



# “A Study on Impact of Information Technology in Banking Sector in Uttarakhand”

(With Special Reference to Udham Singh Nagar District)

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**ABSTRACT-** This paper presents a brief overview which is linked to the bank network and its role in IT. Information Technology has globally turned out to be a significant constituent in economic growth of voluminous developed and developing countries in the world. Voluminous innovations and improvements 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). Emerging trends of IT in banking sector are Integration, Outsourcing, Distinctive Edge, IT as Profit Centre and Prospering in Downcast Market. Challenges faced by Indian banking scenario in India are Meet customer expectations on service, capability offered by the bank, Consumer preservation, Managing the spread and sustain the operating profit, Retaining the existing market share in the industry and the enlightening the equivalent, Completion from other troupes in the banking industry. Other Information Technology facilitates sophisticated product development, better market infrastructure, implementation of techniques for controller of possibilities and assistances the financial intermediaries to reach geographically diversified and distant markets. This study discourages the impact of Information Technology on the banking services offered to the bank employees. This research aims to provide a comprehensive overview of the extant research on the impact of information technology (IT) on banking. The findings suggest that Information Technology (IT) has had a positive impact on banking sector in terms of efficiency and profitability. 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 innovative competitive business and adopts mobile, internet and communication systems to deliver speedy services. This present study was started with the objective of identify the level of satisfaction of the respondents (bank employees) towards utilization of modern day banking technology in Udham Singh Nagar district. Second part covers relationship between efficiency and productivity of banks and Information Technology contribution. This study was conducted in Udham Singh Nagar District (Uttarakhand state), which covered 60 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 employees and consecutively needs to improve as per changing technology preference.

**Key Words Used:** Banking Service, Information Technology, Efficiency, Profitability, Significant Constituent, Developing Advanced Service.

## INTRODUCTION

Growth of Information Technology has opened up innovative markets, new products, new services and proficient 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. 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 ICTs. It is also observed as an instrument of cost reduction, effective communication with people and institutions associated with the banking business. The financial reforms, deregulation globalization etc. coupled with rapid revolution in communication technologies and evolution of novel concept of convergence of communication technologies banking technology is acknowledged as the Information and Communication Technologies employed by banks to provide diverse services to its customer in a reliable and safe way in an electronic platform. The new private sector banks and the foreign banks are handicapped by the lack of a strong branch network in comparison with the public sector banks. Many banks have modernized their services with the facilities of computer and electronic equipment's. The electronics revolution has made it possible to provide ease and flexibility in banking operations to the benefit of the customer. Together banks and customers have been increasingly profited from the adoption of advanced Information Technology during the earlier two decades to deliver its consistent work. Without Information and Communication Technology (ICT) we cannot think about the accomplishment 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. 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. Implementation of Information Technology in banks were started in the initial 2000s with an emphasis of the adoption of core banking solutions (CBS), centralization of procedures and broad automation of banks. 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.

## REVIEW OF LITERATURE

**Carlson et al (2000) and Furst et al (2002)** conducted studies on whether there is a direct connection that exists between engaging in Electronic Banking and Bank's profitability. **Furst et al (2002)**, indicates that federally chartered US Banks had higher Return on Equity (ROE) by using the normal business model, Information Technology was one of the key factors that affect the profitability of Banks within the period under study and they also indicated that most of the Banks that are profitable adopt ICT after 1998 but yet they are not first movers. **Kozak (2005)** investigated the pressure of the evolution in Information Technology on the profit and cost effectiveness of the banking. This study designated optimistic relationship among the executed Information Technology and together productivity and cost savings. **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. **Choudhury and Koushiki (2008)** their study results shows that the Indian banking industry is going through turbulent times. With the lowering of entry barriers and blurring of product lines of Banks and nonbanks since the financial sector reforms Banks are functioning increasingly under competitive pressures. Hence, it is imperative that Banks maintain a loyal customer base. In order to achieve this and improve their market and profit positions, many retail Banks are directing their strategies towards increasing customer satisfaction and loyalty through improved service quality. **Namita Rajput and Harish Handa (2011)** In their article "Banking efficiency: An application of DEA" have examined the efficiency of the Banking Sector in

