



A STUDY ON CREDIT RISK MANAGEMENT WITH REFERENCE TO HDFC BANK

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Abstract

Credit risk management refers to the process through which financial institutions and enterprises assess, reduce, and regulate the risks connected with lending and credit activities. This abstract provides an overview of credit risk management, its significance, and key factors to consider when implementing successful credit risk management strategies. Credit risk refers to the possibility of financial loss as a result of borrowers' failure to meet their repayment obligations. Credit risk management is the process of identifying, assessing, and managing credit risks in order to keep lenders financially stable and avoid potential losses. The importance of credit risk management in maintaining a healthy loan portfolio, optimizing profitability, and ensuring regulatory compliance is discussed in this abstract. It focuses on how excellent credit risk management practices result in better loan decisions, reduced default rates, and higher risk-adjusted returns.

Keywords: Banks, Banking Sector, Credit Risk, Credit Risk Management

I. Introduction:

The banking industry in India is expanding rapidly. The banking sector in India is currently one of the most significant in the world. There is a burgeoning middle class that wants access to financial services, and it numbers in the hundreds of millions

(more than the entire population of the United States).

Credit risk is the possibility of suffering a loss as a result of a borrower's failure to make payments on any kind of debt. Loans are the greatest and most visible source of credit risk for the majority of banks.

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However, various sources of credit risk exist across a bank's operations, including the banking book and trading book, as well as on and off the balance sheet. Credit risk management in banks is a process of minimizing losses by recognizing and analyzing potential risk factors in any transaction involving the lending of money to clients. It entails having a good understanding of customers and the credit risk connected with them, as well as the bank's capital and loan loss reserves. Credit risk management has also become a statutory obligation, particularly in the aftermath of the global financial crisis and the new Basel III regulations. An effective risk management system can help the bank decisions make better and competitive advantage over new fintech platforms.

Challenges to Successful Credit Risk Management:

- Inefficient data management
- No groupwide risk modeling framework
- Constant rework
- Insufficient risk tools
- Cumbersome reporting

II. Review of literature:

Ayyappan and Ramachandran (2011) conducted a study of 22 public sector and 15 private sector banks to predict the determinants of the credit risk in the Indian Commercial banking sector by using an econometric model. The outcome of the study is the non-performing assets had a strong and statistically significant positive influence on the current non-performing assets. They opined that the problem of NPA is not only affecting the banks but also the whole economy.

Hasnan Baber (2016) concluded in their study that HDFC Bank is of the leading bank in the country the bank has gained the competitive advantage over its rivals because of its dynamic strategies and policies from top management to lower management. As revealed by the study, a committee approach have been adopted to manage various risks.

Kumar (2010) conducted a study in Delhi to find out the various methodologies used by the banks in their operational risk management activity complaining the rules and regulations. The study reveal that the operational risk management functions is predominantly gaining importance in banking operations in India along with credit risk. He concluded that the banks are ready to improve their existing risk management framework in accordance with Basel II to deal with risks more effectively.

Safakli (2007) did an extensive study of credit risk associated with the banking sector and Northern Cypress and found that the credit risk ratios were indicative of the credit risks associated with the banking sector and correlated the risk ratios with key macroeconomic indicators.

Peter Martey Addo, Dominique Guegan and Bertrand Hassani (2018) stated in their study that the rise of Big Data and data science approaches, such as machine learning and deep learning models, does have a significant role in credit risk modelling.

Dr.M.Selvaraj & A.Sukkala devi (2022) stated in their study that the objective of the banks was to assess the performance of Indian Banks using the CAMELS rating model. The overall performance ranking of selected banks during the study period reveals that HDFC bank is on the top performance level followed by ICICI Bank and Axis bank. Furthermore, DCB bank is on the last level due to the weak performance of profitability and all other CAMELS model variables.

