

MANAGEMENT OF NON-PERFORMING ASSETS (NPA) IN INDIAN COMMERCIAL BANKS (A STUDY OF SBI AND HDFC IN VISAKHAPATNAM DISTRICT, ANDHRA PRADESH)

Venu Vanka^{1*}, Prof. P. Venkateswarlu²

^{1*}Research Scholar, Andhra University, Andhra Pradesh)

²Andhra University, Visakhapatnam Andhrapradesh

***Corresponding Author:** Venu Vanka

*Research Scholar, Andhra University, Andhra Pradesh)

Abstract

The rise of non-performing assets (NPAs) has been a major issue for the Indian banking industry. The rise of non-performing assets directly affects banks' profitability. One of the main issues facing India's scheduled commercial banks is non-performing assets. In response to the Narasimham Committee recommendations, several actions have been made to address the issue of old non-performing assets (NPAs) on bank balance sheets. People keep saying that there hasn't been a systematic analysis of the most effective approach to solving the issue. The performance of banks is reflected in NPAs. A high level of NPAs indicates a significant likelihood of numerous loan defaults, which have an adverse effect on banks' profitability and net worth in addition to devaluing the asset. NPAs have an impact on profitability and liquidity in addition to endangering the longevity of banks and the quality of their assets. This study aims to provide an understanding of non-performing assets (NPAs), including their status and trajectory in Indian scheduled commercial banks, the variables that lead to NPAs, the reasons behind the high impact of NPAs on Scheduled commercial banks in India, and the methods by which NPAs are recovered.

Key Words: Non-Performing Assets, scheduled Commercial banks, Gross NPA, Net NPA, Public Sector , Private Sector, Npa Management strategies, Classification of assets of Banks

Introduction

Banks are drivers of growth and have a major role in financial intermediation and providing funds for economic activities. When India started its five year plans, the development role of the commercial banks came into limelight especially in the 1960s when the Reserve Bank of India newly introduced the concept of catalysing finance for development. After Independence, banking during 1947-69 witnessed a major disruption with the closure and merger of several banks.

NATIONALISATION OF INDIAN BANKS:

Thanks to the initiative and foresight of the then Prime Minister Smt. Indira Gandhi. Fourteen major scheduled commercial banks were nationalised on July 19, 1969. Another six large banks were nationalised in 1980, bringing around 90 per cent of banking business under government ownership. The most notable features of the Indian Banking after nationalisation are launching the Lead Bank Scheme in December 1969, State Level Bankers Committee in 1971 and RBI's priority sector lending norms in 1974 to channelise credit to Agriculture, Industry, Small – Scale entrepreneurs and certain identified sectors of the economy. Another revolutionary step in Indian Banking is setting up Regional Rural Banks (RRBs) in September 1975 to supply micro – credit. Deposit Insurance and Credit Guarantee Corporation was set up in 1978 to protect the interests of depositors, and NABARD was established in 1982 for accelerating the flow of credit for integrated rural development. Hence the role of PSBs in providing banking services after nationalisation was phenomenal.

Narasimhan Committee I and II:

After 1991, reforms were proposed to promote competitive and modern banking services and adopting internationally accepted prudential standards. The country has also witnessed a phenomenal expansion in the geographical coverage and functional spread of banking and financial system since nationalisation. Despite impressive quantitative achievements in resource mobilization and in extending the credit reach several distortions had over the years crept into the banking system. As a result productivity and efficiency of the system had suffered. Its portfolio quality had badly deteriorated and profitability had been eroded. Several public sector banks and financial institutions had become weak and some public sector banks had been incurring losses year after year.

Important Suggestions:

Here an attempt is made to summarise and prevent the various suggestions made by the Narasimham Committee on the question of improving the financial strength and the profitability of the public sector banks.

- (a) The setting up of Assets Reconstruction Fund (ARF) to take over all doubtful debts;
- (b) SLR to be reduced to 25 per cent of the total deposits over a period and likewise, CRR to be reduced to 3 to 5 per cent of the total deposits of the banks; this would leave more funds with the banks for profitable deployment;
- (c) Market interest rates to be offered to the banks by the government for government and semi - government securities coming under SLR arrangements;
- (d) Banks to get more freedom to fix minimum lending rates of interest;
- (e) Priority sector lending to be reduced to 10 per cent instead of the 40 per cent of the total bank credit;
- (f) All concessional rates of interest to be removed;

Objectives of the study:

1. To Review Trends and Practices of Indian banking sector during the post reform period. 2. To analyze the NPA trends in SBI and HDFC. 3. To Examine the NPA management practices in commercial banks in India. 4. To study the Profile of Banking sector SBI and HDFC. 5. To elicit the opinions of respective bank Managers and Authorities of SBI and HDFC towards NPA management practices select banks. 6. To Know the opinions of borrowers of the two select banks SBI and HDFC with regards to recovery of techniques out. 7. To offer suggestions for improving the NPA management of schedule commercial banks in general and that of SBI and HDFC in particular in the area of NPA management.