India and concluded that, as the economy grows and more and more opportunities come into the system, Banks must focus on increasing their efficiency so that they can provide a firm support in the financial market for the industries to develop. The banking sector has faced different problems during the computerization process. **Firdou & Farooqi (2017)** Customer satisfaction in banking the purpose of this study is to investigate the impact of internet banking service quality on customer satisfaction. In recent years, the number of people using internet banking services has grown rapidly. The findings of this study will contribute to our understanding of customer satisfaction with internet banking services and will help banks improve their service quality. However, there is still a lack of research on how service quality affects customer satisfaction in this context. **Kapadia & Madhav, (2020)** How India's financial markets and banking operations are being impacted by digitization the paper focuses on Digitization is helping to facilitate the growth of the e-commerce and mobile banking industries in India. Digitization is impacting banking transactions and financial markets in India in several ways. It is reducing the time and cost of transactions, increases transparency and efficiency, and providing greater access to financial services.

### **OBJECTIVES OF THE STUDY**

This study is carried out with the subsequent objectives-

- 1) To study the evolution of Information Technology in Udham Singh Nagar banking Industry.
- 2) To evaluate the level of customer satisfaction since the implementation of Information Technology in Udham Singh Nagar.

### **RESEARCH METHODOLOGY**

This research could be underway with the appropriate 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 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 60 samples (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 level of satisfaction of the respondents (bank employees) towards utilization of modern day banking technology in Udham Singh Nagar. Second part covers relationship between efficiency and productivity of banks and Information Technology contribution. 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**

#### **RESPONDENT LEVEL OF SATISFACTION TOWARDS MODERN DAY BANKING TECHNOLOGY**

To evaluate the level of satisfaction of the respondents towards utilization of modern day banking technology is an important component which is directly related to their utilization of ICT tools. An attempt was made to find out the response of Bank employees towards a set of statements of level of satisfaction towards utilization of ICT services with varying degrees of positive and negative impressions.

The level of satisfaction scale consists of 32 statements. The responses had to be recorded on a five-point continuum representing Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree with scores of 5, 4, 3, 2 and 1 respectively for positive statements and vice-versa for negative statements. The findings regarding the level of satisfaction statements are furnished according to

the nature and magnitude of the attitude statements in Table (1).To obtained total score of respondents reveals the opinion for a particular item used in the questionnaire for data collection.

The mean and standard deviation of variables were also computed from the primary data to provide systematic information on the perception of the sixty respondents taken for the study. Statement wise responses as shown in Table (1) are given below.

**TABLE-1**  
**LEVEL OF SATISFACTION TOWARDS UTILIZATION OF ICT TOOLS BY EMPLOYEES (n=60)**

S.NO.	CATEGORY	FREQUENCY	PERCENTAGE
1.	LOW (UP TO 119)	06	10.00
2.	<b>MEDIUM (119TO 125)</b>	<b>42</b>	<b>70.00</b>
3.	HIGH (MORE THAN 125)	12	20.00
4.	TOTAL	60	100

M=122.63, S.D. =3.49

The above Table (1) elucidates that majority of the respondents (42) 70 percent had medium level of satisfaction towards utilization of modern day banking technology whereas (12) 20 per cent of the respondents had high level of satisfaction towards utilization of modern day banking technology and (06) 10 percent of the respondents had low level of satisfaction towards utilization of modern day banking technology.

**TABLE-1.1**  
**LEVEL OF SATISFACTION IN UTILIZING THE MODERN DAY BANKING TECHNOLOGY OF THE SAMPLE EMPLOYEES (n=60)**

S. NO.	STATEMENTS	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
		(F)	(F)	(F)	(F)	(F)
1.	The cost of adopting ICT is very high.	07	53	-	-	-
2.	Traditional banking still remains the best option for our clients.	-	-	07	17	36
3.	The services are simply too expensive for consumers.	04	15	14	25	02

