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A Study on Operational Efficiency of Banking Sector with special reference to Selected Private Sector Banks in India

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ABSTRACT

Financial institutions particularly banks were considered as a backbone to the economy as well as financial system. The growth of banking sector plays a key role in the economical and social uplifting of the economy. Banks are acting as a channel to implement financial inclusion in the nation and reducing poverty. The economical development of the nation is largely associated with banking sector contribution. An efficient and sound banking system of nations has significant positive externalities, which increase the efficiency of financial transactions and extending financial support to the needy people. For the last couple of years the Indian banking sector banks are facing serious challenges in terms of raising non-performing assets, frauds, misuse of funds and competition with Financial Technology start-ups (Fin Tech). The purpose of this study is to assess the operational efficiency of the selected private sector banks based on the selected financial indicators. Hence these study constituting two year period commencing from 2016-17 to 2017-18.

1. Introduction

The private sector banks play a significant role in economic resource mobilization of an economy. A sound banking system is recognized as a basic need for the social and economical upliftment of the developing economy. Indian financial system is dominated by large number of public sectors banks, private sector banks and foreign banks. Since the banking sector reforms in 1991, a number of significant reforms brought about a tough competition among different sectors of banks both at national and international level. An efficient and sound banking system is also required for sustainable economic development. Today banking sector in India becoming more complex due to raising non-performing assets, frauds, misuse of funds, decreasing operating revenue and decreasing interest income meanwhile banks are struggling in their core activity.

2. Scope of the study

As far as the scope of the study is concerned, the study covers the composition of operational efficiency of selected private sector banks are operating in the country.

3. Objectives of the study

1. To study the operational performance of the selected private sector banks operating in the country.
2. To assess the financial soundness of the selected public sector banks with the help of selected financial indicators.

4. Hypothesis

Null hypothesis (H_0): There is no significant difference between the operational efficiency of selected private sector banks.

Alternative Hypothesis (H_A): There is a significant difference between the operational efficiency of selected private sector banks.

5. Methodology of the study

Methodology describes the research route to be followed, the tools to be used, sample of the study for the date to be collected and the tools of analysis.

Tools for data collection

This study is based on secondary sources of data, the data required for the study has been collected form annual reports of respective banks, Journals, Magazines, Reserve bank of India website and Business Standard-Banking annual February 2019.

Period of the study

The present study covers a period of two years i.e. 2016-17 to 2017-18 financial years.

Sample selection

There are 21 private sector banks are operating in India. The present study was conducted on six selected private sector banks namely Axis Bank, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Lakshmi Villas Bank and YES Bank based on convenience sampling technique.

Tools for data analysis

Data gathered from different sources is analyzed by using the statistical tests of Mean, Standard Deviation and Two-way Analysis of Variance (ANOVA) without replication.

6. Analysis and results

Table-1
Operating Profit, Interest Income, Total Income and Gross Non-performing assets of Selected Private Sector Banks

(In Rs. Crore)

Year	Financial Indicator (Variable)	Axis Bank	HDFC Bank	ICICI Bank	Kotak Mahindra Bank	Lakshmi Villas Bank	Yes Bank
2016-17 2017-18	Operating Profit	17,585 15,594	25,732 32,625	26,487 24,742	5,985 7,158	634 355	5,838 7,748
2016-17 2017-18	Interest Income	44,542 45,780	69,306 80,241	54,156 54,966	17,699 19,749	2,847 3,042	16,425 20,267
2016-17 2017-18	Total Income	56,233 56,747	81,602 95,462	73,661 72,386	21,176 23,801	3,349 3,388	20,581 25,491
2016-17 2017-18	Gross Non Performing Assets	21,280 34,249	5,886 8,607	42,159 53,240	3,579 3,825	640 2,694	2,019 2,627

Source: Business Standard-Banking Annual, February 2019.

Hypotheses

Null Hypotheses:

H_{0A} = μ_1= μ_2= μ_3 i.e. Operating profit do not differ significantly between the banks.

H_{0B} = μ_1= μ_2= μ_3 i.e. Operating profit do not differ significantly between the years.

Alternative Hypotheses:

H_{AA} at least two of the means are different i.e. Operating profit differ significantly between the banks.

H_{BB} at least two of the means are different i.e. Operating profit differ significantly between the years.

