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# Impact of Banking Technology on performance of Private and Public sector Banks in Belgaum District- A case study from Banker's perspectives

## Abstract

*The service sector, especially, banking sector plays a predominant role in the economic development of our country. In view of liberalization measures, new private and foreign banks emerged and equipped with the latest technology in increasing profitability, productivity, employees' efficiency and customer services. The objective of the study is to examine the impact of bank technology on the performance of private and public sector banks in Belagavi district. The study emphasized on virtual banking services such as ATM, online banking, mobile banking, telephone banking, RTGS, NEFT, mobile van ATM in the sample district. The hypotheses tested on the banking variables like Deposits, Advances, CD ratio, income, expenditure, profit/loss, assets and liabilities of public and private sector banks. This study is based on the primary data the information elicited through structured pretested questionnaire from sample saver using Likert's Five-point scale. The tools used are standard deviation, correlation coefficient, linear regression and T-test to test the hypotheses. There is positive impact of technological services with that of selected variables and on services rendered by banking institutions. It is suggested in the study that, both public sector and private sector banks have to initiate their employees to increase the banking business to improve the CD ratio and reduce their expenses.*

## Introduction

The transformation from brick and mortar banking to technology driven banks has been fairly rapid during the last two decades. In the post-reform period entry of technology in the Indian banking sector can be traced back to the Rangarajan Committee report, way back in the 1980s but during nineties, the banking sector witnessed various liberalization measures. New private sector and foreign banks emerged and equipped with the latest technology. These banks opted for a different model of having a single centralized database through a network infrastructure, instead of having multiple databases for all their branches. These changes were market driven, having the influence of globalization.

The crux is in Indian banks have no control over developments abroad but are subjected to their effects. Hence, these changes were not the outcome of internal changes but of external changes. Deregulation has opened up new vistas for banks to increase revenues by diversifying into investment banking, insurance, credit cards, mortgage financing, depository services,

securitization, etc. Now, all the banks have started services with the concept of multi- channels, like ATMs, credit cards, debit cards, telephone/mobile banking, internet banking, call centers, etc. Technology transformation in banking sector brought a drastic change in banking structure, business process, and employees work culture, which in turn helps to increase in the level of business and profitability of the banks. The change in the system brought effect on profitability, productivity and efficiency of employees to a larger extent on banking business. The Internet brought a drastic change in banking services and a major impact noticed on the banking relationship with their customers. Bank web site is providing important banking information to their retail customers as well as to many other industries at their convenience. In recent past, banking sector has given its attention towards innovative products and services as well as socio-banking activities such as home loan, vehicles loan, personal loans mortgage loans, education loans and similar other products and services offered for the benefit of customers.

The technology is the base for facilitation of banking services at the door-steps of the customers quickly and promptly. It was the payment system, which was the first segment of banking system, benefited a lot from the introduction of the new technology. The introduction of Technology related products in banking, electronic payments, security investments, information exchanges have helped in reduction of product cost, enhancement of efficiency and productivity are the strong pillars of analyzing banking performance. Internet has emerged as an important medium for delivery of banking products and services and it helps banks to conduct standardized, low value-added transactions like bill payments, balance inquiries, account transfer through the online channel, while focusing their resources into specialized, high-value added transactions like small business lending, personal trust services, investment banking through branches.

The term transformation in Indian Banking Industry is shifting from the earlier social banking era to the newly conceived technology based customer-centric and competitive banking. The activities of banks have grown in multidirectional as well as in multi dimensional ways. During transformation, all known parameters of the earlier regime continuously change. The virtual banking services in sample area can be largely categorized as follows:

1. **Automated Teller Machine:** Automated Teller Machine is a machine which allows people to take out money from their bank account by using special card in a synchronous transfer with the help of digital communication. It provides an opportunity for banks to

go for competition and cost effective modes. It provides services like cash deposit, cash withdrawal, request for new cheque book, transfer of funds, paying utility bills, order for cheque book, checking balance credited in the customers' account, change of pin number, mini statement and balance enquire.

