



Analyzing Performance of Indian Public Sector Banks using CAMEL Approach

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ABSTRACT

Each country's banking system plays a crucial role in its economic development. Without a sound banking system, no economy can exist. In the current banking environment, due to the increasing complexity of the banking system financial performance evaluation is becoming increasingly important. Thus, the financial health of banks has been regularly evaluated. The present study focuses on the performance appraisal of five public sector banks i.e., SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. Regression Analysis, WACC, and CAMEL Model are some of the tools used to measure bank's performance via., CAMEL parameters this evaluation has been done. This is a well-established method of comparing the performance of financial institutions as well as banks. This way of evaluating banks' performance is widely recognized. This model evaluates a bank's performance based on several factors, including capital sufficiency, asset quality, management, earnings, and liquidity. To determine capital adequacy in the current research, we took into account: Capital Adequacy Ratio and Government Securities to Total Investments Ratio. To measure asset quality we considered: Total Investment to Total Assets and Net NPA Ratio. To measure Management efficiency we considered: Business per employee and Profit per employee. To measure earnings quality we considered: EPS (Earnings per share); Operating Profit to Average Working Funds and Dividend payout ratio. To measure liquidity we considered: Investment to total deposits and Government securities to total deposits. The study has considered a period of six years i.e., from 2017 to 2022. The primary objective of the present study is to focus on the performance appraisal of five Indian banks all the banks are public sector banks viz., SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. Apart from that, this study also gives a ranking with the help of the overall performance of banks. This study has used secondary data sourced from annual reports of Banks and also taken help from few websites. Various financial ratios and averages have been used to analyze the information collected.

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1. Introduction

A major sector of the Indian economy is the banking industry (meher, 2017). Each country's banking system plays a crucial role in its economic development. Globalization is constantly changing the economy (Mehdiabadi, Tabatabeinasab, Spulbar, Yazdi, & Birau, 2020). The industrial revolution 5.0 has inevitably transformed the banking industry (Mehdiabadi, Shahabi, Shamsinejad, Amiri, Spulbar, & Birau, 2022). The banking sector of India has completely transformed (Meher et al., 2021). Without a sound banking system, no economy can exist (Kumar & Vasanthi, 2018). In the current banking environment, due to the increasing complexity of the banking system financial performance evaluation is becoming increasingly important (Bansal & Mohanty, 2013). Thus, the financial health of banks has been regularly evaluated. (Kumar & Vasanthi, 2018). Bank performance is more often evaluated based on ratios (Wanke et al., 2022). The present study focuses on the performance appraisal of five public sector Indian banks i.e., SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. Regression Analysis, WACC, and CAMEL Model are some of the tools used to measure bank's performance (Kaur et al., 2015). Banks should be evaluated by using a framework or approach that describes their strengths and weaknesses if we are to ensure a sound and strong banking sector. Analysis and evaluation of financial performance were carried out using the CAMELS framework. (Roman & Sargu, 2013). Using CAMEL parameters this evaluation has been done. The concept of CAMEL was developed in the USA in the 1980s to describe the overall health of the bank (Kaur et al., 2015; Mayakkannan

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& Jayasankar, 2020). This is a well-established method of comparing the efficiency of banks and other financial organizations, internationally accepted rating systems include the CAMEL rating system. Capital adequacy, asset quality, management, earnings, and liquidity are the five elements. CAMEL is a ratio-based approach for assessing banks' performance. (Bansal & Mohanty, 2013). This research work, the performance analysis and comparison of five public sector banks will be done, which are the top banks in terms of market capitalization.

2. Literature review

The literature review section highlights a few vital research works about the application of the CAMEL model to evaluate the financial performance of domestic, international, and private banks. Using the CAMEL model, compare the financial performance of public sector banks, private sector banks, and overseas banks. For assessing the bank's performance, numerous studies based on the CAMEL framework have been conducted periodically. Some research papers recommended that to reduce operating expenses and make them more manageable, as well as re-evaluating the policies, strategies, and procedures in providing loans, as well as the procedures to follow debts. According to the study, banks should also prepare accurate and organized liquidity plan management (Bashatweh & Ahmed, 2020). Many research works have been done in the area of CAMEL with different objectives and on different banks as stated here, a study is being conducted to evaluate the performance of five ASEAN-listed banks. Comparing Singaporean public listed banks to their counterparts; the CAMEL analysis shows them to be the best performers. It covers 63 public listed banks from the Philippines Malaysia, Thailand, and Singapore (Rahim et al., 2018). Based on the CAGR of CAMEL parameters, researchers compared India's top 5 private sector banks.

