

Comparative study of Kotak Mahindra Bank's PSL & Non PSL NPAs

Mr. Anilkumar Nirmal¹, Dr. Purvi Derashri², Dr. Anant Deogaonkar³

¹Ph.D Scholar, Parul Institute of Management & Research, Faculty Of Management , Parul University, Vadodara, Gujarat -391760

dranilkumarnirmal@gmail.com

²Assistant Professor, Faculty of Commerce, Parul Institute of Commerce Parul University, Vadodara, Gujarat – 391760

purvi.derashri@paruluniversity.ac.in

³Assistant Professor at Shri Ramdeobaba College of Engineering and Management, Nagpur, Maharashtra

anant.deogaonkar@gmail.com

Abstract: *Kotak Mahindra Bank is one of the most profitable bank in the Indian domain since the last one decade. With the leading and creative products in its kitty, KMBL has also positioned itself among the top banks of the Indian banking industry. For the period 2014 to 2019, we conducted the research on these banks taking into account the NPAs' priority sector lending and non-priority sector lending figures, as NPAs are critical ratios to understand when you want to study the business. For the analysis, secondary data from the Kotak Mahindra Bank's annual report is used and is readily available on the bank's website. Although studying the basic assumption of NPAs, the priority sector must contribute more NPAs than the non-priority sector in the bank, as the priority sector is less structured than the non-priority sector, but to look at this, the analysis gives us different points of view. We compared the priority subsector NPAs and their association with the comparative analysis of PSL NPAs, Non PSL NPAs and Gross NPAs in this study to better understand the pattern and direction of Kotak Mahindra Bank.*

Keywords: Non-Performing Assets, Capital Adequacy Ratio, correlation analysis, Schedule Commercial Bank.

Introduction: Kotak Mahindra Bank one of Private sector leading bank in the Indian Banking domain got its license to operate since 2003 but institution or the parents company was in the finance profession for more than 35 years. Currently Mr Uday Kotak is his MD and Chairman and he is running the bank since the operations of the bank are started. Also in Dec, 2020 RBI has given the positive signal to extend his tenor for more three years by looking at banks past performance and track record. In February 2003, Kotak Mahindra Finance Ltd. (KMFL), the Group's lead organization, obtained banking permit from the Reserve Bank of India (RBI), turning into the first non-banking money organization in Quite a while to change over into a bank - Kotak Mahindra Bank Ltd. Successful April 1, 2015, ING Vysya Bank Ltd. converged with Kotak Mahindra Bank Ltd. The Bank has four Strategic Business Units – Consumer Banking, Corporate Banking, Commercial Banking and Treasury, which take into account retail and corporate clients across metropolitan and country India. It having the bank

For making the research paper we have used the secondary data from the Kotak Mahindra Bank Annual report which is readily available on the bank's website.

Research methodology

Need for the Study of NPAs are there as NPAs are big challenges for the banking system of the entire world. As far as Indian banking system perspective NPAs have grown dramatically in the last few years since 2014. There are a number of reasons for this but foremost reason being the prevailing transparency nowadays in the system since last few years. Common banks NPAs have reached more than 10.25 lakhs crores and it was becoming a matter of concern for the banks. There for different studies has been conducted on the same.

Statement of Problem

Present study has focused on the PSL NPAs, Non PSL NPAs and Gross NPAs comparative study and PSL NPAs subsector study using the comparative analysis, correlation analysis and t test.

Scope of the study:

The scope of the study is to analyze the data of NPAs of Kotak Mahindra Bank from 2014 to 2019 for the PSL NPA, Non PSL NPAs and Gross NPAs which is obtained from the website of Kotak Mahindra Bank itself.

Objectives:

- To make the comparative study of PSL sub sectors to understand which sector contributes most NPAs.

- Correlation study of Subsectors of PSL NPAs to understand if they correlated to each other or move independently.
- Comparative study of PSL, Non PSL and Gross NPAs and their correlated analysis.

Hypotheses of study:

H0 = There is no significant difference of NPAs Subsector to NPAs of Total NPAs of PSL.

H1= There is a significant difference of NPAs Subsector to NPAs of Total NPAs of PSL.

