans made by these institutions are solid, as seen by the high quality of advances. Indian Overseas Bank (7.45), UBI (7.07) and UCO Bank (5.58), has a higher degree of NPA, indicating a greater likelihood of loan default.

Managership – M

Authorities of bank are often assessed in terms of capital adequacy, asset quality, earnings and profit, volatility, and risk susceptibility ratings. Furthermore, performance evaluation takes into account compliance with established standards, the ability to anticipate and adapting to different conditions, basic expertise, direction, and leadership skills which are the elements influencing the functioning of financial institutions is good management. The following ratios are used to assess managerial efficiency:

Employees employed by the company: Net profit margin is a measure of how well a bank employs its employees. It would want to have the highest feasible business per employee since it signals more output. Rising net profit margin in general is a good sign that the bank is figuring out how to get more selling from its employees.

Total Business / Employee Count = BPE

Profit Per Employee

This formula shows how much money is earned by each workers. It is determined by dividing the bank's post-tax earnings by the total number of workers.

PPE = Profit after Tax / Employee Count

TABLE 3: Management Quality Ratios on Average from 2012-13 to 2016-17

Table 3 illustrates bank productivity in terms of BPE and PPE. According to a bank-by-bank reading of the chart, IDBI Bank Ltd. had the highest BPE (250.27), Corporation Bank (192.11), BOI (187.00), and BOB (187.00). (177.44). On the contrary, it was the lowest in BMB Ltd. (23.03), followed by CBI(112.13), and UBI (23.03). (116.88).

TABLE 3: Average Management Quality Ratios for the period 2012-13 to 2016-17

S. No.	Bank	BPE	Rank	PPE	Rank	Avg Rank
1	Allahabad Bank	142.82	13	0.16	14	13.5
2	Andhra Bank	153.10	7	0.36	7	7
3	Bank Of Baroda	177.44	4	0.86	2	3
4	Bank Of India	187.00	3	0.02	17	10
5	Bank Of Maharashtra	157.86	6	0.03	16	11
6	Bharatiya Mahila Bank Ltd.	23.03	21	0.38	6	13.5
7	Canara Bank	143.62	11	0.28	11	11
8	Central Bank Of India	112.13	20	-0.18	19	19.5
9	Corporation Bank	192.11	2	0.31	9	5.5
10	Dena Bank	143.14	12	0.10	15	13.5
11	IDBI Bank Limited	250.27	1	-0.50	21	11
12	Indian Bank	144.32	10	0.61	3	6.5
13	Indian Overseas Bank	128.96	18	-0.36	20	19
14	Oriental Bank Of Commerce	171.02	5	0.22	13	9
15	Punjab And Sind Bank	153.00	8	0.28	11	9.5
16	Punjab National Bank	130.86	17	0.28	10	13.5
17	Syndicate Bank	140.76	14	0.32	8	11
18	Uco Bank	133.12	16	-0.09	18	17
19	Union Bank Of India	144.62	9	0.46	4	6.5
20	United Bank Of India	116.88	19	1.07	1	10
21	Vijaya Bank	139.84	15	0.38	5	10

Source: STR to Banks in India----------2012-13 to 2016-17

The chart also indicates that in terms of PPE, UBI (1.07), BOB (0.86), and IB (0.61) have the greatest values, indicating that these institutions' profitability is quite good. IDBI. (-0.50) got the lowest value, IOB (-0.36) and the CBI (-0.37). (-0.18). It implies that these banks make less profit in proportion to their staff. As a result, for improving their performance, these banks should strive to raise their income.

According to an examination of average mean ranks, it was greatest in BOB, followed by Corporation Bank and UBI.

