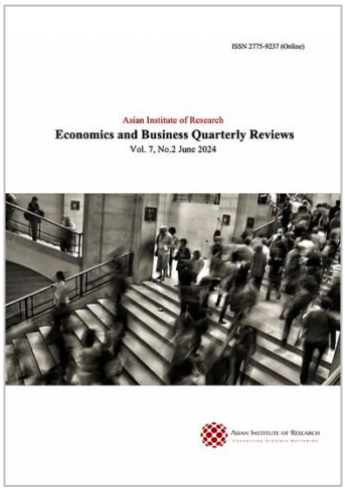

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Analyzing the Financial Performance of Commercial Banks in India: Camel Model on YES Bank & SBI And Lakshmi Vilas Bank & DBS Bank India Ltd.

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Abstract
A bank plays an important role in maintaining the economical condition of the country. Sound financial position of a bank is the guarantee not only to its depositors but is equally significant for shareholders, employees and whole economy as well. This study analyzes the financial performance of YES Bank & SBI, Lakshmi Vilas Bank (LVB) & DBS Bank India Ltd (DBIL) for the period of 2009 – 2020 by using CAMEL Model. The findings of this research reveal that net NPA (Non Performing Assets) and more advances are the major reasons for YES bank crisis. YES bank performs well up to 2017 but after that it begins to fall in terms of interest income, net profits etc., in 2020 its profit shows negative value. On the other hand, bad loans and capital inadequacy are the major reasons for failure of Lakshmi Vilas Bank (LVB) as its NPA and Advances increased excessively during the period of study.

Keywords: Capital Adequacy, Assets Quality, Management Risk, Earnings, Liquidity, CAMEL Model, PRISMA Model

1. Introduction

Banking sector in India consists of public sectors banks (PSBs), private sector banks, foreign banks, regional rural banks, and co-operative banks etc. The banking and financial sector is continuously playing a significant role in building strong economy of a nation (Al-Homaidi et al. 2018). Banks are a very significant part of the economy because they provide fundamental services to citizens of country and businesses. As a financial services provider, they give depositors a protected place to accumulate their savings. Banks are considered as revenue of the financial system of the country which helps to accelerate the income and savings from one hand to another hand (Murthy and Pathi, 2013).

The private as well as public sector banks are concentrating on comprehension of the drivers of success which includes better use of its resources like technology, infrastructure, human capital, the process of delivering quality service to its customers and performance benchmarking. Failure of banks may affects not only the domestic economy but also put the global economy at stake. According to Lawerence et al. (2015) the failure of any bank has significant economic effect on its owners, creditors, society and the economy of the country. The failure of banks is a regular feature of banking industry and Indian banking system is no exception to it. To avoid failure of banks, researchers have developed many financial models and parameters to monitor health of banking sector. Still the failure of banks cannot be avoided.

In this study, the analysis is done by using CAMEL Model/ Framework of two failed banks in India i.e. Lakshmi Vilas Bank (LVB) that merged with DBS Bank India Ltd. (DBIL) and YES Bank restructured with SBI. CAMEL framework is the model which measures the financial performance of banks in terms of five features Capital adequacy, Assets quality, Risk Management, Earning quality and Liquidity (Rauf, 2016). The research paper consists, brief description of banking sector in India, justification of the study, Research methodology, review of literature and analysis of data & interpretation of results.

1.1 Brief Description of Banking Sector in India

The features of different categories of banks in India in the form of their definition as defined in the literature and government documents are presented in this sub section. The classification of banks is presented in figure 1. It is evident from figure 1 that Indian banking sector consists of different categories of banks with regulation for each category.

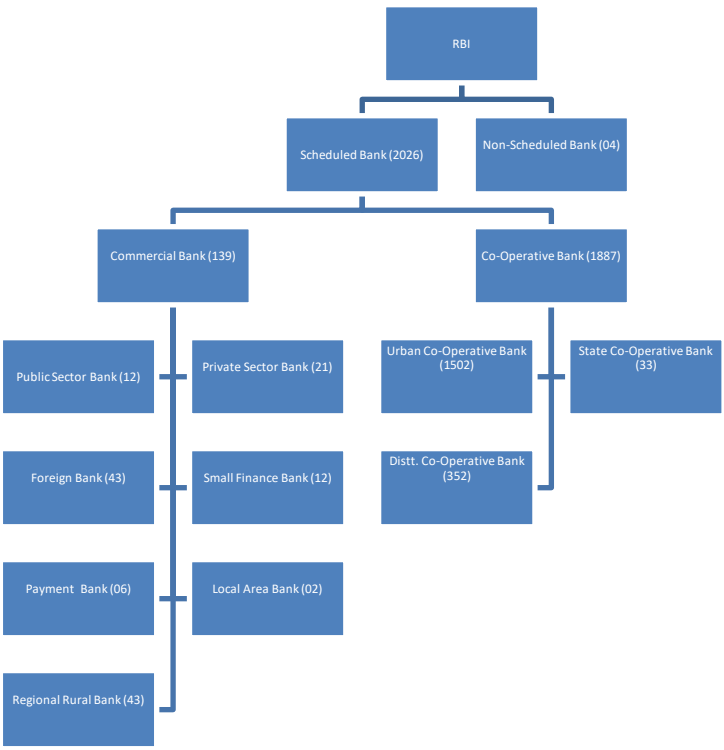

Figure 1: Banking Sector in India

Source: rbi.org.in (Jan, 2024)

Private Banks in India makes sizeable contribution to the banking sector and defined by different research experts in their own way. Few definitions are listed in the following:

Definition 1: Private Sector Banks are financial institutions that primarily owned and operated by high-net-worth private individuals and business organizations (Ray and Raha, 2023).

Definition 2: Private banking consists of personalized financial services and products offered to the high-net-worth individual (HNWI) clients of a retail bank or other financial institution (James, 2022).
Definition 3: Private Sector Banks are financial institutions that are owned and operated by private individuals or corporations, rather than the government (Mubarak and Nadaf, 2021).
Definition 4: The banks in which the maximum stake of shares or equity is maintained and owned by private individuals (Jha, 2018).
Definition 5: The Indian Banking System comprises two major sectors of Banks i.e. Public and Private Sector Banks. The former is controlled by the Government and the latter's shares or equity is held by private shareholders, (Kumar and Shetty, 2022).

Public banks in India make sizeable contribution to the banking sector and defined by different research experts in their own way. Few definitions are listed in the following:

Definition 1: Public Sector Banks are financial institutions that are owned and operated by the government (Das and Dutta, 2014).
Definition 2: Public sector banks or nationalized banks are those in which the government has retained a majority of its share with the primary aim of public interest (Gupta, 2014).
Definition 3: Public Sector Banks are the banks whose majority of stakes are held by the state or central government (Jha, 2018).
Definition 4: The banks in which the Govt. of India holds more than 50% of the total stake are called Public Sector Banks (Kaur, 2015).

2. Need of the study

As evident from the data presented in the subsequent sections of the research paper, YES bank and Lakshmi Vilas Bank (LVB) have been running smoothly for large number of years and their share prices have been increasing over the year. In the recent few years their financial performance started decreasing year by year which resulted in to their failure.
This necessitates the analysis of the financial data of these two banks to get inside of their failure. In addition this study will contribute directly or indirectly towards the analyses of financial position of the banks in India. This research study will provide an understanding of the factors of failure of YES bank and Lakshmi Vilas Bank (LVB).

3.Research Methodology

3.1. Context

The Reserve Bank of India gives its inceptors to developing and implementing new policies with the sole objective of protecting customer’s investment as well as making the banking sector more stable and sustainable. Inspite of all efforts of RBI, banking sector in India often suffers from failure of some banks i.e. IDBI (failed bank) and LIC (stake controller of IDBI) (Jasrotia et al., 2022), PMC (failed bank) and Unity small finance bank ltd. (acquirer bank) (Singhal and Chauhan, 2021). Such happening in banking sector attracts the attention of academics, experts etc. to analyze the events which resulted in to failure of banks. This Paper is based on two cases that involved four banks, i.e. YES Bank & SBI and Lakshmi Vilas Bank (LVB) & DBS Bank India Ltd (DBIL).