Methodology:

The methodology outlines the analysis route to be followed, the methods to be used, the universe and sample of the data to be obtained from the study, the analytical tools used and the pattern of conclusions to be drawn.

For the purposes of the analysis, we will collect the necessary data from Kotak Mahindra Bank's annual reports published each year and half of the current year's annual reports. The analysis relies on secondary data.

Period of the study and sample data

For the study purpose secondary data is collected from the annual report of Kotak Mahindra Bank for the duration of 2014 to 2019 which is six years of study.

Tool and techniques

As per the nature of study following tools and techniques are used for testing the hypotheses,

- Tool - Ratio Analysis, Excel, Averages, Correlation analysis, Mean, standard deviations.

Data Analysis and results

Kotak Mahindra Bank Limited NPAs Study of PSL

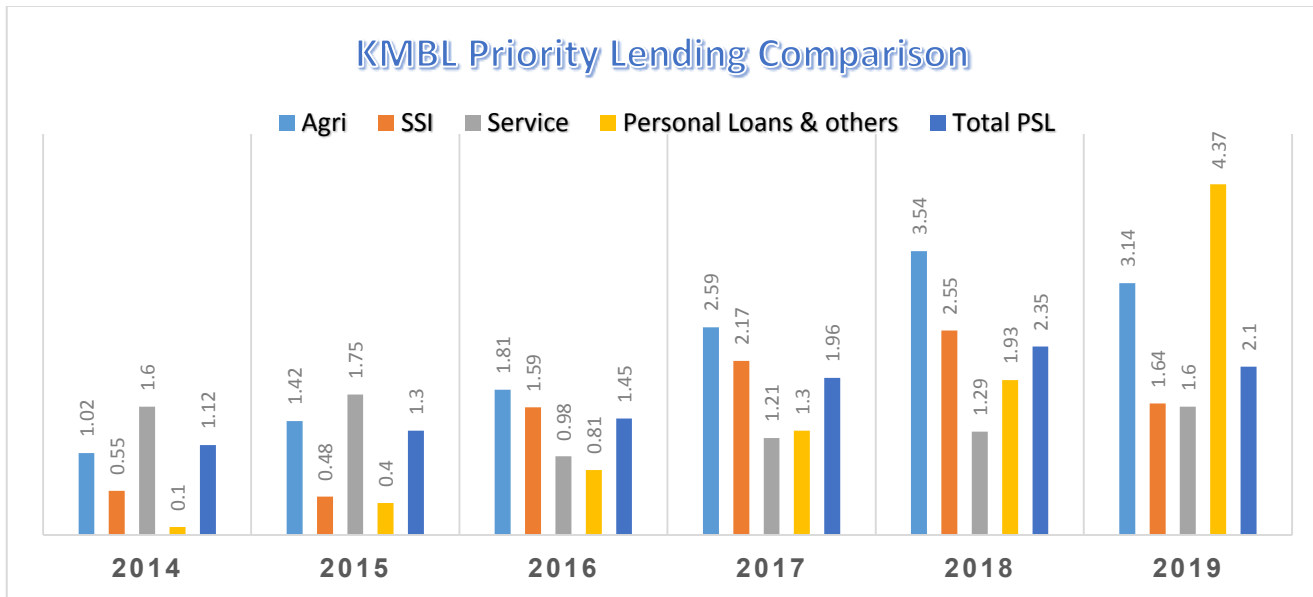
Table represents the data fetched from the annual reports of State Kotak Mahindra Bank Ltd from the year 2014 to 2019 which are of priority sector lending. These figures are exclusively available in the Annual reports only which are showing the sub-sector wise division and data of priority sector. These subsectors majorly consist of Agriculture, Small Scale Industries, Services and Personal Loans & others. These all 4 sub sectors are compared to each other in the study and hypothesis is conducted against the combined PSL NPAs.