2. **Online Banking/Net banking:** It is an electronic system that enables the bank customers to conduct a range of banking transactions through bank institution web site with the help of internet facility. A customer can perform non-transactional tasks viewing of account balance, recent transactions, downloading of bank statement, viewing images of paid cheques, ordering of cheque books, periodic account statements etc. In addition, funds transfer between the customers' linked accounts, bills payment, applying for loans, repayment of loans, credit card applications, advertisements of bank products, stop cheque payments, change of password.
3. **Mobile Banking:** Mobile banking is a type of banking technological facility used through smart phone device to perform online banking tasks while away from computer or laptop, to check/ monitoring of account balance, transfer of funds, bill payments, receiving alert calls, depositing a cheque to customer accounts electronically using mobile phone, download of loan application.
4. **Telephone Banking:** Telephone banking is a service provided by a bank that enables customers to perform over the telephone a range of financial transactions which do not involve for cash or documents (such as cheques), without the need to visit a bank branch or ATM. Telephone banking times are usually longer than branch opening times, and some banks offer the service on a 24-hour basis. The telephone banking performs the services like, balance enquiry, stop payment instruction, seeking information with respect to different bank products, D-mat account details, cheque related services, intra-bank fund transfer, enquiry of interest rates, ATM locator, request for demand draft so on.
5. **Real Time Gross Settlement (RTGS):** It enables money to move from one bank to another on a real time and gross basis. Real time means the beneficiary bank receives the instructions for fund transfer immediately and gross means that it is not bunched with any other transaction and settlements of funds transfer instructions happen individually. Since the funds settlement takes place in the books of the Reserve Bank of India (RBI), keeping

in mind that the payments are final and irrevocable. The bank branches, both at the initiating and receiving end, have to be RTGS-enabled for the transaction to be processed. Customers with Internet banking accounts can do RTGS transactions on their own.

6. **National Electronic funds Transfer(NEFT)** :It is one of the important methods of money transfer from one bank or branch to another. The banks or their branches support such transactions to transfer fund through NEFT Network.

7. **Mobile Van ATM:**

Mobile ATM is operated in van or/bus a machine is accompanied by a person who hands over customers. If the customers unable to withdraw money in any bank or ATM centers due to long standing queue and mobile banking van provide essential cash to customers in needy hours. These mobile vans are deployed banking services nearby vegetable market, old age homes, housing societies, corporate houses. These ATM's are present at particular place for an hour or two and moved to next place to disburse the cash.

**Akinlolu Agboola et al. (2001).** The positive impact on adoption and usage of technology results into increase in revenue, improve competitive strength, enhances proper market segmentation, ensure modernization and demand forecasting. The attitude towards ITC is significant for quality of bank operations. It is essential for bank management to invest in technology which facilitates speed, convenience, and quality service.

**Rajesh Tiwari and Rakesh Kumar (2012)** The E-banking has challenges like, IT could turn out to be a threat to secure employment, difficult to expand its branches to remote area, inability of banks to retain the trained and talented personnel etc. The Indian banks lag far behind the international banks in providing online banking to remote area.

**Saeid Khajeh Dangolani (2011)** Extent of technological use included benefits of ATM use being satisfactory, customers not facing problems from ATM use, rare use of ATM for items depositing currencies, paying routine bills, accessing mini statements. ATM use abroad for items being satisfactory, ATM being reliable and CRBs not benefiting the customers. Commercial Banks should review the policy; rate of charges on the use of technology, educate customers about the benefits of ATM.

**Adekunle Oluwole Binuyo and Rafiu Adewale Aregbeshola (2014),** the use of ICT increases return on capital employed as well as return on assets of the sample banks. The study

discovers that more performance contribution comes from information and communication technology and cost efficiency compared to investment in information and communication technology. Banks emphasize policies that will enhance proper utilization of existing ICT equipment rather than additional investments.

