

Impact of Information Technology on Customer Service in the Banking Sector of the Jaffna District

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INTRODUCTION

Background of the study

Today information technology has entered all fields of human activities and has attracted everyone in the respective field with the result that the world has become a global village. The banking industry is one of the important service industries in the world. Banks depend on the customer satisfaction and loyalty. So banks want to provide well effective services to retain and satisfy customers. The banks dealing with the customer through current account, saving account, fixed deposit account, credit cards, loan, foreign exchange transaction etc. Therefore, bank is a very arm of commerce the regularize catch flows ease monetary transaction minimized exchange problems and act as middle man national and international trade.

The use of information technology (IT) in Sri Lankan organization has followed a path similar to their counter parts in developed countries. Faster absorption and IT in the banking sector can be considered as the influence of the international links and increased international money transaction due to open economic policies /globalization. These international links forces the banking organizations to use IT to a greater degree. In the peaceful situation, most of the banks in Jaffna district are being computerized. A survey conducted by the author indicated that the banking sector was leading in the use of IT in Sri Lanka and the extent of exploitation of IT was not the same in every sector. Also there was a wide variation in the use of IT in organizations within each sector. Bank and other financial institutions around the world have learned that IT could improve the way they do business by providing an adaptable communications platform capable of handling both current and emerging applications. In this context,

the researcher conducts the survey of impact of information technology on customer services in the banking sector of the Jaffna district. This study examines the influence of the customer services on the use of IT.

Identification of the problem

In Jaffna district, use of information technology was at infancy level before the peaceful situation. In prevailing situation, most of banks have been using IT to obtain sustainable competitive edge. At the early time banking activities had to perform manually. Therefore the change from manual to IT has considerable impact on customer services. Office automation, in some organizations, results in better customer service. Further IT can enable changes in the sequence of tasks in a process often allowing multiple tasks to be worked on simultaneously. In ever changing and competitive world, retaining customer is challenging one. Therefore banks need to satisfy their customers. In this cases information technology is used as a tool for providing well effective customer services. In this research, main problem is that contribution of information technology in providing customer services. The research problem can be given in the form of following research question.

To what extent does impact of information technology influence in providing customer services?

Literature review

Review of literature is to determine what is already known about the concepts related to the research problem and the existing research finding on the theme of impact of information technology on customer services.

Information technology basically consists of four types of technologies. Computing technology audio and video technology, communication technology and printing technology. The first development of computing technology was the invention of abacus machine later on calculators were developed as equipment to perform mathematical function. Computers are the last development of this kind of technology example calculators, cash machine computers. Audio and Video technology is related with broad casting and receiving of information through sophisticated equipment. This technology facilitated the quick transmission of information to a large number of

users around the world example Radio, television, Multimedia, VCR.

Communication technology helps to communicate and transfer information personally. This includes cable method of communication and wire less communication as well. Telephone and telex are the pioneer technologies in this type example facsimile, safe life, intercom, printing technology includes all types of technology that are used to get printed documents that were produced through the above three types of technologies example Scanners, all kinds of Printers, photo copies etc.

Researcher focus on information technology in banks into two categories.

I) Office automation.

II) Transaction processing system.

Office automation

Office work is generally a matter of information handling and information processing. Clerical tasks have long been associated with paper work and office workers thought of as paper pushers. The twin advances of computer technology and communications technology have brought about the electronic office a term used to describe the way in which the modern office is developing. Technology has impacted greatly in office procedures. Many offices now have a computer terminals on every desk and a choice of electronic communication channels available.

Office automation has an enbrmous effect on business.

Routine processing

The processing of routine data can be done in bigger volumes at greater speed and with greater accuracy than with non-automated manual systems.

The paper less work

There might be less paper in the office with more data processing done by key board data handling is likely to shift from moving and storing data electronically

Customer service

Office automation in some organizations, results in better customer service when an organization receives large number of telephone enquires from customers the

staff who take the calls should be able to provide a prompt and helpful service if they have on line access to the organizations data files. (Information analysis office automation BPP publishing P 99 – 100)

Branch automation solution is designed to make banking within the branch easier, quicker and more fun for your customers. The focus is on providing the necessary tools to reduce the cost of running branches and to give your staff. The information needed to turn your branches in sales environment. This is achieved by automating routine front and back - office procedures, reducing office paper work, using common business logic to interface with existing legacy systems. The benefit of branch automation are increased productivity, profitability, consistency of service, cost efficiencies and speed to market.