Table-2
Two-way ANOVA-Operating Profit in Selected Private Sector Banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	P-value	F-Critical Value
Between Banks	1.32	5	2.65	49.25	0.01	5.05
Between Years	2961127	1	2961127	0.55	0.49	6.61
Error	26851086	5	5370217			
Total	1.35	11				

Critical value μ_1= 5 and μ_2 = 5 = 5.05 at 5% level of significance.
Critical value of μ_1= 1 and μ_2 = 5 = 6.61 at 5% level of significance.

Inference

From the output we know that the calculated value of test statistic F_A = 49.25 is greater than the critical value of 5.05. Hence we reject null hypothesis at 5% level of significance and accept alternative hypothesis. We concluded that operating profit differ significantly between the banks.

The calculated value of the test statistic F_B = 0.05 is less than the critical value of 6.61. Hence we accept null hypothesis at 5% level of significance and reject alternative hypothesis. We conclude that operating profit do not differ significantly between the years.

Hypotheses

Null Hypotheses:

H_{0A} = μ_1= μ_2= μ_3 i.e. Interest Income do not differ significantly between the banks.

H_{0B} = μ_1= μ_2= μ_3 i.e. Interest Income do not differ significantly between the years.

Alternative Hypotheses:

H_{AA} at least two of the means are different i.e. Interest Income differ significantly between the banks.

H_{BB} at least two of the means are different i.e. Interest Income differ significantly between the years.

Table-3
Two-way ANOVA-Interest Income in Selected Private Sector Banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	P-value	F-Critical Value
Between Banks	7.27	5	1.45	181.36	1.20	5.05
Between Years	30305408	1	30305408	3.78	0.11	6.61
Error	40076821	5	8015364			
Total	7.34	11				

Critical value μ_1= 5 and μ_2 = 5 = 5.05 at 5% level of significance.
Critical value of μ_1= 1 and μ_2 = 5 = 6.61 at 5% level of significance.

Inference

From the output we know that the calculated value of test statistic F_A = 181.36 is greater than the critical value of 5.05.

Hence we reject null hypothesis at 5% level of significance and accept alternative hypothesis. We concluded that interest income differ significantly between the banks.

The calculated value of the test statistic F_B = 3.78 is less than the critical value of 6.61. Hence we accept null hypothesis at 5% level of significance and reject alternative hypothesis. We conclude that interest income do not differ significantly between the years.

Hypotheses

Null Hypotheses:

H_{0A} = $\mu_1 = \mu_2 = \mu_3$ i.e. Total Income do not differ significantly between the banks.

H_{0B} = $\mu_1 = \mu_2 = \mu_3$ i.e. Total Income do not differ significantly between the years.

Alternative Hypotheses:

H_{AA} at least two of the means are different i.e. Total Income differ significantly between the banks.

H_{BB} at least two of the means are different i.e. Total Income differ significantly between the years.

Table-4

Two-way ANOVA-Total Income in Selected Private Sector Banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	P-value	F-Critical Value
Between Banks	1.11	5	2.21	143.94	2.13	5.05
Between Years	35614411	1	35614411	2.32	0.19	6.61
Error	76880423	5	15376085			
Total	1.12	11				

Critical value μ_1= 5 and μ_2 = 5 = 5.05 at 5% level of significance.

Critical value of μ_1= 1 and μ_2 = 5 = 6.61 at 5% level of significance.

Inference

From the output we know that the calculated value of test statistic F_A = 143.94 is greater than the critical value of 5.05. Hence we reject null hypothesis at 5% level of significance and accept alternative hypothesis. We concluded that total income differ significantly between the banks.

The calculated value of the test statistic F_B = 2.32 is less than the critical value of 6.61. Hence we accept null hypothesis at 5% level of significance and reject alternative hypothesis. We conclude that total income do not differ significantly between the years.

Hypotheses

Null Hypotheses:

H_{0A} = $\mu_1 = \mu_2 = \mu_3$ i.e. Gross non-performing assets do not differ significantly between the banks.

H_{0B} = $\mu_1 = \mu_2 = \mu_3$ i.e. Gross non-performing assets do not differ significantly between the years.

Alternative Hypotheses:

H_{AA} at least two of the means are different i.e. Gross non-performing assets differ significantly between the banks.

H_{BB} at least two of the means are different i.e. Gross non-performing assets differ significantly between the years.