M.Basuvaraj, Dr. M. Jegadeeshwaran (2019) conducted a study to examine the credit risk measures of the select public and private sector banks in the post financial crises period. And concludes that the banks must take strict essential steps recover their loans and follow the reserve banks guidelines like PCA framework and maintain enough capital to absorb the Furthermore the banks should risks. manage the efficient credit risk



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nagement strategies in order to motivating investors and confidence savers in banks which lead to efficient financial stability of the banks.

S Ramesh & S Bindusri (2019) This study found that there is a capital risk found to be more in the HDFC bank than the SBI bank, Capital risk means if an organization is not having the enough capital will be borrowed, here there is a chance of having the capital risk.

Eduardo Sá e Silva & Adalmiro Pereira & Ângela Vaz (2019) This work was made an approach to various types of credit risks and the need for quantification. Associated with credit risk is the concept of impairment.

Lujing Yang (2023) This study summarized that the 2021 annual report of Bank of America provides valuable insights into the bank's risk analysis and management strategy. Through its analysis of credit risk, liquidity risk, exchange rate risk, and other aspects, it is evident that Bank of America has implemented comprehensive risk management measures to mitigate potential risks and ensure sustainable growth.

MS. Asha Singh (2013) This study concludes that Credit Risk Management Policy of the bank dictates the Credit Risk Strategy. These policies spell out the target markets, risk acceptance/avoidance levels, risk tolerance limits, prefer levels of diversification and concentration, credit risk measurement, monitoring and controlling mechanisms. The everimproving risk management practices in the Bank will result in Bank emerging stronger, which in turn would confer competitive advantage in the market.

Dr. K. Rajamani & S.Sharon Sujithra (2016) stated in their study that the default clients have been a major problem for the banking institutions hence the banks are advised to allocate more funds to default risk management and try to maintain optimum level of capital adequacy.

III. Need for the study:

- The company may have to declare bankruptcy if it is unable to maintain adequate levels of working capital.
- Credit risk management is a crucial aspect of sound financial planning. It's crucial because management has to know that if they rely solely on current assets, they shouldn't have to worry about running out of stock. The company's current assets will also have an effect on its bottom line.
- Maintaining an appropriate level of working capital is one of the primary objectives of credit risk management.
- Credit risk refers to the potential for a lender to sustain a loss if a borrower defaults on a loan. One term for this kind of situation is default risk. The relationship between credit risk management and financial success is the primary focus of this analysis.

IV. Scope of the study:

- ➤ To understand credit risk and practices of risk management of HDFC. To examine the approaches taken by the banking sector in India toward dealing with credit risk.
- ➤ To study HDFC Bank's policies and procedures around credit risk.
- ➤ To learn the strategies, policies, and tools employed by HDFC Bank Limited in the administration of credit risk
- ➤ To understand HDFC Bank Limited's lending options.

V. OBJECTIVES OF THE STUDY: The following are the primary aims of the research project:

- Understanding credit risk and practicing risk management in the financial sector.
- Examine the approach taken by the banking sector in India toward dealing with credit risk.
- > To understand and assess the strategies, policies, and tools



- mployed by HDFC Bank Limited in the administration of credit risk.
- To learn about HDFC Bank Limited's lending options here.
- VI. Research methodology: A research strategy defines the study's objectives, methods, and metrics for measuring success. The appropriate study design is discussed in greater detail below.

Data Sources:

Secondary data:

Secondary data that has previously been published. Both internal and external data sources can be used. Publications like pamphlets and government papers created in the area where the research was conducted are examples of internal sources. The term external sources refers to materials that are not directly related to the topic at hand. These sources will provide us with supplementary data,

- > Articles,
- Reports,
- > Journals,
- ➤ Magazines,
- Newspapers and
- > Internet

VII. Limitations of the study:

- The research period, fiscal years 2018-2022, was based entirely on information from external sources.
- The lack of a universally applicable ratio measure makes it difficult to make meaningful comparisons between actual ratios. This is due to the fact that every business's conditions are unique, making it impossible to provide a universally applicable figure.
- The reliability of ratios depends on the accuracy of the underlying information, which

- can be found in books of accounts.
- The study's primary flaw was that it lacked necessary data. Due to security concerns and other obligations, the credit department is extremely delicate. The worker is limited in providing necessary details as a result.