3.2. Data and its collection

This research paper is based on secondary data collected from different sources about financial ratios and parameters of the banks reference.

The secondary data is collected from the official website of these four banks YES Bank& SBI and Lakshmi Vilas Bank (LVB)& DBS Bank India Ltd (DBIL) and also from other financial sites such as money control, yahoo finance etc.

Table 1: Abbreviations used for sample banks

Sr. No.	Name of Bank	Abbreviation Used
1.	State Bank of India	SBI
2.	Lakshmi Vilas Bank (LVB)	LVB
3.	DBS Bank India Ltd.	DBIL
4.	YES Bank	YES Bank

3.3. Data Analysis

This paper is an attempt to analyze the financial data of 2 failed banks i.e. YES bank and LVB using CAMEL Analysis/ Model. CAMEL model is a standardized financial rating system and short form for five measures adopted by the Federal Financial Institution Examination Council (FFIEC, U.S.) on 13 November 1979 (Babu and Kumar, 2017). The analysis is similar to the study which is based on the approach of American International Assurance where in 8 financial institutions (HDFC, ICICI, SBI, BOB, PNB, BOI, AXIS and Kotak Mahindra) were analyzed by Kumar & Sharma, 2014.

3.3.1 CAMEL and its parameters along with measures:

Select definitions of CAMEL model and its parameters are summarized in the following: In addition, CAMEL parameters, financial measure used in computation of CAMEL parameters, and list of researcher whose work is based on these parameters and measures are listed in table 2.

Definition 1: CAMEL is an acronym for five parameters (capital adequacy, assets quality, management soundness, earnings and liquidity), (Reddy, 2022).
Definition 2: CAMEL Framework is a tool to measure financial performance and has five parameters (capital adequacy, assets quality, management soundness, earnings and liquidity), (Parikh, 2018).
Definition 3: CAMEL Model is a vital tool to analyze the banks and financial institutions and has five parameters (capital adequacy, assets quality, management soundness, earnings and liquidity) (Mohan and Rao, 2021).

Table 2: Parameters used in CAMEL by various authors

Parameters in CAMEL	Measures	Sources
Capital Adequacy (C)	Capital Adequacy Ratio, Tier I Capital Ratio, Debt Equity Ratio	Crowley et al. (2022), Manoj (2010), Kumar and Sharma (2014), Sangmi and Nazir (2010), Rauf (2016)
Assets Quality (A)	Priority Sector Advances to Total Advances, Secured Advances to Total Advances, Net NPA to Net Advances	Yang and Zhao (2009), Manoj (2010), Kumar and Sharma (2014), Sangmi and Nazir (2010), Rauf (2016)
Management Quality/ Risk (M)	Business per Employee, Return on Equity, Return on Advances, Return on Capital Employed, Profit per Employee,	Saif and Saha (2017), Manoj (2010), Kumar and Sharma (2014), Sangmi and Nazir (2010), Rauf (2016)
Earnings (E)	Operating Profit to Total Assets, Interest Income to Total Assets, Basic Earnings Per Share, Net Interest Margin to Total Assets, Return on Assets, Non Interest Income to Total Assets	Manoj (2010), Kumar and Sharma (2014), Sangmi and Nazir (2010), Rauf (2016)
Liquidity (L)	Cash Deposit Ratio, Credit Deposit Ratio, Current Ratio, Quick Ratio, Liquid Assets to Total Assets Ratio	Manoj (2010), Kumar and Sharma (2014), Sangmi and Nazir (2010), Rauf (2016)

Source: Compiled by Author(s)

3.4. Research Objectives

The study is about three objectives of the present study, in the context of failure of YES Bank and LVB, and the role of State Bank of India and DBIL are listed as under:

Objective 1: To study the factors of failure of YES bank and Lakshmi Vilas Bank (LVB).
Objective 2: To analyze the NPAs, Capital Adequacy, Risk Management, Liquidity etc. by using CAMEL model on four banks i.e. YES Bank, SBI (acquirer bank) and Lakshmi Vilas Bank (LVB), DBS Bank India ltd. (DBIL) (acquirer bank).
Objective 3: To suggest the policy initiatives/ interventions to regulators to avoid failure of a private bank in future.

3.5. Scope of the study

This research paper focuses on the analysis of financial performance of these banks using CAMEL Model. The data used for the purpose is for the years 2009 to 2020 which are collected from the annual reports of these banks and from the financial websites as moneycontrol.com. It reveals only financial performance of the bank during that period only.

4. Review of Literature

Review of literature consists of two parts. Part 1 consists of identification of research articles from the scientific databases. For the purpose of identification of research articles PRISMA Model (Page et al. 2021) is used. Part 2 embodies of review of literature of selected research papers. The Review of literature is carried out on two aspects, i.e. factors responsible for failure of a bank and application of CAMEL Model used to measure financial performance of a bank.

4.1 Key Factors for failure of a Bank

This section presents the review of existing literature on factors of failure of a commercial bank such as NPAs, risk management, bank fraud, capital inadequacy etc.

Identification of research article: The research articles were identified by searching database such as Google scholar, Jgate plus, Dimensions AI, Research gate etc. It includes all published articles and reports. The processes are explained in table 3a, 3b, 3c and 3d.

Table 3a: Keywords, Data bases and no. of relevant articles

S. N	Databases	Keywords	Year/ period	Geographical reach	Type of Journal	Total articles	Irrelevant article	Common article	Relevant article
1	Google scholar	Factors for bank failure	2010-2024	Indian banking sector	Banking/ Finance/ Management/ Economics/ Multidisciplinary Research	18	14	4	0
2		Excessive NPA in banks				28	20	7	1
3		Capital inadequacy and bank failure				19	15	4	0
4		Bank frauds and insider frauds				34	27	6	1
5		Inadequate liquidity, poor risk management and				23	19	3	1

		bank performance							
	Total					122	95	24	3

Table 3b: Keywords, Data bases and no. of relevant articles

Sr. No.	Databases	Keywords	Year/ period	Geographical reach	Type of Journal	Total articles	Irrelevant articles	Common article	Relevant article
1	Dimension AI	Factors for bank failure	2010-2024	Indian Banking System	Banking/ Finance/ Management/ Economics/ Multidisciplinary Research	10	5	4	1
2		Excessive NPA in banks				17	7	7	3
3		Capital inadequacy and bank failure				14	9	4	1
4		Bank frauds and insider frauds				19	11	6	2
5		Inadequate liquidity, poor risk management and bank performance				9	6	3	0
	Total					69	38	24	7

Table 3c: Keywords, Data bases and no. of relevant articles

Sr. No.	Databases	Keywords	Year/ period	Geographical reach	Type of Journal	Total article	Irrelevant articles	Common article	Relevant article
1	Jgate plus	Factors for bank failure	2010-2024	Indian banking sector	Banking/ Finance/ Management/ Economics/ Multidisciplinary Research	15	10	4	1
2		Excessive NPA in banks				23	15	7	1
3		Capital inadequacy and bank failure				15	10	4	1
4		Bank frauds and insider frauds				17	10	6	1
5		Inadequate liquidity, poor risk management and bank performance				8	4	3	1
	Total					78	49	24	5

Table 3d: Keywords, Data bases and no. of relevant articles

Sr. No.	Databases	Keywords	Year/ period	Geographical reach	Type of Journal	Total articles	Irrelevant articles	Common article	Relevant article
1	Researchgate	Factors for bank failure	2010-2024	Indian banking sector	Banking/ Finance/ Management/ Economics/ Multidisciplinary Research	8	4	4	0
2		Excessive NPA in banks				15	7	7	1
3		Capital inadequacy and bank failure				13	8	4	1
4		Bank frauds and insider frauds				19	12	6	1
5		Inadequate liquidity, poor risk management and bank performance				15	12	3	0
	Total					70	43	24	3

