

INFORMATION TECHNOLOGY'S IMPACT ON MANAGERIAL EFFICIENCY AND ASSET QUALITY OF BANKING SECTOR IN INDIA



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ABSTRACT:

Economic development, includes the development of agriculture, industry, trade, transport, means of irrigation, power resource etc. It thus indicates a process of development. This sectoral improvement is the part of the process of development, which refers to the economic development. The key to National prosperity and development lies, in the effective combination of three factors – technology, raw material and capital, of which technology is perhaps the most important, since the creation and adoption of new scientific techniques can, in fact, make up for deficiency in natural resources and reduce the demands of capital. The banking system is one of the few institutions that impinge on the economy and affect its performances for better or worse. The present study has made a comprehensive research regarding the impact of information technology on the managerial efficiency and asset quality of banking sector in India. A sample of 23 banks from various groups has been selected. The



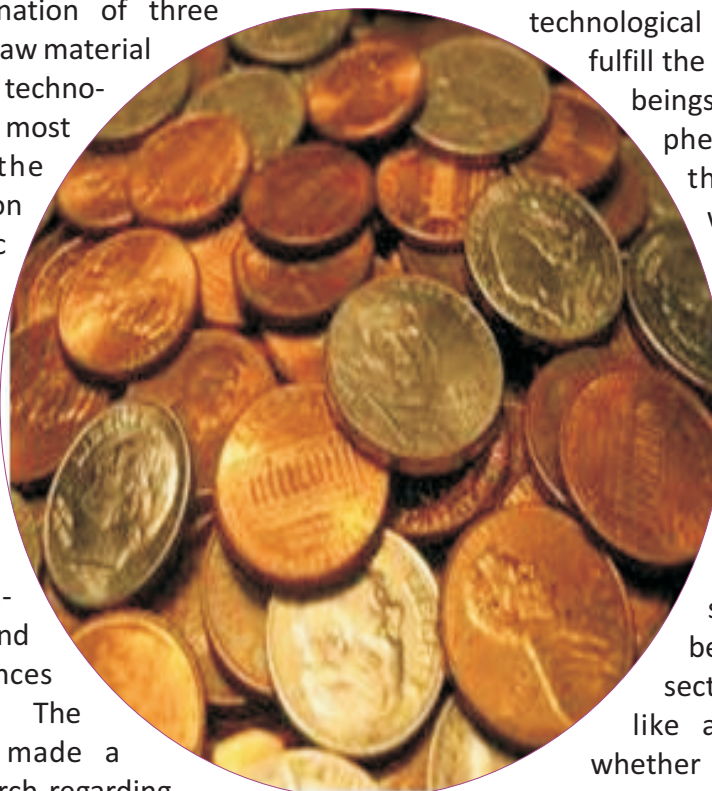
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profitability parameters were applied and the result was analyzed.

KEY WORDS: banking sector, information technology, managerial efficiency, asset quality.

I. INTRODUCTION

Development in the contemporary context is a process whereby minimum progress at the socio-economic, political and technological level is ensured to fulfill the basic needs of human beings. It is also a relative phenomenon based on the comparison between the advanced and the underdeveloped countries. Banking is an important segment of the service providing sector and acts as a backbone of economic progress. The banks render vital services to the masses belonging to the various sectors of the economy like agriculture, industry whether small scale or large scale. The banking system is one of the few institutions that impinge on the economy and affect its performances for better or worse. They act as a development agency and are



the source of hope and aspirations of the masses.

To sum up the commercial banks have become an omnibus institution in the modern times to which people of varied interest's look for help and success. They give life and sustenance to their customers and, in turn, get vitality and vigor from them, to become an effective tool of social transformation and rejuvenation. A succulent and resilient banking system in a country portends health and vigor whereas a sterile and malevolent system results in crippling and straitjacketing of a country's economy.

STATEMENT OF THE PROBLEM:

At a time when the world over was undergoing a radical transformation due to the all pervasive influence of information technology one sector that has undergoing fundamental changes as a consequence of the application of it has been banking. The new technology has drastically altered the traditional ways of doing banking business. It is now felt that in the future, information technology will contribute substantially to the banking industry's efficiency. The present paper has made a comprehensive research regarding the impact of information technology on the managerial efficiency and asset quality of banking sector in India.

OBJECTIVES OF THE STUDY:

To ascertain the managerial efficiency and asset quality of commercial banks before and after the implementation of information technology enabled services.

II. RESEARCH METHODOLOGY

The performance of a bank can be measured by a number of indicators. For measuring the managerial efficiency and asset quality of Indian banking industry, various parameters were selected to analyse the overall efficiency and a comparative study is done between partially computerized era and IT enabled era.

