An Overview of Usage Pattern of Information Technology in Co-Operative Banks in Ahmednagar District

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ABSTRACT

Due to liberalization like many other sectors, banking sector has also undergone a drastic change. Use of information technology and revision of licensing policy has widened geographic scope of banking services(Patil Y.S,2003). The present article is an attempt to take overview of these changes as experienced by bank employees. The present study is based on survey of 400 employees from 16 cooperative banks out of 21 banks having their head office in Ahmednagar district. The average proportion of bank employee in sample is 15% of total bank employees. The data through structured questionnaire mostly on 5point likart's scale is collected from sampled respondents. The collected data is analyzed by using statistical tools like factor analysis and chi-square test for independence of attributes. The article presents analysis based conclusions about the awareness of IT Act 2008 and its amendments, functional facilities available in respective banks. The conclusions about security and fraud freeness, impact of computerization, professionalism in banking and customer satisfaction are also drawn.

Keywords: IT, ICT, IDRBT, IT related services, Net banking, RBI, SMS.

Introduction

The present banking scenario in India is witnessing big changes. Adoption of policy reforms in Indian economy has resulted in the change of economic order towards the process of Liberalization, Privatization and Globalization (LPG). Due to Liberalization of the financial sector in India, there is increased competition. This competition has even changed regulatory requirements. As a result, there is a drastic change in all activities of banks in India. This change is especially in Governance, nature of business, functional and delivery mechanisms. The new generation banks brought the necessary competition into the industry. These changes have ultimately headed towards higher utilization of technology, improved customer service and innovative products. In bankers' point of view, the customer service had undergone metamorphosis over the years beginning with Serving followed by Pleasing, Delighting and now the ultimate challenge for all is retaining the customers.(Patil Y.S,2003) (Sekar V.G.2004).

The co-operative banks/credit institutions constitute the second segment of Indian banking system, comprising of about 14% of the total banking sector asset (March 2007). (Bulk of the co-operative banks operates in the rural regions with rural coop banks accounting for 67% of the total asset and 67% of the total branches of all cooperative banks. Cooperative banks have an impressive network of outlets for institutional credit in India, particularly in rural India. In March 2007, there were 102 savings A/C and 113 cooperative bank members per 1000 rural in India. Cooperative banks (both rural and urban) cater to small and marginal clients (Report on Trend and Progress of Banking in India 2008-09 chapter 5 pp 159-190). Though Cooperative banks are also operating in the same environment like public sector banks and private banks, they are by and large remained in the periphery of this rapid technological development and changes happening in the present banking sector. Information Technology has not only improved the speed but also the quality of the services delivered, and has at the same time ensured tremendous reduction in transaction costs for the banks as well as customers and made it possible to provide customer service through various delivery channels.(Deshapnde A.G 2005) The major applications of Information Technology in banking sector include Management Information System(MIS), Total Branch Automation (TBA), Advanced Ledger Posting Machines (ALPM), Indian Financial Network(INFINET) and CORE Banking (D.Subbarao 2010).But all IT applications require comprehensively trained employees of the bank to manage, administer and control an IT enabled banking. Success of any technology solution completely depends on the trained human resources. There is, at present, a major gap in the banking industry between the technology skill-set required to administer banking operations of the next millennium and the managerial demands of this new environment and the skilled manpower available. Not only is there an urgent need to train a very large number of people across several levels and several institutions, there is also the need to ensure a sort of continuity by setting-up a dedicated IT cadre or group in all institutions. (Patil S.G, 2009) The present study is an attempt to make a critical study on usage pattern of Information Technology used in the cooperative banks of Ahmednagar district.