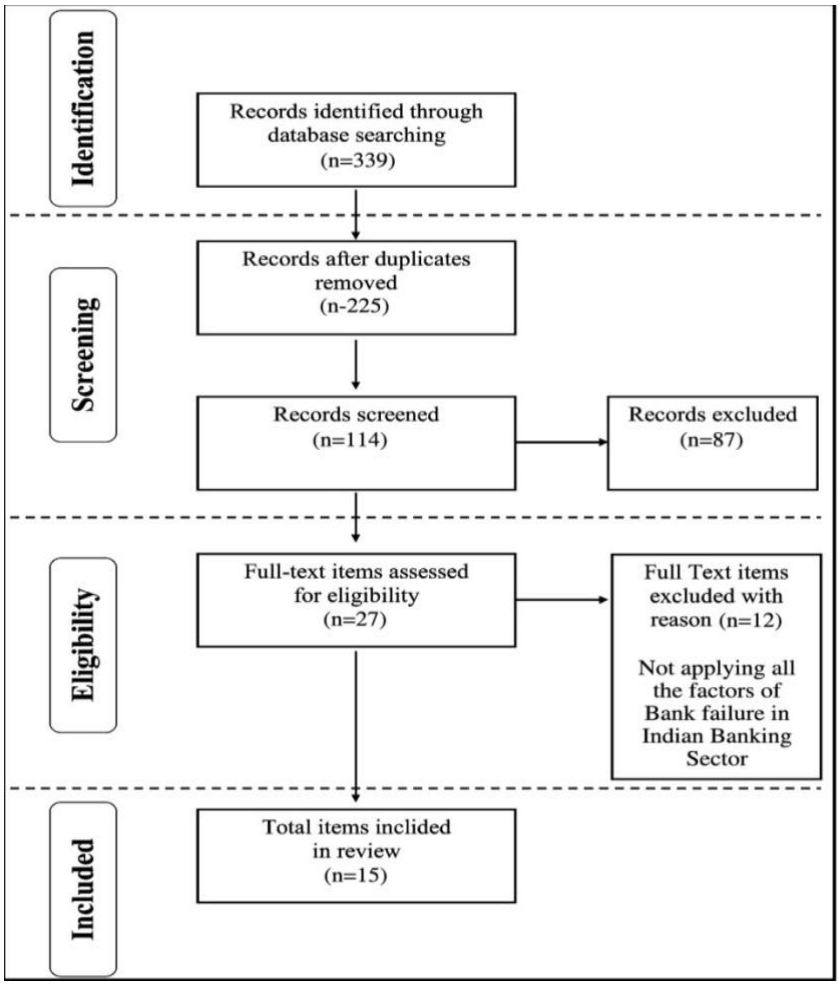

Figure 2: Flow Chart of PRISMA Model

Source: page et al. 2021

The process of search was based on PRISMA Model as explained in figure 2. The period of search was, from 2010 to 2024. These selected search articles are reviewed in the following.

Khanna and Arora (2010) indicated that lack of training, overburdened staff, competition, low compliance level (the degree to which procedures and prudential practices framed by Reserve bank of India to prevent frauds are followed) are the main causes of bank frauds. Millon (2011)has clarified in his examination that since a long time ago run thriving of company relies upon the prosperity of its different partners and investors and maintainability is likewise needful for current accessibility of common assets in which the organization can endure and prosper. Samad (2011) has examined the impact of capital adequacy in failed and non- failed bank. This paper finds significant differences in capital adequacy between the failed and survived banks. Patidar and Kataria (2012) analyzed the percentage share of NPA as components of priority sector lending, the comparative study was conducted between SBI and Associates, Old Private Banks and New Private Banks and Nationalized Banks, to find out the significant difference of the NPA and also find out the significant impact of Priority Sector Lending on the Total NPA of Banks using statistical tools like regression analysis and ratio analysis. Arora and Kumar (2014) analyzed the classification and comparison of loan assets of public and private sector banks. This study concluded that NPAs are still a threat to the banks and financial institution and public sector banks have higher level of NPAs in comparison to Private sector banks.

Memdani (2017) has examined the determinants of NPAs in the Indian Banking sector. The findings of the study reveal that there exists a negative correlation between NPAs and financial performance of a bank. Banerjee et al. (2018) uncovered in her examination that the administration is delegating its very own chiefs for

micromanagement has encouraged colleague private enterprise and open division banks experience the ill effects of over the top guideline with too huge an extent of their benefits being utilized to satisfy the administration's deficiency. Vani (2020) uncovered in her examination that the more NPAs or bad loads and non serious investors are the one of the major reasons for the failure of YES Bank during 2020.

Kumar and Upadhyay (2021) discussed the factors answerable for failure of YES Bank. The findings of the study reveal that Bad loans, Corporate Governance, excessive withdrawal are the main reasons for YES Bank failure. Lappay et al. (2021) examined the effect of risk and returns on Capital Adequacy Ratio of Commercial Banks in India. The findings of the article reveal that there is a negative correlation between risk and capital adequacy ratio of banks and there is a positive correlation between returns and capital adequacy ratio. Surapalli and Parashar (2021) had studied the relationship of corporate governance practice with the financial performance of the banks in India. The findings of the study reveal that there exists a positive correlation between corporate governance and financial performance of a bank. Kanoujiya et al. (2022) had studied the bankruptcy and financial distress of banks in India. A panel data analysis of 34 banks in India is performed for regression analysis. This study indicates that financial distress and inadequate liquidity are interrelated. Raut et al. (2022) examined the relationship between liquidity position and the financial performance of India's banks in both the public and private sectors. The findings of the study reveal that there exists a negative correlation between liquidity position and financial performance of a bank. Vyas and Shah (2023) analyzed 12 PSU and Private Sector Banks. The findings of the study reveal that private sector banks reported higher cases of frauds compare to PSU banks. Gunasekaran et al. (2024) analyzed that the highest per cent of NPA was recorded in the year 2018 while comparing figure with 2011 to 2022. Due to that the profitability of the banks has been declined.

4.2 CAMEL Analysis and financial position of banks

This section presents the review of existing literature on CAMEL Analysis and financial performance of banks in India. To complete the Systematic Literature Review on CAMEL analysis and financial performance, four databases such as Google scholar, Jgate plus, Dimensions AI, Researchgate are searched for keywords as mention in table 4. In all 20 research paper were identified for Systematic Literature Review.

Table 4: Keywords, Data bases and no. of relevant articles

Databases	Year/ period	Geogra-phical reach	Type of journal	Seaerch by	Total articles	Irrelevent articles	Common articles	Relevent articles
Google scholar	2010-2024	Indian banking sector	Banking/ Finance/ Management/ Economics/ Multidisciplinary Research	CAMEL and Bank Performance	73	28	38	07
Jgate plus				CAMEL Analysis and banking sector	60	22	30	08
Dimension AI,				CAMEL model and banks in India	44	35	07	02
Researchgate				CAMEL Model	43	12	28	03
	Total				220	97	103	20

The above table represents the databases, keywords and number of articles used for the review of literature. Literature has been broadly classified on the basis of analysis of bank performance of various Indian banks using CAMEL Model/ Framework from 2010 to 2024.

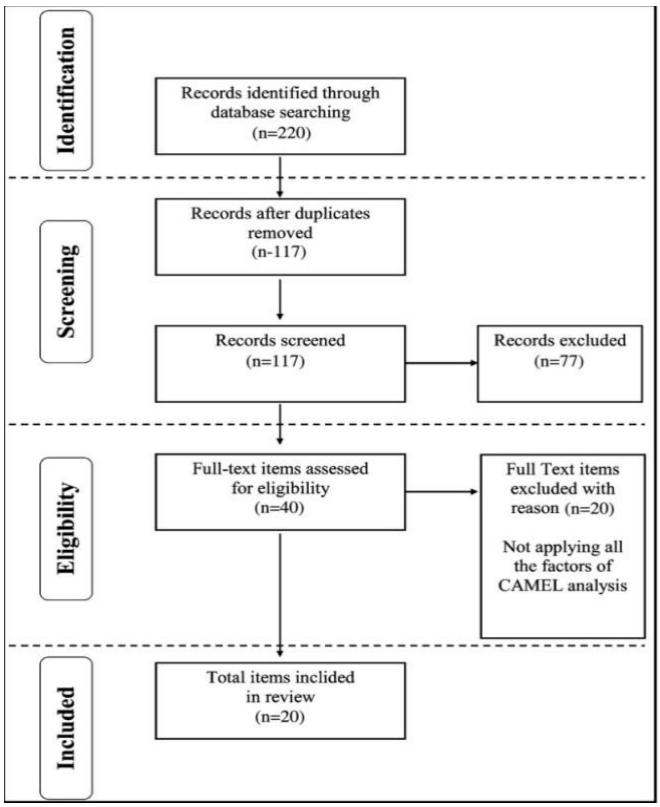

Figure 3: Flow Chart of PRISMA Model

Source: page et al. 2021

The searches were based on PRISMA Model as explained in figure 3. The period of search was, from 2010 to 2024. In all 20 research papers are identified with PRISMA Model, are reviewed in the following with a view to identify research gaps.