Methodology:

The NPA management of State Bank of India And HDFC banks, Visakhapatnam District, Andhra Pradesh was considered for the research study viskhapatnam as city of international destiny is taken for the research study area. The research has choosen the top bank public sector i.e SBI and Private sector i.e HDFC for the study. It is one of the premier Bank in Visakhapatnam city having 63 branches and a Zonal office was situated at Visakhapatnam City. A questionnaire having 29 questions covering Bank Officials/Field Officers is prepared and these are administered on 89 bank officials randomly selected out of 315 State Bank officials in Visakhapatnam City. Out of them 120 Officials had responded. Another Bank Questionnaire is prepared covering 18 questions on borrowers to collect the information from them. Randomly 272 borrowers are selected and could collect the information from 120 borrowers only. The Questions covered the possible causes for NPAs problems and grievances of customers in repaying the advances taken by them. And suggestions were also received from various officials to mitigate the NPAs, and steps to be taken to lessen the NPAs of various Public Sector and Private sector Banks. Wherever possible secondary data has been collected from 1969, the year in which the 14 banks were nationalized and to the extent possible the secondary data were collected upto 2021-22.

Frame OF Hypotheses:

H01: There is no association between the engament of outsourcing agencies in thepre-inspection loans and recovery process.

H02: There is no association between technology support and NPA management H03: There is no association between Due Diligence exercise and sanction of loans

.H04: There is no association between secure loans from banks easily.

H05: There is no association between identification of special mentioned accountsand monitoring NPAs.

Review of Literature:

Saha.M and Zaman A (2021) his article entitled "Management of NPAs in banks found that with the decrease in NPA level, Profitability of banks increased.

Hawaladar, I.T, Spulkar, C., Lokesh, A., Birau, R(2020) in their study analised non-performing assets in agriculture loans. A case study in India concluded that there is no significant difference in pre and post sanction of agriculture loans and management of non-performing assets by banks. The willful default by borrowers and more NPAs in banks are due to debt waiver policies announced by political parties.

Sharma S., Rathore D.S., and Prasad, J. (2019) they found that both in Public and Private sector banks the major reason for the NPAs is miss-utilization of bank loans and poor recovery management. The NPAs are increasing in agriculture and industries. They suggested improving corporate governance for better operational and credit decisions.

Rajeswari Sengupta, Harsh vardhan (2017) found that growing non-performing assets is a recurrent problem in the Indian banking sector. Over the past two decades, there have been two such episodes when the banking sector was severely impaired by balance sheet problems. A comparative analysis of two banking crisis episodes one in the late 1990s, and another that started in the aftermath of the 2008 Global Financial Crisis and is yet to be resolved—is

presented. Taking note of the macroeconomic and banking environment preceding these episodes, and the degree and nature of crises, policy responses undertaken are discussed. Policy lessons are explored with suggestions for measures to adapt to a future balance sheet-related crisis in the banking sector such that the impact on the real economy is minimal. Payel Roy (2017) explained that the Banks being the mobiliser of finances of different sectors of economy, are expected to be strong enough to withstand the shocks like inflation, depression etc. and to cushion the other financial Institutions along with industries and common people against financial crisis. The Public Sector Banks having a large stake of the Government in their Capital structure are preferred by the commoners often. In this context, this paper tries to depict both the Gross Non Performing Asset and Net Non-Performing Asset position of Public Sector Banks in India and attempts to find whether there is any significant difference among them. This paper also tries to show the impact of GNPA's on Net Profit of the selected banks for the last 5 years.

Non-Performing Assets:

The profitability and viability of banks are directly related to the quality of advances and their performance. Despite banks' effective credit evaluation and disbursement mechanisms, a variety of additional direct and indirect variables might cause difficulties. Quick detection of non-performing assets and their containment at minimum or beginning levels, as well as ensuring that their influence on the financials is minimal or inconsequential, are critical components of a strong/sound NPA management system. The approach to Non- Performance Assets (NPAs) management must be multidisciplinary, requiring different techniques at various phases of the credit facility's life cycle.