VIII. **Empirical results:** A sample of the data analysis results are presented in this section

BALANCE SHEET OF HDFC BANK FOR 2022-2018

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SH	AREI	HOLD	ERS F	UNDS	8
Equit					
У	554	551	548	544	519
Share	.5	.28	.33	.66	.02
S					
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al					
TOT					
\mathbf{AL}	554	551	548	544	519
SHA	.55	.28	.33	.66	.02
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Reser					
ves	239	203	170	148	105



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and	,53	,16	,43	,66	,77
Surpl	8.3	9.5	7.7	1.6	5.9
us	8	5	0	9	8
Total			-		0
	220	202	170	1.40	105
Reser	239	203	170	148	105
ves	,53	,16	,43	,66	,77
and	8.3	9.5	7.7	1.6	5.9
Surpl	8	5	0	9	8
_					O
us					
TOT					
AL	240	203	170	149	106
SHA	,09	,72	,98	,20	,29
REH	2.9	0.8	6.0	6.3	5.0
OLD	4	3	3	5	0
		3	3		U
ERS					
FUN					
DS					
Depo	1,5	1,3	1,1	923	788
sits	59,	35,	47,	,14	,77
	217	060	502	0.9	0.6
	.44	.22	.29	3	4
Ъ					
Borro	184	135	144	117	123
wings	,81	,48	,62	,08	,10
	7.2	7.3	8.5	5.1	4.9
	1	2	4	2	7
Other					
Liabil	84,	72,	67,	55,	45,
				-	
ities	407	602	394	108	763
and	.46	.15	.40	.29	.72
Provi					
sions					
TOT					
\mathbf{AL}	2,0	1,7	1,5	1,2	1,0
CAPI	68,	46,	30,	44,	63,
	_				
TAL	535	870	511	540	934
AND	.05	.52	.26	.69	.32
LIAB					
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Ban	31.2	129	413	584	244
ks	9	.66	.60	.02	.61
Mo		.00	.00	.02	.01
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at					
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Sho					
rt					
Noti					
ce					
Inve	455,	443	391	290	242
stm	535.	,72	,82	,58	,20
ents	69	8.2	6.6	7.8	0.2
01103	0,	9	6	8	4
Adv	1,36	1,1	993	819	658
ance	8,82	32,	,70	,40	,33
	0.93	836	2.8	1.2	3.0
S	0.93				
TO.	6.00	.63	8	2	9
Fixe	6,08	4,9	4,4	4,0	3,6
d	3.67	09.	13.	30.	07.
Asse		32	92	00	20
ts					
Oth	85,7	45,	53,	49,	36,
er	67.8	925	931	173	878
Asse	3	.89	.09	.95	.70
ts					
TO	2,06	1,7	1,5	1,2	1,0
TA	8,53	46,	30,	44.	63,
L	5.05	870	511	540	934
ASS	2.02	.52	.26	.69	.32
ETS		.52	.20	.07	.52
E19					

EQUITIES AND LIABILITIES OF HDFC BANK

HDT C BANK							
BALA							
NCE							
SHEE	22-	21-	20-	19-	18-		
T OF	Mar	Mar	Mar	Mar	Mar		
HDFC							
BANK							
(in Rs							
Cr)							



