



# “A Study on Impact of Information Technology among bank employees and customer from socio demographic context at Udham Singh Nagar District in Uttarakhand”

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**ABSTRACT-** Information Technology has globally turned out to be a key component in economic growth of many developed and developing countries in the world. Many improvements and innovations have taken place in the world in recent years. The most striking and one of the most noticeable is the growth of Information Communication Technology (ICT). It is no longer news that we are now in Information age that is characterized by an ever-changing Information Technology revolution. This study discourses the impact of Information Technology on the banking services offered to the bank customers and bank employees. Information Technology offers economies of scale in service delivery, covering innovative customers and developing advanced services. Banking sector in India has made rapid speed in modernizing and aligning technology to the new competitive business. It adopts mobile, internet and communication systems to deliver speedy services. This present study was started with the objective of significant bank customers and bank employees demographic profile, factors influencing on service accessibility, customer satisfaction on technology based service and strategies required to improve this service selection. This study was conducted in Udham Singh Nagar District (Uttarakhand state), which covered 260 samples in number. The data for the study was collected through well-constructed questionnaire. This study seeks to test the above objectives with simple percentage analysis. This study was concluded that banking services through information technology platform offers satisfied service to the bank customers and bank employees and consecutively needs to improve as per changing technology preference.

**Key Words Used:** Banking Service, Information Technology, Demographic Profile, Service Accessibility, Customer Satisfaction, Technology-Based Service.

## **INTRODUCTION**

Banking technology is recognized as the Information and Communication Technologies (ICTs) employed by banks to provide different services to its customer in a reliable and safe way in an electronic platform. Both banks and customers have been progressively profited from the adoption of advanced Information Technology during the previous two decades to deliver its consistent work. Customer service, innovation in service delivery, reliable and fast service, branch productivity, continuous fund

transfer, real time information system and risk management are several of the benefit consequent through the Information Technology. Growth of Information Technology has opened up new markets, new products, new services and efficient delivery channels for the banking sectors. The advancement of technology and the development of worldwide banking networks have significantly increased the transfer of funds from one place to another place and provision of core banking services to its customers and employees. Without Information and Communication Technology (ICT) we cannot think about the success of Banking Industry, it has enlarged the role of Banking Sector. For creating an efficient Banking System, which can respond adequately to the needs of growing economy, Technology has a significant role to play. Implementation of Information Technology in banks were started in the initial 2000s with an emphasis of the adoption of core banking solutions (CBS), broad automation of banks and centralization of procedures. Information Technology offers a chance for banks to build innovative systems that address a wide range of customer needs including many that may not be imaginable today. Technology innovations are tracking an immense impact in the reshaping of the banking industry, by leading to the development of new financial products. Information Technology enables sophisticated product development, better market infrastructure, implementation of reliable Techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets.

### **REVIEW OF LITERATURE**

**Laudon D. and Laudon J. (2001)**, state that Information Technology encompasses the physical devices and software that link computer hardware components and transfer data from one physical location to another. **Barnes et al. (2003)** suggested that modern innovations in telecommunications have facilitated the instigate of new access methods for banking services, one of these is mobile banking; whereby a customer interacts through a mobile phone with the bank. **Berger (2003)**, the usage of Information Technology (IT) broadly to computers and peripheral equipment, has seen tremendous growth in service industries in the recent past. The most obvious example is perhaps the Banking industry, where through the introduction of IT related products in internet Banking, electronic payments, security investments, Information exchanges, Banks now can provide more diverse services to customers with less manpower. **Shu and Strassmann (2005)** perceived that even though Information Technology has been one of the most essential dynamic factors relating all efforts, it cannot improve banks' earnings. **Kozak (2005)** investigated the pressure of the evolution in Information Technology on the profit and cost effectiveness of the banking. **Sivakumaran (2005)**, believes that adoption of Technology has led to the following benefits- greater productivity, profitability, and efficiency; faster service and customer satisfaction; convenience and flexibility; 24x7 operations; and space and cost savings. **Shirley J. Ho and Sushanta K. Mallick (2006)** Paper titled, **"The Impact of Information Technology on the banking Industry: Theory and Empirics"** The aim of the paper was to investigate whether Information Technology (IT) investments improve Banks' profitability. The paper is concerned with the impact of information technology on the Banking industry, as Banks are the intensive users of IT. **Nyangosi (2009)**, These changes and developments in the Banking industry have impacted positively on the service quality, future of the Banking activities, and consequently its continually competitive aptitude in the world markets. Since going along with Technology is one of the most significant factors of economic organizations success. **Amaoko (2012)** contributed optimistically to the provision of banking services and the growth of the Ghanaian banking industry. **Morufu et al. (2012)** researched on banker's perception of electronic banking in Nigeria purposely to find out how bankers perceive the benefits and threats associated with electronic banking by investigating banks employees' perception on electronic banking and its implications on bank service delivery.

