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Linking NPA to Profitability: The Case of Banking Sector in India

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Abstract:
In a developing economy like India, the concerns over non- performing assets in the banking sector has become a serious concern for the economy. This calls for examining the causes and factors that have led to the rise of non-performing assets in the country. Non-Performing Assets (NPAs) are a threat to the overall growth of financial banking sector as they indicate how robust and efficient an economy is. Soaring non-performing assets in the Indian banking sector are directly affecting its liquidity and profitability, hence they become a major concern for the current financial distress in the economy. Considering the abovementioned scenario, the current study attempts to understand the concept, trends in NPAs and how NPAs affect the overall profitability of banks by using secondary data for a period of ten years from 2008 to 2018 for SBI and PNB. The data was analyzed using statistical tools like correlation coefficient and linear regression to examine the impact of NPAs on profitability. Results revealed a significant negative correlation between rising gross NPAs and declining profitability. Moreover, regression analysis revealed significant negative effects of NPA on profitability of the above two banks. It is thus necessary to curtail NPAs to improve the overall financial health of the banking system.

***Keywords**: Economy, Non-performing assets, Growth, Indian Banking Sector.*

Introduction

In every developing economy, the banking sector assumes primal importance due to ever increasing competition in this sector, rising customer demands and constantly changing reforms. Thus, constantly rising non- performing assets pose serious threat to the overall financial performance of this sector, and they have become a matter of concern. Bamoriya & Jain (2013)in one of their study on banking sector reforms suggested that NPA levels are a very serious issue and an essential parameter to compute the financial health of banking industry. Without a sound and powerful banking system, a country cannot become economically sound and stable.When compared to private sector, public sector banks reckons for a higher level of NPA as they comprise a higher share in lending.The Narsimha Committee was appointed in 1997 in response to the deteriorating banking system stability in the country of which NPA was a major cause. The committee recommended various measures to improve overall efficiency of banks and make them more competitive (Ahluwalia, 2002). The reforms that were introduced by the committee in India affected the overall productivity and profitability of the banking sector. Despite the sector being dominated by the public sector banks, these reforms triggered growth of banking in the private sector too. However, growth has been strained in this sector off late due to issues such as inadequate capital base, inefficient organization of banks, rising NPAs, etc.Among these issues, the focus of researchers has been on the rising non-performing assets.

In light of rising NPAs, several provisions have been proposed and implemented to improve the efficiency of the banks and ultimately reduce the NPAs. It is thus essential to understand the dynamics of non-performing assets in a developing economy like

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India.

"An NPA is defined as a loan asset, which has ceased to generate any income for a bank whether in the form of interest or principal repayment" (Patil, 2011).

In India, NPA is defined as:

- In respect of a Term Loan: a loan or an advance where its interest or installment on principal amount remains overdue for a period exceeding 90 days,
- In respect of an overdraft/ cash Credit (OD/CC), the account remains 'out of order' for a period that exceeds 90 days,
- Bill that remains overdue for a period exceeding 90 days in the case of bills purchased and discounted,
- Interest and/ or installment of principal remaining overdue for two harvest seasons but for a period that does not exceed two half years in case of an advance granted for agricultural purpose (Poongavanam, 2011).

Literature Review

Exploring the interrelation between the financial sector and the growth of the economy has been a subject of interest to large number of researchers. Pasiouras & Kosmidou (2007)find that profitability of banks is dependent upon financial market structure and macroeconomic conditions.Bhatia *et al*. (2012)in their study assessed the determinants of profitability amongprivate sector banks in the country with sample size being 23. It was observed that among variables like spread ratio, non-interest income, operating expense ratio, and profit per employee,NPAswere particularly responsible for affecting the profitability of banks in the private sector.

Ganesan (2001) studied the public sector bank and concluded that banks profitability soared with a growth in GDP, and plummetedwith growth in inflation rate.

Literature has found a strong empirical evidence for a robust financial market and economic growth. A stable and efficient banking sector is thereforeindispensable to surge the economic activity of a country(Debnath & Shankar, 2008).

The success of any bank is highly dependent upon the way it manages it NPAs. There are a number of causes for the stark rise in NPAs over the last 20 years. Until 1991, the issue of NPA and its effects on declining profit and asset quality was not a prime concern in Indian banking. Banking was mainly centered around achieving performance objectives such as expanding branches, priority sector lending, rural sector loans, higher employment generation etc. Moreover, the accounting treatment of NPAs also failed to pictureNPA as a problem as an interest on loan has been accounted on accrual basis of accounting(Siraj & Pillai, 2012).

While there are other internal and external factors that have contributed to the growth of NPAs overtime, internal factors include: a defective lending process which may violate the three principles (principles of safety, liquidity and profitability), inappropriate technology (inefficient MIS and poor market data collection leading to poor credit collection), poor credit appraisals which leads to extending loans to people who are not eligible to payback, poor debt management by the borrower, other managerial deficiencies and inefficient and irregular internal audits to keep a tab on bank activities.

External factors include willful defaulters who though pay back the loans but do not do so due to malign intentions, frauds, ineffective recovery systems, natural calamities, under/untimely financing.

Debarsh and Goyal(2012) in their study presson proper management of non-performing assets in India by using the strict asset classification norms, relying on latest technological platforms and processeswhich rests on effecientbanking solutions, effective recovery processes and otherspecific indicators within the regulatory framework of the RBI.