**Allen N. Berger (2003)** The evidence on technological progress and its impact on the performance banking sector signifies the changes in structure of the commercial banking industry and a significant growth in use of new technology. By consolidating banks' profit, efficiency and risk-expected return frontiers, were able to spread the provision of new or improved banking services.

**Alhaji Abubakar Aliyu, Rosmaini Bin HJ Tasmin (2012)** examined on the impact of technology on banks' performance and customer delivery services. Electronic banking gained a momentum in enhancing banking transactions to increase customer delivery system. Reduce payroll expenses, Increase market share, Increase revenue and profit of the bank.

### **Objectives of the study**

The present study has been planned with the following specific objectives;

- To study the technological services offered by strata bank in the study area.
- To assess the performance indicators of private and public sector bank.
- To examine the problems encountered by sample banks in providing technology services.
- To evaluate the impact of technology on banking services offered.
- To streamline the appropriate suggestive measures

**Hypotheses:** The study intends to test the following hypotheses;

- **Ho:** There is no significant difference between public sector and private sector banks with respect to Deposits, Advances, CD ratio, Income , Expenditure , Profit/loss , Assets and Liabilities (Hypothesis-1)
- **Ho:** There is no significant difference between public sector and private sector banks with respect to number of technological services provided.( Hypothesis-2)
- **Ho:** There is no significant Correlation coefficient between technological services with respect to Deposits, Advances, CD ratio, Income, Expenditure, Profit/loss Assets and Liabilities in public banks (Hypothesis-3)

- **H<sub>0</sub>**: There is no significant Correlation coefficient between technological services with Deposits, Advances, CD ratio, Income, Expenditure, Profit/loss Assets and Liabilities in private banks (Hypothesis-4)
- **H<sub>0</sub>**: There is no significant difference between the problems faced by public and private sector banks in implementing core banking services. (Hypothesis-6)
- **H<sub>0</sub>**: There is no significant impact of technological services on Deposits, Advances, CD ratio, Income, Expenditure, Profit/loss, Assets and Liabilities in public sector banks. (H-7)
- **H<sub>0</sub>**: There is no significant impact of technological services on Deposits, Advances, CD ratio, Income, Expenditure, Profit/loss, Assets and Liabilities in private sector banks.(H-8)

## Research Methodology;

The study is based on primary data. These were elicited through structured and pre-tested questionnaire from sample banks in the Belagavi district. The area of the study had chosen on the basis of carrying the highest banking transactions and banks having more branches(Belagavi, Chikkodi, Gokak, Athani and Bailhongal). The population of the study is related to public and private sector banks. The selected sample public sector banks are Canara banks, Corporation banks, SBI, Syndicate bank, and Union bank of India similarly, ICICI banks, Axis Banks, HDFC banks, Karnataka Banks and Federal banks in case of Private sector banks. The sample size is 25 public sector banks and 23 private sector banks in five taluk of the district. Five point Likert's Scale is used in setting the questionnaire. The tools used in this study are arithmetic mean, Standard deviation, correlation co-efficient, linear regression and T-test is used to test the hypothesis. The study is confined to Belagavi district only.

**Table-1**Results of t test between public sector and private sector sample banks with respect to Banking Performance in Belgavi District

| Variables     | Public sector |           | Private sector |           | t-value | p-value |
|---------------|---------------|-----------|----------------|-----------|---------|---------|
|               | Mean          | Std. Dev. | Mean           | Std. Dev. |         |         |
| Deposits(Cr.) | 68.02         | 21.37     | 68.36          | 21.87     | -0.0555 | 0.9560  |
| Advances(Cr)  | 45.25         | 22.77     | 47.73          | 16.11     | -0.4451 | 0.6583  |
| CD ratio      | 65.00         | 13.67     | 69.32          | 4.36      | -1.5060 | 0.1386  |