Office automation is a widely used term today. It generally means the application of computer and communication technology to improve the productivity of knowledge workers. The major functional components of an office automation include work processing, information storage, and retrieval communication network and computerized tele conferencing. Information is the key resources of an office and therefore the future of office depends heavily on how well the office worker manage the information.

Banks planning to introduce automation in the offices should consider the possibility of in treating an array system to support the knowledge workers. This include

- Telephone.
- Electronic typewriter.
- Word processor.
- Data communication network.
- Copiers.
- Electronic computers.

Transaction processing system (TPS)

TPS are the most widely used information system. These systems perform the essential role of collecting and processing the daily transactions of the organization,

hence the alternative term, transaction processing. There are two types of transaction processing one is input transaction and other one is the output transaction.

Further new technology makes the routine task easier and faster to do and provides new challenges to the office. This result in better performance and increased satisfaction leading to improve productivity. Information technology tools of TPS are

Communication network.

Mobile communication.

Fax.

E – mail.

Voice mail.

Computer conferencing.

Video conferencing

Automatic Teller Machine.

Automatic data entry machine.

Therefore an electronic based office management has the following benefits.

- Decision-making becomes more effective and fast
- Customers receive better and quick services Human task become easier. Human resources are better utilized.
- Office space is optimally utilized
- Electronic equipments are fast in data and text manipulations and accurate in arithmetic – operations.
- The quality of output information's can be controlled and adjusted to the required level

The above advantages automatically improve office management and customer statistician of banking sector.

Objectives of the study

In the competitive world, every organization's survival is questionable. So, they are trying to differentiate themselves. For that they are introducing new strategies. In

Banking sector, information technology is considered as strategy weapons. In Jaffna district, introduction of information technology has considerable impact on customer services. This study is identified to achieve following objectives.

- To identify degree of IT usage in Jaffna district banking sector.
- To identify success of IT usage in Jaffna banking sector.
- Find out impact of IT on customer services.

Significance of the study

This study will attempt to identify the impact of information technology on customer services in Jaffna district banking sector. When a company moves toward automation what are the skills that the new job calls for in comparison with the old. What is the worker's attitude toward the working condition in a new automation of bank system So what kind of training and education are required for the new automation and how does the new automation technology affect the bank and customer relationship. Banks are able to provide different and well effective services to customers by means of IT. Therefore IT has major impact on customer services. That may be reduced waiting time, increase loyalty and accuracy, provide any time service (24 hours service), create good dealings among employees and customer etc. Therefore study of IT and its impact on customer services is significant. Better customer services build higher customer satisfaction. Hence findings will facilitate to improve customer services through IT.

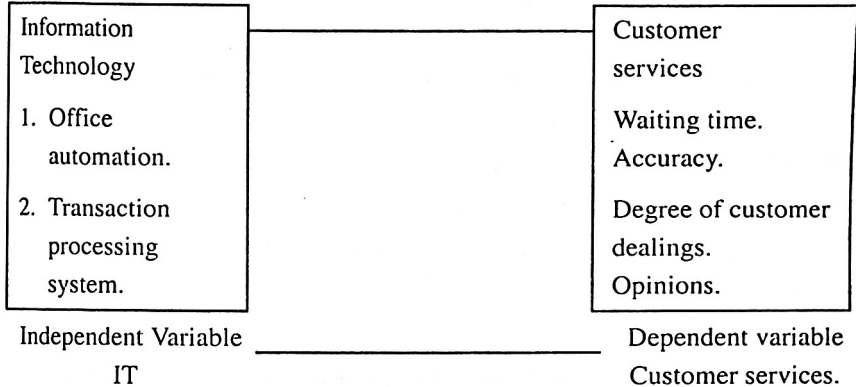
Methodology

In Jaffna district, there are six private bank branches and thirty six state bank branches. Since the reliability of the research lies totally on the data collection. Data collection plays a vital role in any research. Further Customers from various banks were selected to represent total population. For this purpose 2% of all banking customers were selected as sample. The data can be either primary data or secondary data obtained by the researcher using of questionnaire, observation and interview. Relating to customer service data were collected from employees and customers to ensure reliability of data. The secondary data signifies data obtain from records. These data will be presented by using tables. Then these collected data will be analyzed by using statistical techniques and correlation T test, F test etc.