Earnings & Profitability – E

Income and profit, which are the main drivers of capital base expansion, are assessed in connection to bank rate regimes and provision sufficiency. Furthermore, it helps the institutions' present and future operations

Operating Profit As A Percentage Of Total Assets:

The operational profit-to-total-asset ratio shows how well banks utilize their assets to produce profits. A higher ratio indicates that the assets can produce more income and that management will be more efficient in the future. Total Asset / Operating Profit

TABLE 4: Average Earning Quality Ratios for the period 2012-13 to 2016-17

S. No.	Bank	NIM / TA	Rank	OP / TA	Rank	Avg Rank
1	Allahabad Bank	2.50	5	1.81	3	4
2	Andhra Bank	2.62	3	1.96	2	2.5
3	Bank Of Baroda	2.00	16	1.53	11	13.5
4	Bank Of India	2.00	15	1.45	13	14
5	Bank Of Maharashtra	2.59	4	1.60	8	6
6	Bharatiya Mahila Bank Ltd.	4.93	1	1.07	20	10.5
7	Canara Bank	1.87	19	1.44	14	16.5
8	Central Bank Of India	2.28	9	1.07	21	15
9	Corporation Bank	1.85	20	1.54	10	15
10	Dena Bank	2.02	13	1.20	17	15
11	Idbi Bank Limited	1.70	21	1.58	9	15
12	Indian Bank	2.50	6	1.74	6	6
13	Indian Overseas Bank	2.05	12	1.36	16	14
14	Oriental Bank Of Commerce	2.29	8	1.79	4	6
15	Punjab And Sind Bank	2.02	14	1.09	19	16.5
16	Punjab National Bank	2.75	2	2.10	1	1.5
17	Syndicate Bank	2.23	10	1.43	15	12.5
18	Uco Bank	2.21	11	1.75	5	8
19	Union Bank Of India	2.30	7	1.65	7	7
20	United Bank Of India	1.93	17	1.47	12	14.5
21	Vijaya Bank	1.88	18	1.11	18	18

Source: Statistics of Banks in India----------2012-13 to 2016-17

Net Interest Margin As A Percentage Of Total Assets

It is an important indication of a bank's performance. It is represented as a percentage of total assets as the difference between interest income and interest expenditure. A higher NIM indicates greater profits as compared to total assets. Symbolically, NIM to Total Assets = (Interest Income - Interest Expense) / Total Assets.

TABLE 4: Earnings Quality Ratios on Average from 2012-13 to 2016-17

Spread is another name for net interest margin. It is the most significant driver of bank profitability. The spread trend indicates that Bhartiya Mahila Bank Ltd. (2.59) had the greatest spread, followed by Punjab National Bank (2.75) and Andhra Bank (2.75). (2.62). It was lowest at IDBI Bank Ltd. (1.70), followed by Corporation Bank (1.85) and Canara Bank (1.85). (1.87). make an attempt These banks should attempt to reduce their interest expenditures while also increasing their interest revenue. They will only be allowed to participate with the other banks after that.

The chart also shows that Punjab National Bank has the highest operating profits (2.10), followed by Andhra Bank (1.96) and Allahabad Bank (1.96). (1.81). In comparison to the previous numbers, the Central Bank of India (1.07), Bhartiya Mahila Bank Ltd. (1.07), and Punjab and Sind Bank (1.09), all reported lower values, indicating that these institutions earn very little profits. These banks should attempt to reduce their operational and interest expenditures.

Another interesting aspect shown by the spread pattern is that Punjab National Bank consistently ranks first, followed by Andhra Bank and Allahabad Bank.

Liquidity - L

An acceptable liquidity position denotes a scenario in which a company may get sufficient cash by raising obligations or converting assets promptly and at a fair cost. As a result, since mismatching generates credit risks, it is typically evaluated in the context of overall asset and obligation management.

Gauge Liquidity In The Camels Model:

Liquidity Asset to Total Asset: A bank's liquidity refers to its ability to meet financial obligations as they come due. As a consequence, guaranteeing a bank's own liquidity in all permissible circumstances is one of the most challenging issues for a bank. The liquid assets to total assets ratio indicates the bank's overall liquidity situation.

Liquid Ratio = Asset Liquidity/ Total Asset

Government securities as a percentage of total assets: Government securities are the most secure and liquid investments. Using this ratio, the value of government securities is computed as a percentage of total assets.