The bank with the highest CAMEL ranking was IndusInd Bank. CAMEL ratings provide a basis for comparison of different banks, which can yield valuable insights for bank top management, investors and regulators (Rawlin, Mounika, & Shanmugam, 2017). Two foreign banks namely, CITI Bank NA and, Deutsche Bank are examined using CAMELS parameters. Results revealed that the banks are sound and satisfactory. They can expand their branches in the future and benefit from Indian Foreign Direct policies. In addition, these banks inspire other foreign banks that are operating in India, as well as our domestic banks (Kumar & Vasanthi, 2018).

Based on their market capitalization, SBI, HDFC Bank, ICICI Bank, Axis Bank, and Kotak Mahindra Bank were selected. The study period spans 2007 to 2011. To each parameter of the CAMEL Model weight ages were assigned after calculating ratios. The results of each ratio have been weighted and a score has been assigned based on the performance of each bank. (Bansal & Mohanty, 2013). SPSS was used to analyze nine years of data from 2009 to 2018. Study findings indicate that management efficiency has a negligible impact on bank profitability. Furthermore, earning quality also affects profitability negatively. ROA is negatively correlated with asset quality (Dhawan & Nazneen, 2021). Five major Indian public sector banks were evaluated and compared using the CAMEL Model from 2009 to 2014. The findings showed that while the Bank of India leads in asset quality, the Bank of Baroda leads in all other areas of CAMEL (Kaur, Kaur, & Singh, 2015). The top ten public and private banks were assessed over the five years from 2015 to 2020, based on statistical information about net margin, total assets, and market position. (Mayakkannan & Jayasankar, 2020). This study assesses commercial banks' performance using the CAMEL framework. In this study, 63 Indian banks were analyzed between 2002 and 2006.

A sample was drawn from the banks that existed during the study period. Based on quartile scores of composite-factor scores, the performance ratios of the CAMEL components have been converted into a composite-factor score. According to the CAMEL framework, foreign banks and private banks had the best performances. Banks belonging to the public sector, such as SBI and nationalized banks, performed moderately. The old private banking sector in India has laggards among its peers (Pal & Chauhan, 2009). Andhra Bank and Bank of Maharashtra, are evaluated with the CAMEL model. A descriptive and analytical approach is taken. The sample banks' data have been collected for the year 2011-2013 (Biswas, 2014). There is lots of research done on this topic, but only a few research papers which have been written on the Indian public sector banks and those papers are also outdated, which may not match with the dynamic business world. This research evaluates the public sector bank's performance using CAMEL Model.

3. Methodology

In this study, the financial performance of SBI, Bank of Baroda, Canara Bank, PNB, and Union Bank will be analyzed and evaluated. Further, this research ranks banks according to their overall performance. This study was executed by using secondary data obtained from the annual reports of SBI, Bank of Baroda, Canara Bank, PNB, and Union Bank. As well as a few websites i.e., www.investing.com, www.moneycontrol.com, and www.screener.in is used for the collection of data (Hawaldar, Meher, Kumari, & Kumar, 2022). This is a Descriptive type of research work. Various financial ratios and averages have been used to analyze the information collected. The study has considered a period of six years i.e., from 2017 to 2022. The present study focuses on the performance appraisal of five Indian banks all the banks are public sector banks viz., SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. Regression Analysis, WACC, and

CAMEL Model are some of the tools used to measure bank's performance. via., CAMEL parameters this evaluation has been done. This way of evaluating banks' performance is widely recognized. This model evaluates a bank's performance based on several factors, including capital sufficiency, asset quality, management, earnings, and liquidity.

To determine capital sufficiency in the current research, we took into account:

- (i) Capital Adequacy Ratio and
- (ii) Government Securities to Total Investments Ratio.

To measure asset quality we considered:

- (i) Total Investment to Total Assets and
- (ii) Net NPA Ratio.

To measure Management efficiency we considered

- (i) Business per employee; and
- (ii) Profit per employee.

To measure earnings quality we considered:

- (i) EPS (Earnings per share); and
- (ii) Operating Profit to Average Working Funds.
- (iii) Dividend payout ratio

To measure liquidity we considered:

- (i) Investment to total deposits; and
- (ii) Government securities to total deposit.