As per the recommendations of the chairman Sri Narasimhan, the Reserve Bank of India has introduced different norms in a phased manner regarding the assets of the Banks. The assets of the bank which are classified according to the norms of the RBI, proper provisioning must be done regarding these assets. The provisioning must be in a rational manner because it is linked with the collection aspect of the banks. The provisioning should be according to the RBI guidelines. The banks must see and verify the repaying capacity of the parties who are taking loans from the banks because the accumulation of bad debts will increase, if proper care is not taken by the banks. Basing on this only, provisioning for the assets must take place.

A non - performing asset is a loan or an advance where;

- i. interest or installment of principal remain not paid for a period of more than 90 days, if it is a term loan;
- ii. regarding cash credit and overdraft, it is considered as out of order;
- iii. the bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
- iv. if the installment is not paid and the principal part is also overdue for two crop seasons;
- v. the installment of principal or interest thereon remains overdue for one crop season for long duration crops,
- vi. The amount of liquidity facility remains outstanding for more than 90 days in respect of a securitization transaction.
- vii. in respect of derivative transactions, the overdue receivables representing positive market - to - market value of a derivative contract, if these remain unpaid for a period of 90 days from the specified due date for payment.

NPA management strategies:

1. Using LokAdalats for compromise settlement for smaller loans in doubtful and loss category.
2. Using securitization and SARFAESI ACT Reconstruction
3. Using Asset Reconstruction Company (ARC)
4. Approaching Debt Recovery Tribunals (DRTs)
5. Recovery Action against large NPAs.
6. Circulation of Information of Defaulters, Strengthening Date base of Defaulters.

Classification of Assets of the Bank:

The NPAs can be categorised as follows:

Banks are required to classify Non Performing Assets as follows:

- i. Substandard Assets
- ii. Doubtful Assets
- iii. Loss Assets

Results and Discussion**NPA's OF SBI AND HDFC**

Advances of SBI and HDFC: Year-wise advances made by SBI and HDFC during the period 2012-13 to 2021-22 is shown. The advances of SBI varied between Rs. 14,63,700 crores (2015-16) and Rs 27,33,967 crores (2021-22) while that of HDFC varied from of 30,300 crores (2013 - 14) to Rs. 13,68,821 crores (2021-22). Thus being a public sector bank and also with long history and with good track record, SBI stood in forefront not only when compared to its counterpart HDFC, a private sector bank but also with other nationalised banks.

Year – Wise Advances of SBI and HDFC during the Period

2012 – 13 to 2021 – 22

(Rs. in crores)

Year	SBI	HDFC
2012-13	1045616.6	239720
2013-14	1209828.7	30300
2014-15	1300026.4	365495
2015-16	1463700.0	464593
2016-17	1571078.0	554568
2017-18	1934880.0	658333
2018-19	2185876.0	819401
2019-20	2325289.0	993702
2020-21	2449497.0	1132836
2021-22	2733967.0	1368821

Source: Annual Report of the respective banks.

The accumulated gross NPAs of SBI and HDFC is shown in Table 4.5. It is found that the accumulated gross NPAs of SBI have zoomed from Rs. 51, 189 crores to Rs 1,12,023 crores while those of HDFC have gone up from mere Rs 2,334 crores to Rs. 16, 141 crores during the period 2012-13 to 2021-22. Further, there is an erratic growth of accumulated NPAs of both the banks during the above period. Being a nationalised bank and due to huge dispersal of advances coupled with nation-wide not-work of branches naturally, the GNPAs of SBI is comparatively higher than the limited size private sector bank with not having long track record HDFC.

Year – Wise Accumulated Gross NPAs of SBI and HDFC during the Period 2012 – 13 to 2021 – 22

(Rs. in crores)

Year	SBI	HDFC
2012-13	51189	2334
2013-14	61605	2989
2014-15	56725	3438
2015-16	98172	4392
2016-17	112342	5885
2017-18	223427	8606
2018-19	172753	11224
2019-20	149091	12649
2020-21	126389	15086
2021-22	112023	16141

Source: Annual Report of the respective banks

Barring 2017-18 where SBI had incurred a loss of Rs.6,547 crores the SBI has earned net profits for the remaining years of the study period.⁴ Its net profit varied from Rs.862 crores (2018-19) to Rs.31,676 crores (2021-22) while in the case of HDFC, it made net profit in all the years under study. The net profit of SBI has increased from Rs.14,104 crores in 2012-13 to Rs.31,676 crores in 2021-22 with some ups and downs while that of HDFC has increased from Rs. 6,726 crores to Rs.36,961crores during the same period.