Review of literature

After visiting www.ahmednagar.nic.in website it is found that Ahmednagar is Maharashtra's most advanced district in many ways. It has the maximum number of cooperative sugar factories, The first cooperative sugar factory in Asia was established at Pravanagar. More than half of the people of district are some way connected with cooperative movement through cooperative banks, sugar factories, milk diaries, credit societies etc. In an address by Shri Vepa Kamesam, Chairman, Governing Council, IDRBT, Hyderabad and former Deputy Governor, Reserve Bank of India at the Meet of General Managers in charge of HRD & Training at JNIBD, Hyderabad on February 7, 2004, stated that Computerization is inevitable both in the interest of customer service and operational efficiency. This operational efficiency can only be achieved through factors like skill, attitudes and knowledge of the human capital. The quality of human resources indicates the ability of banks to deliver value to customers. Capital and technology are replicable but not the human capital which needs to be valued as a highly valuable resource for achieving that competitive edge. S. Dharmarajan, Dr. T. Srinivasan, in their paper presented at The National Conference on Recent Trends in Financial Services held By the Department of Commerce, Directorate of Distance Education, Annamalai University held on 12th October, 2007 illustrated all IT related services offered by various banks in India. In a research paper written by Dr. Y.S.Patil it is emphasized that IT investment and penetration in cooperative banks is much lesser than public sector banks and private banks. Department of Cooperative REPORT on 'As –Is' studies on IT usage & Level of computerization and IT / e-Governance Roadmap February 2007 gives detail information about IT initiatives, e-Governance, software used, networking status, policies framed, trainings conducted by various cooperative organizations. In remarks of Dr. Duvvuri Subbarao, Governor, Reserve Bank of India, at the Banking Technology Excellence Awards 2009 at the IDRBT Hyderabad, June 18, 2010 clearly stated role of technology, risk assigned with its implementation, maintainability, security issues. Gupta Subodh in his paper on Information and Communication Technology (ICT) Survey of District Central Cooperatives Banks (DCCB) and Micro Finance Institutions (MFIs) in India (January-March 2007) studied current status and IT usage in district central cooperative banks. Report of the High Powered Committee on Cooperatives May 2009 says that current status of cooperative organization is not well and they need to cut their expenses and give better service to their customers, if they want to survive. From literature available it is clear that use of IT in

cooperative bank can reduces expenses, increases productivity, satisfies customers by giving various services and ultimately increases the profit. As compared to public sector and private banks, IT application in cooperative banks is less. Human resources of bank play very important role in IT services to be provided to the customer. As Ahmednagar district leads cooperative movement in our country, it is required to study IT usage in various cooperatives banks having head office in Ahmednagar district.

Results and discussion

Highlights of questionnaires for bank employees

This questionnaire includes 28 items, including formal and computer related education of employee, opinion about training programs attended, knowledge about RBI IT policy and IT ACT 2000, importance of IT usage in banking, normal functions of computer systems, difficulties in using IT, opinion about security, perception of employee about effectiveness of computerization. A like this questions, also includes most of the closed questions.

General summery of Employee Data

  Employees renders services to customers, they are responsible for satisfaction of customers. In order to gain creditability, reliability and goodwill from customers, role of employee is very important. All this depends upon qualification of employee, experience, knowledge about IT services, and their perception about application of IT in bank. In the present research a questionnaire is also administered to 20 to 25 bank employees from different 18 cooperative banks in Ahmednagar district. The summary of collected data is discussed below.

Qualification wise classification of data

Qualification is one of the very important factors in understanding and adopting new technologies. Highly qualified employee can forecast risks, understand problems and also suggest possible alternative problem solving approaches. It is observed that major class (67.25 %) of employees are graduates, even post graduates are also 30% but diploma qualifies are only 2.75%.

Experience wise classification of data

Experience of employee counts the knowledge of present working system of any organization, also capable of understanding various problems and has ability to resolve them. Experience of employee will certainly help in accepting the changing IT environment of banking system. With this conception information about experience of bank employees is collected in the survey. It is

seen that38.50% bank employees have experience of less than 5 years, whereas 21.50% employee have experience of 10 to 15 years. Nearly 14% bank employees each have experience of 5 to 10 years and 15 to 20 years. Percentage of employees decreases with increasing experience.

IT related training program completion

IT related training is also very important in using IT related services. Properly trained employee will certainly create supportive environment for IT applications. From the information received through questionnaire, it is observed that IT trained and untrained bank employees are in general in equal proportion. Out of trained majority have completed certificate course in IT; whereas graduate and post graduated IT educated bank employees are very meager in number.

