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Statistical Analysis of Effect of Credit Risk on Financial Performance in Parbhani City Co-Operative / Private Ltd. Banking Sector

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Abstract:

The main purpose of this paper was to analyse the credit risk management efficiency in Parbhani city banking sector on financial performance during the period 2013-2017. This research was an attempt to assess the extent to which credit risk management impacts on the financial performance. In order to get answer data was collected through questionnaires and annual report of respective bank and through the regression model establish the relationship between credit amount, non performing loans, loan, profit and advances during the period of study. Amount of credit was measured by loan and advances extended to customers and non-performing loans were used to proxies for credit risk.

Credit risk management is the practice of mitigating losses by understanding the adequacy of both bank. The banks are relates to minimization of potential that a customer will fail to meet its obligations. The co-operative / private bank in Parbhani city includes the Sangali Urban Co-operative Bank (SUCOB), Vaishya Nagari Sahakari Bank (VNB), Jankalyan Sahakari Bank (JSB), Mahesh Co-operative bank (MB). This all banks have continued to invest huge sums of funds to credit risk is to minimize.

The uncertainty of customers to default remains a majour challenge for monetary policy not only in Parbhani city but in every city.

Carey (2001) indicates that risk management is more important in the financial sector than in other part of the country.

Introduction:

Credit risk management is the practice of mitigating losses by understanding the adequacy of banks. The banking industry has achieved great important in the Parbhani economic environment and it play predominant role in credit facilities, credit risk is the most significant risk faced by banks and the successof their business depends upon measurement and management of this risk.

Credit is main sources of income (interest income) is commercial banks and also source of credit risk.

Credit risk management maximizes bank's risk adjusted rate of return by maintaining credit risk exposure within acceptable limit in order to provide frame work for understanding the impact of credit risk management on bank's profitability. (Kargi,2011)

The importance of credit risk management to co-operative or commercial banks cannot be over emphasized and it forms an integral part of the loan process.

The need to analyse credit risk management efficiency on financial performance in co-operative / private ltd. banking sector is particularly vital role in developing city.

The study examined capital requirement and performance and considering credit risk in a unified framework. The uncertainty of borrower to default remains a major challenge for monetary policy not only in Parbhani city but in state and country also. Indicates that risk management is more important in the financial sector than the other parts of the economy. Some financial institutions have collapsed due to insufficient credit risk management system.

Credit risk management practices and poor credit quality continue to be a cause of bank failures due to this bank crises area very large in study region, credit creation is the main income generating activity for the bank but this activity involves huge risk to both the lender and the borrower. Credit risk is an internal determinant of bank performance.

Objectives:

1. The main objective of the research is to make analysis of the credit risk management efficiency on financial performance in Parbhani city of co-operative private banking sector and also determine the extent to which non-performing loans affect the bank profitability in Pabhani city.
2. To examine the effects of loans and advances on bank performance in co-operative / private banks in Parbhani city.

Methodology:

The research method to be applied in this study is quantitative while the former shall be used to study and appraise the chronological level of financial facilities available to co-operative / private bank in Parbhani city. The sample of five banks was drawn. Like Mahesh bank, Sangali Urban Bank, Akola Bank, Vaishya Nagari bank and Jankalyan Nagari Sahakari Bank. The banks were stratified according to their rating in Parbhani city.

Mainly used in these research are secondary data were obtained from their annual reports. Journal and statistical bulletin publication. In order to this study ordinary least square (OLS) method of analysis is employed. OLS method of regression analysis using statistical package for social sciences to validate the hypothesis formulated for the research work.

The model to be used will be expressed mathematically as

ROA = F (NPL/LA)

ROA = F (LA/TD)

ROA = $\alpha_0 + \alpha_1$ (NPL/LA) + α_2 (LA/TD)+ e

Where, ROA is ratio of profit after tax total assets

$\alpha_0, \alpha_1, \alpha_2$ = coefficient

NPL/LA is ratio of NPL/LA

LA/TD is ratio of loan and advance to total deposit

e is error term

The prior expectation in the model is that all the independent variables are expected to have a negative relationship between ROA except loans and advances which is expected to have positive relationship with bank performance.

Data analysis and test of hypothesis:

We set up the null hypothesis HO: there is no significant relationship between loan and advances and performances of bank in Parbhani city.

Table 1 :

Non performaing divided by loan and advances loan and advances divided by total deposit and return on asset of five selected bank from 2013-2017.

