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ASTUDY ON USAGE OF TECHNOLOGY IN INDIAN BANKING SECTOR

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ABSTRACT

With the rapid set of upgrading in the banking industry, information technology (IT) has become a key element and a back bone in terms of operations, quality delivery of services and productivity of services. Therefore, taking advantage of information technologies (IT) is an increasing challenge for banking sector. This study investigates the effects of development of technology on the performance of Indian banks. This paper explores the impacts of technology on the banking industry from the points of view of customers. Questionnaire was used to collect the data from a convenience sample of 125 customers of five selected banks in Hyderabad. The data collected through the questionnaire were analyzed statistically by using chi-square technique. The results indicate that the deployment of technology have averagely improved the performance of Indian banks.

1. INTRODUCTION

Technology today has become synonymous with banking and Indian banks have put in place a fairly strong infrastructure to leverage its benefits. IT has made a visible difference in the functioning of banks and conduct of banking operations. The journey of banking sector with technological advancements had started with the computerization of branches and now it has reached a point where there are e-corners set up with only one or two people handling the complete branch. With these new technologies at dominion the banking processes has been automated and thereby has reduced the waiting time. Also the scope of errors and risk from fraudulent practices has been drastically reduced because of it.

Along with these, the banking sector has also employed information technology in Customer resource management (CRM), Human resource management (HRM) and enterprise risk management (ERP). These days, majority of the banks use paperless banking practices in their internal transactions and also in the payment of salaries and increments to its employees.

The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness Banking.

The paper includes a review of literature on banking products evaluation, research methodology, analysis techniques, a discussion of banking services in India and presents the impact of technology on operational excellence of banks.

Examples of technological changes in the banking industry

The advancement in Technology has played an important role in improving service delivery standards in the Banking industry

1. Mobile banking: Telephone or Mobile banking is a service provided by a bank and financial institution where customer performs their transaction, over the telephone. Reserve Bank brought out a set of operating guidelines on mobile banking for banks in October 2008, according to which only banks which are licensed and supervised in India and have a physical presence in India are permitted to offer mobile banking after obtaining necessary permission from Reserve Bank. This technology facilitates to call the bank and give order to a bank computer for carrying out of operation under customer account.

2. Automated Teller Machine/Point of Sale(POS): An automated teller machine is a computerized device that provides access for financial transaction in a public place. The customer can have access to his bank account to make cash withdrawals and check balances. Presently, there are over 61,000 ATMs in India. Savings Bank customers can withdraw cash from any bank terminal up to 5 times in a month without being charged for the same Apart from these functions ATM facilitates to transfer money from one account to another and can request for a cheque book.

There are over five lakh POS terminals in the country, which enable customers to make payments for purchases of goods and services by means of credit/debit cards. To facilitate customer convenience the Bank has also permitted cash withdrawal using debit cards issued by the banks at PoS terminals.

3. Debit cards: A Debit card is a plastic card with a magnetic strip that can be used by a consumer as a means of payment. Unlike a credit card, there is no line of credit; the debit card is linked to the account.

Funds charged to a debit card are directly deducted from the bank account it is associated with. It is card that provides an alternative payment method to cash for making purchases. It can also be called as electronic cheque.

4. Internet Banking: Internet banking means conducting financial transaction through a website. In Internet banking consumers have an access to their account through a server. This retail funds transfer system introduced in the late 1990s enabled an account holder of a bank to electronically transfer funds to another account holder with any other participating bank. It provides various services like online trading, online bill payment, shop online etc.

In November 2005, a more secure system was introduced for facilitating one-to-one funds transfer requirements of individuals / corporate. Available across a longer time window, the NEFT system provides for batch settlements at hourly intervals, thus enabling near real-time transfer of funds.

RTGS is a funds transfer systems where transfer of money takes place from one bank to another on a "real time" and on "gross" basis. Settlement in "real time" means payment transaction is not subjected to any waiting period. "Gross settlement" means the transaction is settled on one to one basis without bunching or netting with any other transaction. Once processed, payments are final and irrevocable. This was introduced in 2004 and settles all inter-bank payments and customer transactions above ₹2 lakh.

5. Technology and its implementation in Anti-Money Laundering

The role of technology can also be attached in the Account opening program of a bank. It includes formulating Anti-money laundering schemes, which can be implemented by providing enterprise solutions.

Know Your Customer technology not only enables compliance to the complex international, national and product related regulatory requirements but also ensures a quicker and smoother on-boarding process for the customers. The enormous financial services firms have wonderful

compliance rules and in order to meet the associated challenges, they must hold the advancements in technology which features dynamic case management combined with rules. Technology must be adaptable to the changes in rules and risk as well as to the new products offered by the organization and the new geographies in which it plans to expand its domain.

The cutting-edge technologies combine seamlessly with the existing applications and therefore derive maximum results from the existing investments.