MANAGERIAL EFFICIENCY PARAMETERS

To measure the managerial efficiency the following ratios has been employed:

- a.Credit deposit ratio
- b.Investment deposit ratio
- c.Ratio of net NPA to net advances

ASSET QUALITY PARAMETERS

To measure the asset quality the following ratios has been employed.

- a.Ratio of net interest income to total assets
- b.Ratio of non interest income to total assets
- c.Ratio of operating profits to total assets

III. SAMPLE DESIGN FOR DIAGONISTIC STUDY

The universe of the present study is the Scheduled commercial banks of India. The Indian Banking sector has been divided into five groups and a representative sample of 30% has been selected from each group based on its profitability.

i) Nationalized bank Group:

- a. Punjab National Bank (PNB),
- b. Canara Bank (CB),
- c. Bank of India (BOI),
- d. Bank of Baroda (BOB)
- e. Indian Overseas Bank (IOB)
- f. Oriental Bank of Commerce (OBC).

ii) SBI & its Associates bank Group:

- a. State Bank of India (SBI)
- b. State Bank of Indore (SBID).

iii) Old private sector bank Group:

- a. Federal Bank Ltd (FB)
- b. Jammu and Kashmir Bank Ltd (J&KB)
- c. Karnataka Bank Ltd (KB)
- d. South Indian Bank (SIB)
- e. Tamil Nadu Mercantile Bank Ltd., (TMB).

iv) New private sector bank Group:

- a. ICICI Bank Ltd (ICICI)
- b. HDFC Bank Ltd (HDFC).

v) Foreign banks:

- a. Standard Chartered Bank (SCB)
- b. Citibank NA (CIB)
- c. HSBC Ltd (HSBC)
- d. ABN – Ambro Bank NV (ABNB)
- e. Deutsche Bank AG (DB)
- f. Bank of America (BOA)
- g. JP Morgan Chase Bank (JPMCB)
- h. Barclays Bank PLC (BB).

DATA ANALYSIS TECHNIQUE FOR DIAGNOSTIC STUDY

The study uses Ratio analysis to compare the performance of different categories of banks. Ratio analysis is a powerful tool of financial analysis. The diagnostic analysis was carried out by using Ratio analysis, statistical analysis using mean, standard deviation, annual compound growth rate, Pearson's correlation and paired "t" test.

PERIOD OF STUDY:

Thus the period under study is divided into two parts. The first period is called as partially computerized era which includes the period from 1998-1999 to 2003-2004. This period is considered to be representative enough to indicate the broad trends of the performance of the banks in the period of partial computerization of Banks in India. The second period is called the Information Technology enabled era which included the period from 2004-2005 to 2009-2010. The reason for limiting the study

to the year 2009-2010 is that Reserve Bank of India takes minimum one year to report the latest statistics in the required format.

SOURCES OF DATA:

Secondary information have been collected from various relevant issued of statistical Tabled Relating to Banks, Report on currency and Finance, published by the Reserve Bank of India and Database on Indian Banking published by Indian Banking Association. In addition to it, some information is also collected from the different relevant issues of Economic survey published by the Government of India and other books and journals.

IV. FINDINGS OF DIAGNOSTIC ANALYSIS

The findings of the diagnostic analysis have been enlisted as under:

MANAGEMENT EFFICIENCY PARAMETERS: The analysis of various indicators had been enlisted below:

1. It was concluded from the ratio analysis of that of the indicator Credit-Deposit ratio the nationalized bank group (Group 1), the Oriental Bank of commerce, had the highest growth rate of 180 in the IT enabled era, in the SBI & its Associates bank group (Group 2), the State Bank of India had a growth rate of 43 and the State Bank of Indore had a growth rate of 30. Of the old private sector bank group (Group 3), the Jammu & Kashmir Bank recorded the highest growth rate of 228. In the new private sector bank group (Group 4), the ICICI Bank had the highest credit deposit growth of 154. The correlation analysis for the indicator Credit-Deposit ratio revealed that the SBI & its Associates bank group (Group 2) and new private sector bank group (Group 4) had highest correlation value of 1.

2. Thus from the ratio analysis of investment – Deposit ratio it was concluded that with regard to the indicator investment – deposit ratio, in the Nationalized bank group (Group 1), the Oriental Bank of Commerce had the highest growth rate of 49, in the SBI & its Associates Bank group, the State Bank of Indore had a growth rate of 40, in old private sector bank group (Group 3) Tamil Nadu Mercantile Bank had a growth rate of 21, of the new private sector banks (Group 4), the HDFC Bank revealed a highest growth rate of 42. In the foreign bank group (Group 5), the Bank of America had the highest growth rate in investment – Deposit ratio of 116. It could be inferred from 4.54 that the introduction of Information Technology had a positive impact on SBI & its Associates bank group (Group 2) with a 't' value of 3.749.

