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CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	BANKING ON ANALYTICS – USE CASES FOR BANKS IN INDIA <i>SONALI SUBUDHI & SRIHARI SUBUDHI</i>	1
2.	IMPACT OF NON-PERFORMING ASSETS IN THE PROFITABILITY OF COOPERATIVE BANKS IN HIMACHAL PRADESH <i>RAJESH KUMAR & Dr. SURESH KUMAR</i>	5
	REQUEST FOR FEEDBACK & DISCLAIMER	9

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IMPACT OF NON-PERFORMING ASSETS IN THE PROFITABILITY OF COOPERATIVE BANKS IN HIMACHAL PRADESH

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ABSTRACT

Banking Industry is called as backbone of Indian Economy because it comes under service sector and service sector has largest contribution towards GDP of India. Cooperative Banks are one of the important constituents of Indian banking industry especially in the field of rural areas, agriculturists and persons of limited means. Because these cooperative banks provide loans to rural people agriculturist and needy people at a very reasonable rate of interest for their upliftment. But the main problem is that the magnitude of increased NPAs has become the virus against the existence and growth of cooperative banks in India. The present study is conducted in cooperative banks of Himachal Pradesh in order to know the impact of NPAs on profitability of the banks. The collected secondary data in the form of Annual Financial statements such as P&L and balance sheet from 2011-12 to 2020-21 is analysed with Linear regression technique to know the NPAs impact on profitability of the selected cooperative Banks. The study found that GNPA and Net NPAs have significant impact on the profitability of HPSCB but Gross NPAs and Net NPAs in the profitability of KCCB have no significant impact. Moreover, the study found insignificant difference of Gross NPA between HPSCB and KCCB but there is significant difference of Net NPAs between HPSCB and KCCBs.

KEYWORDS

NPAs, Impact, profitability, impact, Regression, agriculturists, significance.

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INTRODUCTION

A sound banking system has vital contribution for the growth & development of Indian economy. Without sound banking system, there may have adverse impact on all sectors of economy. Because banking sectors contributing towards GDP of the country by accepting deposits and giving them in the form of loans & advances to the agriculturist, MSMEs and persons of limited means especially in the field of rural areas. But now the problem of NP has become a virus against the existence, growth & development of cooperative banks and others banks as well.

Cooperative Banks are one of the important constituents of Indian Banking Industry which are established under the Cooperative Society Act 1912 to uplift the people of rural areas by providing them loans & advances at a very reasonable rate of interest. (Movalia N& Shilu 2021)¹

The following is the brief description of selected Cooperative Banks in Himachal Pradesh:

- 1) **Himachal Pradesh State Cooperative Banks:** It is the apex cooperative Banking institutions registered in August 1953 under the cooperative society Act 1953.
- 2) **Kangra Central Cooperative Bank:** It is the district cooperative bank of Himachal Pradesh.
- 3) **Jogindra Central Cooperative Bank:** It is also the district central Cooperative Bank of Himachal Pradesh.

DESCRIPTION OF SELECTED COOPERATIVE BANKS OF HIMACHAL PRADESH

TABLE A

Name of selected Cooperative Bank of Himachal Pradesh	Districts where selected cooperative bank branches are situated
1) Himachal Pradesh State Cooperative Bank	Shimla, Bilaspur, Mandi, Chamba, Kinnaur and Sirmaur
2) Kangra Central Cooperative Bank	Kangra, Kullu, Lahual-Spiti, Una and Hamirpur

Source: Bhulal K & Dhanna,S.(2017)

Concept of Non-Performing Assets: Non-Performing Assets is that amount of principal or interest or both which is not recovered by banks within 90 days after the specified due date. In other words, if a bank is not able to recover its principal amount or interest or both from the borrowers within 90 days after the due date, that unrecovered amount is called as Non- Performing Assets. It is the negative indicator for banking growth and development. (Ahmad A & Panwar 2016).³

Assets Classification under NPA

According to RBI Guidelines, the assets are classified into four categories:

- 1) **Standard Assets:** It is that amount of instalment / principal or interest or both which has already recovered by bank within due date from the borrowers. There is no risk except the normal risk attaches to the business in standards assets. So, these assets are not actually NPAs.
- 2) **Sub-standards assets:** since March 31, 2005 Sub-standard assets includes those instalments of principal or interest or both which remain outstanding for a period of equal to one year or less than one year.
- 3) **Doubtful assets:** Since March 31, 2005, that amount of instalment of principal or interest which remained outstanding for more than one year is known as doubtful assets.
- 4) **Loss Assets:** The amount of which there is no possibility of recovery and it is that uncollectible amount of loans & advances which a bankers, external or internal auditors or RBI inspections has identified but still the amount is not yet written off wholly or partially is known as loss assets. Ahmad Z, Jagadeeshwaran (2013)³

Computation of Gross NPA

Gross NPA ratio establishes the relationship between Gross NPA with Gross Advances. The following is the formulae for calculating Gross NPA ratio:

$$\text{Gross NPA Ratio} = \text{Gross NPA} / \text{Gross Advances} * 100$$

Computation of Net NPA Ratio

Net NPA ratio establishes the relationship between Net NPA with Net Advances. The formulae for calculating Net NPA is as follow:(Ahmad, Z & Jegaseeshwaran 2013)⁵

$$\text{Net NPA Ratio} = \text{Net NPA} / \text{Net Advances} * 100$$

REVIEW OF LITERATURE

Sikdar P & Makkad M. (2013)¹ Have found the significance of correlation between NPA and ROA also found the significance of impact of NPA on profitability by collecting secondary data of public & private sector banks and by using mean, standard deviation, correlation and linear regression model. Their study that Gross NPA has significance influence on return on assets negatively. **Narula, S & Singla, Monika, S (2014)**² Have studied the impact of NPA on Banks of PNB by considering annual Reports from 2006-07 to 2011-12. Their study found that there is negative adverse impact of NPA on profitability. **Desai R (2017)**³ have analyzed the trend in sector wise NPAs of priority sectors and also analyzed how sectorial advances in priority sector affect NPA in that sect by considering banks which comprised BANKEEX, a lending bank index by Bombay Stock Exchange are taken as sample. For the analysis of data, they used regression and correlation. Their study found that priority sector has positive relationship with all other variable except service sector lending and capital adequacy ratio. **Yadav Singh M.**⁴ In his study have analysed the impact of NPA on profitability of public sector banks at aggregate level by collecting secondary data using simple linear regression where NPA is independent variable and profitability is dependent variables. Their study found that NPA has adverse impact on profitability. **Ojha A & Jha C (2017)**⁵ have undertaken the study regarding working mechanism of the SBI also analysed the profitability of the SBI by collecting and analysing data. They used capital adequacy ratio, credit deposit ratio, percentage of cost of capital, & Gross NPA ratios, cost to income ratio, net interest margin, average return on asset etc. Their study concluded that rising level of NPA effect negatively in these banks regarding NPAs. **Kaur M & Kumar Phillip B. John K (2018)**⁶ have tested the impact of NPA on the share price of the 10 banks for a period of 10 years by establishing relationship between the said variables by taking top five public sector banks namely SBI, PNB, Bank of Baroda, Camera banks and top 5 private sector banks namely HDFC, AXIS Bank, Kotak Bank, yes bank and ICICI bank and by collecting secondary data from NSE Websites. And data was analysed with the help of correlation and regression analysis. Their study showed that there is highly negative impact of NPAs on the share price of all the banks. **Banerjee R & Verma D (2018)**⁷ established relationship between Net NPA, Net profit and Gross NPA by collecting data from 2010 to 2017. Their study found that mismanagement of the banks is the most responsible factor that contribute to NPA. They considered the business banks in Orissa which comprised of SBI, PNB, ICICI, Andhra Bank and Bank of India arise. **Thakur, V. & Singh, N. (2021)**⁸ found the significance of correlation between NPA and profitability and also impact of NPA on profitability by collecting data of 10 banks both public & private based upon the magnitude of NPAs and by using statistical tools such as Mean, standard deviation, Correlation, Linear Regression Model. Their study found that there is significant impact of Gross NPA on the profitability of both public and private sector banks

On the basis of above reviews of literature, it is found that much of the studies have been undertaken either on public sector banks, or private sector banks. But no major studies have been undertaken on cooperative banks especially in the state of Himachal Pradesh. So the above gap can be filled by conducting study of impact of NPA on the profitability of Cooperative Banks. on the basis of research gaps, the following research questions arise:

- What is the impact of Non-performing Asset on profitability of the selected cooperative banks?
- Is there significant difference between the mean score of Gross NPA and Net Non-performing Assets in selected cooperative banks?

