Indian Banks: Transformation Through E-Delivery Channels - Challenges and Opportunities

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Abstract

The severe crises of 1991 gave birth to the new economic thought in the country. A bundle of measures were taken to remove the various deficiencies and rigidities in the Indian economy. Hence, new economic policy was introduced to mold the Indian economy to the right path. Financial sector reforms and banking sector reforms are the part and parcel of economic reforms, which strengthen the economic reforms. Under the regime of banking sector reforms, IT Act of 1999 gave new dimensions to the Indian banking sector. IT has created transformation in banking structure, business process, work culture and human resource development. It affected the productivity, profitability and efficiency of the banks to a large extent.
The present paper analyzes the major parameters of productivity, profitability of major banks in the pre and post e-banking period. The paper concludes that performance of all the banks under study is much better in post-e-banking period and further foreign banks are at the top position, whereas the performance of the public sector banks is comparatively very poor. The paper suggests some measures to tackle the challenges faced by the banks particularly public sector banks. At the end, paper suggests how public sector banks can convert the emerging challenges into opportunities?

Keywords: [Indian Banks, E- Delivery Channels]

Introduction

Strengthening the financial sector and improving the functioning of financial markets have been the core objective of the financial sector reforms in India. The significant transformation of the financial system in the country is clearly evident from the changes that have occurred in the financial markets, institutions and products.
The country witnessed in 1990 an economic crisis leading to a fast decline in the GDP, a high rate of inflation, adverse BOPs due to a widening gap in the current account deficit and a decline in the foreign exchange reserves. The country had to borrow resources from foreign central banks and other foreign government agencies against the pledge of gold so as to avoid a default on international indebtedness. There were some banking sector deficiencies ahead the economy, which were adversely affecting the economic growth of our country such as low productivity and profitability, some public sector banks have been incurring losses year after year, poor customer service, outdated work technology etc.
Keeping in mind all these distortions in the economic, financial and banking sectors, the government of India and the RBI thought it was necessary to introduce reforms in the financial and baking sector also, so as to promote rapid economic growth and development with stability through the process of globalization, liberalization and privatization in the financial system to make the financial system more competitive and gets integrated with the world economy through internationalizations of financial markets in the world.

Banking Sector Reforms

The government of India, under the chairmanship of Sh. M. Narasimham, an Ex-Governor of RBI, appointed the Narasimham Committee-I (NC-I) in April 1991. The committee examined all the aspects relating to the structural organization, functions and procedures of financial system and submitted its report on November 16, 1991. A number of reform initiations have been taken to improve or minimize the distortions impinging upon the efficient and profitable functioning of banks.

These reforms have improved the banks' performance in an excellent way but due to the cataclysmic changes taking place in the world economy towards globalization, there was need to inject other doze of reforms. Hence, second phase of banking sector reforms are initiated by NC-II in 1998 and these reforms are continuously regulating the entire banking system till date.

Objectives

The present paper analyzes the impact of IT on the transformation of banks during the second phase of banking sector reforms. The specific objectives of the paper are:

1. To study the process and contents of bank transformation in the regime of post-second banking sector reforms.
2. To analyze the comparative performance of public sector banks, new private sector banks and foreign banks in pre and post e-banking period.
3. To study the challenges and opportunities for the banking industry particularly to the public sector banks.

Hypothesis

1. The performance of all the banks under study is significantly better in post-e-banking period than pre-e-banking period.
2. The performance of foreign banks is significantly better than new private sector banks and public sector banks.
3. The performance of new private sector banks is significantly better than public sector banks.

Research Methodology

The present paper is concerned with the Indian banking industry. Total nine top banks have been selected on the basis of their market share in business in 2003-04, three banks from each bank group i.e. public sector banks, new private sector banks and foreign banks.

Selected Banks

Public Sector Banks	New Private Sector Banks	Foreign Banks
State Bank of India (SBI)	HDFC Bank	Citibank
Bank of Baroda (BOB)	ICICI Bank	Standard Charted Bank (SCB)
Canara Bank (CB)	Axis Bank	The Hongkong and Shanghai Banking Corporation (HSBC)

To compare the performance of selected banks in pre and post e-banking period, ratio analysis method is used. The following ratios are analyzed to examine the performance of the selected banks.