4. Objectives of the Study

1. To analyze the financial performance of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank by using CAMEL Model.
2. To compare the selected public sector banks in order to evaluate the banks and rank them in the order of their praiseworthy performance.

5. Analysis, Results and Discussion

Capital Adequacy Ratio

Capital adequacy ratio is the relationship between capital of bank and its risk weighted assets and current liabilities. In this study Capital Adequacy Ratio Basel III used. In India, It is decided by Central bank of India (RBI) to prevent commercial banks from bankruptcy. A bank's capital adequacy ratio shows its ability to withstand unexpected losses. In accordance with RBI guidelines minimum 9% of CAR must be maintained by commercial banks. (Sayed & Sayed, 2013). We used two parameters for comparison. These are:

- (i) Capital Adequacy Ratio (CAR)
- (ii) Government Securities to Total Investments Ratio

Table 1.1: Capital Adequacy Ratio (CAR)

S.No.	Bank	Capital Adequacy Ratio Basel III (%)							Rank
		2017	2018	2019	2020	2021	2022	Average	
1	SBI	12.74	12.85	13.13	13.82	13.85	13.5	13.315	3
2	BOB	12.24	12.13	13.42	13.3	14.99	15.84	13.6533	1
3	CB	13.22	11.9	13.65	13.18	14.9	14.9	13.625	2
4	PNB	11.66	9.2	9.73	14.14	14.32	14.5	12.2583	5
5	UB	11.79	11.5	11.78	12.81	12.56	14.52	12.4933	4

Source: Author's Calculation

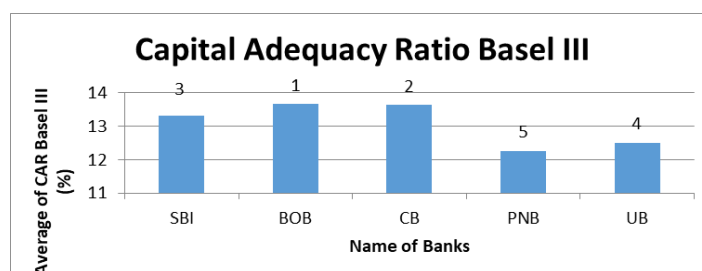


Figure 1: Graphical Representation of Capital Adequacy Ratio

Table 1.2 depicts the Capital Adequacy Ratio of five banks SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. It shows that the CAR of all banks is more than 9 percent which shows that these banks are able to meet their contingent liabilities. Figure 2.1 is the graphical representation of Capital Adequacy Ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. The graph is plotted using the average value calculated in table 1.2. It shows the ranking of banks. Bank of Baroda stands at first position with 13.6533% CAR followed by Canara Bank, SBI and Union Bank with 13.625%, 13.315% and 12.4933%. Punjab National Bank has the least Capital Adequacy compared to the remaining four banks.

Table –2: Government Securities to Total Investments Ratio

Bank	Government Securities to Total Investments Ratio (in percentage)							
	2017	2018	2019	2020	2021	2022	Average	Rank
SBI	85.867645	71.6675232	68.06965	65.39775	66.158149	65.420162	70.4301	5
BOB	78.871393	80.3819124	81.19103	84.23656	80.464516	78.618047	80.6272	3
CB	83.70562	83.0346917	91.96457	91.96457	85.986984	86.752145	87.2348	1
PNB	76.324884	74.3797543	79.69155	84.68432	87.310551	86.738403	81.5216	2
UB	77.18	77.58	74	73.22	71.54	75.55	75.0757	4

Source: Author's Calculation

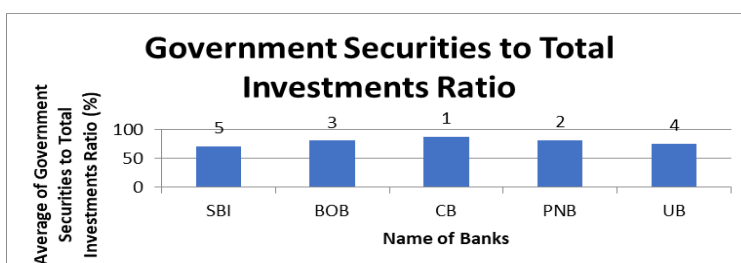


Figure 2: Graphical Representation of Government Securities to Total Investments Ratio

Table 1.3 Represent the Government Securities to Total Investments Ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.2, graph is plotted using the average value calculated in table 1.3. It shows the ranking of banks with the help of Government Securities to Total Investments Ratio. Canara Bank stands at first position with 87.2348% followed by PNB, Bank of Baroda and Union Bank with 81.5216%, 80.6272% 75.0757%. State Bank of India has the least investment in government securities compared to the remaining four banks. Although it is satisfactory, Government Securities to Total Investments Ratio shows a bank's risk-taking capability. Higher Government Securities to Total Investments Ratio is favorable for bank it shows that how much of the total investment is invested in government securities.