|                    |       |       |       |       |         |         |
|--------------------|-------|-------|-------|-------|---------|---------|
| Income(lakh)       | 53.77 | 19.96 | 67.47 | 29.11 | -1.9510 | 0.0500* |
| Expenditure(Lakh)  | 33.54 | 14.39 | 41.78 | 19.71 | -1.6865 | 0.0982  |
| Profit/loss(lakh)  | 20.22 | 5.98  | 25.69 | 10.02 | -2.3442 | 0.0233* |
| Assets(in Cr.)     | 73.02 | 24.77 | 66.95 | 14.22 | 1.0615  | 0.2938  |
| Liabilities(in Cr) | 73.02 | 24.77 | 66.95 | 14.22 | 1.0615  | 0.2938  |

Sources: Field survey \*p<0.05

It is clear from Table-1, the result of T-test between public sector and private sector sample banks with respect to banking performance in Belagavi district reveals that there is correlation between private and public sector banks with regard to deposits and advances, expenditure, assets and liabilities but in case of income and profit there is statistically significant difference between private and public sector banks at 5% level. The Null hypotheses are accepted in case of deposits, advances, C/D ratio, expenditure, assets and liabilities. Similarly, in case of income and profit/loss the null hypotheses are rejected.

**Table-2** Technological services provided by private and public sector banks

| Sl No | Technological services   | PSB | Percentage | PVT Bank | Percentage | Total |
|-------|--------------------------|-----|------------|----------|------------|-------|
| 1     | Automated Teller Machine | 25  | 100        | 21       | 84         | 46    |
| 2     | Online Banking           | 25  | 100        | 25       | 100        | 50    |
| 3     | Mobile Banking           | 24  | 96         | 24       | 88         | 46    |
| 4     | Telephone Banking        | 11  | 44         | 11       | 44         | 22    |
| 5     | RTGS/NEFT                | 25  | 100        | 25       | 100        | 50    |
| 6     | Mobile Van ATM           | 03  | 12         | 03       | 24         | 09    |

Sources: Field survey

Table-3 showed the response given by public and private sector banks towards technological services provided to their customer in the study area, such as online banking services, mobile services, RTGS/NEFT services, ATM services in case of private and public sector banks accounts for above 80%. Mobile van ATM and telephone banking account for 12% to 44% services in the nature of technology to their customers.

**Table: 3** Technological services provided by public sector and private sector banks to customers



| Banks          | N  | Mean | SD   | SE   | t-value | P-value |
|----------------|----|------|------|------|---------|---------|
| Public sector  | 25 | 4.52 | 0.77 | 0.15 | 0.5177  | 0.6071  |
| Private sector | 25 | 4.40 | 0.87 | 0.17 |         |         |

Sources: Field survey

It is evident from Table – 3 that the difference between public sector and private sector banks with respect to number of technological services provided by sample bankers in Belagavi district showed insignificant difference with regard to number of technological services such as ATM services, Online services. Telephone banking and Mobile banking services, Therefore, null hypothesis is accepted.

**Table-4** Correlation coefficient between technological services with respect to Deposits, Advances, CD ratio, Income, Expenditure, Profit/loss Assets and Liabilities in public banks

| Variables          | Correlation coefficient between technological services and banking performance in Public sector banks with |                |         |         |
|--------------------|--|----------------|---------|---------|
|                    | r-value  | r <sup>2</sup> | t-value | p-value |
| Deposits(Cr.)      | 0.7843   | 0.6152         | 6.0634  | <0.001  |
| Advances(Cr)       | 0.8395   | 0.7047         | 7.4091  | <0.001  |
| CD ratio           | 0.5864   | 0.3438         | 3.4714  | 0.0020  |
| Income(lakh)       | 0.9441   | 0.8914         | 13.7410 | <0.001  |
| Expenditure(Lakh)  | 0.9592   | 0.9200         | 16.2668 | <0.001  |
| Profit/loss(lakh)  | 0.8428   | 0.7103         | 7.5087  | <0.001  |
| Assets(in Cr.)     | 0.9706   | 0.9421         | 19.3500 | <0.001  |
| Liabilities(in Cr) | 0.9706   | 0.9421         | 19.3500 | <0.001  |

Source: Field survey

Table-4 reveals that, the result of Karl Pearson's Correlation coefficient between technological services and banking performance with respect to deposits, advances, income, expenditure, assets and liabilities in Public sector banks is statistically insignificant difference between technology and bank performance variables. Hence, the Null hypotheses are accepted.