4.	No difference in profitability as compared to branch banking.	-	04	05	<b>35</b>	16
5.	There is technological illiteracy among bankers.	13	<b>39</b>	08	-	-
6.	Lack of infrastructure is the main hurdle / problem.	<b>43</b>	17	-	-	-
7.	Many banks fear cross-border risk since the laws are different from one country to another.	-	09	41	08	02
8.	Many Banks fear because there are no proper laws and regulations regarding ICT.	01	33	21	05	-
9.	Many Banks fear risk management challenges like reputation risk, operational and capital adequacy risk.	22	27	07	03	01
10.	Security concerns is the most discouraging factor in using ICT because customer feel insecure as they do not know where electronic transaction pass and whom they meet.	33	20	07	-	-
11.	Most of the customers do not know how to use and are not aware of some ICT services provided by their banks.	34	19	07	-	-
12.	ICT services generally do not have privacy of customer's information.	-	-	09	07	44
13.	Bankers charge high fees on using ICT services.	-	-	07	10	43
14.	Customers fear using ICT because electronic crimes are arising greatly.	48	12	-	-	-

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

**TABLE-1.2****LEVEL OF SATISFACTION IN UTILIZING THE MODERN DAY BANKING TECHNOLOGY OF THE SAMPLE EMPLOYEES (IN PERCENTAGE) (n=60)**

S. NO.	STATEMENTS	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
		(1)	(2)	(3)	(4)	(5)
1.	The cost of adopting ICT is very high.	11.67	88.30	-	-	-
2.	Traditional banking still remains the best option for our clients.	-	-	11.67	28.33	60.00
3.	The services are simply too expensive for consumers.	6.67	25.00	23.33	41.67	03.33
4.	No difference in profitability as compared to branch banking.	-	6.67	8.33	58.33	26.67
5.	There is technological illiteracy among bankers.	21.67	65.00	13.33	-	-
6.	Lack of infrastructure is the main hurdle / problem.	71.67	28.33	-	-	-
7.	Many banks fear cross-border risk since the laws are different from one country to another.	-	15.00	68.33	13.33	03.33
8.	Many Banks fear because there are no proper laws and regulations regarding ICT.	1.67	55.00	35.00	8.33	-

9.	Many Banks fear risk management challenges like reputation risk, operational and capital adequacy risk.	36.67	45.00	11.67	5.00	01.67
10.	Security concerns is the most discouraging factor in using ICT because customer feel insecure as they do not know where electronic transaction pass and whom they meet.	55.00	33.33	11.67	-	-
11.	Most of the customers do not know how touse and are not aware of some ICT services provided by their banks.	56.67	31.67	11.67	-	-
12.	ICT services generally do not have privacy of customer's information.	-	-	15.00	11.67	73.33
13.	Bankers charge high fees on using ICT services.	-	-	11.67	16.67	71.67
14.	Customers fear using ICT because electronic crimes are arising greatly.	80.00	20.00	-	-	-

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

1. Perusal of the data in above Table 1.1 and Table 1.2 clearly indicates that majority (53) 88.30 percent of the respondents agree that the cost of adopting ICT is very high whereas only (07) 11.67 percent respondents strongly agree with that the cost of adopting ICT is very high.

2. Majority (36) 60 percent of the respondents strongly disagree that traditional banking still remains the best option for our clients whereas only (17) 28.33 percent respondents disagree with that traditional banking still remains the best option for our clients and the remaining respondents are neutral for the statement.

3. Majority (25) 41.67 percent of the respondents disagree that the services are simply

too expensive for consumers whereas only (15) 25 percent respondents agree with that the services are simply too expensive for consumers and (14) 23.33 percent respondents neutral with that the services are simply too expensive for consumers.

4. Majority (33) 58.33 percent of the respondents disagree that no difference in profitability as compared to branch banking percent of the respondents agree that Customers are satisfied with the Bank services whereas (27) 45 percent respondents strongly disagree with that No difference in profitability as compared to branch banking.

5. Majority (39) 65 percent of the respondents agree that there is technological illiteracy among bankers whereas only (13) 21.67 percent respondents strongly agree with that there is technological illiteracy among bankers.

6. Majority (43) 71.67 percent of the respondents strongly agree that Lack of infrastructure is the main hurdle/problem whereas remaining (17) 28.33 percent respondents agree with that Lack of infrastructure is the main hurdle / problem.

7. Majority (41) 68.33 percent of the respondents neutral that many banks fear cross-border risk since the laws are different from one country to another whereas only (09) 15 percent respondents agree with that many banks fear cross-border risk since the laws are different from one country to another and (08) 13 percent respondents are disagree with the statement.