Assets quality Ratio

This parameter determines how risky a particular bank asset is with regard to default or credit. This model evaluates asset quality by examining non-performing assets, provision adequacy, asset distribution, and other factors. To measure the asset quality the following ratios have been selected:

- Net NPA Ratio
- Total Investment to Total Assets

Table 1.4: Showing Net NPA Ratio

S.No.	Bank	Net NPA (%)							Rank
		2017	2018	2019	2020	2021	2022	Average	
1	SBI	5.19	5.73	3.01	2.23	1.5	1.56	3.20333	1
2	BOB	4.72	5.49	3.33	3.13	3.09	1.72	3.58	2
3	CB	7.48	5.37	4.22	3.82	2.65	2.64	4.36333	3
4	PNB	7.81	11.24	6.56	5.78	5.73	4.8	6.98667	5
5	UB	8.42	6.85	5.49	4.62	3.68	3.64	5.45	4

Source: Author's Calculation

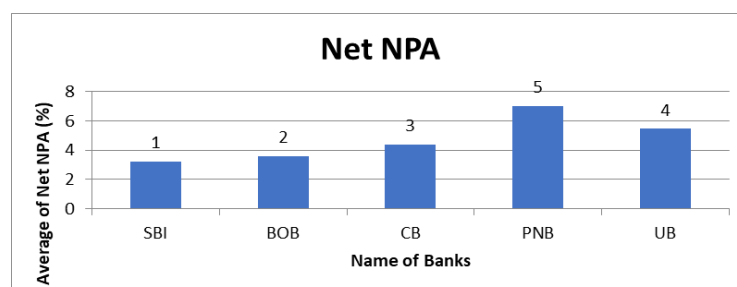


Figure 2.3: Graphical Representation of Net NPA Ratio

Table 1.4 Represent the Net NPA Ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.3, graph is plotted using the average value calculated in table 1.4. It shows the ranking of banks with the help of Net NPA Ratio. SBI stands at first position with least Net NPA Ratio of 3.20333% followed by Bank of Baroda & Canara Bank with 3.58% and 4.36333%. Compared to the other four banks, SBI has a better lending policy and handles NPAs better.

Table 1.5: Showing Total Investment to Total Assets

S.No.	Bank	Total Investment to Total Assets (%)						Average	Rank
		2017	2018	2019	2020	2021	2022		
1	SBI	29.8475	32.7337	28.7844	29.2624	32.9184	3.3138	26.1434	3
2	BOB	19.5652	23.4204	23.8774	24.1452	23.4362	25.937	23.3969	1
3	CB	27.1862	24.9343	23.698	25.9825	24.2629	24.756	25.1367	2
4	PNB	26.1181	26.2909	26.6514	29.8056	31.5981	29.0141	28.2464	5
5	UB	24.8948	25.5508	25.7513	27.7675	31.3254	29.473	27.4605	4

Source: Author's Calculation

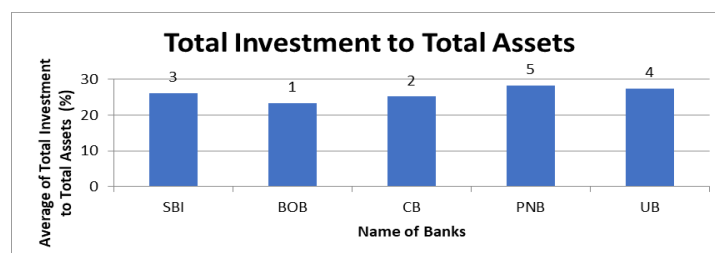


Figure 2.3: Graphical Representation of Total Investment to Total Assets Ratio

Table 1.5 Represent the Total Investment to Total Assets Ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.3, graph is plotted using the average value calculated in table 1.5. It shows the ranking of banks with the help of Total Investment to Total Assets Ratio. Bank of Baroda secures the first position with 23.3969% followed by Canara Bank with 25.1367%. Investing is not the priority for both banks, instead, they are focused on advancing money. They are adopting aggressive policies. On the other hand, Union Bank and Punjab National Bank are using conservative policies.