Table – KMBL NPAs of Priority sector lending (Figures in Crores)

Year	Agriculture NPAs			SSI NPAs			Services NPAs			PL & Others NPAs			PSL NPAs		
	OS Amt	NP As	% To Total	OS Amt	NP As	% To Total	OS Amt	NP As	% to total	OS Amt	NP As	% To Total	OS Amt	NP As	% To Total
2014	71129	727	1.02	38722	212.3	0.55	67134	1075.7	1.60	3763	3.8	0.10	180747	2018.6	1.12
2015	84118	1194	1.42	46250	220.4	0.48	71301	1244.3	1.75	4998	20	0.40	206666	2679	1.30
2016	156931	2840	1.81	112423	1782.4	1.59	130703	1283	0.98	16457	133.9	0.81	416514	6039.4	1.45
2017	169238	4386	2.59	137851	2993.1	2.17	169388	2057.2	1.21	15479	201.5	1.30	491957	9637.7	1.96
2018	190752	6755	3.54	155318	3965.9	2.55	239351	3087.6	1.29	14332	275.9	1.93	599752	14084	2.35

20	2191	688	3.1	1868	305	1.6	3157	504	1.6	903	394	4.3	7307	153	2.1
19	55	5	4	73	5.5	4	05	0.1	0	7	.9	7	70	75	0

Figures: Kotak Mahindra Bank PSL Comparison



Analysis: Kotak Mahindra Bank Ltd (KMBL) is one of the consistent schedule commercial bank in managing the NPAs among its entire peer’s bank. This can understand from the figures of NPAs itself. If we look at the agriculture NPAs of PSL in KMBL highest is 3.54% in year 2018 and lowest is 1.02% in the year 2014 and in year 2019 it is 3.14% slightly less than the 2018. So NPAs have been increased since 2014 in same sector. In the SSI sector highest NPAs have seen in 2.55% in 2018 and 0.55% in the year 2014 and NPAs also being seen in the upward direction. In the service sector highest NPAs in the taken duration is 1.75% in the year 2015, also over the year it is consistent and it is showing in same interval. In the year 2019 it is 1.6%. In the personal Loan sector 0.1% was NPAs and it reached to highest level at 4.37% in the year 2019. Also it is highest across all sector of PSL lending of KMBL for the given interval. Personal loan sector initially looks efficient but going forward in the next 6-year duration it became quite inefficient. That has also raised the total mean of the PSL sector which is 1.71% at the end of 2019 now. Total KMBL has managed to limit its NPAs of PSL sector at 1.71% which is better than many of its peer’s banks.

Hypothesis testing of Agriculture NPAs vs. Combined PSL NPAs of KMBL

H0: Agriculture sector’s NPAs are not significant to Combined PSL NPAs for KMBL.

H1: Agriculture sector’s NPAs are significant to Combined PSL NPAs for KMBL.

KMBL	Agriculture NPAs	PSL NPAs
	Variable 1	Variable 2
Mean	2.25	1.71
Variance	0.99	0.24
Observations	6	6
Hypothesized Mean Difference	0	
df	7	
t Stat	1.19	
t Critical two-tail	2.36	
P(T<=t) two-tail	0.27	
Alpha (α)	0.05	

Table - t-Test: Two-Sample Agriculture vs. Combined PSL NPAs of KMBL

Total mean for the agriculture sector is 2.25% which is far more than the mean of Combined PSL NPAs of KMBL which stood at 1.71%. This shows that the agriculture NPAs are contributing a sizable amount in Gross NPAs. However, t critical value (2.36) which is greater than the t stat (1.19) which suggests that one should accept the null hypothesis "Agriculture sector's NPAs are significant to Combined PSL NPAs of KMBL" and should reject the alternative hypothesis. Also the Alpha value (0.05) is also lesser than the P value which suggests the same to reject the alternate hypothesis and accept the null hypothesis. Agriculture based PSL NPAs are contributing to a large extent in Combined PSL NPAs of the KMBL.

Hypothesis testing of SSI NPAs vs. Combined PSL NPAs of KMBL

H0: SSI sector's NPAs not are significant to Combined PSL NPAs of KMBL.

H1: SSI sector's NPAs are significant to Combined PSL NPAs of KMBL.