OBJECTIVES OF THE STUDY

- To know the significance of impact of Non-Performing Assets in the profitability of selected cooperative Banks.
- To know the significance of difference in Gross NPA and Net NPA between HPSCB and KCCB.

HYPOTHESIS OF THE STUDY

H0: There is no significant impact of non-performing assets on the profitability of the banks.

H1: There is significant impact of Non-Performing Assets on profitability of the banks.

H0: There is no significant difference of Gross Non-Performing Assets and Net Non-Performing Assets between HPSCB and KCCBs.

H1: There is significant difference of Gross Non-Performing Assets and Net Non-Performing Assets between HPSCB and KCCB.

SCOPE OF THE STUDY

The present study is restricted to Cooperative Banks in the state of Himachal Pradesh. Only Himachal Pradesh Cooperative Banks and Kangra Central Cooperative Banks have been considered for research purposes.

METHODOLOGY OF THE STUDY

Research methodology is the structure of systematic combination of collection of data, analysis & interpretation of data, hypothesis testing, finding & conclusions of the study. There are two important constituents of Non-Performing Assets i.e Gross Non-Performing Assets and Net Non-Performing Assets. The study is conducted in order to know the significance of difference in Gross Non-performing assets and Net Non-Performing Assets between HPSCB and KCCBs., Net NPA of selected cooperative banks from 2011-12 to 2020-21. Secondary data has been collected from Head offices of selected cooperative banks in the form of Annual Financial statements. As far as analysis is concerned, T test has been used in order to know the significance of difference in Gross NPA and Net NPA between HPSCB and KCCB. Linear regression analysis technique has been used in order to know the impact of NPAs on profitability of the selected banks. The value of R² is used to know the portion of variation of profitability that due to Gross Non- Performing Assets and Net Non-Performing Assets. The value of Durbin –Watson is considered to know whether regression model is fit for analysis or not.

LIMITATION OF THE STUDY

The analysis of study is based upon secondary data in the form of Annual Reports. The reliability of data depends upon the originality of data.

RESULTS AND DISCUSSION BASED ON ANALYSIS & INTERPRETATION

TABLE 1.1: MODEL SUMMARY AND ANOVA (F) RESULTS OF SIGNIFICANCE OF IMPACT OF GROSS NON-PERFORMING ASSETS IN THE PROFITABILITY OF HPSCB

Variable /Measures	R	R ²	Adjusted R ²	F-Value	P-Value	Durbin Watson
Gross NPAs	.868	.754	.723	24.503	.001	1.431

a) Predictors: (Constant), GNPA.

b) Dependent Variable: Profit of HPSCB

a. Dependent Variable: PROFITHPCSB

From the above table 1.1 in Model summary, it is found that the value of regression coefficient is 0.868 and the coefficient of determination R² is 0.754 which explains that 75.4 percent variation in profitability is explained by Gross NPA whereas 24.6 percent of variation in profitability is explained by the factors other than Gross NPAs. The value of standard error 2524.38 is relatively low and an indicator of an appropriate predictor regression model. The Durbin Watson statistics for model is 1.431 which lies between 1 to 3 that's why it is found desirable. As the value of Durbin Watson less than 1 and more than 3 is not found desirable. The beta headed by standardized coefficient also shows relative contribution in explaining the dependent variable i.e. profitability. The value of Beta Coefficient is .868 which explains that Gross NPA can explain 86.8% variation in profitability. The ANOVA table found that Gross NPA has significant impact as its P value is .001 which is less than 0.05. That is why the null hypothesis is rejected at 5% level of significance. Hence the conclusion is that the Gross NPA of HPSCB has significant impact on its profitability which supports the results of earlier studies of Arasus et al etc. and Sikdar P & Makkad M.