Management Efficiency

A business per employee and profit per employee analysis was performed to determine management efficiency. A higher Management Efficiency is favorable for both the employees and the company. Management efficiency can be measured using a variety of ratios. These are:

- (i) Business Per Employee
- (ii) Profit per Employee

Table 1.6: Business Per Employee

S.No.	Bank	Business Per Employee (in crore)						Average	Rank
		2017	2018	2019	2020	2021	2022		
1	SBI	16.7	18.77	21.05	23.73	25.74	25.84	21.9717	1
2	BOB	17.49	17.66	18.88	18.77	19.57	22.05	19.07	2
3	CB	14.42	14.8	17.07	17.63	18.14	19.91	16.995	5
4	PNB	14.17	14.73	16.8	18.21	18.85	19.41	17.0283	4
5	UB	16.43	17.83	18.79	20.06	19.23	20.48	18.8033	3

Source: Author's Calculation

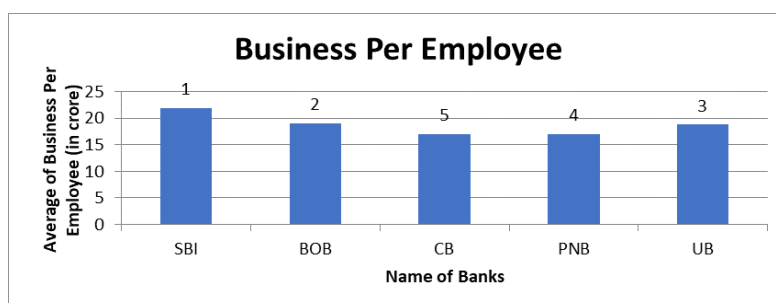


Figure 2.4: Graphical Representation of Total Business Per Employee

Table 1.6 Represent the Business Per Employee of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.4, graph is plotted using the average value calculated in table 1.6. It shows the ranking of banks with the help of Business Per Employee. A higher Business Per employee is favorable for both the employees and the company. SBI has the higher ratio with 21.9717 crore followed by Bank of Baroda, Union Bank and PNB with 19.07 crore, 18.8033 crore, 17.0283 crore. Canara Bank is at the last position in the ranking.

Table 1.7: Profit Per Employee

S.No.	Bank	Profit Per Employee (in crore)						Average	Rank
		2017	2018	2019	2020	2021	2022		
1	SBI	-0.02	0.003	0.06	0.08	0.13	0.12	0.06217	1
2	BOB	0.03	-0.04	0.08	0.01	0.01	0.09	0.03	3
3	CB	0.02	-0.07	0.01	-0.04	0.03	0.07	0.00333	4
4	PNB	0.02	-0.17	-0.15	0.53	0.02	0.04	0.04833	2
5	UB	0.01	-0.14	-0.08	-0.08	0.04	0.07	-0.03	5

Source: Authors' Calculation

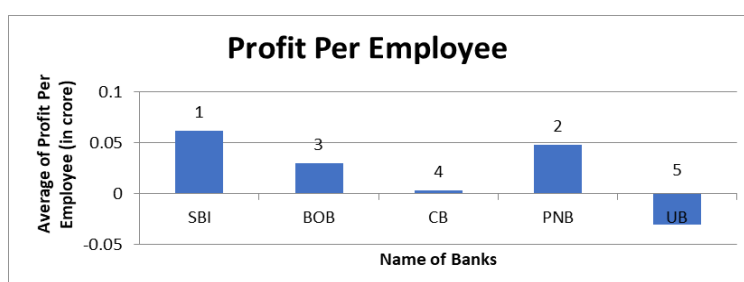


Figure 2.5: Graphical Representation of Total Profit Per Employee

Table 1.7 Represent the Profit Per Employee of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.5, graph is plotted using the average value calculated in table 1.7. It shows the ranking of banks with the help of Profit Per Employee. Just like business per employee, a higher Profit Per employee is favorable for both the employees and the company. SBI secured first position with profit per employee of 6 lakhs followed by Punjab National Bank, Bank of Baroda, Canara Bank and Union Bank. It can be concluded that State Bank of India's employees are earning more amount of profits than the rest of the four banks.