KMBL	SSI NPAs	Combined PSL NPAs
	Variable 1	Variable 2
Mean	1.49	1.71
Variance	0.70	0.24
Observations	6	6
Hypothesized Mean Difference	0	
df	8	
t Stat	-0.54	
t Critical two-tail	2.30	
P(T<=t) two-tail	0.60	
Alpha	0.05	

Table - t-Test: Two-Sample SSI vs. Combined PSL NPAs of KMBL

Small Scale industries NPAs mean is 1.49% which is lesser than the Combined PSL NPAs mean that stood at 1.71%. Mean of these 2 variables shows that NPAs of SSI are significant to combined PSL NPAs of KMBL as it is very near to it. If we look at the t test the t critical two tail stood at (2.30) and t stat stood at (-0.54). Here t critical value is greater than the t state value and hence we accept the null hypothesis "sector's NPAs are significant to Combined PSL NPAs of KMBL" and reject the alternative hypothesis. Also the Alpha value (0.05) is also lesser than the P value (0.60) which shows the same result that we should reject the alternative hypothesis "SSI sector's NPAs are not significant to Combined PSL NPAs of KMBL" and accept the null hypothesis.

Hypothesis testing of Services NPAs vs. Combined PSL NPAs of KMBL

H0: Service sector's NPAs are significant to Combined PSL NPAs for KMBL.

H1: Service sector's NPAs are not significant to Combined PSL NPAs for KMBL.

KMBL	Service NPAs	Combined PSL NPAs
	Variable 1	Variable 2
Mean	1.40	1.71
Variance	0.08	0.24
Observations	6	6
Hypothesized Mean Difference	0	
df	8	
t Stat	-1.32	
t Critical two-tail	2.30	
Alpha	0.05	

P(T<=t) two-tail	0.22	
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Table - t-Test: Two-Sample Services vs. Combined PSL NPAs of KMBL

Service sector NPAs mean are near to Combined NPAs mean and lesser than it. It shows the significance of NPAs contribution to Total value from the service sector. Alpha value of t test is (0.05) and P value of the test is (0.22) which suggest rejecting the alternate hypothesis and accepting the null hypothesis "Service sector's NPAs are significant to Combined PSL NPAs of KMBL". However, the t critical value two tails are greater than the t stat value which also suggests that we should accept the null hypothesis. Above data shows that the service sector NPAs are significant to the Combined PSL NPAs of KMBL.

4.6.4 Hypothesis testing of PL & Others NPAs vs. Combined PSL NPAs of KMBL

H0: Personal Loan sector's NPAs are significant to Combined PSL NPAs for KMBL.

H1: Personal Loan sector's NPAs are not significant to Combined PSL NPAs for KMBL.

KMBL	PL & Others NPAs	Combined PSL NPAs
	Variable 1	Variable 2
Mean	1.48	1.71
Variance	2.42	0.24
Observations	6	6
Hypothesized Mean Difference	0	
df	6	
t Stat	-0.34	
t Critical two-tail	2.44	
Alpha	0.05	
P(T<=t) two-tail	0.74	

Table - t-Test: Two-Sample PL & Others vs. Combined PSL NPAs of KMBL

Personal loan sector NPAs stood at 1.485% as compared to combined PSL NPAs mean stood at 1.71% which shows that there is significant difference between these two means. Let check the t test value to understand whether the service personal loan sector NPAs are Significant to Gross NPAs or not. T critical two tails (2.44) which is greater than the t stat (-0.34) shows that we should accept the null hypothesis that "Personal Loan sector's NPAs are significant to Combined PSL NPAs of KMBL" and we should reject the null hypothesis. P value (0.74) is also greater than the alpha value (0.05) which suggests that we should reject the alternative hypothesis "Personal Loan sector's NPAs are not significant to Combined PSL NPAs of KMBL" and accept the null hypothesis.