Conceptualization of the research problem

The research problem has been conceptualized based on literature. Conceptual model is shown in figure 1.

Figure 1 - Conceptual model



Office automation system

Office a term used to describe the way in which the modern office is developing. Technology has impacted greatly in office procedures. Many offices now have a computer terminals on every desk and a choice of electronic communication channels available. Further office automation facilitates employees to easily get information from respective office/officer. It is useful to customer to obtain any services from operational level when an organization receives large number of telephone enquires from customers, the staff that takes the calls should be able to provide a prompt and helpful service if they have on line access to the organization's data files.

Transaction Processing System

A transaction processing system is a computerized system that performs and records the daily routine necessary to conduct the business. In banking sector, transaction processing system enables customer to obtain several services. For example balance enquires, cash withdrawal, fund transfer etc. Therefore transaction processing system plays a vital role in providing customer services.

Waiting time

Waiting time describes specified time the customer wants to wait for obtaining a service from bank. Customers are willing to obtain service within short period. It is hoped that reducing waiting time induce the customer to satisfy more.

Accuracy

Accuracy means providing every thing in an exact or correct manner. That is customer service should be free from error. It is believed that customer services through IT will be more accurate.

Degree of dealings

Banks must have good dealings with customers. Success of banks depend on their customers. Now a day's banks are creating high degree of dealings with their customer by means of information technology.

Opinion

Opinion indicates number of complaints of customers. Customers may complain to banks about their services. Every organization expects positive opinion from customers.

Customer services through IT are analyzed by customer's opinion.

Hypothesis of the study

Possible hypotheses are developed based on literature review and conceptualization of the research problem. This research is carried out based on the following hypothesis

Hi: Usage of IT facilitate to provide better customer services.

Limitations of the study

In practice, many difficulties have to be faced in the preparation of this research study. They are as follows.

1. The absence of suitable specialist to consult on it adoption. All customers are not aware the usage of IT. So they hesitate to use IT.
2. Some banks employees are not willing to provide information for their business purpose.
3. Information technology has not been fully utilized in the banking sector.

Results and discussions

Data presentation and Data analysis.

Data regarding IT usage and customer services are given in table one and two.
Table 1

Rating	Usage Level of IT	Percentage of IT Usage			M annual	Customer Service (%)	
		Total	Office automation	Transaction processing system		Data received from customer	Data received from employees
1-45	Low	35%	62%	38%	65%	28.5%	27.9%
46-72	Moderate	64%	48%	52%	36%	52.3%	53%
72 up	High	76%	32%	68%	24%	69.7%	71.7%

Source:- Survey data.

According to the above table usage of IT level is categorized into three. They are low level IT usage, moderate level IT usage and high level IT usage. Following Table 2 shows these usage levels of IT related to bank branches.

Table 2.

Types of Bank	Total No of banks branches	Level of IT usage (No of banks)		
		Low	Moderate	High
Bank of Ceylon	16	11	4	1
Commercial Bank	3	-	1	2
Seylan Bank	1	-	-	1
People's Bank	14	7	6	1
HNB	2	-	1	1
NSB	6	5	1	-
Total	42	23	13	6

Source: Survey data

From the table 2, twenty-three bank branches are using IT at low level, and thirteen bank branches are using IT at moderate level. Only six bank branches are

only using IT at high level.

Further table 1 shows percentage of IT usage and manual. only 24% of manual systems are used in bank branches which is using high levels of IT. 36% and 65% manual system are used in bank branches in which IT usage level are in moderate and low respectively.

For this research data regarding customer services by IT were collected form employees and customers. These data are shown in table 1. The data received from customers & employees are more similar to each other. Therefore it is accepted that data provided by both customers & employees are true and correct. For the data analysis only data received form customers related to customer service by IT are taken into consideration.