NPAs arise out of the total advances that banks extend to agriculture, priority sector, public sector,

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and others(Selwyn & Thambi, 2001). These advances if sanctioned and disbursed need to be controlled to avoid non repayment to contain the rising NPAs. Over the years, banks both public and private have suffered huge losses on account of NPAs, thus putting strain and pressure on banks to maintain their desired capital adequacy levels. Though, debt is a very essential component for the progress in any economy but too much debt can harm the health of the economy, Reddy (2004)in a bulletin of RBI March 2004 said that lending policy could have decisive impact on non-performing loans. That is why unrecoverable debt over the years have compelled banks to classify and transfer more and more amounts to NPA. This has led a direct impact on their profitability. It is therefore necessary to understand the link between NPA and profitability before introducing reforms and interventions to reduce the NPAs.

Objectives of the study:

1) To understand the concept of NPAs, gross NPAs and net NPAs
2) To understand the relationship between NPA and profitability.
3) To assess the impact of Gross NPAs on Net profits in the case of PNB and SBI.

NPA and Profitability

NPAs mean creating a provision for bad debts that may occurs due to wrong choice of borrowers who may chose not to return the money in future. Hence, this may affect the current profits and also the future stream of profits. Creation of NPAs involve losing some long-term beneficial opportunity for investment. Various studies have been undertaken to analyze the effects of NPAs on the performance of banks. A similar study was undertaken to assess the impact created by NPAs on profitability of banks, it was observed that NPA is a critical indicator for assessing the credit risk of banks, their asset quality and efficiency in allocating resources to various sectors in the economy(Garg, 2016).

Also, it has been observed that private sector banks have been better able to manage bad debt risks as compared to public sector banks as they have better risk management processes in place (Swamy, 2017).

Research Methodology

The current study uses data that has been sourced from the annual reports of State Bank of India and Punjab National Bank pertaining to their net profits for the period from 2008 to 2018. These two banks have been chosen as they are among the top in terms of the total assets under them and the revenues they generate. The secondary data for gross NPAs was gathered from the Reserve Bank of India's official website providing statistical data relating to banks in India. The relevant variables chosen for the study are the Gross NPAs and Net profitability of SBI and PNB Bank. The data was analyzed using coefficient of correlation to determine the association between NPA and profitability. Further, a linear regression was carried out to find out how well NPAs predict profitability of banks like SBI and PNB.

	SBI		PNB	
Year	**Gross NPA**	**Net Profit**	**Gross NPA**	**Net Profit**
2008	12837	6729.12	3319	2048.76
2009	15714	9121.23	2506.91	3090.88
2010	19534.89	9166.05	3214.66	3905.36
2011	25326.29	8265	4379.39	4433.5
2012	39676.46	11707.29	8719.62	4884.2
2013	51189.39	14104.98	13465.79	4747.67

2014	61605.35	10891.17	18880.06	3343
2015	56725.33	13102	25694.86	3062
2016	98172.8	9951	55818.33	-3974
2017	112342.99	10484	55370.44	1325
2018	223427.46	-6547	86620.05	-12282

Table 1: Gross NPAs and Net Profits of SBI and PNB

Source: Annual Reports of SBI and PNB, RBI reports

Findings and Results

The data was analyzed using SPSS 25. The coefficient of correlation which explains whether there is a significant relationship between profitability and gross NPAs, and also explains the direction of this relationship was found between the abovementioned variables. The Pearson's correlation coefficient for State Bank of India was found to be *r*=-0.7066 ($p<0.01$) and for Punjab National Bank was found to be *r*=-0.8849 ($p<0.05$) which indicated a strong negative relationship between gross NPA and Net profits, which was found to be significant at $p<0.01$ and $p<0.05$ respectively.

Correlations			
	PNB Net Profits		**SBI Net Profits**
PNB Gross NPA	**-.885****	**SBI Gross NPA**	**-.707***
**. Correlation is significant at the 0.01 level (2-tailed).		*. Correlation is significant at the 0.05 level (2-tailed).	

Table 2: Correlation analysis for Gross NPAs and Net profits

Further, a simple linear regression was carried out to comprehend the impact created by NPAs on net profits of PNB and SBI.The linear regression was found to be significant at $F(1,9)=32.493$, $p<0.001$, with an $R^2=0.783$, explaining 78.3% of the variation in profits due to presence of gross NPAs in case of Punjab National Bank. The beta coefficient for gross NPAs was $\beta= -0.161$, t=-5.700, significant at $p<0.001$ meaning that a unit increase in gross NPAs would lead to a fall in profits by 0.161 in case of Punjab national Bank.

As in the case of State Bank of India, the linear regression yielded similar results being significant at $F(1,9)=8.978$, $p<0.05$, with an $R^2=0.499$, explaining 49.9% of variation in profits due to the presence of gross NPAs. The beta coefficient for gross NPAs of SBI was $\beta= -0.063$, t=-2.996, significant at $p<0.05$ meaning that a unit increase in gross NPAs would lead to a fall in profits by 0.063 in the case of SBI.

The results of correlation and regression have been found to indicate that NPAs are significantly related to profitability and too much of it negatively affects the profitability of banking sector.

Conclusion

It is well established fact that the stability of the banking system is highly dependent on the how well they manage their non-performing assets and this stability is all the more dependent on the public sector banks. Though the amounts of gross NPA and net NPA are increasing every year, this has an adverse impact on liquidity and profitability of banks and hence affects their ability to lend. The results of the study are similar to those carried out in

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other countries(Lin & Zhang, 2009; Wanjau & Collins, 2011). A similar study in Nepal that investigated the impact of non-performing loan on net profitability of Nepalese commercial banks being measured by return on assets, the sample comprised of 14 commercial banks and results from regression analysis revealed thatnon-performing loans had negative and statistically significant impact on bank profitability (ROA)(Bhattarai, 2017). The above study draws useful inferences for commercial banks lending practices and create more losses on account of provisions created for non-performing assets. Thus, these practices need more regulation and effective management.

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