

A STUDY ON IMPACT OF IT-ENABLED BANKING SERVICES ON OPERATIONAL PERFORMANCE OF SELECTED BANKS IN KARNATAKA

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Abstract

Technological advances observed by Indian banking industry in the nineties have completely reformed the approach of banking business to be conducted. IT has drastically changed the view of banking operating pattern by step by step improvements in the banking services. The growth is not just in nineties but it's a continuous improvement because technological advancement is essential in every phase of banking sector to cope up the digital demand of the people. The RBI has achieved great milestones in bringing the technology centered financial services among the commercial banks in India. In this scenario, it is necessary to know whether the technological services have a positive impact on the operational efficiency of the bank employees. Its also important to know the difficulties faced by the employees to cope up with the usage of technological services in reaching to their customers. Therefore, present study focuses on studying the operational performance of bank employees by the usage of IT-enabled banking services.

Key words: technology, services, operational performance, impact, employees

Introduction

In recent scenario, Indian banks have made remarkable improvements in the use of Information Technology (IT) in rendering banking services. Indian banking sector has many outstanding attainments to its recognition for the past three decades. Earlier, technology was primarily employed in banks to automate back-offices. This situation has been transformed by adopting information technology even to the front office services, enabling the banks to move their activities beyond the branch level to bank level.

The Information and Communication Technology (ICT) enabled the banks for a good beginning of an efficient management information systems. Thus, IT applications extended from back-office and front-office to other branches and even to other banks. The entry of foreign banks into the arena of Indian banking opened a new lease of life for Indian banks and enlarged opportunity to benchmark against them in terms of quality and performance. The Indian banking sector opened the way towards privatization by allowing private opening up of the Indian banking sector to private companies to render banking services in India. This acted as 'a breaking point' for a transformation in Indian banks from traditional-based to IT-based banking system.

Review of Literature

1. Selvakumar T (2017) has undertaken a secondary data-based research on the role and importance of electronic banking services on the economic growth of India. The

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researcher's objective was to analyze the effect of e-banking services on the service quality of Indian Banks. The paper gave detail description about evolution and number of users of e-banking services in Indian Banking Sector. The researcher concluded that comparatively than public sector banks, private and foreign banks are rendering more modernized services to their customers.

2. **Bhosale and Nalwade (2015)** has made a research on the growth and progress of Indian Banking sector. The researcher particularly concentrated on the growth of private and public sector banks. The author elaborated the stages of bank evolution. The study was mainly concentrated on selected banks like SBI, ICICI, PNB, Bank of Bombay Indian Bank, Canara Bank, Syndicate Bank, Axis and Catholic Syrian Bank. The researcher studied the growth of these banks after the implementation of ICT. The study shows there is a requirement for Commercial banks to familiarize more advanced technologies for retaining and attracting more customers.
3. **S.T Surulivel, B. Charumathi (2013)** implemented Stochastic Frontier Approach to empirically evaluate the effect of Information Technology upon the Indian Banks' cost efficiency level. The study covered a span of four years from 2009-2013. The Researcher considered 77 banks for the study. The author identified the normal cost efficiency rate of 77 Indian bank branches found to be 61% during the study period. The findings of the research convey that upto certain limit IT has its impact on Indian Banks. The differentiation in cost inefficiency among the performance of banks has predominantly decreased by 78.8% due to IT investments.
4. **Dhekra Azouzi (2009)** has analyzed the overall impact of world's technological era on Tunisian Banks. The author wants to understand the changing reforms in Tunisian banking sector towards E-banking and to find out the customers adoption rate towards E-banking. The author took 80 respondents for the study belonging to various sectors. Perceptual risks such as Financial Risks, Social Risks, Performance Risks, Privacy Risks and Time Risks were also focused in the study. The author concluded even though there are alarming benefits of E-banking, it has become difficult for Tunisian Banks to divert apart the customers from Conventional Banking.

Objectives

- To know the impact of IT-enabled services on the processing time of the banking transactions among the selected banks in Karnataka.

- To understand the impact of IT services on the service quality rendered by selected banks in Karnataka.
- To examine the impact of IT services on the routine work efficiency of banks.
- To analyze the difficulties faced by the employees in using the IT-services.
- To provide suggestions to the stakeholders of banks to improve IT-enabled Banking Services.

Hypothesis

H₀: The reduction of employees' workload does not differ with the categories of banks.

H₁: The reduction of employees' workload differs with the categories of banks.