Total Asset / Government Securities = Total Asset / Government Securities TABLE 5: Average Liquidity Ratios for the period 2012-13 to 2016-17

Source: STR to Banks in India----------2012-13 to 2016-17

TABLE 5: Typical Liquidity Ratios for the years 2012-13 through 2016-17

Liquidity - L

An acceptable liquidity position denotes a scenario in which a company may get sufficient cash by raising obligations or converting assets promptly and at a fair cost. As a result, since mismatching generates credit risks, it is typically evaluated in the context of overall asset and obligation management.

Gauge Liquidity In The Camels Model:

Liquidity Asset to Total Asset: A bank's liquidity refers to its ability to meet financial obligations as they come due. As a consequence, guaranteeing a bank's own liquidity in all permissible circumstances is one of the most challenging issues for a bank. The liquid assets to total assets ratio indicates the bank's overall liquidity situation.

Liquid Ratio = Asset Liquidity/ Total Asset

Government securities as a percentage of total assets: Government securities are the most secure and liquid investments. Using this ratio, the value of government securities is computed as a percentage of total assets.

Total Asset / Government Securities = Total Asset / Government Securities TABLE 5: Average Liquidity Ratios for the period 2012-13 to 2016-17

Source: STR to Banks in India----------2012-13 to 2016-17

TABLE 5: Typical Liquidity Ratios for the years 2012-13 through 2016-17

Various bankers use the term "liquidity" in different ways. A bank's liquidity profile is comprised of three components: its projected cash flow, its market borrowing capacity, and its portfolio of easily available high quality liquid assets. Banks must be able to fulfill their commitments when they come due.

According to a bank-by-bank study, Bhartiya Mahila Bank Ltd. (0.44), BOB (0.20), and BOI maintained the greatest liquidity (0.13). These banks have a surplus of liquidity, which reduces their profitability. PSB had the lowest value (0.04), followed by Vijaya Bank (0.05) and Andhra Bank (0.05). (0.05). These banks should have a sufficient amount of cash on hand in order to pay their obligations on schedule.

United Bank of India ranks highest in Government Securities to Total Asset (0.27), followed by Vijaya Bank (0.24) and UCO Bank (0.24). (0.24). This indicates that these banks have the most liquid and secure investments. Bank of Baroda (0.16), on the other hand, held the least liquid asset in the form of government securities, and the next are BOI (0.17) and UBI (0.18). (0.19).
Canara Bank ranks first on average, followed by UBI and CBI.

Market Risk Sensitivity – S

Because of their varied character, banking operations are vulnerable to a wide range of financial distress. The term "sensitive" relates to how specific risk vulnerabilities may affect organizations. By tracking condition monitoring control, auditors assess an organization's vulnerability to marketplace volatility. Examiners can examine how lending to specific industries impacts a bank in this way. These loans include agricultural finance, medical lending, credit card loaning, and energy market loaning. Exchange rates, commodity, stocks, and derivative susceptibility are all variables in evaluating a company's risk management sensitivity.

Recommendations

1. In order to enhance bank profitability, a suitable capital structure mix should be used.
2. In order to improve profits, public sector banks must minimize their operational expenditures and NPA. As a result, they can raise earnings per share up to the mark.
3. In order to enhance profitability and decrease costs, banks should rely on internal sources of funding.
4. Lowering operational expenditures would go a long way toward helping public sector banks improve their performance.
5. Depositors' faith is enhanced by a strong capital basis. The higher the CRAR, the better the bank's ability to repay its bad debts and its ability to avoid bankruptcy.
6. Nonperforming assets must be managed effectively. The greater the ratio, the more difficult it is for the bank to handle its credits.
7. NIM is the most significant measure for evaluating the performance of financial organizations. Profitability shows the ability of bank manages its assets to be profitable. As a consequence, it requires special care.
8. Banks must prioritize management efficiency since management is the only criterion that can control all other aspects of performance.