Bank year	NPL/LA	LA/TD	ROA
SUB- 2013	0.01	0.79	0.03
2014	0.05	0.86	0.03
2015	0.05	0.80	0.03
2016	0.04	0.69	0.03
2017	0.02	0.68	0.05
JNB- 2013	0.02	0.66	0.02
2014	0.05	0.62	0.00
2015	0.08	0.78	0.01
2016	0.03	0.63	0.01
2017	0.03	0.64	0.02
UB- 2013	0.04	0.69	0.02
2014	0.21	0.87	0.00
2015	0.09	0.88	0.01
2016	0.10	0.50	0.01
2017	0.03	0.74	0.03
MB- 2013	0.11	0.84	0.03
2014	0.05	0.97	0.03
2015	0.03	0.78	0.00
2016	0.03	0.55	0.02
2017	0.04	0.34	0.01
KNSB-2013	0.04	0.34	0.03
2014	0.09	0.49	0.01
2015	0.10	0.50	0.01
2016	0.04	0.48	0.01
2017	0.03	0.38	0.03

Source : Bank Annual Report.

Table 2 : Descriptive statistics

Ratio	N	Minimum	Maximum	Mean	Standard deviation
NPL/LA	25	0.01	0.21	0.0552	0.04286
LA/TD	25	0.34	0.97	0.6664	0.16681
ROA	25	-0.01	0.05	0.0168	0.01507

Table 3 : Coefficients

Model	Unstandardised coefficients Beta Std.error (SE)	Standardised coefficients Beta	t	significant
1. LA/TD	-0.08 0.019	-0.094	-0.452	0.655
Constant	0.022 0.013	-	1.742	0.095

Table 4 : ANOVA

Model	Sum of squares	dF	Mean square	F	significant
Regression Residual Total	0.001 0.004 0.005	1 23 24	0.001 0.000	6.278	0.20

Table 5 : Coefficients

Model	Unstandardised coefficients Beta Std.error (SE)	Standardised coefficients Beta	t	significant
Constant	0.026 0.005	-	5.173	0.000
NPL/LA	-0.163 0.065	-0.463	-2.506	0.020

The result shows that the ratio of loan and advances to total deposit negatively relate to profitability though not significant.

ROA = 0.022 - 0.094 LA/TD +e
= (1.742) (-.452)
= (0.095) (0.655)

From table No.3 parameter shows that increase in the ratio of loan and advances will decreases by 9.4% (ROA).

The test of overall significance of regression implies testing the null hypothesis. The overall significance of the regression is tested using fisher's statistics. In this study calculated value of F is 0.204 is not significant at 5% so concluded that no linear relationship exists between dependent and independent variable of the model which state that there is no significant relationship between loan and advances and performance of banks is accepted. The independent explanatory variables have no individual impact on bank performance in Parbhani city during the period.

ROA are explained by the combined influence of credit risk indicators (NPL/LA) in the model.

The regression result of the study model suggest that Ind.variables have impact on profitability. However (NPL/LA) ratio negatively relate to profitability the model is

ROA = 0.026 - 0.463 (NPL/LA) + e
(5.713) (-2.506)

The result show that (NPL/LA) is negatively relate to profitability.

The parameter show that increase in non-performing loan decreases profitability (ROA) by 46.3%. The study relates that there is direct but inverse relationship between profitability (ROA) and the ration (NPL/LA).

From table 4 calculated F is 6.278 is significant of 5% concluded that linear relationship exist between dependent and the independent variable of the model which state that there is no significant relationship between non-performing loan and bank performance is rejected.

This study shows that there is a significant relationship between bank performance and credit risk management. The deposit structure also effects the profit. The growth of loan has been relatively fast for the past few years and which is not fully covered by the deposit base.

Conclusions:

The study suggested that the impact of credit risk on the performance of Parbhani bank from the findings it is concluded that bank profitability is inversely influenced by the levels of loan and deposit/ advances. NPL and deposits exposing them to great risk. So management need to be cautions in setting up credit policy. That will negatively affect the profitability and also need to know credit policy affects the operation of their bank. In proper credit risk management reduce the bank profitability affects the quality of its assets and increase loan losses.

As a result banks remain under some pressure to improve their financial soundness.

References:

1] Altun bas (2005) "merges and acquisitions and bank performance in Eurpoe"
2] www.financial express.com
3] Shikhagoyal (April 23, 2020) : https://ww.jagranjosh.com
4] Annual report of respective banks during 2013-2017
5] Machraju H.R. (2008) Modern Commercial banking, 2nd edition New Delhi: Age International (P) Ltd.
6] Unaolapo A.R. (2012) "Analysis of credit risk management efficiency in commercial banking sector" for fast journal of marketing and management.