3. It was concluded from the ratio analysis of the indicator Net NPA to Net Advances ratio that in the nationalized bank group (Group 1), the Bank of Baroda had the lowest growth rate of 79 and a CGR of (-30.81%). In the SBI & its Associates bank group (Group 2), had a growth rate of 68 and a CGR of -7.95% in the IT enabled era, in the old private sector bank group (Group 4), the Karnataka bank had the lowest growth rate of 43 and a CGR of -16.82%. Similarly, in the new private sector bank group (Group 4), the HDFC had a growth rate of 37. Among all the banks in the Foreign bank group (Group 5), the HSBC bank had the lowest growth rate of 34. The paired 't' test revealed that the old private sector bank group (Group 3) had a significant value of 3.946.

ASSET QUALITY: The analysis of various indicators had been enlisted below:

1. It was concluded from the ratio analysis of the indicator ratio of Net interest income to Total Assets that in the Nationalized bank group (Group 1), the Indian Overseas Bank registered a growth rate of 47, in the SBI & its Associate Bank group (Group 2), the State Bank of Indore had the highest growth rate of 99. Of the old private sector Bank group (Group 3) the South Indian Bank (736), recorded highest

growth rate in its group. In the New Private sector Bank group (Group 4) both HDFC Bank (32) and ICICI Bank (35) had performed equally well. In the foreign Bank group, Barclays Bank registered the highest growth rate of 4738. The results of correlation analysis with regard to ratio of Net interest income to Total Assets revealed that the new private sector bank group (Group 4) had the highest correlation coefficient of 1. The analysis of paired 't' test at 5% level of significance with regard to the indicator Ratio of Net interest income to Total Assets revealed that the nationalized bank group (Group 1) had the highest significant 't' value of 2.799

2. Thus it was concluded from the ratio analysis of the indicator ratio of non-interest income to total assets, that in the Nationalized bank group (Group 1), the Canara bank had registered the highest growth rate of 147 in the IT enabled era. In the SBI and its Associates Bank group (Group 2) the State Bank of Indore had a growth rate of 53, in the new private sector Bank group (group 3) the South Indian Bank revealed the highest growth rate of 687. As far as the new private sector Bank group (Group 4) is concerned, the HDFC Bank had a growth rate of 68 in the IT enabled era. In the Foreign Bank group (Group 5), the JP Morgan chase Bank had the highest growth rate of 635. The correlation analysis revealed that the new private sector bank group (Group 4) had the highest positive correlation of 1, An analysis of paired 't' test at 5% level of significance revealed that information technology had a significant impact on nationalized bank group (Group 1) with a significant 't' value of 4.849.

3. Thus it was concluded from the ratio analysis of the indicator ratio of operating profits to total assets that, in the nationalized bank group (Group 1) the Canara Bank had a growth rate of 1414 in the IT enabled era. In the SBI and its Associates Bank group (Group 2), the State Bank of Indore revealed the highest growth rate of 96. In the old private sector Bank group (Group 3) the Jammu and Kashmir Bank had growth rate of 780. In the New private Sector Bank group (Group 4) the HDFC bank had a growth rate of 10 and a CGR of 2.32%, of the Foreign Bank group (Group 5) the Citi Bank had the highest growth rate of 192. The results of correlation analysis revealed that the new private sector bank (Group 4) had the highest positive correlation of 1. The results of the paired 't' test revealed that the SBI & its Associates bank group (Group 2) had the highest significant value of .494.

V. CONCLUSION

Increasing competition has become a challenge for Indian banks but it also provides thoughtful opportunities to develop the banking business as per international standards. It is important to recognize that banks in India are not large enough to function efficiently under the emerging environment to undertake sufficient investment in skill formation and to come up and experiment with innovative ways of exploiting the opportunities and meeting the challenges thrown up under a rapidly changing economic scenario. As Information Technology provides efficiency and reduced costs with more satisfied customers and employees, then banks must exploit this opportunity as differentiating strategy to gain more competitiveness. The technology holds the key to future success of Indian banks as India could leap-frog into internet banking quicker than the United States provided Indian banks grab the opportunity. Therefore, Information Technology is the need of the hour, which can't be lost sight of except at the cost of elimination from the competition. The lack of penetration of computers in the country is not a stumbling block in this case but it can happen without wiring up the entire country. The real bottleneck is mind set, unawareness and security concerns. If we overcome these factors, we can enjoy the much superior cost structure the Information Technology provides.

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