Period of usage of computer by employee in bank

As it is an experience that IT revolution took place in India since after 1990, means about before 22 years. Applications of IT are observed to be in many areas including banking preferably in nationalized banks. Yet due to competition, IT policy, RBI policy cooperative banks are also taking steps towards adopting IT applications. Therefore information in the survey is sought about period of usage of computer by employee in bank. It is observed that near about 55% employees are using computers for a period of less than 5 years. About 12% employees are using computers for 5 to 10 years. Nearly 28% employees are using computers for 10 to 20 years. In short more than 95% employees are acquainted with use of computer in banking.

IT training programs in bank

In order to develop human resources and trained the employee for IT applications in banking is one of the vital step in creating IT environment in banking. The information received on organization of IT training programs in bank is summarized, it is clear that 64% employee conveyed that IT training programs are arranged in bank. Yet 36% employees denied arrangement of any IT training program in bank. In short according to 1:2 proportionate employee IT training programs are not arranged and arranged in bank.

Number of IT training programs attended

In the survey it is found that 70% employees have not attended any IT training program as oppose to 30% those who have attended IT training programs ranging from 1 to 8. In short majority bank employees have not attended IT training programs.

Awareness of IT policy framed by RBI.

In order to bring speed, security, transparency in banking transactions, as well as to expand the scope of banking services RBI have designed IT policy. It is seen that $1/4^{th}$ of bank employees are not aware about the IT policy framed by RBI, whereas $3/4^{th}$ are either partially or fully aware about such a policy.

Awareness of IT ACT 2008 and its amendments

Like IT policy of RBI government has also passed an act related to IT namely IT ACT 2008 along with few amendments. It is expected that those who are working in IT environment must be well aware of this act. It is seen that nearly $1/3^{rd}$ of bank employees are not aware about the IT ACT 2008 and its amendments, whereas $2/3^{rd}$ are either partially or fully aware about such an act.

Perception about importance of IT usage in banking

It is very important to know the perception of bank employee about use of IT in bank. The adoption of IT and success of adopted IT technology certainly depend upon the perception of employees. it is observed that importance of IT usage in banking is agreed by 100% employees.

Various functions generally performed using computer in bank

IT can extend variety of uses that can be employed in banking transactions. Commonly availed and important 11 options of uses were submitted in the questionnaire and response is received from employees of different banks. In order to investigate whether all these 11 options are equally important, factor analysis is applied and it is found that option of chatting and internet phoning is not practiced by employees in bank. Remaining 10 options are grouped into 4 factors.

1. F1: Document typing and editing.
2. F2: Maintaining databases, processing of data, printing of reports, e-mail and SMS.
3. F3: Creating worksheet and browsing internet.
4. F4: Transaction entry and uploading of data.

Factor wise summary of different functionalities includes, about 30% employees have to perform document typing and editing as a normal function using computer system. IT functions in F2 performed by employee shows that nearly 25% employees do not perform any function from F2 on computer system. About 23% employees use computer system to print reports. About 16% employees use computer system for processing of data as well as printing of reports. The computer system is used by 10% employees only for processing of data. None of the employee

usage computer system for all the four function listed in F2. The response to different combinations of usage of computer system shows that 65% employees do not use computer system either to create worksheet or to browse internet, whereas only 1% use the same for both the purposes. About 29.50% employees use the computer system only for creating of worksheet whereas 4.50% employees use it only for browsing internet. In general out of 2 functionalities, creating worksheet is largely practiced by the employees. It is seen that 65% employees do not use computer system either to create worksheet or to browse internet, whereas only 1% use the same for both the purposes. About 29.50% employees use the computer system only for creating of worksheet whereas 4.50% employees use it only for browsing internet. In general out of 2 functionalities, creating worksheet is largely practiced by the employees. It is observed that 85.75% employee use computer system for transaction entry, whereas 3.75% use it also for uploading of data. The computer system is not used for any reason by 10.50% employees. In short use of computer system for transaction entry seems to be very popular.