Methodology:

Sources of data

The study is based on primary and secondary data and is quantitative in nature. The primary data is collected from the employees of selected banks. The data is collected through the survey method using structured questionnaire.

Secondary data is collected from the journals, books, banking bulletins, published articles and market capitalization details from the stock market.

Sample size

The non-probability sampling i.e. convenient sampling technique was used to collect data. The sample size of bank employees was 200, out of which 150 respondents answered all the questions in the questionnaire. These 150 respondents belong to all the four categories of banks with heterogeneity in terms of age, qualification and experience. The table 1.1 depicts the samples chosen from categories of banks:

Table 1.1: samples chosen for the study

Categories of banks	No. of Samples (Bankers)
Public Sector Banks	50
Private Sector Banks	50
Foreign Banks	50
Co-operative Banks	50
Total	200

Area of study

The researcher selected five major commercial banks from each sector based on market capitalisation and turnover. Under public sector banks, namely, State Bank of India, Canara Bank, Corporation Bank, Vijaya Bank and Bank of India were selected for the study. In private sector banks, namely, HDFC, ICICI Bank, Axis Bank, Kotak Mahindra Bank and Karnataka Bank were selected for the study. In foreign bank category, the Standard Chartered Bank (incorporated in United Kingdom), HSBC Ltd (incorporated in Hong Kong), Citibank (incorporated in USA) are considered for the study. In Co-operative banks sector the researcher selected The Bangalore City Co-Operative Bank, Tumkur Grain Merchants Co-operative Bank Ltd., The Mysore Merchants Co Operative Bank Limited, Davanagere District Co-Operative Bank. These banks are spread across the south Karnataka region.

Analysis and Interpretation:

	Mean	Std. Deviation
Time taken for the banking transaction after implementation of IT services	4.50	0.50
Time taken in responding to queries of the customers	4.51	0.50
Time taken to build payment invoice	4.22	0.42
Complexity in transactions	4.77	0.42
Availability of staff at counter	2.47	0.50
Banking Hours	4.29	0.83
Knowledge of staff about customers' requirements (KYC)	2.11	0.74

Source: field survey

In order to assess the impact of IT service on processing time seven variables were used and coded 5 as substantially decreased, 4 decreased, 3 as stable (no impact), 2 as increased, 1 as substantially increased. The majority of the variables means score in the above table is more than 4, it shows that the processing time has decreased and substantially decreased. This shows the positive impact from the IT services on the processing time.

Variables	Mean	Std. Deviation
You find work easier with the introduction of IT services in your	4.25	0.44

branch		
Using IT services has reduced communication barrier	4.46	0.50
Using IT services, it's easy to generate customers data	3.95	0.50
IT services has enabled to render quick services to customers	4.20	0.50
IT services has enhanced number of customer transactions	4.82	0.39
Knowledge of IT services make you feel confident & authentic	3.03	0.65
You alone can solve almost all the queries regarding IT enabled-banking services	2.12	0.79

Source: Field Survey

In order to assess the employee opinion on IT services impact on service quality, the researcher coded 5 as strongly agree, 4 as agree, 3 as neither agree or disagree, 2 as disagree, 1 as strongly disagree. The majority of the employees positively expressed the opinion on work easiness, reduction in communication barrier, quick service, easy to generate customer's data and enhanced number of transactions. The employees did not express the confidence in the variable of confident & authentic in terms knowledge of usage of IT services. This shows the need of more training and knowledge of IT services use to the banking employees. Further, problem solving ability by the employee's has very less mean score represents disagree to the statement. It means IT services do not help the bank employees to solve the problem of customers by employee alone.

Table 1.4: IT services impact on routine work efficiency of banks		
	Mean	Std. Deviation
Increase in employee productivity	4.25	0.43
Increase in branch productivity	4.82	0.39
Increase in branch and bank level integrated productivity	4.53	0.50
Up to date information	4.31	0.46
Innovation in products and services	4.62	0.49
Number of customer transaction	4.59	0.49

Source: Field Survey

To know the IT services impact on routine work efficiency of banks, the researcher coded 5 as strongly agree, 4 as agree, 3 as neither agree or disagree, 2 as disagree, 1 as strongly disagree.

Increase in branch productivity's mean score is very high and near to 5. Hence, majority of the employees strongly agree with the statement of branch productivity has increased after implementation of IT services. The above standard deviation is less than 0.5 signals high reliability and consistency from the employee opinion. In addition, the mean score exhibited in the above table is more 4 four for all variables. These results confirm that the IT services has a positive impact on routine work efficiency of banks.