**Table-6** Correlation coefficient between technological services with Deposits, Advances, CD ratio, Income, Expenditure, Profit/loss Assets and Liabilities in private banks

| Variables          |         |                |         |         |
|--------------------|---------|----------------|---------|---------|
|                    | r-value | r <sup>2</sup> | t-value | p-value |
| Deposits(Cr.)      | 0.8027  | 0.6443         | 6.4540  | <0.001  |
| Advances(Cr)       | 0.8281  | 0.6858         | 7.0849  | <0.001  |
| CD ratio           | 0.5232  | 0.2738         | 2.9446  | 0.0073  |
| Income(lakh)       | 0.8943  | 0.7999         | 9.5875  | <0.001  |
| Expenditure(lakh)  | 0.8893  | 0.7909         | 9.3258  | <0.001  |
| Profit/loss(lakh)  | 0.8492  | 0.7211         | 7.7111  | <0.001  |
| Assets (in Cr.)    | 0.8238  | 0.6786         | 6.9684  | <0.001  |
| Liabilities(in Cr) | 0.8238  | 0.6786         | 6.9684  | <0.001  |

Source: Field survey

It is clear from Table-6 that, the result of Karl Pearson's Correlation coefficient between technological services and banking performance with respect to deposits, advances, income, expenditure, assets and liabilities in case of Private sector banks is statistically insignificant difference. Therefore, Null hypotheses are accepted.

**Table-7**

Problems faced by Public and Private sector banks while implementing Core banking solution

| Bankers             | n  | Mean  | SD   | SE   | t-value | P-value |
|---------------------|----|-------|------|------|---------|---------|
| Public sector bank  | 25 | 27.84 | 2.25 | 0.45 | 2.8025  | 0.0073* |
| Private sector bank | 25 | 26.12 | 2.09 | 0.42 |         |         |

\*p<0.05 Source: Field survey

Table-8, reveals that problems faced in implementing and using core banking system in comparison with public and private sector banks in Belagavi district showed a significant difference at 5% level with regard to huge investment, more dependability on outside services, complexity in software and hard ware used and customer response towards this facility.

Therefore, the null hypothesis is rejected.

**Impact of technology on performance of sample banks;**

The advancement in technology and the aggressive infusion of information technology had brought in a paradigm shift in banking operations. For the banks, technology has emerged as a strategic resource for achieving higher efficiency, control of operations, productivity and profitability. For customers, it is the realization of their anywhere, anytime, anyway banking dream. This has prompted the banks to embrace technology to meet the increasing customer expectation and face the tough competition. Banking in the earlier years involved very little role of technology. It was more of maintenance of ledgers and registers and minimizing risk by venturing into only well known traditional areas. Usage of technology was confined to simple devices such as telex machines, funds and message transfers, electronic typewriters and telephones with fax connections.