Sangmi and Nazir (2010) analyzed the performance of biggest nationalized bank (PNB) and biggest private sector bank (J&K Bank) using the CAMEL model for the period from 2001-2005. The analysis showed that both bank's position in terms of capital sufficiency; assets quality, managerial skill, and liquidity were solid and accurate. Prasad et al. (2011) evaluated the financial performance of the banking sector of all public sector banks and thirteen private sector banks in our country with the help of CAMEL model approach and the findings of the study have shown that Karur vysya bank was the best performer followed by Andhra bank and Bank of Baroda. It was also found that Central Bank of India hold last position and SBI got 36th position. Misra (2013) applied the CAMEL model to evaluate the overall performance and financial stability of a national financial institution. The findings showed that the institution's feature in terms of assets quality and capital adequacy may need to be improved.

Gupta (2014) analyzed the performance of public sector banks by using CAMEL Model for five years from 2009 to 2013 and brings out that Andhra Bank stood at high position followed by Bank of Baroda and United bank of India secured the last position. Mishra et al. (2015) evaluated the financial performance of public sector banks using CAMEL Model for five years from 2010 to 2014. This study attempts to measure the relative performance PNB and BOB. Meena and G.L (2016) examined the impact of CAMEL ratings on the performance of banks in India. The author explains how CAMEL ratings can be used to measure the financial health of banks and how this information can be used to improve their performance. Srinivasan and Saminathan (2016) applied CAMEL model to rank the public sector, private sector and foreign banks on the basis of financial performance from 2012 to 2014.They also find out that significant difference lies between the mean values of Camel ratios of public sector, private sector and foreign banks during the period of study.

Sharma and Sharma (2017) performed a comparative analysis of Profitability of Top Three Indian Private Sector Banks (HDFC, ICICI and AXIS Bank). This study is based on secondary data. This study reveals not much difference between these three private sector banks during the study. Kumar and Malhothra (2017) attempted has been made to evaluate the performance &financial soundness of selected private sector banks in India for the period 2007- 2017 CAMEL approach has been used. According to this research paper Axis Bank is ranked first by the CAMEL Model followed by ICICI Bank. Kotak Mahindra Bank scored the third position and IndusInd bank secured the last position amongst all the selected banks. Bothra and Purohit (2018) performed a comparative analysis of ICICI and SBI financial institutions using the CAMEL method, and the results showed that the ranking of ratios differs between ICICI and SBI. Further, SBI wants to strengthen its position with regard to control effectiveness, greater income generation, and liquidity, whereas ICICI Bank needs to improve its position with regard to capital sufficiency and asset fineness. Parikh (2018) studied the performance analysis of ICICI Bank, SBI, Bank of Baroda and HDFC Bank by using CAMEL Model. This study reveals the ICICI Bank was at top in terms of capital adequacy and SBI held the top rank in terms of remaining parameters. Balakrishnan (2019) studied the performance analysis of ICICI Bank by using CAMEL Model. This study reveals the ICICI Bank was in growing trend during the period of research.

Jha and Natarajan (2021) analyzed the financial performance of private sector banks and public sector banks for a period of 5 years 2015 – 2019 by using CAMEL Model. This article showed that the Public Sector Banks are not up to the marks as compare to Private Sector Bank. Kumar and Sinku (2021) analyzed the financial performance of SBI and ICICI for the period of pre- merger and post merger. CAMEL Model is used for the performance analysis. The results indicate that there is an improvement in the overall performance of the SBI and there is no significant improvement in the overall performance of ICICI Bank. Kumar (2022) analyzed the financial performance of private sector banks and public sector banks, by using CAMEL Model for a period of 7 years 2011-2018. The study was evident that, in India the private banks are better performers than the public banks. Reddy (2022) analyzed the financial performance of public sector banks and private sector banks (State Bank of India, Punjab National Bank, ICICI Bank and AXIS Bank) by using CAMEL Model. This study showed that the Public Sector Banks are not good as compare to Private Sector Banks. Kumar et al. (2022) analyzed the financial performance of a few select private banks and analyses them using the CAMEL Model. Based on CAMEL analysis, the rank order of the banks is ICICI Bank, HDFC Bank, Kotak Mahindra Bank, AXIS Bank, and YES Bank.

Soni and Devarakonda (2023) examined the financial performance of a few private sector banks, public sector banks and foreign banks by using the CAMEL Model and Panel data analysis. The most remarkable finding of this study is that Indian banks have performed reasonably well in terms of performance than foreign banks. Suresh and Pradhan (2023) examined the financial performance of selected Public sector undertaking banks and Private sector banks. The findings of the study show that PSUB has made a lot of progress but still are not performing up to the standard that PSB set. Goud and Chodisetty (2024) had taken total assets of 5 Public banks and 5 private banks. The findings of the study show that Kotak Mahindra outperformed all other banks and came out on top, while PNB came in last.

5. Results and Discussion

This section presents results with respect to factors responsible for bank's failure, CAMEL analysis of each bank & combined for all four banks.

5.1 Factors responsible for failure of a bank

This section represents the various factors that are responsible for failure of a commercial bank based on Systematic Literature Review. The main factors include excessive NPA, capital inadequacy, poor risk management, bank frauds etc. The details of factors and name of researchers who had identified there factors are presented in table 5.

Table 5: Factors Responsible for bank failure

Factors Responsible for bank failure	Sources
1. Excessive Non Performing assets/ Bad loans	Patra and Padhi (2016), Laila (2017), Kalra (2017), Aneja (2017), Vani (2020), Bamoriya and Jain (2013), ICGS (2016)
2. Capital Inadequacy	Jagtiani et al. (2014), Samad (2011), Lappay et al. (2021), Nguyen et al. (2018), Ishtiaq (2015).
3. Poor Risk Management	Kanchu and Kumar (2013), Murthy and Pathi (2013), Chitra and Gheetha (2020), Ubegbunan 2016, Benston and Kaufman, Alwarez and Restrepo (2016), Taiban and Tayachi (2021), Khanna & Arora (2009).
4. Bank Frauds and insider frauds	Singh et al. (2016), Thangam and Bhavin (2019), swain and Pani (2016), Momot and Rodchenko (2019), ICGS (2016), Khanna and Arora (2009).
5. Insider Abuse	Office of currency (1988), Marcinkowska (2012), Lakshan and Wijekoon (2012), Rao (2013), Gayathri (2015), Surapali and Parashari (2021).
6. Inadequate Liquidity	Bennett and Unal (2015), ubagbuban (2016), Fredrik et al. (2018), Momot and Rodchenko (2019), Raut (2022).

Source: Compiled by Author(s)

It is evident from the data presented in table 5 that all factors are almost given the same importance by the researchers. These factors were also responsible for failure of YES Bank and Lakshmi Vilas Bank (LVB). However in case of YES bank Insider Abuse was the main factor.

5.2 CAMEL Analysis of sample banks

This section presents CAMEL Analysis in two ways. Firstly, CAMEL Analysis of sampled banks (YES bank, SBI, LVB and DBIL) combined and secondly, CAMEL Analysis of individual banks.

5.2.1 CAMEL Analysis of sample banks in group

Table 6 shows the ratios and parameters provided under the CAMEL Model/ Framework are used in the current study to examine the overall performance of these banks.