**OBJECTIVES OF THE STUDY**

This study is carried out with the subsequent objectives-

1. To identify the demographic profile of respondents involved in the use of modern day banking services in Udham Singh Nagar banking industry.
2. To examine constructive strategies to improve the information technology enabled services from the customer's standpoint.

**RESEARCH METHODOLOGY**

This research could be started with the suitable research plan and methodology. The broad universe for the purpose of this study comprises of Public Sector Banks, Private Sector Banks operating in the Udham Singh Nagar District. the sample for the study is bank customers and bank employees who are all accessing services in the commercial banks with the aid of Information Technology in Udham Singh Nagar district (Uttraakhand). This study randomly selects 260 samples (200 bank customer and 60 bank employees) at the various places across the sample area (Rudrapur, Gadarpur and Sitarganj block). This study collects data from the respondents, who are all having savings bank account and used Information Technology based service at least one year time frame. This study formulated on the basis of analytical research design. The survey instrument has been assembled with two parts; first parts deals with to identify the demographic profile of respondents (bank customers and bank employees) involved in the use of modern day banking services in Udham Singh Nagar. Second part covers constructive strategies to improve the Information Technology enabled service from the customer's standpoint. The survey instrument was pretested; therefore questionnaire has been designed for collecting data. Collected data has been analyzed by using simple percentage analysis.

**RESULTS AND DISCUSSIONS****1. ANALYSIS OF DEMOGRAPHIC PROFILE OF CUSTOMERS AND EMPLOYEES**

The demographic profile of bank customers and bank employees is analyzed presented in Table-1. Simple percentage analysis has been adopted to analyze demographic profiles of respondents.

**TABLE-1 AGE COMPOSITION OF THE SAMPLE EMPLOYEES (N=60)**

<b>CATEGORIES</b>	<b>PRIVATE SECTOR BANKS</b>	<b>PUBLIC SECTOR BANKS</b>	<b>TOTAL</b>
<b>AGE COMPOSITION</b>			
<b>BELOW 30 YEARS</b>	10	8	18
	<b>(16.67)</b>	<b>(13.33)</b>	<b>(30.00)</b>
<b>30 TO 45 YEARS</b>	19	21	40
	<b>(31.67)</b>	<b>(35.00)</b>	<b>(66.67)</b>
<b>ABOVE 45 YEARS</b>	1	1	2
	<b>(1.67)</b>	<b>(1.67)</b>	<b>(3.33)</b>
<b>TOTAL NUMBER</b>	<b>30</b> <b>(50.00)</b>	<b>30</b> <b>(50.00)</b>	<b>60</b> <b>(100)</b>

Source-Primary Data

It is evident from the above table-1 that majority of the employees are in the age group of 30 to 45 years (40) 66.67 percent.

**TABLE-2 AGE WISE CLASSIFICATION OF CUSTOMERS (IN NUMBER) (N=200)**

CATEGORY	PUBLIC SECTOR BANKS	PRIVATE SECTOR BANKS	TOTAL
<b>AGE</b>			
<b>Up to 25 Years</b>	<b>12</b>	<b>20</b>	<b>32</b>
	<b>(6%)</b>	<b>(10%)</b>	<b>(16%)</b>
<b>26 to 40 Years</b>	<b>60</b>	<b>70</b>	<b>130</b>
	<b>(30%)</b>	<b>(35%)</b>	<b>(65%)</b>
<b>41 &amp; Above Years</b>	<b>20</b>	<b>18</b>	<b>38</b>
	<b>(10%)</b>	<b>(9%)</b>	<b>(19%)</b>
<b>Total Number</b>	<b>100</b>	<b>100</b>	<b>200</b>
	<b>(100%)</b>	<b>(100%)</b>	<b>(100%)</b>