TABLE 1.2: MODEL SUMMARY AND ANOVA (F) RESULTS OF IMPACT OF GROSS NON-PERFORMING ASSETS IN THE PROFITABILITY OF KANGRA CENTRAL COOPERATIVE BANKS

Variable /Measures	R	R ²	Adjusted R ²	F-Value	P-Value	Durbin Watson
Gross NPAs	.527	.278	.187	3.074	.118	2.433

a) Predictors: (Constant), GNPA.
 b) Dependent Variable: Profit of KCCB
 From the above table Model

From the above table 1.2(a), it is found that regression coefficient is valued at .527 with the coefficient of determination R² is .278 which explains that 27.8 percent variation in profitability can be explained by Gross NPA of KCCB whereas 72.2 percent of variation is explained by other factors. The value of Durbin Watson is 2.433 which lies between 1 to 3 and showed that Regression model is fit. The ANOVA Table found P value .118 which is greater than .05 at 5% significance level so it accepts the null hypothesis and found no significant impact of Gross NPA of KCCB in its profitability. The un standardized coefficient Beta value -.50 found that one percent increase in GNPA by holding other constant variables will lead -.50 % decrease in the profitability of KCCB. So overall, it can be concluded that The GNPA of KCCB has no significant impact on its profitability which contrasts the earlier studies of Ojha A & Jha (2017) but supports the studies of Sikdar P & Makkad M.

TABLE 1.3: MODEL SUMMARY AND ANOVA (F) RESULTS OF IMPACT OF NET NON-PERFORMING ASSETS ON THE PROFITABILITY OF HIMACHAL PRADESH STATE COOPERATIVE BANKS

Variable /Measures	R	R ²	Adjusted R ²	F-Value	P-Value	Durbin Watson
Net NPAs	.816	.665	.624	15.911	.004	1.258

a) Predictors: (Constant), Net NPA.
 b) Dependent Variable: Profitability of Himachal Pradesh state cooperative Banks

From the above table 1.3, it is found that the regression coefficient is .816 with the coefficient of determination R² i.e. 66.5 which explains that 66.6% of the variation in net profitability is explained by net NPA of HPSCB, whereas 33.5% of the variation in Profitability can be explained by other factors. The value of Durbin Watson is 1.258 which lies between 1 to 3 and explains that regression model is desirable. The un standardized coefficient beta value is .453 which explains that 1% change in net NPA leads .45% change in the profitability of HPSCB. The p value of ANOVA is 0.004 which is less than 0.5 and rejects the null hypothesis at 5% level of significance. So overall, it can be concluded that Net NPA of HPSCB has significant impact on profitability of HPSCB which also supports the earlier studies of Narula, S & Singla M and Arasus et al.

TABLE 1.4: MODEL SUMMARY AND ANOVA (F) RESULTS FOR IMPACT OF NET NON-PERFORMING ASSETS IN THE PROFITABILITY OF KANGRA CENTRAL COOPERATIVE BANKS

Variable /Measures	R	R ²	Adjusted R ²	F-Value	P-Value	Durbin Watson
Net NPAs	.432	.187	.085	1.838	.212	2.26

a) Predictors: (Constant), Net NPA.
 b) Dependent Variable: Profitability of Kangra Central cooperative Banks.

From the above table 1.4, it is found that the regression coefficient value is .432 and computed value of coefficient of determination is .187. The value of coefficient of determination R² is .187 which explains that 18.7% variation in profitability is due of Net NPA of KCCB whereas 81.7% variation in profitability is due to other factors. The computed value of Durbin Watson is 2.26 which lies between 1 to 3 and found the regression model desirable. The un standard value of beta coefficient is -.078 which explains that 1% change in Net NPA of KCCB leads to .78% change in its profitability. The ANOVA table significant value is .212 which is more than .05 at 5% significance level and accepts the null hypothesis. So, the conclusion is that Net NPA of KCCB has no significant impact of its profitability which contrasts the earlier studies of Yadav Singh Mahipal and Ojha A & Jha.

TABLE 1.5: AMOUNT -WISE COMPARISON OF MEAN GROSS NON-PERFORMING ASSETS BETWEEN HPSCB AND KCCB

Banks	N	Mean	Std. Dev.	Sig.	T value
Gross NPA of HPSCB	10	38949.3070	13134.55203	.089	-1.797
Gross NPA of KCCB	10	62318.9590	38961.34015		

Source: Annual Reports from HPSCB Head office Shimla and KCCB Head Office Dharmshala.