2. REVIEW OF LITERATURE

KPMG, "Technology enabled transformation in Banking", The Economic Times Banking Technology, Conclave 2011, the article stated that banking will be transformed by new technology by 2015. customer friendly products, delivery channel, easy and accessible services and competitive pricing would be driving forces-and technology shall play a leading role in all these. Forms using mobile devices and efficient payment systems will make banking services more widely available.

Rakesh H M & Ramya T J (2014) in their research paper titled "A Study on Factors Influencing Consumer Adoption of Internet Banking in India" tried to examine the factors that influence internet banking adoption. It is found that internet banking is influenced by its perceived reliability, Perceived ease of use and Perceived usefulness. In the process of internet banking services expert should emphasize the benefits its adoption provides and awareness can also be improved to attract consumers' attention to internet banking services.

Kartikeya Bolar (2014) In his research paper "End-user Acceptance of Technology Interface In Transaction Based Environment " stated that Creators and investors of technology need information about the customers' evaluation of their technology interface based on the features and various quality dimensions to make strategic decisions in improving technology interfaces and compete on various quality dimensions.

Nitsure (2014) in his paper observed that the problem being faced by developing countries like India in the adoption of E-banking initiatives due to low dissemination of Information Technology. The paper highlighted the problems such as security concerns, rules, regulation and management. In India there is a major risk of the emergence of a digital split as the poor are excluded from the internet and so from the financial system.

Malhotra and Singh (2010) in their research study on Indian banking shows that the private and foreign banks are performing relatively better in offering a diversified range of products and services including e-banking facilities as compared to public sector banks. The experience, size, financing pattern and ownership of the bank were found out to be major factors influencing the extent of e-banking services for urban customers.

Deol (2009) Since the beginning of deregulation of the financial sector in the late 1980s, banks have started operating in the six segments namely retail banking, corporate banking, investment banking, asset management, life insurance and general insurance.

Harris and Spence (2002) explored the ethics of business to business electronic commerce with focus on banking sector. The challenges of e-banking services would be successful for banks only if fraudulent activities could be controlled, transparency in transaction could be maintained, ethical rules and regulation to be followed so that e-banking could be widely acceptable among customers.

The Internet banking is a mixed blessing in the form of increased risk, the level of confidence reposed by the consumers and the problem of blending it with the physical system (Hawke, 2001).

Dr. M.M. Goyal in his research paper titled "Online Banking-A Survey on Customers Viewpoint and Satisfaction" stated that the main reason people prefer to go online is due to the fact that online banking is much more convenient, reliable, faster and time saving. The study also indicates that E-Banking has added new arms to the growth of the Indian banking system which in turn has a great impact on the growth of the Indian economy.

As Princhard and Cole (1997) state, Information Technology (IT) is a term, which generally covers the harnessing of electronic technology for the information needs of business at all levels. It is a computer

based system as well as telecommunication technology for storage, processing and dissemination of information.

Balazs Vinnai, general manager, Digital Channels, Misys(April 25, 2016), says that "It is critical for banks to consider new digital channels as part of an integrated strategy and evolve from first to second generation digital banking: switching digital from a supporting role, to the primary sales and communication channel for banks," says Vinnai. "Reengineering processes around the customer is not easy, but banks must embrace digital banking to remain competitive and relevant."

3. OBJECTIVE OF THE STUDY

1. To examine the awareness of technological development.
2. To analyze the usage of technology in banking.
3. To analyze the influence of demographic factors of the customers in technology

4. RESEARCH METHODOLOGY

This study is to determine the demographic profile of the customers who are recurrently using banking services for more than 3 years and while using different services from , the important factors which are affecting their satisfaction. And also to find the factors that attracts customers to use technology effectively in banking. This research is about usage of technology in banking sector and how the people make use of its products and services. A descriptive research design has been used.

Sampling techniques: Purposive quota sampling has been used from non- probability sampling method to select people who have bank accounts in Hyderabad.

Collection of primary data: Structured questionnaire for customers are prepared. Questionnaire has close ended and open ended questions. It is divided into 2 divisions. First part entails the personal profile of respondents where questions are related to sex, education, salary, marital status were asked. In second part of the questionnaire the respondents were given with a list of factors and were required to assign a weight to each one, using a 5 point Likert scale.

From the total population of Hyderabad, 125 people are chosen as sample size for the study and the data is collected through a Structured Questionnaire.

Collection of secondary data: Secondary data was the source of information for conceptual framework of the subject, history background of the study concerned and review of literature.

Secondary data was collected from various data sources are as follows:

- RBI website
- Various books, journal, magazines, newspaper, Annual reports, Information bulletins
- Reports prepared by research scholars

Tools and Techniques:

Percentage Analysis

Chi-Square test

5. DATA ANALYSIS AND INTERPRETATION

Table1: Gender wise distribution.

Gender	Number	Percentage
Male	60	48
Female	65	52

Table 1 shows that the distribution of respondents who are the customer of bank on the basis of gender. It is seen that maximum respondents belong to female category .