Variables	Mean	Std deviation
Long hours of work on computers are exhausting for employees	2.35	0.50
Workload has increased with the introduction of IT in your bank.	3.01	0.50
Technical difficulties frustrate you a lot while operating IT equipment's	2.28	0.45
Working on IT equipment's is cumbersome for You	4.07	0.47

Source: Field Survey

To assess the employee opinion on IT services drawbacks on daily banking operations the researcher coded 5 as strongly disagree, 4 as disagree, 3 as neither agree or disagree, 2 as agree, 1 as strongly agree. In the above table, 'the long hours of work on computers are exhausting for employees' and 'technical difficulties frustrate the employees' factors mean score is 2.35 and 2.28 respectively, it implies agree with the statements. Consequently, the study infers that the employee's faces difficulties in technical aspects and long-term work in the computers from the IT services. Regarding workload reduction customer response was neutral. Lastly, employees disagree with the statement of 'working on IT equipment's is cumbersome'. This shows that the employees are willing to work with IT equipment's and do not face the problem to use IT equipment's. The overall results suggest that the IT services have a few drawbacks with respect to technical difficulties and long term working on the computers.

Employees opinion regarding the overall working of IT	Mean	4.12
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enabled-banking services	N	150
	Std. Deviation	0.478

Source: Field Survey

The overall opinion on IT services working efficiency is collected by coding 5 as highly satisfied, 4 as satisfied, 3 as neither satisfied nor dissatisfied, 2 as dissatisfied, 1 as highly dissatisfied. The above-mentioned mean score suggests that majority of the employees are satisfied with the IT services which are used by the customers. The standard deviation is 0.478 shows the consistency in the employee's responses.

Hypothesis Testing

H₀: The reduction of employees' workload does not differ with the categories of banks.

H₁: The reduction of employees' workload differs with the categories of banks.

1.8 K W test results on workload based on the selected categories of banks			
	Chi-Square	df.	p-values
Decreases number of working hours in banking transactions	3.685	3	0.36
Division of work	33.241	3	0.00*
Increase in productivity	16.701	3	0.00*
Increase in knowledge	22.095	3	0.00*
Reduction in processing time	4.941	3	0.42
Minimization of cost	24.166	3	0.00*
Quick decision	0.818	3	0.89
Enabled to handle customer grievances quickly	23.185	3	0.00*

Source: Primary survey, Note: * indicates the significant at 5% level of significance

In the table 1.8, out of eight variables, three variables have insignificant p-values and remaining five variables have significant p-values. The Decreased number of working hours in banking transactions, reduction in processing time, quick decision has insignificant and proves the no impact from IT-enabled services across the banks. Remaining five variables p values is less than 0.05 at 5% level of significance. Therefore, null hypothesis is rejected and alternative hypothesis H₁: The reduction of employees' workload differs with the categories of banks is accepted.

Findings

- Transaction processing time by bankers has substantially decreased. This is validated with a high mean score of 4.77.
- There has been a 'reduction in monotony of work', reduction in communication barriers, increase in quick services, easy to generate customer data and enhanced number of transactions with the usage of IT services as the mean score of all the above variables is more than 4.
- There was an increase in routine work efficiency of banks, employee productivity, branch productivity, up to date information and innovation in providing services as the mean score of all these variables are high and nearing to the score of 5.
- The employees faced difficulties in operating for long hours on computers and the technical difficulties frustrate them to operate on IT equipment's, which is indicated with a less mean score of 2.35 and 2.28 respectively.
- The overall working efficiency of employees with IT services indicates that the employees are satisfied in operating banking transactions using IT-enabled services.

Suggestions

- Banks can increase the network and server capacity to minimize the technical issues.
- Training programs to employees can be strengthened in terms of handling the grievances alone and to solve technical issues by themselves.
- The recreational programmes could be implemented by banks to avoid the employees getting to work for long hours.

Conclusion

The study says the operational performance of banks could be more efficient, quick and can extend beyond the specific working hours by using Information Technology (IT), hence, the banks can take up initiative in making all its customers to use these services. Since the operational efficiency can be greatly enhanced, the usage of IT-enabled services could be strengthened by creating awareness on every customer to use these services. Then the bank could also benefit in minimizing its operational cost.

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