8. Majority (33) 55 percent of the respondents agree that many Banks fear because there are no proper laws and regulations regarding ICT whereas remaining (21) 35 percent respondents neutral with that many Banks fear because there are no proper laws and regulations regarding ICT.

9. Majority (27) 45 percent of the respondents strongly agree that many Banks fear risk management challenges like reputation risk, operational and capital adequacy risk whereas remaining (22) 36.67 percent respondents agree with that many Banks fear risk management challenges like reputation risk, operational and capital adequacy risk.

10. Majority (33) 55 percent of the respondents strongly agree that security concerns is the most discouraging factor in using ICT because customer feel insecure as they do not know where electronic transaction pass and whom they meet whereas (20) 33.33 percent respondents agree with that security concerns is the most discouraging factor in using ICT because customer feel insecure as they do not know where electronic transaction pass and whom they meet and remaining (07) 11.67 percent respondent are neutral about the statement.

11. Majority (34) 56.67 percent of the respondents strongly agree that most of the customers do not know how to use and are not aware of some ICT services provided by their banks. whereas only (19) 31.67 percent respondents agree with that Most of the customers do not know how to use and are not aware of some ICT services provided by their banks and remaining respondents are neutral for the statement.

12. Majority (44) 73.33 percent of the respondents strongly disagree that ICT services generally do not have privacy of customer's information whereas only (09) 15 percent respondents neutral with that ICT services generally do not have privacy of customer's information and remaining respondents are neutral for the statement.

13. Majority (43) 71.67 percent of the respondents strongly disagree that Bankers charge high fees on using ICT services whereas only (10) 16.67 percent respondents disagree with that Bankers charge high fees on using ICT services and remaining respondents are neutral for the statement.

14. Majority (48) 80 percent of the respondents strongly agree that Customers fear using ICT because electronic crimes are arising greatly whereas remaining (12) 20 percent respondents agree with that Customers fear using ICT because electronic crimes are arising greatly.

**TABLE-2**

**LEVEL OF SATISFACTION IN UTILIZING THE MODERN DAY BANKING TECHNOLOGY OF THE SAMPLE EMPLOYEES (n=60)**

S. NO.	STATEMENTS	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
		(F)	(F)	(F)	(F)	(F)
1.	ICT services are generally faster than traditional banking which helps customers to avoid long queue in banking halls.	51	09	-	-	-
2.	There is high degree of convenience in ICT as you can access the banking services from anywhere and anytime.	36	24	-	-	-
3.	Application of ICT tools in banking services maintains high level of proficiency and efficiency.	28	32	-	-	-
4.	ICT services are generally cheaper than traditional banking at the branch as the cost of providing them is less.	33	27	-	-	-
5.	Using ICT service is more prestigious than queuing at the Bank halls.	27	33	-	-	-
6.	Adopting ICT helps in retaining more customers.	26	34	-	-	-
7.	ICT may help in avoiding many risks like robbery in physical handling of large amount of cash.	35	25	-	-	-

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

**TABLE-2.1**

**LEVEL OF SATISFACTION IN UTILIZING THE MODERN DAY BANKING TECHNOLOGY OF THE SAMPLE EMPLOYEES (IN PERCENTAGE) (n=60)**

S. NO.	STATEMENTS	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
		(5)	(4)	(3)	(2)	(1)
1.	ICT services are generally faster than traditional banking which helps customers to avoid long queue in banking halls.	85.00	15.00	-	-	-
2.	There is high degree of convenience in ICT as you can access the banking services from anywhere and anytime.	60.00	40.00	-	-	-
3.	Application of ICT tools in banking services maintains high level of proficiency and efficiency.	46.67	53.33	-	-	-
4.	ICT services are generally cheaper than traditional banking at the branch as the cost of providing them is less.	55.00	45.00	-	-	-
5.	Using ICT service is more prestigious than queuing at the Bank halls.	45.00	55.00	-	-	-
6.	Adopting ICT helps in retaining more customers.	43.33	56.67	-	-	-
7.	ICT may help in avoiding many risks like robbery in physical handling of large amount of cash.	58.33	41.67	-	-	-

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

1. Perusal of the data in above Table 2 and Table 2.1 clearly indicates that majority (51) 85 percent of the respondents strongly agree that ICT services are generally faster than traditional banking which helps customers to avoid long queue in banking halls whereas only (09) 15 percent respondents agree with that ICT services are generally faster than traditional banking which helps customers to avoid long queue in banking halls.