Table 6: Financial Ratios with formula and their accepted bench mark values

Abbreviations	Names of Financial ratio	Formula	Source of data	Accepted Bench mark
Capital Adequacy (C)				
CAR (%)	Capital Adequacy Ratio	Equity Capital / Total Assets	Balance Sheet	9% (www.rbi.org.in)
T D/E	Total Debt to Equity Ratio	Debt/ Equity	Balance Sheet	15 or lower is good, (Sudha and Rajendran, 2019), (Kumar, 2020)
Assets Quality (A)				
NNR (%)	Net NPA Ratio	Net NPA / Total Advances	Balance Sheet	Below 1% is considered good. (www.rbi.org.in)
ROA (%)	Return on Assets	Net Profit / Total Assets	Balance Sheet, statement of Profit & loss	greater than 5% is considered good. (www.rbi.org.in)
Management Quality/ Risk (M)				
ADR	Advances to Deposits Ratio	Total Advances / Total Deposits	Balance Sheet	0.8 to 0.9 is considered good.
ROCE (%)	Return on Capital Employed	Profit before tax/ Capital Employed	Balance Sheet, statement of	ROCE 7.5 % or more is considered good.

			Profit & loss	(Kaur et al. 2015)
Earnings (E)				
BEPS	Basic Earnings Per Share (INR)	Net Income – Preferred Dividends/ weighted Average of Common Shares	Balance Sheet, statement of Profit & loss	Higher BEPS shows higher earnings. (Kumar, 2020)
I I / T A (%)	Interest Income to Total Assets	Net Interest Income/ Total Assets	Balance Sheet, statement of Profit & loss	A high ratio is a good indicator. (Shanmugam and Ravirajan, 2021)
N I I/ T A (%)	Non Interest Income to Total Assets	Other Income/ Total Assets	Balance Sheet, statement of Profit & loss	More than 0.75 is a good indicator.
Liquidity Ratio (L)				
CR	Current Ratio	Current Assets/ Current Liabilities	Balance Sheet	2 or more is good. (Sudha and Rajendran, 2019), (Kumar, 2020)
LAR	Liquid Assets to Total Assets Ratio	Liquid Assets/ Total Assets	Balance Sheet	1 and above is good. (Kumar, 2020), (Sudha and Rajendran, 2019)

5.2.1.1 Capital Adequacy (C)

Capital adequacy refers to overall financial condition of banks and also the ability of management to meet the needs of additional capital (Rauf, 2016). The analysis of Capital adequacy is based on two ratios i.e. CAR and T D/E. The computations are presented in table 7.

Table 7: Capital Adequacy (C) Parameters: CAR & T D/E

CAR (%)	Year	YES bank	SBI	LVB	DBIL
	2009	16.6	14.25	10.09	15.70
	2010	20.6	13.39	14.21	16.96
	2011	16.5	11.98	13.19	14.98
	2012	17.9	13.86	13.10	14.38
	2013	18.3	12.92	12.32	12.99
	2014	14.4	12.96	10.9	13.81
	2015	15.6	12.00	11.34	17.01
	2016	16.5	13.12	11.00	18.64
	2017	17.0	13.11	10.38	16.49
	2018	18.4	12.60	10	16.14
	2019	16.5	12.72	7.72	19.69
	2020	8.5	13.13	1.12	16.33
Average		16.4	13.01	10.45	16.09
Bench mark value of CAR for private commercial bank is 9% (rbi.org.in).					
T D/E	2009	13.10	15.64	15.40	0.12
	2010	10.78	14.97	14.1	8.49
	2011	14.55	17.83	13.9	12.20
	2012	14.74	14.90	19.0	12.77
	2013	16.06	14.84	16.4	12.89
	2014	14.9	14.15	18.6	10.32
	2015	13.8	14.94	14.87	8.60
	2016	10.4	18.72	14.83	8.93
	2017	8.5	12.55	15.13	8.65
	2018	10.7	14.00	16.03	9.23
	2019	12.49	15.00	15.96	8.77
	2020	10.09	15.32	18.05	9.42
Average		12.51	15.24	16.02	9.19
Bench mark value Total debt to equity is 15 or lower is good, more than 20 is bad.					

Combined Average		14.45	14.12	13.24	12.65
Rank		1	2	3	4

Source: Annual Reports of YES bank, SBI, Lakshmi Vilas Bank (LVB), DBS bank India ltd. (2009-2020), moneycontrol.com (YES bank, SBI, Lakshmi Vilas Bank (LVB)).

The higher CAR indicates the bank is able to protect value of investment of investors. All banks in the sample having a higher CAR than the benchmark level set by RBI i.e. 9% as of March 2019. It is found that YES bank secured highest Average CAR of 16.4% followed by DBIL with 16.09% and LVB stood at last with 10.45%. It is also found that DBIL secured the Average T D/E of 9.19 which is under the benchmark value i.e. lower than 15 (table 6) followed by YES bank with the value of 12.5. After computing the combined average, YES bank secured highest position followed by SBI and DBIL secured lowest position.

5.2.1.2 Assets Quality (A)

Asset quality determines the healthiness of financial institutions against loss of value in the assets as asset impairment risks the solvency of the financial institutions. The weakening value of assets has a negative effect, as losses are eventually written-off against capital, which expose the earning capacity of the institution, (Rauf 2016). The analysis of Asset quality is based on two ratios, i.e. NNR and ROA. The computations are presented in table 8.

Table 8: Assets quality (A) Parameters: NNR & ROA

NNR (%)		YES bank	SBI	LVB	DBIL
	2009	0.03	1.79	1.24	0.55
	2010	0.06	1.72	4.11	1.0
	2011	0.03	1.63	0.90	0.31
	2012	0.05	1.82	1.74	0.60
	2013	0.05	2.10	2.43	2.37
	2014	0.12	2.57	3.44	10.19
	2015	0.29	2.12	1.85	4.15
	2016	0.29	3.81	1.0	4.34
	2017	0.81	3.71	1.76	2.12
	2018	0.64	5.73	6.0	1.09
	2019	1.86	3.01	7.49	0.33
	2020	5.03	2.23	10.04	0.47
Average		0.77	2.69	3.50	2.29
Bench mark value of NNR is below 1% considered good.					
ROA (%)	2009	1.59	1.04	0.71	2.72
	2010	1.79	0.88	0.74	2.38
	2011	1.58	0.71	0.76	0.79
	2012	1.57	0.88	0.65	1.12
	2013	1.57	0.91	0.51	0.72
	2014	1.6	0.65	0.28	0.01
	2015	1.6	0.76	0.53	-0.71
	2016	1.7	0.46	0.62	0.02
	2017	1.8	0.41	0.72	0.03
	2018	1.6	-0.19	-1.44	-1.16
	2019	0.5	0.02	-2.70	0.04
	2020	-5.1	0.38	-3.42	0.20
Average		0.98	0.58	-0.17	0.51
Bench mark value of ROA is greater than 5% considered good.					
Combined Average		0.88	1.63	1.67	1.40
Rank		4	1	2	3

Source: Annual Reports of YES bank, SBI, Lakshmi Vilas Bank (LVB), DBS bank India ltd. (2009-2020), moneycontrol.com (YES bank, SBI, Lakshmi Vilas Bank (LVB)).

Table 8 revealed that YES Bank successfully managed its NPAs till 2018 but after that it increased excessively. In 2020 NNR of YES bank reached to the value of 5.03. LVB has higher average NNR with the value of 3.50 which shows poor Assets management of LVB. All banks in the sample have a lower ROA than the benchmark level set by RBI i.e. greater than 5%. It is found that LVB has lowest ROA with value of -0.17.

5.2.1.3 Management Risk (M)

Management efficiency is a key to judge the decision making capacity of managing board, as ingredients of the CAMEL Model. The ratio is to capture the possible subjective dynamics of the effectiveness of management, (Kumar and Sharma, 2014). The analysis of Management Risk is based on two ratios, i.e. ROCE and ADR. The computations are presented in table 9.