Profitability of Performance of SBI and HDFC durig the Period 2012 – 13 to 2021 – 22.

(Rs.in crores)

Year	SBI	HDFC
2012 – 13	14104	6726
2013 – 14	10891	8478
2014 – 15	13101	10215
2015 – 16	9950	12296
2016 – 17	10484	14549
2017 – 18	-6547	17486
2018 – 19	862	21078
2019 – 20	14488	26257
2020 – 21	20410	31116
2021 – 22	31676	36961

Source: Annual Report of the respective banks.

The growth in book value of assets of SBI and HDFC during the period 2012-13 to 2021-22 is shown. It is seen from the table that the book value of assets of SBI has gone up steadily from Rs. 5,66,261 crores in 2012-13 to Rs.4987597 crores in 2021 – 22 accounting for an increase of 68.60 per cent. Similarly in the case of HDRC, it's assets value have gone up from Rs. 4,00,331 crores to Rs. 20,68,535 crores during the same period registering an increase of 80.65 per cent. On the whole, it can be concluded that the book value of assets of both the banks have phenomenally increased during the study period.

Growth value of assets of SBI and HDFC during the period 2012 – 13 to 2021 – 22

(Rs. in crores)

Year	SBI	HDFC
2012 – 13	1566261	400331
2013 – 14	1792748	491599
2014 – 15	2048079	590503
2015 – 16	2357617	708845
2016 – 17	2705966	863840
2017 – 18	3454752	1063934
2018 – 19	3680914	1244540
2019 – 20	3951393	1530511
2020 – 21	4534429	1746870
2021 – 22	4987597	2068535

Source: Annual Report of the respective banks.

Year- wise interest earned by SBI and HDFC during the period 2012-13 to 2021 - 22 is presented in Table For any bank, interest is the main source of income. It is seen from the table that the amount of interest earned by SBI has increased steadily from Rs.1,19,657 crores to Rs 2,75,457 crores accounting for an increase of 56.56 per cent while in the case of HDFC, the amount of interest has gone up from Rs 35,064 crores to Rs 1,76,840 crores during the above period. This reflects increase in the volume of business in the case of both the banks under study.

Year – Wise interest earned by SBI and HDFC during the period 2012 – 13 to 2021 – 22

(Rs. in crores)

Year	SBI	HDFC
2012 – 13	119657	35064
2013 – 14	136350	41135
2014 – 15	152397	48469
2015 – 16	163998	60221
2016 – 17	175518	69305
2017 – 18	220499	80241
2018 – 19	242868	98972
2019 – 20	257323	114812
2020 – 21	265150	120858
2021 – 22	275457	176840

Source: Annual Report of the respective banks

Summary And Suggestions

The advances of SBI varied between Rs. 14,63,700 crores (2015-16) and Rs 27,33, 967 crores (2021-22) while that of HDFC varied from of 30,300 crores (2013 - 14) to Rs. 13,68,821 crores (2021-22). Thus being a public sector bank and also with long history and with good track record, SBI stood in forefront not only when compared to its counterpart HDFC, a private sector bank but also with other nationalised banks.

The accumulated gross NPAs of SBI and HDFC have zoomed from Rs. 51, 189 crores to Rs 1,12,023 crores while those of HDFC have gone up from mere Rs 2,334 crores to Rs. 16, 141 crores during the period 2012-13 to 2021-22. Further, there is an erratic growth of accumulated NPAs of both the banks during the above period. Being a nationalised bank and due to huge dispersal of advances coupled with nation-wide net-work of branches naturally, the GNPAs of SBI is comparatively higher than the limited size private sector bank with not having long track record HDFC.

The study revealed that share of accumulated GNPAs in total advances in the case of SBI varied between four per cent (2014-15) and 11 per cent (2017-18) while that of HDFC is stagnant at one per cent through out the period. Viewed from this anlgle, the accumulated GNPAs of HDFC is much lesser than those of SBI as the scale of credit operations of the former is much lesser compared to its counterpart giant SBI.