**Source-Primary Data**

It could be ascertained in the above table-5.2, profile of the respondents are clearly analyzed. Age wise classification of the customers apparently expresses that 65 percent (130) majority of the customers with an account in both Public Sector Banks and Private Sector Banks are in the age group of 26 to 40 years.

**TABLE-3 EDUCATION QUALIFICATION OF SAMPLE EMPLOYEES (N=60)**

CATEGORIES	PRIVATE SECTOR BANKS	PUBLIC SECTOR BANKS	TOTAL
<b>EDUCATION QUALIFICATION</b>			
<b>POST GRADUATE</b>	18	15	33
	<b>(30.00)</b>	<b>(25.00)</b>	<b>(55.00)</b>
<b>GRADUATE</b>	9	14	23
	<b>(15.00)</b>	<b>(23.33)</b>	<b>(38.33)</b>
<b>PROFESSIONAL QUALIFICATION</b>	3	1	4
	<b>(5.00)</b>	<b>(1.67)</b>	<b>(6.67)</b>
<b>TOTAL NUMBER</b>	<b>30</b> <b>(50.00)</b>	<b>30</b> <b>(50.00)</b>	<b>60</b> <b>(100)</b>

**Note: Values in the brackets are percentage.**

**Source: Data collected through field survey.**

Perusal of the data in above Table-3 clearly indicates that majority of the employees in the Public Sector Bank and Private Sector Bank are Post Graduate, accounting for (33) 55 percent.

**TABLE- 4 EDUCATION STATUS OF THE SAMPLE CUSTOMERS (N=200)**

CATEGORY	PUBLIC SECTOR BANKS	PRIVATE SECTOR BANKS	TOTAL
<b>EDUCATION QUALIFICATION</b>			
<b>UP TO PUC</b>	<b>10</b>	<b>13</b>	<b>23</b>
	(5%)	(6.50%)	(11.50%)
<b>GRADUATION</b>	<b>60</b>	<b>55</b>	<b>115</b>
	(30%)	(27.50%)	(57.50%)
<b>POST-GRADUATION &amp; ABOVE</b>	<b>30</b>	<b>32</b>	<b>62</b>
	(15%)	(16%)	(31%)
<b>TOTAL NUMBERS</b>	<b>100</b>	<b>100</b>	<b>200</b>
	(100%)	(100%)	(100%)

**Note:** Values in the brackets are percentage.

**Source:** Data collected through field survey.

The data in the above table reveal that the majority of the sample customers are Graduates and above. Out of the total sample of 200 respondent (115) 57.50 percent are Graduates and (62) 31 percent are Post Graduates and above.

**TABLE-5 PROFESSIONAL STATUS OF THE EMPLOYEES (N=60)**

CATEGORIES	PRIVATE SECTOR BANKS	PUBLIC SECTOR BANKS	TOTAL
<b>DESIGNATION OF THE EMPLOYEES</b>			
<b>BRANCH MANAGER</b>	9	11	20
	(15.00)	(18.33)	(33.33)
<b>HEAD OF DEPARTMENT</b>	0	2	2
	(00.00)	(3.33)	(3.33)
<b>ACCOUNTS OFFICERS</b>	6	7	13
	(10.00)	(11.66)	(21.66)
<b>OTHERS</b>	15	10	25
	(25.00)	(16.66)	(41.66)
<b>TOTAL NUMBER</b>	<b>30</b>	<b>30</b>	<b>60</b>
<b>TOTAL YEARS OF SERVICES OF THE EMPLOYEES</b>			
<b>Up to 5 Years</b>	12	11	23
	(20.00)	(18.33)	(38.33)
<b>6 to 10 Years</b>	12	10	22

	(20.00)	(16.66)	(36.66)
	6	9	15
<b>11 &amp; Above Years</b>	(10.00)	(15.00)	(25.00)
<b>TOTAL NUMBER</b>	<b>30</b>	<b>30</b>	<b>60</b>