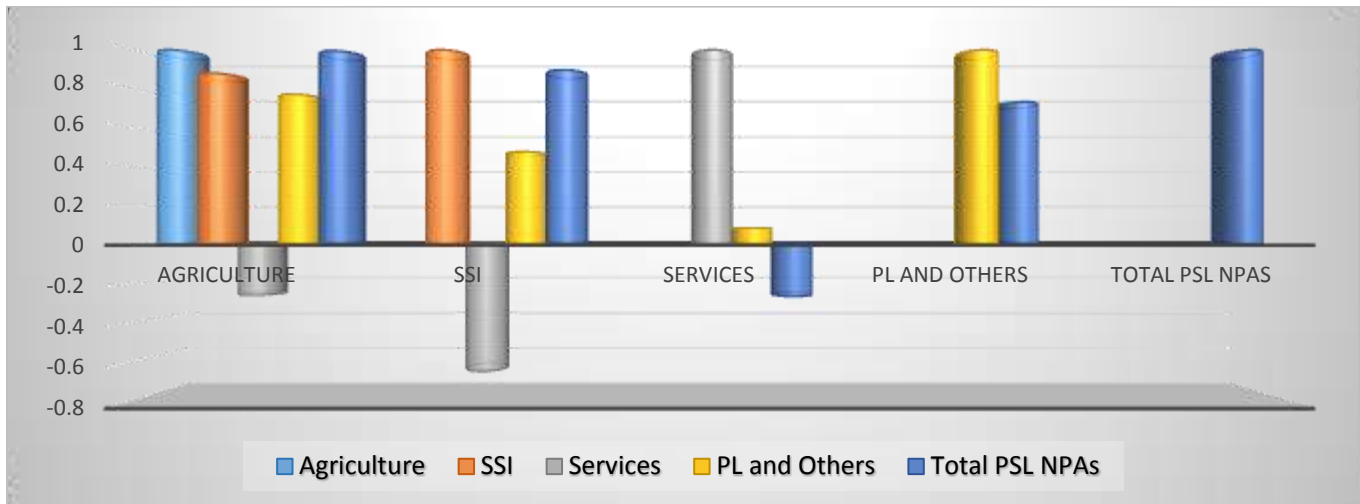
Correlations Analysis of PSL sectors to Combined PSL NPAs of KMBL

	Agriculture	SSI	Services	PL and Others	Combined PSL NPAs
Agriculture	1				
SSI	0.88	1			
Services	-0.26	-0.65	1		
PL and Others	0.77	0.47	0.08	1	
Combined PSL NPAs	0.99	0.89	-0.26	0.73	1

Table – 4.25 Correlations Analysis of PSL sectors to Combined PSL NPAs of Kotak Bank

From the above table it is evident that SSI NPAs having strong positive correlation to agriculture NPAs, Services NPAs having the weak negative correlation to Agriculture NPAs while weak negative correlation to SSI NPAs. PL & Others NPAs having strong positive correlation to Agriculture NPAs and weak positive correlation to SSI NPAs and weak positive correlation to Services Sector. Combined PSL NPAs have the strongly positive correlation to agriculture NPAs, strong positive correlation to SSI NPAs, weak negative correlation to Services sector and strong positive correlation to PL and Others Sector. Below mentioned figures show the correlation between all the PSL sectors.

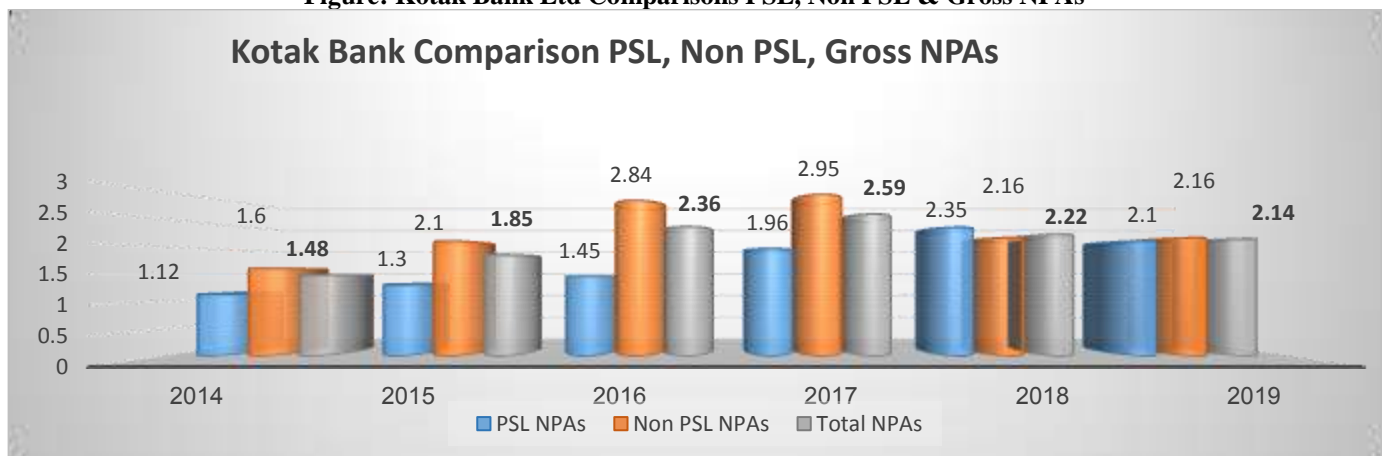
Figure: Correlations Analysis of PSL sectors to Combined PSL NPAs of Kotak Bank