Labour Productivity Ratios

(a) Deposits per Employee
(b) Credits per Employee
(c) Business per Employee

Branch Productivity Ratios

(a) Deposits per Branch
(b) Credits per Branch
(c) usiness per Branch

Profitability Ratios

(a) Spread as Percentage of Working Funds
(b) Burden as Percentage of Working Funds
(c) Net Profit as Percentage of Working Funds

The study is concerned with the second-post banking reforms period i.e. 1998-99 to 2003-04. The time period is further divided into two parts i.e. pre-e-banking period (1998-2001) and post-e-banking period (2001-04).

Bank Transformation and Information Technology

The second banking sector reforms gave much importance to the modernization and technology up gradation. The IT Act, 1999 started the speedy process of e-banking. Transformation started to take place in number of aspects such as structure, HRD, IT etc.

Bank Transformation

The term transformation in Indian Banking Industry relates to intermediately stage when the industry is passing from the earlier social banking era to the newly conceived technology based customer - centric and competitive banking. The activities of banks have grown in multi-directional as well as in multi-dimensional manners. During transformation, all known parameters of the earlier regime continuously change like:

(i) Capital Restructuring (ii) Financial Re-engineering
(iii) Information Technology (iv) Human Resource Development

Bank Transformation/ Stages of Transformation In Indian Banks

Stage of Transformation	Structure of Banks	Objectives of the Banks	Nature of Technology Used
Pre- Nationalization of Banks (before 1969)	Private Control of Banks	Higher Profitability	Manual Work
Post- Nationalization of Banks (1969 - 90)	Control of Govt.	Social banking	Limited Computerization
Economic Reforms (1991- 2000)	- Entry of Foreign and NPSBs - Social Banking to IT Based banks	- Higher Profitability - Fierce Competition	E - Banks
Current Stage	Implementation of various committees reports	- New Products and Services - Entry in Insurance - CRM with IT	- Maximum use of IT - Mobile ATMs

Process of Transformation

Parameters of Transformation	Process	Implications
Structure Business Re-engineering Human Resource development Work Culture Information Technology System, Process and Procedures Ethos/Philosophy	IT as the catalyst of Transformation	- Improved and efficient structure - Improved vision for business -Productivity, profitability and efficiency has increased - Innovations are taking place - International outlook - Inspire employees - More ethical work culture - Vision for global economy

Information Technology

Delivery of bank's services to a customer at his office or home by using electronic technology can be termed as e-banking. The quality, range and price of these e-services decide a bank's competitive position in the industry. The virtual financial services can be largely categorized as follows:

Automated Teller Machines:

- Cash withdrawals
- Details of most recent balance of account
- Mini-statement
- Deposit facility
- Payments to third parties

EFTPoS: EFTPoS card used to initiate transactions:

- Authorization and transaction capture processes take place electronically.
- Transaction confirmed manually.
- Funds not debited electronically.

Remote Banking Services:

- Balance enquiry
- Statement ordering
- Funds transfer (payment) to third parties
- Funds transfer between customer's different accounts
- Order traveler's cheques and other financial instruments.

Smart Cards:

- One smart card can contain the functionality of several different types of cards issued by different banks while running different types of networks.
- Smart card a truly powerful financial token, giving user access
- Debit facility
- Charge facilities
- Credit facilities
- Electronic purse facilities at national and international level.

Internet Banking: The latest wave in IT is Internet banking. It is becoming more obvious that the Internet has unleashed a revolution that is affecting every sphere of life. Being an interactive two-way medium, the Net, through innumerable websites, enables participation by individual in B2B and B2C commerce, visits to shopping malls, books-stores, entertainment sides, and so on cyberspace.

Results and Discussion

Labor Productivity:

Public Sector Banks

Labor productivity brings in light employee's capacity to produce. The productivity in terms of business per employee of all the three public sector banks is increased almost double time in all the three banks during partially e-banking period i.e. 2001-04 as compared to that in non-e-banking period i.e. 1998-2001, whereas variations in terms of co-efficient of variations are maximum in non-e-banking period. From all the three public sector banks, Bank of Baroda shows the highest productivity in both the durations i.e. Rs.1.53 lakhs during 1998-2001 and Rs.2.57 lakhs during 2001-04 as compared to that of other two banks.