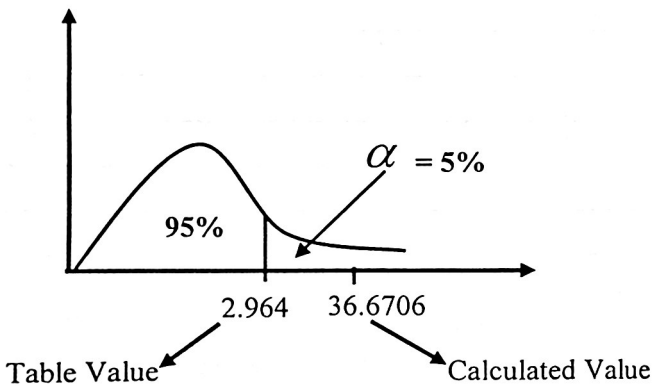
F test is used to identify whether there is a relationship between two variables or not. To apply this test, two hypotheses are formulated.

H_0 :- The slope of regression line is zero that is $\beta = 0$

H_1 :- The slope of regression line is not zero $\beta \neq 0$

From the ANOVA table, Calculated value can be obtained, that is equal to 36.6706. By using statistical table, for the critical value of F distribution with 5% of significance level the table value is equal to 2.964. In this case calculated value is greater than table value. Therefore null hypothesis can be rejected (H_0). This means that slope of regression line is not zero. That is $\beta \neq 0$. F. test distribution is shown in figure 2

Figure 2 - F test distribution.



Therefore it is accepted that there is a relationship between information technology and customer services. This result is true with 95%.

The result of correlation analysis is given in table 3.

Customer service is correlated with	
Office automation system	0.5786
Transaction processing system	0.8124

Source: - Survey data.

According to above table, it can be identified there is a positive relationship between two variables.

Transaction processing system has higher positive relationship with customer services. But office automation also has moderate positive relationship with customer services.

Summary of information related to information technology with customer services is given in the below table 4.

Statistical techniques	Statistics	Interpretation
Multiple R	0.84137	High positive correlation
R square	0.662819	Only 66% variance of customer service is accounted for by career choice.
Co efficient Office automation Transaction processing system	0.243204 0.52710	Respectively transaction processing system, office automation system have impact on customer service
F Value	36.6706	Null hypothesis is rejected
T statistics Office automation system Transaction processing system	3.62381 6.37463	At 5% of significance level null hypothesis is rejected

Source: survey data

The multiple correlation between IT and customer service is equal to 0.814137. This indicates that there is a highly positive correlation between IT and customer service. Coefficient of determination is equal to 0.662819. i.e. 66% of change in customer services can be explained with information technology. In other words only 66% of variance in the customer service is accounted for by IT. While the other 34% of variance in customer service is attributed to some other factors. Coefficient states that transaction-processing system has relatively greater weight on dependent variable. Therefore, transaction-processing system has high impact on customer service than office automation system.

Findings and conclusions.

This study found that there is a high positive relationship between information technology and customer services and also the average. IT uses is very high. According to the statistical results the contribution of IT into customer services is very high. The multiple correlation between IT and customer service is 0.814137. Thus it can be said that there is a highly scale positive correlation indication an impact on IT on customer services. The value of coefficient of determination (.662819) implies that only 66% of variance in the customer services is accounted for by the use of IT, while the other 34% of variance in the customer service is attributed to some other factors. This study identified the following through observation. Customer can finish their activities within short time, cash transaction for outside can be made quickly, customer can withdraw from their deposit throughout 24 hours and customers can reduce errors and mistakes of banking services. Further this study indicated the following findings. IT provides significant customer services than manual, minimizing paper work, processing is faster than manual, IT uses to provide the lower degree in the risk of errors, IT provides high security in providing customer services and improve and accelerate the service given to customer.

This research concluded that use of IT has considerable impact on customer services in banking sector of Jaffna district. But even this research found out the following constraints: increased expenses by computerizing the banks, the lackness of trained expert in computerizing bank, irregular power supply, and inadequate of customers in the use of IT when these constraints over come, the customer services

will be enhanced by use of IT. Commercial bank, seylan bank, and Hatton National bank, respectively provide better customer services than other banks through use of IT in Jaffna district. Now a days bank seeking to offer differentiated customer services through IT based banking as a competitive strategy. Therefore IT can help bank to gain a sustainable competitive advantage. In future, not only providing training to the employees but also providing guidance and instructions to the customers about use of IT, the banking sector can improve customer services by using IT

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