EQUITIES AND LIABILITIES							
\$	SHAREHOLDERS FUNDS						
Equity							
Shares	554.	551.	548.	544.	519.		
Capital	5	28	33	66	02		
TOTA							
\mathbf{L}	554.	551.	548.	544.	519.		
SHAR	55	28	33	66	02		
\mathbf{E}							
CAPIT							
AL							
Revalu							
ation	0	0	0	0	0		
Reserv							
e							
Reserv	220	202	170	1.40	105		
es and	239,	203,	170,	148,	105,		
Surplus	538.	169.	437.	661.	775.		
T-4-1	38	55	70	69	98		
Total	220	202	170	140	105		
Reserv	239, 538.	203, 169.	170, 437.	148, 661.	105, 775.		
es and	338. 38	169. 55	70	69	98		
Surplus TOTA	36	33	70	09	90		
L	240,	203,	170,	149,	106,		
SHAR	092.	720.	986.	206.	295.		
EHOL	94	83	03	35	00		
DERS	-	00					
FUND							
S							
Deposit	1,55	1,33	1,14	923,	788,		
S	9,21	5,06	7,50	140.	770.		
	7.44	0.22	2.29	93	64		
Borrow	184,	135,	144,	117,	123,		
ings	817.	487.	628.	085.	104.		
	21	32	54	12	97		
Other							
Liabilit	84,4	72,6	67,3	55,1	45,7		
ies and	07.4	02.1	94.4	08.2	63.7		
Provisi	6	5	0	9	2		
ons							
TOTA							
L	2,06	1,74	1,53	1,24	1,06		
CAPIT	8,53	6,87	0,51	4,54	3,93		
AL	5.05	0.52	1.26	0.69	4.32		
AND							
LIABI							
LITIE							

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Table no: 4.2 Tabular Representation of Equity and Liabilities of HDFC Bank



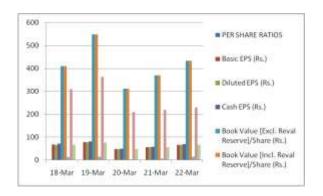
From the above table and graph, I observed that total share capital is high in this year 2022 and low in this year 2018, and Reserves and Surplus in 2022 and low in this year 2018. Total shareholders' funds are high in this year 2022 and low in this year 2018.

Tabular representation of Per share ratios of HDFC bank

KEY FIN ANC IAL RAT IOS OF HDF C BAN K (in Rs. Cr)	22- Mar	21- Mar	20- Mar	19- Mar	18- Ma r
	PER	SHAR	E RAT	IOS	
Basic EPS (Rs.)	66.8	56.58	48.0	78.65	67.7 6
Dilut ed EPS (Rs.)	66.3	56.32	47.6 6	77.87	66.8



Cash EPS (Rs.)	69.5 4	58.81	50.0	81.59	70.8 8
Book Valu e [Excl . Reva l Rese rve]/ Shar e (Rs.)	432. 95	369.5	311. 83	547.8	409.
Book Valu e [Incl. Reva l Rese rve]/ Shar e (Rs.)	432. 95	369.5 4	311. 83	547.8 9	409.
Divid end/S hare (Rs.)	15.5	6.5	2.5	1.5	1.3
Oper ating Reve nue/S hare (Rs.)	230. 37	219.2	209. 39	363.4 3	309.
Net Profi t/Sha re (Rs.)	66.6 5	56.44	47.8 9	77.4	67.3



From the above table and graph, I observed that Book Value [Excl. Reval Reserve]/Share (Rs.) is high in this year 2019 and low in this year 2020 Operating Revenue / Share (Rs.) is high in 2019 and low in this year 2018. Further from analysis it is observed that Enterprise Value (Rs. Cr) is high in the year 2022 and low in the year 2018, and Price To Book Value (X) is high in the year 2018 and low in the year 2022, and Retention Ratios (%) high in the year 2019 and low in the year 2020.

IX. Findings, Suggestions & Conclusion Findings:

- From the above table and graph, I observed that total share capital is high in this year 2022 and low in this year 2018, and Reserves and Surplus in 2022 and low in this year 2018. Total shareholders' funds are high in this year 2022 and low in this year 2018.
- From the above table and graph, I observed that Book Value [Excl. Reval Reserve]/Share (Rs.) is high in this year 2019 and low in this year 2020 Operating Revenue / Share (Rs.) is high in 2019 and low in this year 2018.
- From the above table and graph, I observed that Enterprise Value (Rs. Cr) is high in this year 2022 and low in this year 2018 and Price To Book Value (X) is high in this year 2018 and low in this year 2022 and



etention Ratios (%) high in this year 2019 and low in this year 2020.