Table-5

Two-way ANOVA-Gross non-performing assets in Selected Private Sector Banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	P-value	F-Critical Value
Between Banks	3.52	5	7.03	45.02	0.01	5.05
Between Years	73403587	1	73403587	4.70	0.08	6.61
Error	78114643	5	15622929			
Total	3.67	11				

Critical value μ_1= 5 and μ_2 = 5 = 5.05 at 5% level of significance.

Critical value of μ_1= 1 and μ_2 = 5 = 6.61 at 5% level of significance.

Inference

From the output we know that the calculated value of test statistic F_A = 45.02 is greater than the critical value of 5.05. Hence we reject null hypothesis at 5% level of significance and accept alternative hypothesis. We concluded that gross non-performing assets differ significantly between the banks.

The calculated value of the test statistic F_B = 4.70 is less than the critical value of 6.61. Hence we accept null hypothesis at 5% level of significance and reject alternative hypothesis. We conclude that gross non-performing assets do not differ significantly between the years.

7. Findings and discussion

- From the study it was found that operational efficiency has been measured with the help of operating profit, interest income, total income and gross non-performing assets. Hence, as per the study the operational efficiency of all selected private sectors banks has been fluctuated and there was ample change happened in the value of gross non-performing assets of all the selected private sector banks. The non-performing assets are largely influence the operational efficiency and overall financial position of the banking sector.

- It is observed that operating profit of YES Bank has been increased by 32.7%, HDFC Bank by 26.8% and Kotak Mahindra Bank by 19.6%. The other hand operating profit of Lakshmi Vilas Bank has been decreased by 44.0%, Axis Bank by 11.3% and ICICI Bank by 6.6%. It shows operating profit of YES Bank, HDFC Bank and Kotak Mahindra Bank was in increasing trend where as operating profit of Lakshmi Vilas Bank, Axis Bank and ICICI Bank was in decreasing trend in the financial year 2017-18 compare to that off 2016-17.
- It is found that Interest Income of YES Bank has been increased by 23.4%, HDFC Bank by 15.8%, Kotak Mahindra Bank by 11.6%, Lakshmi Vilas Bank by 6.8%, Axis Bank by 2.8% and ICICI Bank by 1.5%. In terms of interest income YES Bank stood first place with a growth rate of 23.4%, HDFC Bank stood second place with a growth rate of 15.8% and Kotak Mahindra Bank stood third place with a growth rate of 11.6%. Hence all the selected private sector banks performed well as per the interest income taken into consideration.
- In terms of total income YES Bank stood first place with a growth rate of 23.9%, followed by HDFC Bank with a growth rate of 17.0% and Kotak Mahindra Bank stood in the third place with a growth rate of 12.4%, followed by Lakshmi Vilas Bank and Axis Bank with a growth rate of 1.2% and 0.9 % respectively, except ICICI Bank (-1.7%) the remaining selected private sector banks performed well as per the total income as a consideration.
- It is found that the gross non-performing assets are increased in all the selected private sector banks during the period of the study. Lakshmi Vilas Bank gross non-performing assets has been increased by 320.8%, Axis Bank by 60.9%, HDFC Bank by 46.2%, YES Bank 30.1%, ICICI Bank by 26.3% and Kotak Mahindra Bank by 6.9%. All the selected private sector banks are suffering a lot with non-performing assets. Hence the management has to concentrate on this segment to reduce non-performing assets to improve the overall soundness of the banking sector.
- It is found that the operating profit differs significantly between the banks and do not differ significantly between the years.
- There is a statistically significant difference between the banks in terms of interest income and there is no significant difference between the years.
- It is found that there is a statistically significant difference between the banks in terms of total income and there is no significant difference between the years.
- It is clear that gross non-performing assets differ significantly between the banks and do not differ significantly between the years.
- The overall financial performance of the selected private sector banks in India is not up to the mark, because all the selected banks were suffered with non-performing assets. Non-performing assets are significantly affecting the operational efficiency of the banking sector. Hence the banks and government should initiate more reforms and measures to control non-performing assets

8. Conclusion

The non-performing assets are a serious problem and threat to the banking sector because it destroys the operational efficiency and entire financial soundness of the banks. If it continues in further the banking sector may lose public interest and credibility. Hence, the Government, Reserve Bank of India and management of banks should make more initiatives, reforms and measures to control non-performing assets and improving the operational efficiency and overall financial performance of the banks.

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