Conclusion

The financial sector is seen as a focal point and a barometer of the financial segment. As the financial system has evolved significantly over the years, financial institutions across the globe have improved the quality and methods of their supervision. Many industrialized countries are increasingly evaluating bank operations using a specific economic rating system in combination with other prevalent techniques and methodology. CAMEL model has the advantage of emphasizing the key components of a bank that an analyst must be concerned with: capitalization, capital adequacy, profit, and solvency**.**

The CAMELS grading system is utilized in this study to choose significant and effective indicators in each area. Banks may use this technique to calculate and debate ratios, focus on a crisis, and solution provider for any financial issues.

The CAMELS grading model is a technique for acknowledging where an organization's strengths and weaknesses are. According to the findings, Bank of Baroda leads in the bulk of the measures, followed by Andhra and Vijaya Bank, and BMB. The least efficient banks, on the other side, are CBI, IOB, UBI, and PSB. It is also feasible to draw the conclusion that the institutions with the lowest approval ratings must improve their efficiency .

The process of upgrading the financial system must be seen as a continuous one. Despite India's increasing participation in the global financial system, different banks of India still need more improvement before it can compete.

Note

This is the revised version of already published paper titled “An Analysis of Public Sector Banks in India Based on Camel Model” published in “Remarking An Analisation” VOL-3* ISSUE-9* December 2018.

References

1. *Chaudhry,Sahila and Singh, Sultan (2012): “Impact of Reforms on the Asset Quality in Indian Banking”, International Journal of Multidisciplinary Vol. 5(2): pg. 17-24*
2. *Das, Mihir & Das, Annyesha (2009): “A Camel Analysis of The Indian Banking Industry”, SSRN Electronic Journal, July 2009.*
3. *Gupta, Ruchi (2014): “An Analysis of Indian Public Sector Banks Using Camel Approach”, IOSR Journal of Business and Management (IOSR-JBM), e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 1, January 2014, PP 94-102.*
4. *Gadhia, Nayan M. (2015): “Camel Model, A Conceptual Framework for Financial Performance Evaluation of Banks in India”, International Journal of Scientific Research, Vol. IV, Issue: 1, January 2015.*
5. *Hirtle and Lopez, 2008: “ABA Banking Journal, Banks performance evaluation by camel model”. Finance Trade Publications, Volume. 4, Issue-4, pp. 9-14*
6. *Kaur, Harsh Vineet (2010): “Analysis of Banks in India- A Camel Approach”, Global Business Review, 11:2 (2010): 257–280, SAGE Publications, Washington DC*
7. *Kaushal Bhatt (2012): Performance Evaluation of Commercial Banks Through Camel Approach "A Comparative study of selected Public, Private and Foreign banks working in India"*
8. *Mohiuddin, Golam (2014): “Use of Camel Model: A Study on Financial Performance of Selected Commercial Banks in Bangladesh”, Universal Journal of Accounting and Finance 2(5): 151-160, 2014.*
9. *Muralidhara, P. & Lingam, Chokka (2017): “Camel Model As An Effective Measure of Financial Performance of Nationalised Banks”, International Journal of Pure and Applied Mathematics Volume 117 No. 7 2017.*
10. *Prasad K.V.N.G. Ravinder and D. Maheshwari Reddy (2011), “A CAMEL Model Analysis of Public and Private Sector Banks in India". Journal of Banking Financial Services and Insurance Research, Vol 1(5): Pg. 16-23*
11. *The Bank Credit Analysis Handbook: A Guide for Analysts, Bankers and Investors By Jonathan Golin, Philippe Delhaise*
12. *Rostami, Malihe (2015): “Camels Analysis in Banking Industry”, Global Journal of Engineering Science and Research Management, November 2015.*

Websites

1. *http://www.dnb.co.in/News_Press.asp?pid=1179 [13].*
2. *http://www.hrpub.org*
3. *http://www.ibef.org/industry/banking-india.aspx[14].*
   http://in.reuters.com/finance/stocks/companyProfile?symbol=IOBK.NS
4. *http://www.ijpam.eu*
5. *http://www.shodhganga.inflibnet.ac.in*
6. *www.iosrjournals.org*