Suggestions

- It is suggested to management to increase the credit period to 100 days. So that company can earn profits.
- It is suggested to management to offer more incentives for prompt payment of Credit so that receivables are paid promptly by dealers.
- Banks should disclose to the public, information on the level of risk and policies for risk management.
- Banks should take measures to improve their asset quality so that the credit risk can be minimized.
- The bank must put maximum effort to attract the fixed deposits which contribute significantly towards the enhancement of banks profitability.
- The bank should maintain a good proportion in their deposits and advances.

Conclusion

Today, the focus for many banks is to enterprise credit an management approach as it gives an integrated view of risk. Best practices in credit risk management should demonstrate centralization, standardization, timeliness, active portfolio management, and efficient tools for managing exposures. This is encouraged by the pressure from regulatory requirements such as Basel II. By constantly enhancing existing tools and methods, banks are able to work towards achieving best practices. Furthermore, consistent, accurate and reliable data is required in order to achieve best practices in credit risk management. In the current scenario, banks are constantly pushing the frontiers of risk management. Compulsions arising out of increasing competition, as well as agency problems between management, owners and other stakeholders, are inducing banks to look at newer avenues to augment revenues; while trimming costs. Consolidation. competition and risk management are no doubt critical to the future of banking. HDFC Bank has the tools. insights, and expertise to help our clients use credit risk management to maximize customer profitability and shareholder value. Facing sustain increasing shareholder demands, they've helped more than 200 leading organizations improve their credit risk management process and realize true benefits such as a reduction in net bad debt, operational cost savings, and a decline in customer churn.

References

- 1. Ayyappan, S., & Ramachandran, A. (2011). Market Discipline, Behavior and Capital Adequacy of Public and Private Sector Banks in India. European Journal of Soil Science, 23(1), 109–115.
- 2. Hasnan Baber (2016). Risk Mitigation Practices in Banking: A Study of HDFC Bank. International Journal of Risk and Contingency Management Volume 5, Issue 3.
- 3. Peter Martey Addo, Dominique Guegan and Bertrand Hassani (2018). Credit Risk Analysis Using Machine and Deep Learning Models in the article "Risks"
- **4.** Dr. M. SELVARAJ & A.SUKKALA DEVI (2022). Credit Risk Management and Performances of Banks in India: The CAMELS Rating Model. International Journal of Mechanical Engineering, ISSN: 0974-5823, Vol. 7 No. 1.
- M.Basuvaraj, Dr. M. Jegadeeshwaran (2019). A Study on Measuring the Credit Risk of Select Indian Public and Private Sector Banks in the Current Scenario. INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH



- V OLUME 8, ISSUE 10, ISSN 2277-8616.
- S Ramesh & S Bindusri (2019). RISK MANAGEMENT IN BANKING SECTOR WITH REFERENCE TO SBI AND HDFC BANKS – A STUDY. UGC Care Group I Journal, Vol-9 Issue-3. Dogo Rangsang Research Journal, ISSN: 2347-7180.
- 7. Eduardo Sá e Silva & Adalmiro Pereira & Ângela Vaz (2019). Credit risk The Importance of Credit Portfolio Management. The International Journal of Business Management and Technology, Volume 3 Issue 5, ISSN: 2581-3889.
- 8. Lujing Yang (2023). Risk Assessment on Bank of America. Highlights in Business, Economics and Management, Volume 15.
- 9. MS. ASHA SINGH (2013). Credit risk management in Indian commercial banks. International Journal of Marketing, Financial Services & Management Research. ISSN 2277-3622 Vol.2, No. 7.
- 10. Dr. K. Rajamani & S. Sharon Sujithra (2016). A Study on Credit Risk Management with reference to State Bank of India, Chennai. www.theinternationaljournal.org > RJSSM: Volume: 06, Number: 07, ISSN 2251 1571.
- 11. Bessis, J. (2010). Risk Management in Banking (3rd ed.). Wiley
- 12. Safakli, O. V. (2007). Credit risk assessment for the banking sector of northern Cyprus. Banks and Bank Systems, 2(1), 21.