**Table No: 9 Results of simple linear regression of technological services on Different Variables of Public Sector Banks**

| Dependent variables | Technological services in public sector banks on |                        |         |
|---------------------|--|------------------------|---------|
|                     | Constant   | Estimate / coefficient | P-value |
| Deposits            | -30.3242   | 21.7577                | <0.001  |
| Advances            | -66.9201   | 24.8169                | <0.001  |
| CD ratio            | 17.9455  | 10.4092                | <0.001  |
| Income              | -56.8003   | 24.4617                | <0.001  |
| Expenditure         | -47.4577   | 17.9209                | <0.001  |
| Profit/loss         | -9.3426  | 6.5408                 | <0.001  |
| Assets              | -68.0608   | 31.2124                | <0.001  |
| Liabilities         | -68.0608   | 31.2124                | <0.001  |

Source; field survey

From the results of the above table, it can be concluded as below;

- There is a very high positive impact of technology on the Deposits, Advances, Income, CD Ratio, Expenditure, Assets and Liabilities as the regression coefficient value is more than +10 in all these variables and the testing of the hypothesis reveals that the values are statistically significant ( $p < 0.001$ ) at 5% level of significance. It can further be inferred that any positive change in the technology in public sector and private sector banks has made a positive and significant impact on these variables of the bank.

- But however, there is a low positive impact of technology on profit/loss as the regression coefficient value is less than +10 in profit/loss and the testing of the hypothesis reveals that the values are statistically significant ( $p < 0.001$ ) at 5% level of significance. It can further be inferred that any positive change in the technology in all banks has made a positive and low significant impact on profit/loss. **Hence, null hypothesis ( $H_0$ ) is rejected for public sector banks.**

**Table No: 10 Results of simple linear regression of technological services on Different Variables of Private Sector Banks**

| Dependent variables | Technological services in private sector banks on |                        |         |
|---------------------|---|------------------------|---------|
|                     | Constant  | Estimate / coefficient | P-value |
| Deposits            | -20.8405  | 20.2728                | <0.001  |
| Advances            | -20.0301  | 15.4011                | <0.001  |
| CD ratio            | 57.7211   | 2.6358                 | <0.001  |
| Income              | -64.8020  | 30.0613                | <0.001  |
| Expenditure         | -47.2731  | 20.2385                | <0.001  |
| Profit/loss         | -17.5289  | 9.8228                 | <0.001  |
| Assets              | 7.4248  | 13.5296                | <0.001  |
| Liabilities         | 7.4248  | 13.5296                | <0.001  |

**Source; Field survey**

From the results of the above table, it can be concluded as below;

- There is a very high positive impact of technology on the Deposits, Advances, Income, Expenditure, Assets and Liabilities as the regression coefficient value is more than +10 in all these variables and the testing of the hypothesis reveals that the values are statistically significant ( $p < 0.001$ ) at 5% level of significance. It can further be inferred that any positive change in the technology in private sector banks has made a positive and significant impact on these variables of the bank.
- But however, there is a low positive impact of technology on CD ratio and profit/loss as the regression coefficient value is less than +10 in all these variables and the testing of the hypothesis reveals that the values are statistically significant ( $p < 0.001$ ) at 5% level of significance. It can further be inferred that any positive change in the technology in

private sector banks has made a positive and low significant impact on CD ratio and profit/loss. Hence, null hypothesis ( $H_0$ ) is rejected for private sector banks.

### **Findings and Suggestions:**

- The penetration of technology services in banking with respect to ATM, Online banking and RTGS/NEFT have been to the fullest extent in public sector banks. And even the same is true in case of private sector banks except for ATM, wherein the penetration rate is at 94%.
- The penetration of technology services in banking with respect to telephone banking and mobile van ATM have been very disappointing with less than 45% respondents in the study opting for the same.
- Public sector banks have faced more problems compared to private sector banks in the study in implementing the core banking services.
- Technology has made a very high positive impact on the Deposits, Advances, Income, CD Ratio, Expenditure, Assets and Liabilities in public sector banks in the study. Change in technology has made more than proportionate changes in these variables for public sector banks.
- Technology has made a low positive impact on profit/loss in public sector banks in the study. Change in technology has made little positive changes in these variables for public sector banks.
- Technology has made a very high positive impact on the Deposits, Advances, Income, Expenditure, Assets and Liabilities in private sector banks in the study. Change in technology has made more than proportionate changes in these variables for private sector banks.
- Technology has made a low positive impact on CD ratio and profit/loss in private sector banks in the study. Change in technology has made little positive changes in these variables for private sector banks.
- Technology relationship with CD ratio of both public sector and private sector banks has been not impressive in the study. Hence, it is advised to both types of banks to make use

of technology in their transactions related to CD ratio. Greater adaption of technology in all spheres of their transactions will enable the banks to increase efficiency and accuracy.