Positive correlation is when the NPAs of one sector are increasing with NPAs of other sector and vice versa.

Kotak Bank Ltd NPAs comparison of Priority, Non Priority & Gross NPAs

Figure: Kotak Bank Ltd Comparisons PSL, Non PSL & Gross NPAs



Trend Analysis: Kotak Bank’s NPAs in the year 2014 in PSL and Non PSL sectors are 1.12% and 1.6% respectively. All banks are trying to keep their NPAs under control in order to make their book profitable and growing. Priority Sector lending non performing assets trend in Kotak Bank from year 2014 to 2019 are slightly in increasing trend but looks under control. Since in the year PSL NPAs were at 1.12% in the year 2014, it has been reached to 2.1% in the year 2019 which is showing just 1% jump during the 6 financial year period. However, PSL NPAs were highest at 2.35% in the year 2018. Similarly, in the case of non PSL NPAs in the year 2014 it stood at 1.6% higher than the PSL NPAs and also highest non PSL NPAs being in the year 2017 when it reached 2.95%. One of the reasons for sudden increase in this may be the acquisition of ING Vysya bank by Kotak Bank. After showing the peak again for next year in 2018 and 2019 non PSL sector showed the same NPAs at 2.16% which came down from the peak level but is higher than the base year. However, from the chart if we look at the trend of NPAs it looks atleast 1% higher

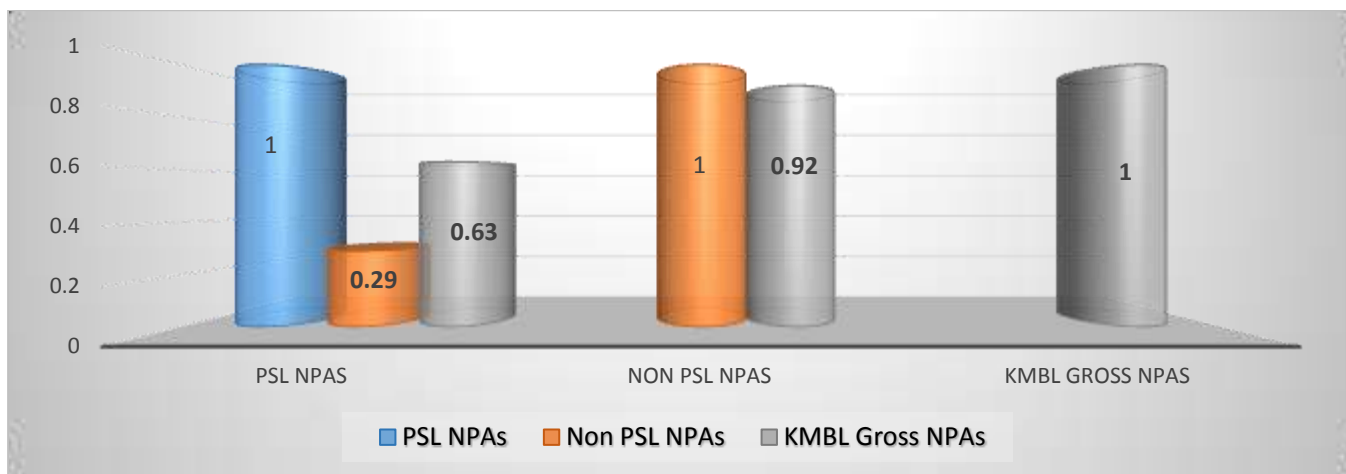
in both sectors but there is no significant increment has been observed. Total if analyzed it is understood that NPAs in both the sectors are in control; however, there is not sharp increase or decrease in Total trend.