From the above table, it is found that average score of Gross NPA in HPSCB is 38949.3070 with standard deviation of 13134.55. On the other hand, the average score of Gross NPA in KCCB is 62318.959 with standard deviation of 38961.34015. So, it is found that Gross NPA of KCCB is higher in KCCB a compare to Gross NPA in HPSCB. But as per the inferential result of P value is concerned, it found insignificant difference in the mean value of Gross NPA between HPSCB and KCCB that contrasts the earlier studies of Ahmed & Panwar and Jegadeashwaran M etc.for their selected banks.

TABLE 1.6: AMOUNT WISE COMPARISON IN AVERAGE NET NON-PERFORMING ASSETS BETWEEN HPSCB AND KCCB

Banks	N	Mean	Std. Dev.	Sig.	T value
Net NPA of HPSCB	10	16147.7	8630.98055	.004	-3.341
Net NPA of KCCB	10	39477.23	20326.956		

Source: Annual Reports from HPSCB Head office Shimla and KCCB Head Office Dharmshala.

The average amount of Net NPA in HPSCB is 16147.7 with standard deviation of 8630.98. On the other hand, the mean amount of Net NPA in KCCB is 39477.23 with standard deviation of 20326.956. So, it can be found that the mean score of Net NPA in KCCB is higher than that of HPSCB. But as far as the inferential statistics is concerned, the P value is .004 which is less than .05. So, it found no significance in difference of average score of Net NPA between HPSCB and KCCB which supports the earlier studies of Ahmed & Panwar and Jegadeashwaran M etc. for their selected banks.

FINDINGS & RESULTS

- ❖ It is found the significant impact of Gross NPAs on the profitability of HPSCB as per the result of Regression Model. Moreover, Coefficient of determination also supports the result as more variation in profitability is due to Gross Non-Performing Assets as compare to others factors which supports the results of earlier studies of Arasus et al etc. and Sikdar P & Makkad M.
- ❖ The Gross NPA of KCCB has no significant impact on its profitability as per the result of P value in regression Model and coefficient of determination also supports the same results and profitability is affected by other factors than Gross NPAs which contrasts the earlier studies of Ojha A & Jha (2017) but supports the studies of Sikdar P & Makkad M.
- ❖ Net NPAs also have significant impact in the profitability of HPSCB as per result of Regression Model. Moreover, Coefficient of determination also supports the result as more variation in profitability is due to Non-Performing Assets as compare to others factors which also supports the earlier studies of Narula, S & Singla M and Arasus et al.
- ❖ Net Non-Performing Assets has insignificant impact in the profitability of KCCB as per the result of P value in regression Model and coefficient of determination also supports the same results and profitability is affected by other factors than Net Non-Performing Assets which contrasts the earlier studies of Yadav Singh Mahipal and Ojha A & Jha.
- ❖ Overall Gross NPA and Net Non-Performing Assets have significant impact in the profitability of HPSCB. But have no significance of impact of Gross and Net Non-Performing Assets in the profitability in KCCB.
- ❖ T test found insignificant difference between Gross NPA in HPSCB and KCCB at 5% level of significance which contrasts the earlier studies of Ahmed & Panwar.
- ❖ T test found the significant difference between Net NPA of HPSCB and KCCB as per the results of T test at 5% level of significance which supports the earlier results of Ahmed & Panwar Jegadeashwaran M etc

CONCLUSION OF THE STUDY

It is found that Gross NPA is significantly impacting the profitability of HPSCB whereas the Gross NPA of KCCB is not significantly impacting its profitability. On the other hand, Net NPA is significantly impacting the profitability of HPSCB, whereas Net NPA is insignificantly impacting the profitability of KCCB. In overall, it can be concluded that Gross NPA and Net NPAs have significant impact on the profitability of HPSCB. Whereas Gross NPA as well as Net NPA is not significantly impacting the profitability of KCCB. Moreover, Gross NPA of HPSCB and KCCB have no significance difference whereas Net NPA has significant difference between HPSCB and KCCB.

SUGGESTIONS OF THE STUDY

HPSCB has significant impact on profitability these banks should made proper provision for Non- performing Assets so that there can be no adverse impact of NPA on profitability. As the average mean score of Gross Non-Performing Assets and Net Non-performing Assets is more in KCCB as compare to HPSCB. So KCCB should evaluate the project before sectioning loans and analyse it after the disbursement to magnitude of Non- Performing Assets.

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