Earnings quality

For the bank to remain in business, it must earn profits, and earning potential indicates this. The following is the indicator used to analyze the Earnings quality

- Earnings per share
- Operating Profit to Average Working Funds
- Dividend payout ratio

Table 1.8: Showing EPS in Rs.

S.No.	Bank	EPS (Rs.)						Average	Rank
		2017	2018	2019	2020	2021	2022		
1	SBI	0.3	-5.11	2.58	22.15	25.11	39.64	14.1117	1
2	BOB	7.88	-7.13	4.16	2.01	2.99	15.18	4.18167	2
3	CB	22.74	-53.89	7.99	-19.28	17.55	33.76	1.47833	3
4	PNB	5.58	-43.88	-20.79	0.65	2.45	3.51	-8.7467	5
5	UB	8.33	-44.61	-16.58	-9.12	4.47	7.7	-8.3017	4

Source: Author's Calculation

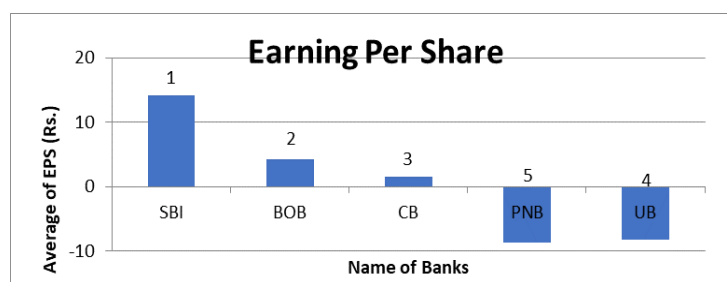


Figure 2.6: Graphical Representation of Earning Per Share

Table 1.8 Represent the Earning Per Share of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. It shows the highest ratio of SBI for the year 2022. In figure 2.6, graph is plotted using the average value calculated in table 1.8. It shows the ranking of banks with the help of Earning Per Share. SBI Bank stands in the first position and PNB is at the last position in the ranking.

Table 1.9: Operating Profit to Average Working Funds

S.No.	Bank	Operating Profit to Average Working Funds (%)						Average	Rank
		2017	2018	2019	2020	2021	2022		
1	SBI	1.72	1.4	1.71	1.6	1.6	1.62	1.60833	4
2	BOB	1.63	1.75	1.9	1.54	1.79	1.6	1.70167	2
3	CB	1.58	1.7	1.72	1.34	1.81	1.94	1.68167	3
4	PNB	2.08	1.34	1.63%	1.7	1.73	1.55	1.11727	5
5	UB	1.73	1.54	1.51	1.68	1.81	1.97	1.70667	1

Source: Author's Calculation

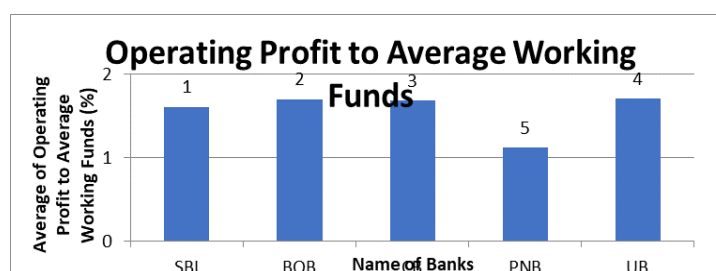


Figure 2.7: Graphical Representation of Operating Profit to Average Working Funds

Table 1.9 Represent the Operating Profit to Average Working Funds of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. It shows the highest ratio of Union Bank. In figure 2.7, graph is plotted using the average value calculated in table 1.9. It shows the ranking of banks with the help of Operating Profit to Average Working Funds. Union Bank secures First Position with Operating Profit to Average Working Funds ratio of 1.71% followed by Bank of Baroda at 1.70%, Canara Bank at 1.68%, and SBI at 1.60% and PNB secure last position with 1.11%. There is a very minor difference in ranking. All the banks have the almost same Operating Profit to Average Working Funds ratio.