New Private Sector Banks

All the three new private sector banks show increase in their productivity in partially e-banking period from non-e-banking period except UTI Bank, which shows decrease in its productivity. Variations are maximum in non-e-banking period in all the selected banks. Although, productivity of UTI Bank is decreased, even it shows the highest labor productivity in both the durations i.e. Rs.11.41 lakhs during 1998-2001 and Rs.9.79 lakhs during 2001-04 whereas ICICI

Bank is following UTI Bank with labor productivity of Rs.7.83 lakhs and Rs.9.53 lakhs respectively during both the durations.

Foreign Banks

Labor productivity is increased in all the selected foreign banks in all the years under study and variations are maximum in non-e-banking period. It shows increase almost of Rs.2-3 lakhs during the e-banking period as compared to that during non-e-banking period. It is the highest in Citibank i.e. Rs.12.70 lakhs during 1998-2001 and Rs.17.32 lakhs during 2001-04 with the major difference from the other banks whereas SCB shows Rs.8.05 lakhs and HSBC Rs.6.86 lakhs during 2001-04.

Branch Productivity

Public Sector Banks

The branch productivity of public sector banks, which depicts the capacity of a branch to produce, is also higher during partially e-banking period in all the banks as compared to non-e-banking period, whereas variations are maximum in non-e-banking period in all the banks under study. It is the highest in SBI i.e. Rs.33.29 cr. during 1998-2001 and Rs.47.93 cr. during 2001-04 and Canara Bank is following the SBI with Rs.47.01 cr. business per branch during 2001-04 where Bank of Baroda shows Rs.37.65 cr. productivity ratio.

New Private Sector Banks

The branch productivity of new private sector banks is higher during e-banking period as compared to non-e-banking period in case of HDFC Bank i.e. Rs.148.39 cr. during 2001-04 that comes up from Rs.102.42 cr. during 1998-2001, where ICICI Bank shows increase from Rs.127.22 cr. to Rs.242.03 cr. almost double, but UTI Bank shows decrease in its branch productivity from Rs.166.32 cr. to Rs.164.21 cr. during the non-e-banking and partially e-banking period respectively. Overall, branch productivity is the highest in case of UTI Bank during 1998-2001 i.e. Rs.166.32 cr. but during 2001-04 ICICI Bank leads to other banks with Rs.242.03 cr. with an excellent growth in its productivity.

Foreign Banks

The branch productivity shows fluctuations in all the three foreign banks in all the years but in case of Citibank it is decreased from Rs.1631.34 cr. during 1998-2001 to Rs.1396.22 cr. during 2001-04 with 12.82 pc fluctuations in terms of co-efficient of variations. SCB and HSBC shows increase in their branch productivity during the e-banking period over the non-e-banking period. Overall, it is the highest in both the durations in Citibank i.e. Rs.1396.22 cr. in 2001-04 even it shows decrease in its productivity, both the other banks followed this bank.

Overall, it can be concluded that labor productivity and branch productivity is better, showing excellent growth during the e-banking period as compare to non-e-banking period. New electronic techniques are used to attract more and more customers especially, e-channels are used to meet the increasing expectations of the customer. On the other hand, labor and branch productivity is the highest in all the foreign banks with Citibank at the top position, new private sector banks are following foreign banks even in case of ICICI Bank & UTI Bank, and labor productivity is more as compared to that of SCB & HSBC. Public sector banks are far behind the foreign banks and new private sector banks with large extent of difference, which cannot be ignored, mainly due to their non-electronic work culture.

Profitability Ratios

Public Sector Banks

Profitability of public sector banks is decreasing during 1998-2001 i.e. non-e-banking period, but it shows increasing trend in the partially e-banking period i.e. 2001-04, resulting more profitability in partially e-banking period as compared to that in non-e-banking period. But profitability of Canara Bank is increased almost three times, it shows the highest profitability during 2001-04 i.e. 1.20 pc, even it is the least during 1998-2001 i.e. 0.44 pc, one reason is decrease in its burden, where Bank of Baroda shows the highest 0.70 pc during 1998-2001 following Canara Bank with 0.97 pc profitability ratio in 2001-04. Overall, Canara Bank shows much better profits having positive impact of technology.