The gross NPAs of SBI varied between Rs 51,189 crores (2012 – 13) and Rs 2,23,427 crores (2017 – 18). It is surprising to note that the Bank has managed efficiently in controlling and pruning its NPAs to merely Rs 16,141 crores from such

a huge amount. This is mainly on account of initiating stringent measures. Similarly the gross NPAs of HDFC have gone up steadily from Rs 2,334 crores to Rs 1,12,023 crores in 2021 – 22. Though in absolute terms, the gross NPAs of HDFC have phenomenally increased they are static in terms of percentage terms which is only one per cent through out the period under study. Surprisingly, the Gross NPAs of SBI have declined drastically while those of HDFC have gone up phenomenally in absolute terms during the study period. Even then, the share of Gross NPAs of HDFC is much smaller than that of SBI which means the net advances of the latter are much higher compared to its counterpart SBI.

The study revealed that the accumulated Net NPAs of SBI varied between Rs. 21, 956 (2012-13) and Rs. 6,58,947 crores (2018-19) while that of HDFC varied between Rs.468 crores (2012-13) and 4,554 crores (2020-21). Further in the case of SBI, they have gone up from Rs. 21, 956 crores in 2012 - 13 to Rs 6,58,947 crores in 2018-19 and thereafter started moving downward, during the remaining three years. In the case of HDFC, they started increasing consistently from Rs.468 crores in 2012-13 to Rs.4,554 crores in 2020-21 and started moving downwards in 2021-22. Thus the Net NPAs of SBI is not only much higher in value but also they have increased phenomenally compared to its private sector counterpart HDFC.

The share of Net NPAs of SBI has increased from two per cent in 2012 – 13 to six per cent in 2017 – 18 and thereafter it has gradually declined to a low of 1.02 per cent in 2021 – 22 due to various steps initiated by the Bank. The position of HDFC is entirely different as there were almost no net NPAs during the period 2012 – 13 to 2018 – 19. The share of net NPAs of the HDFC varied from 0.36 per cent (2019 – 20) to 0.32 per cent (2021 – 22). Thus it can be concluded that viewed in terms of share of Net NPAs, HDFC Bank is in a comfortable position compared to its counterpart SBI.

Barring 2017-18 where SBI had incurred a loss of Rs.6,547 crores the SBI has earned net profits for the remaining years of the study period. Its net profit varied from Rs.862 crores (2018-19) to Rs.31,676 crores (2021-22) while in the case of HDFC, it made net profit in all the years under study. The net profit of SBI has increased from Rs.14,104 crores in 2012-13 to Rs.31,676 crores in 2021-22 with some ups and downs while that of HDFC has increased from Rs. 6,726 crores to Rs.36,961 crores during the same period.

The total share holder funds of SBI have zoomed from Rs 98,883 crores to Rs 2,63, 870 crores registering an increase of 62.53 per cent while that of HDFC has gone up phenomenally from Rs 36,214 crores to Rs 2,33,291 crores accounting for an increase of 84.48 per cent during the above period.

PSBs have written off around Rs 91,000 crores in the first nine months of the 2022-23, PSBs have also just managed to recover little over one rupee out of rupees five in written off accounts during 2021-22. However the pace of recovery has picked up from around eight per cent in 2017-18 to a little over 21 per cent in 2021 - 22. SBI is on the top with Rs 17, 356 crores. The writing bad loans is intended for cleansing the balance sheet beside sustaining the lending capacity. The write off never undermines the importance of recovery in those accounts.

SUGGESTIONS:

In both absolute and relative terms, the amount of NPAs in Indian public and private sector banks has significantly dropped. However, the following recommendations are made in order to bring banks up to par with the level of the global economy and to maintain this position in the upcoming years. The two actions that must be performed are preventing the addition of new non-performing assets and recovering money from accounts that have already become bad debts.

1. There are numerous recovery strategies accessible for NPA accounts. Legal obstacles frequently prolong the time required for recovery, which has an impact on the realisable value of NPAs. The regulatory authorities should make an effort to enhance the recovery management process so that NPA accounts can be recovered without suffering a significant loss in value.

2. Interestingly, it is found from the study that major portion of NPAs is confined to non-priority sector. It is true that large amount of public property is shifted to priority sector. Lack of proper strict instructions of the banks, many of the companies is declaring insolvency or escaping from India. Thus, Political will is very essential to control such cases involving Rs.11360 crores Punjab National Bank scam of Jeweller and Diamond trader Nirav Modi and Vijay Mallya's Rs.9000 crores fraud and money case. Exploring avenues of recovering NPAs like Lok Adalats for recovering smaller loans. Banks should strengthen the provisions of the Debt Recovery Act for recovery dues of banks to improve the total assets of banks.