Table 1.10: Dividend payout ratio

S.No.	Bank	Dividend payout ratio (%)						Average	Rank
		2017	2018	2019	2020	2021	2022		
1	SBI	859	0	0	0	16	18	148.833	1
2	BOB	15	0	0	0	0	19	5.66667	2
3	CB	4	0	0	0	0	19	3.83333	4
4	PNB	0	0	0	0	0	18	3	5
5	UB	0	0	0	0	0	25	4.16667	3

Source: Authors' Calculation

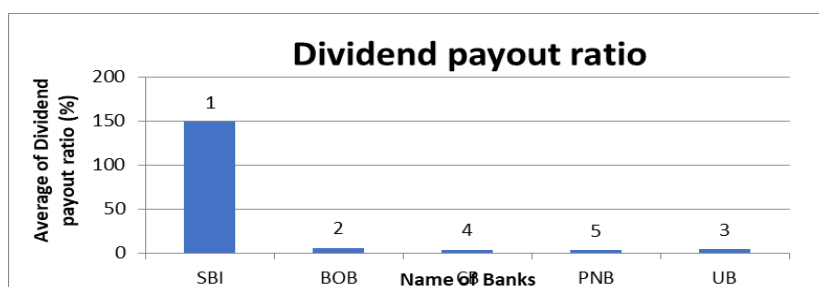


Figure 2.7: Graphical Representation of Dividend payout ratio

Table 1.10 Represent the Dividend payout ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.7, graph is plotted using the average value calculated in table 1.10. It shows the ranking of banks with the help of Dividend payout ratio. SBI has paid the highest dividend during these 6 years compared to the rest of the four banks. On the other hand, PNB paid the lowest dividend during these 6 years. No one is using a consistent track record.

Liquidity

The capacity to fulfill one's financial commitments when they become due is known as liquidity. This is a crucial sign of a company's financial health and may help predict how well it will do going forward. Credit ratings and access to capital are also influenced by a company's ability to pay its debts.

To measure liquidity the following ratios have been selected:

- Government Securities to total deposit Ratio
- Investment to total deposit Ratio

Table 1.11: Showing Government Securities to total deposit Ratio

Bank	Government securities to total deposit							Rank
	2017	2018	2019	2020	2021	2022	Average	
SBI	43.139825	31.348411	24.77989	24.77989	28.666374	27.666374	30.0635	1
BOB	21.879892	24.0769637	23.87418	25.07696	22.772793	25.401095	23.847	5
CB	25.852029	21.8240297	24.80591	22.34112	24.341311	24.863299	24.0046	4
PNB	23.513241	23.6748979	24.61053	30.53417	31.912374	29.405662	27.2751	2
UB	23.830738	23.0307377	22.69856	25.20433	26.204334	25.699657	24.4447	3

Source: Authors' Calculation

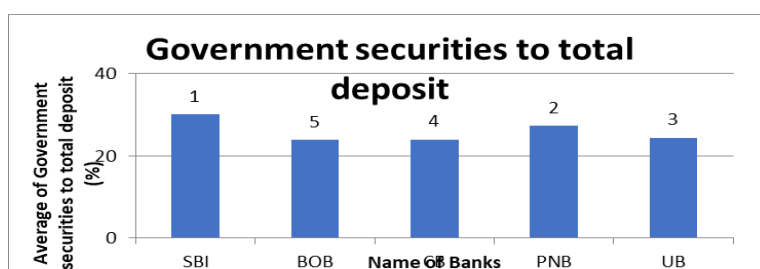


Figure 2.9: Graphical Representation of Government Securities to total deposit Ratio

Table 1.11 Represent the Government Securities to total deposit Ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. It shows the highest ratio of State Bank of India. In figure 2.9, graph is plotted using the average value calculated in table 1.11. It shows the ranking of banks with the help of Government Securities to total deposit Ratio. For the banking sector, Government securities are treated as quick assets which can be easily converted into cash. From the table it is clear that the SBI secures First Position with Government Securities to total deposit Ratio of 30.0635% followed by PNB at 27.2751%, Union Bank at 24.4447%, Canara Bank at 24.0046% and Bank of Baroda secure last position with 23.847%.