IT Functions currently done by employees

In order to investigate which IT functions are actually performed by an employee as well as to know whether all these 10 options are equally important or not , factor analysis is applied and it is found that option of document typing and editing, chatting and internet phoning is not performed by employees in bank. Remaining 8 options are grouped into 4 factors which are listed below in decreasing importance level.

1. F1: Creating worksheet, browsing internet, e-mail and SMS, up loading.
2. F2: Maintaining database, processing of data.
3. F3: Transaction entry.
4. F4: Printing reports.

Factor wise summary of different functionalities indicate that from F1, 93.50 percent bank employees do not operate on creating worksheet, browsing internet, e-mail & SMS and uploading data, whereas only 0.25 percent work on all these four functions. It means that remaining only 6.25 percent bank employee work on either on or multiple functions. It is seen that in F2, 69.75% employees do not use computer system to maintain and process the databases. Only 2 % employees use the same for both the purposes. About 25% employees use the computer system only for processing of databases, whereas just 3.50% employees use it only to

maintain the databases. Similarly, 48.25 percent and 18.00 percent bank employee can perform only transaction entry and printing of reports respectively.

Number of days required to learn the IT functions

It is observed that single day is sufficient to employee to learn IT functions, whereas an exceptional case may take a year too. On an average 62 days are required by employee to learn IT functions. 3/4th of employee may take less than 60 days and remaining 1/4th may take more than 60 days to learn IT functions.

Facility of high speed data entry

Now-a-days due to Graphical User Interface (GUI)software are developed very user friendly and number of facilities is provided to enhance the speed of data entry, retrieval, update, computation and so on. In banking, software should be expected to have such facilities that can promote the service environment. The response to the question on this issue reveals that according to75% bank employee in data entry module high speed is achieved either of pull down lists, hot keys, function keys and buttons.

Help in case of any difficulty

Every IT related service needs help from its vendor in case of any difficulty. It is expected that this service should be very fast. In order to reduce downtime of IT services, possible service support alternatives includes (A) through online help given in software (B) through help manual (C) through other colleagues (D) through superiors (E) through website of vendor (F) through phone call, SMS or e-mail. It is of interest to investigate whether all these alternatives are equally important or not. The response to this question is analyzed by using factor analysis which results into three factors as shown below:

1. F1: Digital support: Online help for software, from website of vendor, Phone call SMS or e-mail.
2. F2: In house support: Through manual, From other colleagues.
3. F3: Expert support: From superiors.

Digital support: With the advent of technology online service support or web based or telephonic or through short message service (SMS /e-mail) become more popular. The summary of response on these service alternatives includes, 39% of bank employees do not use online help given in software, website of vendor or phone call, SMS or e-mail in case of difficulties. The group of employees using online help given in software to overcome the difficulties includes 20% of

employees. Help of vendor website is used by 7.75% employees, whereas 15.25% employees take help through telephone calls, SMS or e-mail in case of difficulties. The percentage of employees taking help through telephone calls, SMS or e-mail and online help in software is 11.50. The group of employees taking help by different other combinations includes less than 10%.

In house support: This factor includes manual help and help through colleagues. Since both are available in bank itself, therefore this factor is named as in house support. it is seen that 59.25% bank employees do not take in house support, whereas only 3% employees take in house support by both alternatives. The percentage of employees taking help through manual and through colleagues only is 31.00% and 6.75% respectively. In short manual user group is leader in taking in house support.

Expert's support: While operating software in the bank the least priority is given to take support from superiors. Superiors are consulted only by 18% of bank employees in case of difficulties.

Frequency of defects in software

In software development process testing of software is last and important step. Frequency of defects decides the reliability and maintainability. It is very important to have reliable and maintainable IT service. Testing assures applicability of software in different environmental conditions, yet at few occasions difficulties are expected. It is observed that 63% bank employees do not experience any defect in a year, whereas the experience of 25.50% and 11.50% bank employees indicates that there can be one or two defects per year respectively. In short software used in bank has very less frequency of defects in a year.