### **Suggestions:**

- Efforts have been made by both public sector and private banks to increase the penetration into telephone banking services to enhance the effectiveness of technology in banking. Ease, security and speed of transactions using telephone banking will ensure the higher penetration, which is essential for the long term sustainability of all banks.
- Technology relationship with CD ratio of both public sector and private sector banks has been not impressive in the study..
- Public sector banks are strongly advised to conduct training programs to its employees on bank technology. Frequent training programs on educating the employees on latest technology would help public sector banks to serve their customer better and earn higher revenue for their banks.
- Less than half of the respondents in the study from both public sector and private sector banks have expressed that they use telephone banking services to carry out their banking transactions. The banks should encourage customers to use telephone banking services, in order to ensure lower cost of customers visiting branches and taking out important time of bank employees.
- More than half of the customers in case of public sector banks and almost half of them in private sector banks are not using online banking and mobile banking services, which indicates the lack of popularity of these services by both types of banks. Both banks are advised to work on making these services popular among the customers.
- As it was found that less than 10% of the customers from both public sector and private sector banks were using online banking to pay their utility bills, there is an acute necessity on the part of both types of banks to take it seriously and work on making the customers use online banking to pay their utility bills. Lot of awareness has to be created by these banks among customers about this service.
- The employees of public sector banks that too aged and those who are about to retire will have least motivation to learn new things like technology. Hence, banks need to consider

them as special case and motivate them to adapt technological changes in the banks and to convince them without making the issue more complex and their life difficult.

- While implementing the technology in banks, they need to consider factors like lack of operating knowledge, lack of trust on technology, problems of security, mental strain to use technology by the employees. Winning the confidence of all customers is the key to success in aspects of the new initiatives, including technology adoption in banks.
- The banks should upgrade and promote uses of new technological services to the customers to enhance their knowledge for ease of adoption.
- While implementing the technology in banks, there is need to consider factors like lack of operating knowledge, lack of trust on technology, problems of security, mental strain to use technology by the employees. Winning the confidence of all customers is the key to success in various aspects of the new initiatives, including technology adoption in banks.

## **Conclusion:**

In view of liberalization measures in the financial sectors the new private and foreign banks emerged and equipped with new technology which have brought paradigm shift in banking operations. Besides, deregulation in banking sector opened up new vistas for banks to increase revenues by diversifying into investment banking, insurance services, credit card facilitation, mortgage financing, depository services, securitization etc. In the recent past banks started new and diversified services with the concept of multi channels like, ATM, credit and debit card system, telephone and mobile banking brought changes in banking structure and operations. The study reveals that, the penetration of technology services in banking with respect to ATM, Online banking and RTGS/NEFT have been to the fullest extent in public sector banks. And even the same is true in case of private sector banks except for ATM, wherein the penetration rate is at 94% of technology in banking. Ease, security and speed of transactions using telephone banking will ensure the higher penetration, which is essential for the long term sustainability of all banks. While implementing the technology in banks, there is need to consider factors like lack of operating knowledge, lack of trust on technology, problems of security, mental strain to use technology by the employees so that there will be increase in profitability and productivity. Similarly, winning the confidence of all customers is the key to success in respects of the new initiatives, including technology adoption in banks. Further, it is suggested that, the management

of both public sector and private sector banks are required to keep faith in their employees while implementing technology in the banks and reduce or avoid the complexity in using technology in banking. This is the way to improve E-banking services in banks, as felt by the customers of both types of banks. Frequent training programs on educating the employees on latest technology would help public sector banks to serve their customer better and earn higher revenue for their banks.

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