Table 9: Management Risk (M) Parameters: ROCE & ADR

ROCE (%)		YES bank	SBI	LVB	DBIL
	2009	5.70	6.4	6.0	4.2
	2010	6.16	5.4	6.1	3.8
	2011	6.93	4.5	6.2	1.01
	2012	5.18	5.5	6.9	1.9
	2013	4.86	5.3	6.1	1.4
	2014	5.68	3.6	4.0	0.01
	2015	5.29	3.9	6.5	-2.0
	2016	5.58	2.7	7.2	0.05
	2017	5.50	2.1	6.5	0.12
	2018	4.20	-1.1	-9.2	-4.0
	2019	1.27	0.14	-31.7	0.12
	2020	-12.1	2.6	-42	0.73
Average		3.69	3.42	-2.28	0.62
Bench mark value of ROCE is 7.5 % or more considered good.					
ADR	2009	0.77	0.73	0.72	0.45
	2010	0.83	0.73	0.75	0.48
	2011	0.75	0.79	0.73	1.02
	2012	0.77	0.83	0.72	0.99
	2013	0.70	0.87	0.75	0.89
	2014	0.75	0.87	0.69	0.86
	2015	0.83	0.83	0.74	0.91
	2016	0.88	0.85	0.77	0.75
	2017	0.93	0.77	0.78	0.81
	2018	1.01	0.72	0.77	0.61
	2019	1.06	0.75	0.69	0.54
	2020	11.62	0.72	0.64	0.54
Average		1.74	0.79	0.73	0.74
Bench mark value 0f ADR is 0.8 to 0.9 considered good.					
Average		2.72	2.10	-0.78	0.68
Rank		1	2	4	3

Source: Annual Reports of YES bank, SBI, Lakshmi Vilas Bank (LVB), DBS bank India ltd. (2009-2020), moneycontrol.com (YES bank, SBI, Lakshmi Vilas Bank (LVB)).

Table 9 reveals that no one bank in the sample has higher ROCE than benchmark level set by RBI i.e. 7.5% or more. It is found that average ROCE of YES bank is 3.69 followed by SBI and LVB stood at last with value of -2.28. ADR in table 9 reveals that, in 2020 YES bank had highest ADR with the value of 11.62 which is more than benchmark level set by RBI i.e. 0.8 to 0.9. YES Bank provides more advances than the prescribed value by RBI which shows poor management of YES bank and SBI is comparative good in Risk Management.

5.2.1.4 Earnings (E)

The quality of earnings is a very important criterion that determines the ability of a bank to earn consistently. It determines the profitability of bank and explains its growth in earnings in future (P.K. 2010). The analysis of Earnings are based on three ratios that are Basic EPS, Interest/ total assets and non interest/ total assets. The computations are presented in table 10.

Table 10: Earnings (E) Parameters: BEPS, I I/ T A & N I I/ T A

BEPS (INR)		YES bank	SBI	LVB	DBIL
	2009	10.24	143.77	10.31	---
	2010	15.65	135.23	4.95	---
	2011	21.12	130.16	10.37	---
	2012	27.87	184.31	10.97	---
	2013	36.53	210.06	9.39	---
	2014	44.92	15.68	6.11	---
	2015	49.34	17.55	9.16	---
	2016	12.1	12.98	10.05	---
	2017	15.8	13.43	14.07	---
	2018	18.4	-7.67	-28.29	---
	2019	7.4	0.97	-34.66	2.41
	2020	-56.1	16.23	-25.16	1.76
Average		16.94	72.73	-0.23	2.09
Bench mark value, Higher EPS shows higher earnings					
I I/ T A (%)	2009	8.74	6.92	8.91	0.06
	2010	6.51	6.71	8.02	0.06
	2011	6.84	6.65	8.00	0.05
	2012	8.56	7.97	9.35	0.05
	2013	8.36	7.63	9.96	0.06
	2014	9.15	7.60	9.60	0.06
	2015	8.49	7.44	8.96	0.07
	2016	8.18	6.95	8.93	0.05
	2017	7.63	6.48	8.07	0.06
	2018	6.48	6.38	7.52	0.05
	2019	7.77	6.59	8.59	0.05
	2020	10.11	6.51	9.03	0.05
Average		8.07	6.99	8.75	0.06
Bench mark value, A high ratio is a good indicator.					
N I I/ T A (%)	2009	1.91	1.3	1.06	2.4
	2010	1.58	1.4	1.05	0.97
	2011	1.05	1.3	1.03	0.40
	2012	1.16	1.1	0.97	0.85
	2013	1.27	1.02	1.11	0.32
	2014	1.57	1.03	1.05	0.56
	2015	1.50	1.10	1.14	0.63
	2016	1.64	1.3	1.05	0.63
	2017	1.96	1.3	1.4	1.3
	2018	1.69	1.3	0.85	0.63
	2019	1.20	0.99	0.75	0.15
	2020	4.59	1.1	1.4	0.44
Average		1.76	1.19	1.07	0.84
Bench mark value, A low ratio is a good indicator.					
Combined Average		8.92	26.96	3.19	0.99
Rank		2	1	3	4

Source: Annual Reports of YES bank, SBI, Lakshmi Vilas Bank (LVB), DBS bank India ltd. (2009-2020), moneycontrol.com (YES bank, SBI, Lakshmi Vilas Bank (LVB))

Table 10 reveals that BEPS of YES bank and LVB shows negative balance in 2020. SBI secured highest average BEPS with value of 72.73 and LVB secured lowest average BEPS with the value of -0.23. I I/ T A of DBIL secured lowest value with 0.06. This shows that DBIL has less reliance on interest from bank lending as a source

of funding. In 2020, YES bank secured highest N I I/ T A with the value of 4.59. This shows that YES bank has more reliance on non interest income as a source of funding.

5.2.1.5 Liquidity (L)

Risk of liquidity is curse to the image of bank. Bank has to take a proper care to hedge the liquidity risk and ensuring good percentage of funds are invested in high return generating securities, so that it is in a position to generate profit with provision liquidity to the depositors. The analysis of Liquidity is based on two ratios i.e. CR and LAR. The computations are presented in table 11.

Table 11: Liquidity (L) Parameters: CR & LAR

CR		YES bank	SBI	LVB	DBIL
	2009	0.89	0.83	0.84	0.74
	2010	0.91	0.86	0.81	0.66
	2011	0.83	0.89	0.82	1.19
	2012	0.83	0.90	0.79	1.14
	2013	0.77	0.93	0.81	1.07
	2014	0.84	0.93	0.77	1.02
	2015	0.91	0.90	0.81	1.01
	2016	0.97	0.93	0.83	1.01
	2017	1.06	0.86	0.84	1.00
	2018	1.01	0.82	0.86	0.86
	2019	1.18	0.88	0.80	0.89
	2020	1.74	0.84	0.83	0.82
Average		0.99	0.88	0.82	0.95
Bench mark value of CR is 2 and above considered good.					
LAR	2009	0.63	0.67	0.69	0.35
	2010	0.68	0.69	0.67	0.33
	2011	0.64	0.72	0.69	0.39
	2012	0.56	0.72	0.68	0.41
	2013	0.52	0.74	0.71	0.40
	2014	0.56	0.75	0.69	0.38
	2015	0.61	0.72	0.72	0.47
	2016	0.64	0.72	0.73	0.52
	2017	0.71	0.64	0.72	0.60
	2018	0.58	0.62	0.69	0.51
	2019	0.70	0.65	0.67	0.50
	2020	0.69	0.63	0.64	0.42
Average		0.63	0.69	0.69	0.44
Bench mark value of LAR is 1 and above considered good.					
Combined Average		0.81	0.78	0.75	0.69
Rank		1	2	3	4

Source: Annual Reports of YES bank, SBI, Lakshmi Vilas Bank (LVB), DBS bank India ltd. (2009-2020), money control. com (YES bank, SBI, Lakshmi Vilas Bank (LVB))

Table 11 reveals that all banks in the sample have lower CR and LAR than its benchmark value (table 6). LVB secured lowest CR with the value of 0.82. This shows that LVB secured less liquidity as compared to other banks in sample and YES bank secured the highest CR with the average value of 0.99. SBI and LVB have same LAR with the average value of 0.69 and DBIL has secured lowest LAR with the value of 0.44.