**Note: Values in the brackets are percentage.**

**Source: Data collected through field survey.**

A careful perusal of the above Table 4.6 reveals that (20) 33.33 percent of total sample respondents are Branch Managers and (2) 3.33 percent are heading the Head of Department. Another (13) 21.66 percent are Account Officers. The others category includes Clerk, Service Officer, Loan Officer, Personal Bankers, accounts for (25) 41.66 percent. The total years of services of the Bank employees in the Banking Sector has shown that among 60 employee respondents (23) 38.33 percent of them were working Up to 5 Years (22) 36.66 percent of them were working between 6 to 10 years in the Banking Sector.

**TABLE-5 EMPLOYMENT AND INCOME LEVELS OF THE CUSTOMERS (N=200)**

CATEGORY	PUBLIC SECTOR BANKS	PRIVATE SECTOR BANKS	TOTAL
<b>OCCUPATION</b>			
<b>GOVERNMENT EMPLOYEE</b>	10	05	15
	(5%)	(2.50%)	(7.50%)
<b>PRIVATE EMPLOYEE</b>	40	45	85
	(20%)	(22.50%)	(42.50%)
<b>SELF EMPLOYED</b>	21	25	46
	(10.50%)	(12.50%)	(23%)
<b>STUDENT</b>	20	19	39
	(10%)	(9.50%)	(19.50%)
<b>HOUSEWIFE</b>	05	04	09
	(2.50%)	(2%)	(4.50%)
<b>PENSIONERS</b>	04	02	06
	(2%)	(1%)	(3%)
<b>TOTAL NUMBER</b>	<b>100</b>	<b>100</b>	<b>200</b>
	<b>(100%)</b>	<b>(100%)</b>	<b>(100%)</b>
<b>AVERAGE MONTHLY INCOME</b>			
<b>LESS THAN 15,000</b>	05	05	10
	(2.50%)	(2.50%)	(5%)
<b>15,000 – 30,000</b>	75	60	135
	(37.50%)	(30%)	(67.50%)
<b>30,000 – 45,000K</b>	15	20	35
	(7.50%)	(10%)	(17.50%)
<b>MORE THAN 45,000</b>	05	15	20
	(2.50%)	(7.50%)	(10%)
<b>TOTAL NUMBER</b>	<b>100</b>	<b>100</b>	<b>200</b>
	<b>(100%)</b>	<b>(100%)</b>	<b>(100%)</b>

**Note: Values in the brackets are percentage.**

**Source: Data collected through field survey.**

The analysis of the data given in the above **Table 5.4** shows that the majority of the sample customers are employed in the Private Sector Banks (85) 42.50 percent. In the case of monthly income, the data given in the above Table reveal that the majority of the sample customers (135) 67.50 percent are in the monthly income group of Rs 15000-Rs 30000.

## **2. STRATEGIES TO IMPROVE TECHNOLOGY ENABLED SERVICES**

The following variables are identified in pre-test and discussion with field experts, the customers are asked to rate the most important strategies to improve technology enabled services.

**TABLE-6 STRATEGIES TO IMPROVE TECHNOLOGY ENABLED SERVICES FROM CUSTOMER STANDPOINT (N=200)**

<b>VARIABLES</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
SMS For Cash Transactions	180	90
Weekly Account Statement	90	45
E-Cheque Provisions	155	77.5
Unlimited Withdrawal	120	60
ATMs On Rural Areas	170	85
Cyber-Crime Safety	45	22.5
Increased Memory Storage	55	27.5
E-Mail Alerts	85	42.5

Source- Primary Data

Table-6 evidence that Strategies to Improve Information Technology enabled service mainly requires innovative strategies to develop. The customers passionately believe that SMS for Cash Transactions, E-Mail Alerts and Weekly Account Statement are the important strategy to improve Information Technology based services. Followed to those ATMs on rural areas and cybercrime safety are the second important factor to improve technology platform. Finally, e-cheque provisions, unlimited withdrawal and increased memory storage are also similarly gained importance in carrying improvement in technology based services from the customer's point of view.