Kotak Bank Ltd Correlation Analysis of Priority, Non Priority & Gross NPAs

Table: Correlation Analysis of PSL, Non PSL and Gross NPAs Kotak Bank

	PSL NPAs	Non PSL NPAs	KMBL Gross NPAs
PSL NPAs	1		
Non PSL NPAs	0.29	1	
KMBL Gross NPAs	0.63	0.92	1

Figure: Kotak Bank Ltd Correlation Analyses of PSL, Non PSL & Gross NPAs



As per the above correlation analysis, it is evident that PSL NPAs correlation of Kotak Bank with Non PSL NPAs is (0.29). It shows that there is a weak correlation of PSL NPAs with the Non PSL NPAs. It shows that PSL NPAs are not following the trend of non PSL NPAs. If we take the case of PSL NPAs vs. Gross NPAs of the Kotak bank, it is evident that correlation to be computed is (0.63) and it is a good correlation between the both variables. It suggests that PSL NPAs are following the trend of Gross NPAs. Kotak bank’s Gross NPAs are correlated to Non PSL NPAs of Kotak Bank is (0.92), which is a very strong correlation to each other.

From both correlations analysis evident that PSL NPAs are not correlated to Non PSL NPAs but having good correlation to Gross NPAs of the Kotak Bank while Non PSL NPAs of Kotak Bank are strongly correlated to Kotak Bank’s Gross NPAs.

Findings:

It is evident from the above analysis that NPAs of all the PSL sub sectors are contributing to the formation of NPAs. However, priority sector lending NPAs are lesser contributing than the non-priority sector NPAs which means that general conception of being Priority sector lending recovery is difficult that non priority sector proves to be wrong in the case. PSL and non PSL both sectors seem to be strongly correlated to the Gross NPAs as per the study of correlation analysis. It shows that priority sector lending and non-priority sector lending both move in the same direction as gross NPAs moves. There are the fiscal 2016 and 2017 where the non-priority sector has contributed highly in the formation of NPAs growth and during these years’ priority sector NPAs were being lower contributing sector however in the entire study duration fiscal 2018 was there where the PSL NPAs has contributed more than the non-priority sector. During the study it is observed that agriculture NPAs are highly correlated to SSI and PL sub sectors while negatively correlated to the service segments, this also suggests that agriculture NPAs with SSI and PL sub sectors are in the same line while not following the trend of Service sub sector. These findings indicate that in case of Kotak Mahindra Bank non priority sector contributing more than priority sector NPAs, study of correlation analysis shows that non priority sector NPAs are highly correlated to gross NPAs. Also, if we look at the trend of NPAs in the Kotak Mahindra Bank, it looks in the controllable manner as the movement of NPAs during the selected period moves in the particular rage bound area.

Conclusion:

It is inferred from the above analysis that Kotak Mahindra Bank operates in a well-organized manner and thus NPAs appear to be in the controllable sector. Also, it is clear from the analysis that Kotak Mahindra Bank NPAs were not much affected after acquiring the ING Vysya bank, but were higher during the acquisition of other bank's NPAs. By carrying out the correlation study, it is found that the correlation of PSL NPAs to Non PSL NPAs is very low and it is weakly positive, but the correlation of Non PSL with the Gross NPAs was strongly positive. This indicates that the contribution of NPAs to the bank balance sheet is primarily from the non-PSL side, whereas the lower contribution of NPAs to the Kotak Mahindra Bank balance sheet is from PSL NPAs. This also indicates that, as far as priority lending is concerned, Kotak Mahindra Bank is involved in a positive way.

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