5.2.2 CAMEL Analysis of each bank (YES bank, SBI, LVB, DBIL)

This section presents the analysis of financial performance, based on CAMEL model for the YES bank, SBI, LVB, and DBIL. The analyses are presented in the table 12a, 12b, 12c and 12d. The basic objective as mentioned above is to ascertain the sustainability of these banks in the long run.

Table 12a: CAMEL Analysis of YES Bank

YES bank	C		A		M		E			L	
	CAR	T D/E	NNR	ROA	ROCE	ADR	BEPS	I I/ T A	N I I/ T A	CR	LAR
2009	16.6	13.10	0.03	1.59	5.70	0.77	10.24	8.74	1.91	0.89	0.63
2010	20.6	10.78	0.06	1.79	6.16	0.83	15.65	6.51	1.58	0.91	0.68
2011	16.5	14.55	0.03	1.58	6.93	0.75	21.12	6.84	1.05	0.83	0.64
2012	17.9	14.74	0.05	1.57	5.18	0.77	27.87	8.56	1.16	0.83	0.56
2013	18.3	16.06	0.05	1.57	4.86	0.70	36.53	8.36	1.27	0.77	0.52
2014	14.4	14.9	0.12	1.6	5.68	0.75	44.92	9.15	1.57	0.84	0.56
2015	15.6	13.8	0.29	1.6	5.29	0.83	49.34	8.49	1.50	0.91	0.61
2016	16.5	10.4	0.29	1.7	5.58	0.88	12.1	8.18	1.64	0.97	0.64
2017	17.0	8.5	0.81	1.8	5.50	0.93	15.8	7.63	1.96	1.06	0.71
2018	18.4	10.7	0.64	1.6	4.20	1.01	18.4	6.48	1.69	1.01	0.58
2019	16.5	12.49	1.86	0.5	1.27	1.06	7.4	7.77	1.20	1.18	0.70
2020	8.5	10.09	5.03	-5.1	-12.1	11.62	-56.1	10.11	4.59	1.74	0.69
Mean	16.34	12.51	0.77	0.98	3.69	1.74	16.94	8.07	1.76	0.99	0.63
Sd	2.94	1.88	1.44	1.95	5.16	3.11	26.72	1.09	0.94	0.26	0.06

Based on analysis presented in table 12a, it is inferred that CAR of YES bank increased in starting years but later it decreased excessively and reached to the value of 8.5 in 2020. Average CAR value is 16.34% which is greater than benchmark value (9%, Table 6), indicates that capital requirement of YES Bank is adequate. The second parameter that is T D/E, fluctuated during the 2009- 2020. NNR is good till 2018 but after that it is increased at a high speed and reached to the value of 5.03 which is greater than benchmark value (less than 1%, table 6). It leads to decrease in the Assets Quality of the YES bank. BEPS shows the mean value of 16.94 and has s.d. value which is 26.72. Decreasing BEPS is bad indicator for the bank. CR is fluctuating during 2009- 2020. LAR shows the mean value 0.63 which is less than the benchmark value (table 6) and having s.d. value which is 0.06. The value of LAR, below 1 may indicate financial difficulty.

Table 12b: CAMEL Analysis of SBI

SBI	C		A		M		E			L	
	CAR	T D/E	Net NPA	ROA	ROCE	ADR	BEPS	I I/ T A	N I I/ T A	CR	LAR
2009	14.25	15.64	1.79	1.04	6.4	0.73	143.77	6.92	1.3	0.83	0.67
2010	13.39	14.97	1.72	0.88	5.4	0.73	135.23	6.71	1.4	0.86	0.69
2011	11.98	17.83	1.63	0.71	4.5	0.79	130.16	6.65	1.3	0.89	0.72
2012	13.86	14.90	1.82	0.88	5.5	0.83	184.31	7.97	1.1	0.90	0.72
2013	12.92	14.84	2.10	0.91	5.3	0.87	210.06	7.63	1.02	0.93	0.74
2014	12.96	14.15	2.57	0.65	3.6	0.87	15.68	7.60	1.03	0.93	0.75
2015	12.00	14.94	2.12	0.76	3.9	0.83	17.55	7.44	1.10	0.90	0.72
2016	13.12	18.72	3.81	0.46	2.7	0.85	12.98	6.95	1.3	0.93	0.72
2017	13.11	12.55	3.71	0.41	2.1	0.77	13.43	6.48	1.3	0.86	0.64
2018	12.60	14.00	5.73	-0.19	-1.1	0.72	-7.67	6.38	1.3	0.82	0.62
2019	12.72	15.00	3.01	0.02	0.14	0.75	0.97	6.59	0.99	0.88	0.65
2020	13.13	15.32	2.23	0.38	2.6	0.72	16.23	6.51	1.1	0.84	0.63
Mean	13.01	15.24	2.69	0.58	3.42	0.79	72.73	6.99	1.19	0.99	0.63
Sd	0.26	1.64	1.21	0.37	2.26	0.06	80.76	0.54	0.14	0.04	0.05

Based on analysis presented in table 12b, it is inferred that CAR of SBI was good during 2009-2020. Average CAR value is 13.01% which is greater than benchmark value (9%, Table 6) indicating that Capital requirement of SBI was adequate. The second parameter that is T D/E, is fluctuating during the 2009- 2020 but overall it is good. Net NPA is continuously increasing till 2018 and after that it is decreasing but overall NNR is more than benchmark value. It leads to decrease the Assets Quality of the bank. BEPS is fluctuating during 2009- 2020. Decreasing BEPS is bad indicator for the bank. This ratio shows the mean value 72.73 and having s.d. value

which is 80.76. CR was low in 2018 with 0.82 and LAR shows the mean value 0.63 and having s.d. value which is 0.05.

Table 12c: CAMEL Analysis of LVB Bank

LVB	C		A		M		E			L	
	CAR	T D/E	Net NPA	ROA	ROCE	ADR	BEPS	I I/ T A	N I I/ T A	CR	LAR
2009	10.09	15.40	1.24	0.71	6.0	0.72	10.31	8.91	1.06	0.84	0.69
2010	14.21	14.1	4.11	0.74	6.1	0.75	4.95	8.02	1.05	0.81	0.67
2011	13.19	13.9	0.90	0.76	6.2	0.73	10.37	8.00	1.03	0.82	0.69
2012	13.10	19.0	1.74	0.65	6.9	0.72	10.97	9.35	0.97	0.79	0.68
2013	12.32	16.4	2.43	0.51	6.1	0.75	9.39	9.96	1.11	0.81	0.71
2014	10.9	18.6	3.44	0.28	4.0	0.69	6.11	9.60	1.05	0.77	0.69
2015	11.34	14.87	1.85	0.53	6.5	0.74	9.16	8.96	1.14	0.81	0.72
2016	11.00	14.83	1.0	0.62	7.2	0.77	10.05	8.93	1.05	0.83	0.73
2017	10.38	15.13	1.76	0.72	6.5	0.78	14.07	8.07	1.4	0.84	0.72
2018	10	16.03	6.0	-1.44	-9.2	0.77	-28.29	7.52	0.85	0.86	0.69
2019	7.72	15.96	7.49	-2.70	-31.7	0.69	-34.66	8.59	0.75	0.80	0.67
2020	1.12	18.05	10.04	-3.42	-42	0.64	-25.16	9.03	1.4	0.83	0.64
Mean	10.44	16.02	3.50	-0.17	-2.43	0.73	-0.23	8.75	1.07	0.82	0.69
Sd	3.42	1.70	2.91	1.49	16.82	0.04	17.84	0.73	0.19	0.02	0.03

Based on analysis presented in table 12c, it is inferred that CAR is good till 2018 after that it decreases excessively. In 2020 this ratio was 1.12% which was less than the benchmark value (9%, Table 6). The second parameter that is T D/E which fluctuatedfrom 2009- 2020 but overall it is good. Net NPA is not good during the 2009- 2020. Average NNR is 3.5% which is greater than benchmark value (below 1%, Table 6) indicating that bank has poor Assets Quality. Both ROA and ROCE are bad but in 2018 it becomes in minus figures. In 2020 ROA was low with the value of -0.34% and in 2020 ROCE is low with -42%, indicating that LVB has more risk. The next parameter that is BEPS which was not good during 2009- 2020. This ratio shows the mean value which is -0.23 which was less than the benchmark value. Negative BEPS is bad indicator for the bank. CR and LAR is fluctuating during the 2009-2020. In 2016 this ratio was high with the value of 0.73 and the mean value is 0.69 and s.d. value is 0.02.