Time required correcting the defect

Once the defect or problem occurs it is very necessary to rectify it. The goodwill of banking transactions depends upon either defect free software or fast maintainable software. Therefore, response on time required for rectification of reported defect is received. It is observed that according to experience of 59.50% bank employees, defect in the software is rectified on the same day. Experience of 22.75% employees reveals that one day is required to rectify the defect, even 9.75% employees also experience that the defect needs two days to rectify. Less than 10% employees have also experience of 3 or more days to rectify the defect. In short reported defects are tried to recover promptly.

Expected life of software

The life cycle of software has five stages namely analysis, design, coding, testing and implementation. Due to RBI policy, cooperative policy, management policy variety of changes takes place very often. During maintenance the care of such changes is always taken. Yet a time comes when replacement of software is most feasible. The response on expected period for replacement of existing software is received. It is observed that according to 41.50% bank employee existing software can very well be used for next 10 years. According to 19.25% bank employees' present software has to be replaced within next 5 to 6 years. Nearly 40% bank employees feel that present software needs to be replaced in coming four years.

Perception about security and fraud freeness of the software

In banking transactions, security of the data and fraud less transactions not only safeguard account holders but bank as a whole. In general for sound economic development of any nation banking data must be very secured and transactions must be fraud less. The experience based opinion about the same issue is received from bank employees. It is observed that 80% bank employees feels that the software in their respective bank is full secured, yet 12.25% feels it is partially secured. Even 2.75% bank employees committed that the software is not secured. It may be because bank employees have not found an opportunity to access the software 5% employees are unable to give any comment about security and fraud less of the software. It can be concluded that 20% employees are bothered about security issues of the software.

Perception about usefulness of IT applications in banking transactions

Employees are day to day performing variety of banking transactions using IT applications. The response on salient features of experience of bank employees about IT applications on efforts, time, accuracy, decision making capability, communications, professionalism, customer's satisfaction, bank profit and competitive strength of bank is received on 5 point scale. It is of interest to investigate whether all these features are equally important? If not, then group these features according to decreasing importance level. The factor analysis of response extracts three factors that are:

1. F1: Effort saving, time saving, easy communication, professionalism, customer satisfaction and competitive strength of bank

2. F2: Accuracy.

3. F3: Decision making capability and profit.

The most important factor F1 includes six features which are mostly closed to features of computer. The summary of response of factor F1 shows that according 60.75% bank employees, IT applications in banking transactions considerably reduces the efforts, saves times, increases customers satisfaction, competitive strength of bank along with easy communication, great degree of professionalism. According to 5.50% bank employees, increase in competitive strength of bank is less whereas other feature shows considerable improvement. According to 7.25% bank employees IT applications have less effect on communication whereas significant effect on other features. Even 3.75% bank employee feels that effect of IT applications on saving time is less but other features are greatly improved. The summary of accuracy in factor F2 reveals that nearly 95% bank employee agreed that with the advent of IT applications, accuracy of work increases to great extent. The summary of features in F3 indicates that opinion of 75% bank employees is that decision making capability and profit of bank increases considerably, whereas 22.5% employee feels that decision making capability and bank profit even due to IT applications increases to little extent. Yet there are 7.5% employees who can't express their opinion about decision making capability and profit of the bank.

Conclusion

It can be stated that even employees do not have formal computer education with short term training programs on computer they can learn software in a day; it is the power of software. Thus to update the computer skill banks should periodically arrange the training programs for employees. This will not only update the computer skill but also elevate the confidence of employees. As IT policy of RBI and financial policies of RBI may change as and when necessary but employees may not be completely aware about it, and hence training programs should also cover these aspects along with IT Act 2008. All functions performed in bank are not equally important, document typing and editing is the most important and transaction entry and uploading of data is least important, importance of other functions is in between. Among the IT functions creating worksheet, browsing internet, e-mail and SMS, up loading are very often performed whereas printing reports is least performed. In day to day operation digital support is most common whereas expert support is rare. The experience of bank employees reveals that software are fully secured and hence there are rare chances of forensic transactions. It also reveals that use of software in banking is due to many reasons such as effort saving, time saving,

easy communication, professionalism, customer satisfaction and competitive strength of bank,accuracy,decision making capability and profit.

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