Table:2 Distribution of respondents according to age.

Age	Number	Percentage (%)
21- 35 yrs	15	12
36-45 yrs	60	48
46-55 yrs	19	15.2
55-65 yrs	17	13.6

More than 65yrs	14	11.2
Total	125	100

Table 2 shows distribution of respondents of bank according to age and we find that distribution of respondents is good as we have received responses from each age group ranging from 21 year to more than 65 year age. Among age groups maximum response is from the age group 36 to 45 year which is 48 % whereas minimum response 14 (11.2%) is received from the customer of age group of above 65 years.

Table3: Distribution of respondents according to professional educational

Professional Education	Number	Percentage
Yes	67	53.6
No	58	46.4

Table 3 shows the distribution of respondents according to professional education. It is seen that more than 50% respondents are professionally educated. Hence we can say that the data collected will be comparatively more authentic.

Table 4: Distribution of respondents according to occupation

Response	Number	Percentage
Student/Housewife	22	17.6
Businessman	33	26.4
Service	39	31.2
Retired person	31	24.8
Total	125	100

Table 4 shows the distribution of respondents on the basis of occupation. And it reveals that maximum 31% respondents belong to service class and then businessman.

Table 5: Distribution of respondents according to family income

Response	Number	Percentage
Up to Rs.1 lakh	21	
Rs.1lakh- 2 lakh	28	22.40
Rs.2 lakh- 4lakh	46	36.80
Above Rs.4 lakh	30	24.00
Total	125	100.00

Table 5 shows the distribution of respondents according to family income and it reveals that response is received from all categories of group ranging from 1 lakh income to more than 4 lakh.

Table: 6 Adoption of technology in banking

	Preference on approach of Banking				Usage of service in one year			
	Online banking	Phone banking	Mobile banking	Direct banking	Atm	internet	phone	mobile
YES (%)	61	11.5	8.5	72.5	94	58.5	20	20
SOME WHAT (%)	7.5	17.5	15	11.5	4	11	16.5	14.5
NO (%)	31.5	71	76.5	16	2	30.5	63.5	65.5

From table 6 it can be inferred that even with the introduction of technology 72.5% of the respondents still prefer the mode as direct banking and about 61 % prefer online banking. About 94% of the respondents have used ATM in the last 12 months & 58.5% have used Internet. It also reveals that most of the respondents do not opt for phone and mobile banking.

Hypotheses testing using chi-square analysis:

H₀₁: The direct banking approach does not depend on Age of customers

TABLE -7

	Calculated Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.398	8	0

From the above table it is observed that $p < 0.05$, there is a strong proof to reject the null hypothesis. So the mode of using direct banking depends on age of the customers.

H₀₂: The mobile banking approach does not depend on occupation of the customers.

TABLE -8

	Calculated Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.779	6	0.003

From the above table it is observed that $p < 0.05$ hence the null hypothesis is rejected. Therefore the usage of mobile banking depends on education of the customers.

H₀₃: The online banking approach does not depend on gender of the customers.

TABLE - 9

	Calculated value	Df	Asymp. Sig.(2-sided)
Pearson Chi-square	6.285	2	0.043

From the above table it is observed that $p < 0.05$. Hence it proves the mode of using online banking depends on gender. Therefore the null hypothesis is rejected.

H₀₄: Usage of ATM does not depend on gender

TABLE - 10

	Calculated value	Df	Asymp. Sig.(2-sided)
Pearson Chi-square	7.684	2	0.210

From the above table it is inferred that $p > 0.05$. There is a strong confirmation to accept the null hypothesis. Therefore usage of ATM does not depend on gender.

6. LIMITATIONS OF THE STUDY

- The research was based on primary and secondary data. The primary data required for research objectives was collected from the samples based in Hyderabad city. Although Hyderabad is one of the most important cities of the country and a commercial hub of south India, with only 125 samples selected from the city cannot be considered as a proper representation of the population of the country. However, the objective of the survey was to check the perception of the customers of the bank with regard to the concept of general banking. Thus, this may not create barrier in achieving the desired objective even if Hyderabad city cannot replicate other major banking hubs of the country.
- For primary data, non response error cannot be ruled out.

7. CONCLUSION

The Indian banking industry since the last decade has seen many positive developments in the Indian banking sector. This sector is undergoing rapid changes as a result of technological innovation, increased awareness and demands from customers. Information Technology is at the centre of this global change.

This study reveals that in spite of the growth of technology customers still prefer for direct banking for cash transactions which in turn is full with crowd in banks. People feel direct banking as a platform of convenience due to lack of awareness of technology developments like mobile banking. Yet people are not aware of the utmost utilization of technology since they have a threat towards security. The study gives emphasis to the percentage of awareness on maximum utilization of technology. Banks should take effective measures in creating awareness towards the effective usage of technology and security.

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