Table 1.12: Investment to total deposit Ratio

Bank	Investment to total deposit							Rank
	2017	2018	2019	2020	2021	2022	Average	
SBI	50.239907	43.741446	38.44457	37.89104	43.330073	43.84734	42.9157	1
BOB	23.3873	29.61823	29.40495	29.76969	28.301659	32.309497	28.7986	4

Bank	Investment to total deposit							Rank
	2017	2018	2019	2020	2021	2022	Average	
CB	30.88446	26.2830261	26.97333	30.80308	28.308135	28.660155	28.652	5
PNB	30.806783	31.8297609	30.88224	36.05647	36.550421	33.901549	33.3379	2
UB	29.97975	30.7183319	30.86953	34.09343	36.629132	34.014885	32.7175	3

Source: Author's Calculation

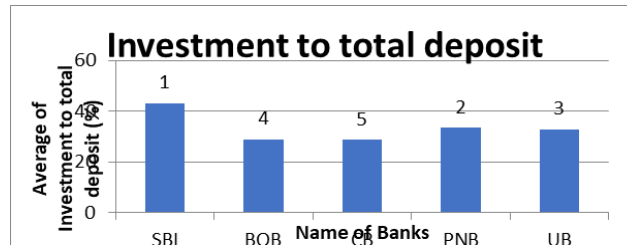


Figure 2.10: Graphical Representation of Investment to total deposit Ratio

Table 1.12 Represent the Investment to total deposit Ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. It shows the highest ratio of State Bank of India. In figure 2.10, graph is plotted using the average value calculated in table 1.12. It shows the ranking of banks with the help of Investment to total deposit Ratio. From the table it is clear that the SBI secures First Position with Investment to total deposit Ratio of 42.9157% followed by PNB at 27.2751%, Union Bank at 24.4447%, at 24.0046%. followed by PNB at 33.3379%, Union at 32.7175% and Bank of Baroda at 28.7986% and Canara Bank secure last position with 28.652%.

Table 1.13: Composite or Overall Average of CAMEL

S.No.	Bank	C	A	M	E	L	Average	Rank
1	SBI	4	2	1	2	1	2	1
2	BOB	2	1.5	2.5	2	4.5	2.5	2
3	CB	1.5	2.5	4.5	3.34	4.5	3.268	3
4	PNB	3.5	5	3	5	2	3.7	5
5	UB	4	4	4	2.67	3	3.534	4

Source: Author's Calculation

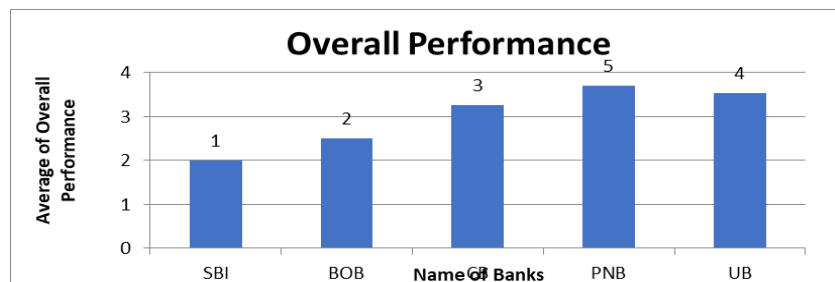


Figure 2.11: Graphical Representation of Composite Average of CAMEL

Table 1.13 Represent the Composite or Overall Average of CAMEL of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank. In figure 2.11, graph is plotted using the average value calculated in table 1.13. It shows the ranking of banks with the help of Average of capital sufficiency, asset quality, management, earnings, and liquidity i.e., Composite or Overall Average of CAMEL. From the table it is clear that the SBI secures First Position in overall performance followed by Bank of Baroda, Canara Bank and PNB. Union Bank is at the last position in the overall ranking.

6. Conclusions

The present study focuses on the performance appraisal of five public sector banks for the period of six years i.e., from 2017 to 2022. The top five public sector banks of India i.e., SBI, Bank of Baroda, Canara Bank, PNB and Union Bank based on market capitalization have been taken in this study. Analysis and evaluation of financial performance were carried out using the CAMELS framework. CAMEL framework evaluates a bank's performance based on several factors, including capital sufficiency, asset quality, management, earnings, and liquidity. Banks must maintain a minimum of 9% of CAR in accordance with RBI guidelines and the capital Adequacy ratio of SBI, Bank of Baroda, Canara Bank, PNB and Union Bank is higher than 9%. It shows that all these five banks were able to meet the advanced contingent liability. The bank gives

dividends to its shareholders in an irregular manner. Bank of Baroda leads in Capital Adequacy and SBI in Earning Quality. This Study recommends that PNB needs to improve its Earning Quality as well as Assets Quality. Similarly, Canara Bank has to improve its Management efficiency, Liquidity and the Bank of Baroda should focus on Liquidity.

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