## **CONCLUSION**

The summary of responses obtained as well analysis of these responses is provided as under- Total Number of Staff responded 60 of this 30% i.e. 18 were Officers and the 70% i.e. 42 were clerical. Out of 18 officers there were 8 ladies officers and the rest of the gent's officers. Majority of the employees are in the age group of 30 to 45 years (40) 66.67 percent. Age wise classification of the customers apparently expresses that 65 percent (130) majority of the customers with an account in both Public Sector Banks and Private Sector Banks are in the age group of 26 to 40 years. Perusal of the data in above Table-3 clearly indicates that majority of the employees in the Public Sector Bank and Private Sector Bank are Post Graduate, accounting for (33) 55 percent. Out of the total sample of 200 respondent (115) 57.50 percent are Graduates and (62) 31 percent are Post Graduates and above. A careful perusal of the above Table 4.6 reveals that (20) 33.33 percent of total sample respondents are Branch Managers and (2) 3.33 percent are heading the Head of Department. Another (13) 21.66 percent are Account Officers. The others category includes Clerk, Service Officer, Loan Officer, Personal Bankers, accounts for (25) 41.66 percent. The total years of services of the Bank employees in the Banking Sector has shown that among 60 employee respondents (23) 38.33 percent of them were working Up to 5 Years (22) 36.66 percent of them were working between 6 to 10 years in the Banking Sector. Majority of the sample customers are employed in the Private Sector Banks (85) 42.50 percent. Majority of the sample customers (135) 67.50 percent are in the monthly income group of Rs 15000-Rs 30000. Customers are expecting some strategies to improve technology enabled service portfolio. It is

widely acknowledged that the customers now seeks to fulfill their lifestyle aspiration at right times with right kind of technology for deposit, withdrawal and transfer of funds. This is leading to growing demand for competitive and sophisticated technology based services. The time has arrived to shift towards a customer-friendly approach; customers granted an opportunity to take pleasure in their share of benefits restricting from Information Technology development. Information Technology has considerable influence on the use of banking services and affords greatest satisfaction to the bank customer and bank employees with new contemporary strategies frequently. It is concluded that Information Technology innovation in banks facilitate to reward all version of service to the bank customers and bank employees in a cost effective way.

## REFERENCES

- **Laudon, D.P. and Laudon, J.P. (2001)**, Business Information System: A Problem Solving Approach, New York, HBJ, College Publishers. 21.
- **Barnes, S.J. and Corbitt, B. (2003)**, “Mobile Banking: Concept and Potential”, International Journal of Mobile Communications, Vol.1 (3), pp.273-288.
- **Berger, A. N. (2003)**, the economic effects of technological progress: evidence from the banking industry, Journal of Money, Credit, Banking, 35 (2), 141-176.
- **Shu, W. and Strassmann, P.A. (2005)**, “Does Information Technology Provide Banks with Profit?”, Information & Management, Vol.42, pp.781-787.
- **Kozak, S. (2005)**, “The Role of Information Technology in the Profit and Cost Efficiency Improvements of the Banking Sector”, Journal of Academy of Business and Economics, Vol.3, pp.321-330.
- **Sivakumaran, M.V. (2005)**. Banking Technology course material for MTech (IT) with specialization in banking technology and information security, IDRBT.
- **Shirley J. Ho and Sushanta K. Mallick (2006)** 17 Paper titled, “The Impact of Information Technology on the banking Industry: Theory and Empirics”. <http://webspaces.qmul.ac.uk/pmartins/mallick.pdf>.
- **Nyangosi, R and Arora, J.S (2009)**, Emergency of information technology in the Kenyan banking sector: An Empirical study In a Proceeding Conference of Global Business and Management.
- **Amaoko, A. (2012)** “The Impact of Information Communication Technology (ICT) on Banking Operations in Ghana”, International Journal of Business and Management Tomorrow, Vol. 2 (3), pp.34-43.
- **Morufu, O. and Taibat, A. (2012)** “Banker’s Perception of Electronic Banking in Nigeria: A Review of Post Consolidation Experience”, Research Journal of Finance and Accounting, Vol.3 (2), pp.1-11.