New Private Sector Banks

Profitability of all the three new private sector banks shows fluctuating trend, it is more in e-banking period in ICICI Bank & UTI Bank but lesser in case of HDFC Bank as compared to the profitability during non-e-banking period. Profitability variations are the highest during non-e-banking period. Profitability of HDFC Bank is decreased during partially e-banking period i.e. from 1.42 pc to 1.24 pc mainly due to decrease in spread which is further witnessed by falling interest income, but even shows the highest profitability as compared to ICICI Bank i.e. 0.90 pc and UTI Bank i.e. 1.02 pc during 2001-04.

Foreign Banks

Profitability of selected foreign banks shows fluctuating trend during the study period but with tremendous increase in their profitability during partially e-banking period. Profitability of all the three banks is higher during 2001-04 as compared to that during 1998-2001. Fluctuations are maximum during non-e-banking period in Citibank but these are the highest during 2001-04 in case of other banks. Profitability of SCB is the highest during 1998-2001 i.e. 1.84 pc and during 2001-04 i.e. 2.22 pc followed by Citibank with 1.37 pc and 1.66 pc profitability respectively during both time periods. Overall, profitability of all the foreign banks is increased mainly due to their check on burden.

It can be concluded that profitability of foreign banks is the highest with SCB at the top position, where new private sector banks are following foreign banks, initiated to fill this gap but profitability of public sector banks is far behind the profitability of foreign banks and new private sector banks. Even then all the three bank groups show increase in their profitability during e-banking period.

Testing of Hypotheses

The table given below indicates that performance of almost all the banks is significantly better in the e-banking period except some banks.

Table: Testing of Hypothesis in Employee Productivity, Branch Productivity and Profitability during Pre and Post e-banking Period (t-test)

Banks	Employee Productivity	Branch Productivity	Profitability
SBI	12.96*	24.43*	2.08
BOB	311.00*	18.37*	1.22
CB	22.94*	15.50*	7.05*
HDFC	4.80*	4.14*	0.69
ICICI	1.24	2.37	0.10
UTI	1.69	0.28	3.95*
Citibank	1.63	2.09	1.10
SCB	4.12*	0.90	1.39
HSBC	5.58*	3.37*	0.68

Note: * Significant at 5 percent level (2-tailed)

This table indicates that the performance of foreign banks is better than new private sector banks and also public sector banks. Similarly, the performance of new private sector banks is better than public sector banks.

Table: Statistical Analysis of Comparative Performance of Selected Banks of Three Bank Groups (t-test)

Banks	Employee Productivity	Branch Productivity	Profitability
Citibank & HDFC	5.85*	11.76*	2.81*
Citibank & SBI	12.09*	12.07*	9.55*
HDFC & SBI	11.58*	171.98*	6.14*

Note: * Significant at 5 percent level (2-tailed)

Future Areas of Indepth Research

1. Study of performance of each e-channel at bank and bank group level separately.
2. Study of cost-benefit analysis of IT related aspects.
3. Study of quality of customer service through e-banking services.
4. Feasibility of e-banking in rural and semi-urban areas especially the management of transformation.

Conclusion

The paper concludes that transformation is taking place almost in all categories of the banks. This transformation will helpful to cope with new economic and financial policies of the banks. IT is playing a crucial role to create the drastic changes in the banking industry particularly in the new private sector and foreign banks. The private banks take a big share of cake; our public sector banks are still lagging behind regarding the various financial parameters. The immense opportunities are also available for the public sector banks if they change/modify and adopt new policies to combat the different recent challenges.

It can be concluded that mere introduction of IT alone will no be sufficient to bring necessary performance improvement and to get the competitive edge. Intelligent people are required to use such intelligent tools. Thus, even though IT management is a challenge flow in future banking scenario, marketing not technology is going to be the challenge.

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