Table 12d: CAMEL Analysis of DBIL

DIBIL	C		A		M		E			L	
	CAR	T D/E	Net NPA	ROA	ROCE	ADR	BEPS	I I/ T A	N I I/ T A	CR	LAR
2009	15.70	0.12	0.55	2.72	4.2	0.45	--	0.06	2.4	0.74	0.35
2010	16.96	8.49	1.0	2.38	3.8	0.48	--	0.06	0.97	0.66	0.33
2011	14.98	12.20	0.31	0.79	1.01	1.02	--	0.05	0.40	1.19	0.39
2012	14.38	12.77	0.60	1.12	1.9	0.99	--	0.05	0.85	1.14	0.41
2013	12.99	12.89	2.37	0.72	1.4	0.89	--	0.06	0.32	1.07	0.40
2014	13.81	10.32	10.19	0.01	0.01	0.86	--	0.06	0.56	1.02	0.38
2015	17.01	8.60	4.15	-0.71	-2.0	0.91	--	0.07	0.63	1.01	0.47
2016	18.64	8.93	4.34	0.02	0.05	0.75	--	0.05	0.63	1.01	0.52
2017	16.49	8.65	2.12	0.03	0.12	0.81	--	0.06	1.3	1.00	0.60
2018	16.14	9.23	1.09	-1.16	-4.0	0.61	--	0.05	0.63	0.86	0.51
2019	19.69	8.77	0.33	0.04	0.12	0.54	2.41	0.05	0.15	0.89	0.50
2020	16.33	9.42	0.47	0.20	0.73	0.54	1.76	0.05	0.44	0.82	0.42
Mean	16.09	9.20	2.29	0.51	0.61	0.74	2.09	0.06	0.84	0.95	0.44
Sd	1.92	3.31	2.86	1.14	2.23	0.20	0.46	0.01	0.60	0.16	0.08

Based on analysis presented in table 12d, it is inferred that CAR of DBIL was good during the 2009-2020. In 2019 this ratio is high with 19.69%. Average CAR value is 16.09%, which is greater than benchmark value (9%, Table 6) indicating that DBIL CAR is adequate. The second parameter that is T D/E has a mean value of

9.199 which is under the benchmark value (less than 15, Table 6). NNR is not good during the 2013-2018. In 2014 it was high with the value of 10.19%. Average NNR value is 2.29%, which is greater than benchmark value (Less than 1%, Table 6) indicates that DBIL Net NPA is not good. The next parameter that is ROA has a mean value of 0.513 which is less than benchmark. It leads to decrease the Assets Quality of the bank. ROA is bad but in 2015 it becomes in minus figures. In 2018 ROA is low with -1.16%.

ADR is in increasing trend till 2017 and in 2020 this ratio is low with 0.54. This ratio shows the mean value 0.06 which is less than the benchmark value. The next parameter that is CR is in increasing trend till 2011 and after that it was decreasing. LAR is also fluctuating during the study but overall performance is good. In 2016 this ratio is high with 0.73. This ratio shows the mean value 0.44 and having s.d. value which is 0.08.

6. Conclusion

Failure of any bank or a financial institution is considered as an economic breakdown for the economy of a country. Banks' failure is a major concern to the economy all over the world, as it affects individual bank in terms of direct and indirect costs. Direct cost will be in terms of legal and administration cost associated with bankruptcy proceedings and Indirect cost will be in terms of loss of depositor's confidence, withdrawal of amount from the bank, by customers, avoidance of investment by financial institutions (Kumar and Suhas, 2010). The knowledge of financial performance helps in predicting, comparing and evaluating the earning ability of the company. This paper makes an attempt to examine and compare the performance of the sample banks i.e. YES bank, SBI, LVB, DBIL. The analysis is based on the CAMEL model. This Paper has brought many interesting results, some of which are mentioned as below.

CAR explains the relation between bank capital and its risk weighted assets. YES bank had appropriate capital adequacy ratio till 2019 which is more than bench mark value (9%) but in 2020 it falls down to 8.5%. T D/E ratio of YES bank found to be appropriate according to the benchmark value, i.e. less than 15%, during the study. In the starting years of this study NNR of YES bank is 0.03% which is less than the bench mark value (less than 1%) but in 2020 this ratio reached up to the value of 5.1%. ROA ratio of YES bank found to be less than the benchmark value (greater than 5%) during the study. YES bank showed a consistency in the value of ROA ratio till 2018 but after that it goes down and in 2020 its value is -5.1% which is less than benchmark value. During the study, value of ROCE ratio of YES bank found to be less than the benchmark value (7.5% or more) and in 2020 its value was -12.1% which shows the company' poor profitability and poor capital efficiency. During the study, YES bank had appropriate value of ADR ratio till 2017 but after that it grows up and reached up to the value of 11.62 which is not good. Basic EPS value of YES bank showed an increasing trend up to 2015 and after that it decreases and in 2020 the value was -56.1. The value of Non – Interest to Total Assets ratio was 1.91 in 2009 and after that it shown a decreasing trend up to 2013 and after that its value was increased and reached up to the value of 4.59%. The higher value indicated that bank rely on non interest source of fund. The value of CR of YES bank showed an increasing trend from 2013 and in 2020 its value was 1.74 which was less than the benchmark value (2:1). The average value of LAR of YES bank was 0.63 which was less than the benchmark value (1 and above) and this value indicates the financial difficulty.

LVB had appropriate capital adequacy ratio till 2013 which is more than bench mark value (9%) but after that this ratio decreases and in 2020 it becomes 1.12%. T D/E ratio of LVB found to be under the benchmark value till 2011 and after that it increased up to 18% in 2020. During the study, NNR of LVB found to be more than the benchmark value (less than 1%) and in 2020 it reached to 10.04%. ROA ratio of LVB found to be less than the benchmark value (greater than 5%) during the study. In the starting years of study the value of ROA had a consistent value near about 0.6 till 2017 but after that the value of ROA was decreases and reached up to -3.42%. Value of ROCE ratio found to be less than the benchmark value (7.5% or more) during the study period. The value of ROCE was 6.0 in 2009 and in 2018 its value was -9.2 and goes down to -42 in 2020. It was found that value of ADR is under the benchmark value (0.8% to 0.9%). Basic EPS value of LVB in 2017 was 14.07 and in 2020 its value was -25.16. The average value of Interest Income to Total Assets ratio was 8.74 % and the average value of non Interest income to total assets ratio was 1.071%. These values showed that bank rely on interest source of fund. The average value of CR of LVB was 0.8175 which was less than the benchmark value

(2:1). The average value of LAR of LVB was 0.69 which was less than the benchmark value (1 and above). The value of below 1 indicates financial difficulty. From the above facts, it can be concluded that CAMEL Analysis is a good method to predict failure of a bank. One of the most important conclusions is that when a bank cannot reverse the value of CAMEL parameters, it is bound to be fail.

The banking industry relies on trust. Therefore, there should be transparency in the banking industry in order to safeguard the interests of investors, depositors, and consumers. Banks must improve their processes of giving credit to customers, credit risk monitoring system and assets quality. Banks should do proper internal assessment of capital adequacy at a regular interval to avoid the situation of YES bank and LVB. Mortgage lending is inspected by experienced valuers or experts only. Banks should take strong legal actions against loan defaulters and workings of a bank should not be affected by political interventions. Banks should decrease their NPA by adopting various measures within the constraints of RBI guidelines and Banks should not provide more unsecured loans. To boost its liquidity, the bank should work to attract additional deposits and have the appropriate level of liquid assets.

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