3. Some of the enactments related to NPAs are several decades old and in quite a few cases, out of tune with present realities. These provision need to be amended urgently and some new enactments are called for in order to cater to the requirements of the changed and for more complex current economics and business environment for closure:

4. Special monitoring departments should be established in large branches for review of accounts and analyse the comparative statement, common size statement. Comparative risk and compliance, terms and conditions of action.

5. Proper perception and evaluation of risk is extremely important to banks in case of NPAs, like market risk, credit risk, liquidity risk, default risk, interest rate risk, fore risk and other risks.

6. Proper training is important to the staff of the banks at the appropriate level with ongoing process. The training should impart how they should deal the problem of NPAs, and what continuous steps they should take to reduce the NPAs.

7. Collection of interest on loans from clients on a monthly basis instead of quarterly collection. At branch level, the branch manager in particular should accept the responsibility for both bending and recovery of huge amounts.

8. Direct recovery is the best indicator for reduction of NPAs close follow-up, including periodical inspection of units, borrower's education and sympathetic consideration of genuine problem of the borrowers will help banks in making better loan recovery.
9. The banks should strengthen the internal control system through simplification of documentation procedures and revision in audit procedures, operational manuals and implementation of related strategies and monitoring of their efficacy.
10. In this context the public sector Banks have a fear about Chief Vigilance commission (CVC) whereas the private and Foreign Banks do not have such fear. The public sector Banks must keep out of the preview of CVC and other investing agencies only on the matter of legal case on recovery and one-time settlement (OTS).

References

1. Banking Bureau: "India and Non-Performing Assets", IBA Bulletin, January 2022.
2. Bhattacharya, H: "Banking Strategy, Credit Appraisal & Lending Decisions", Oxford University Press, New Delhi, 2001.
3. Das, A., & Ghosh, S: "Determinants of Credit Risk", Paper presented at Conference on Money, Risk and Investment held at Nottingham Trent University, November 2003.
4. Katuri Nageswar Rao: "NPAs Ground realities", Chartered Financial Analysts, April 2000.
5. M. Karunakar, K. Vasuki and S. Saravanan: "Are non - Performing Assets Gloomy or Greedy from Indian Perspective?", Research Journal of Social Sciences, INSINET Publications, Vol. 3, 2008.
6. Muniappan, G: "The NPA Overhang Magnitude, Solution and Legal Reforms", Reserve Bank of India Bulletin, May, 2002.
7. R. K. Uppal: "Priority sector advances: Trends, issues and strategies", Journal of Accounting and Taxation, Vol. 1(5), December, 2009.
8. Rajaraman, I & Vashista, G: "Non-Performing Loans of Indian Public Sector Banks - Some Panel Results", Economic & Political Weekly, February, 2002.
9. Ranjan, Rajiv and Sarat Chandra Dhal, (2003), "Non-Performing Loans and Terms of Credit of Public Sector Banks in India: An Empirical Assessment", Reserve Bank of India Occasional Papers, Vol 24, No. 3, Winter 2003.
10. Reddy, Y.V: "Credit Policy, Systems, and Culture", Reserve Bank of India Bulletin, March 2004.
11. www.google.com
12. www.google scholar.com
13. rinivasa Rao K. "Reflection on 75 years of banking in India, Business Line daily, 26 - 8 - 22, P - 7.
14. Saha, M. Zaman, A. Basumatry, P. (2021) Journal of contemporary issues in Business and Government vol. 27, NI. 2021, P. ISSN, 2204-1990: P-ISSN: 1323-6903 Management of non-performing assets (NPA) in bank with special references.
15. Hawaldar, I.T, Spulkar, C., Lokesh, A., Birau, R., Robegen, C., (2020), Revista de Stinte, politice N065.2020:42-53, analyzing non-performing assets in agricultural loans: A case study of India.
16. Sharma, S., Rathore, D.S., Prasad, J., (2019) Journal Of statistics and Management Systems, ISSN 0972-0510 (print) ISSN 2169-0014 (online) Vol, 22(2019) No., 3.
17. Diksha Sahni and Dinesh Chandra Seth (2017) Non-Performing assets (NPAs) in Indian Commercial Banks, International Journal Of Engineering Science and Computing, April, Volume 7 Issue No. 4, P. 6243