2. Majority (36) 60 percent of the respondents strongly agree that there is high degree of convenience in ICT as you can access the banking services from anywhere and anytime whereas remaining (24) 40 percent respondents agree with that there is high degree of convenience in ICT as you can access the banking services from anywhere and anytime.

3. Majority (32) 53.33 percent of the respondents agree that Application of ICT tools in banking services maintains high level of proficiency and efficiency whereas remaining (28) 46.67 percent respondents strongly agree with that Application of ICT tools in banking services maintains high level of proficiency and efficiency.

4. Majority (33) 55 percent of the respondents strongly agree that ICT services are generally cheaper than traditional banking at the branch as the cost of providing them is less whereas remaining (27) 45 percent respondents agree with that ICT services are generally cheaper than traditional banking at the branch as the cost of providing them is less.

5. Majority (33) 55 percent of the respondents agree that Using ICT service is more prestigious than queuing at the Bank halls whereas remaining (27) 45 percent respondents strongly agree with that Using ICT service is more prestigious than queuing at the Bank halls.

6. Majority (34) 56.67 percent of the respondents agree that Adopting ICT helps in retaining more customers whereas remaining (26) 43.33 percent respondents strongly agree with that Adopting ICT helps in retaining more customers.

7. Majority (35) 58.33 percent of the respondents strongly agree that ICT may help in avoiding many risks like robbery in physical handling of large amount of cash whereas remaining (25) 41.67 percent respondents agree with that ICT may help in avoiding many risks like robbery in physical handling of large amount of cash.

**TABLE-2.2**

**LEVEL OF SATISFACTION IN UTILIZING THE MODERN DAY BANKING TECHNOLOGY OF THE SAMPLE EMPLOYEES (n=60)**

S. NO.	STATEMENTS	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
		(F)	(F)	(F)	(F)	(F)
1	ICT enhances the speed of service delivery in this Bank.	24	36	-	-	-
2	ICT enables my Bank to deliver quality services to our customers.	25	35	-	-	-
3	The introduction of ICT in this bank has since attracted more customers to the Bank.	24	36	-	-	-
4	Customers are satisfied with the Bank services.	27	33	-	-	-

5	There are constant updates on the development of ICT in this Bank.	13	40	07	-	-
6	ICT has reduced Banking cost.	32	22	06	-	-
7	ICT reduces paper work in this Bank.	33	18	09	-	-
8	Since the introduction of ICT, this Bank has become more profitable.	35	25	-	-	-
9	ICT services are adequately reliable in this Bank.	47	13	-	-	-
10	Customers are satisfied with the Bank Security and Privacy since the introduction of ICT.	28	28	04	-	-

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

**TABLE-2.3**

**LEVEL OF SATISFACTION IN UTILIZING THE MODERN DAY BANKING TECHNOLOGY OF THE SAMPLE EMPLOYEES (IN PERCENTAGE) (n=60)**

S. NO.	STATEMENTS	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
		(1)	(2)	(3)	(4)	(5)
1	ICT enhances the speed of service delivery in this Bank.	40.00	60.00	-	-	-
2	ICT enables my Bank to deliver quality services to our customers.	41.67	58.33	-	-	-
3	The introduction of ICT in this bank has since attracted more customers to the Bank.	40.00	60.00	-	-	-
4	Customers are satisfied with the Bank services.	45.00	55.00	-	-	-
5	There are constant updates on the development of ICT in this Bank.	21.67	66.67	11.67	-	-
6	ICT has reduced Banking cost.	53.33	36.67	10.00	-	-

7	ICT reduces paper work in this Bank.	55.00	30.00	15.00	-	-
8	Since the introduction of ICT, this Bank has become more profitable.	58.33	41.67	-	-	-
9	ICT services are adequately reliable in this Bank.	78.33	21.67	-	-	-
10	Customers are satisfied with the Bank Security and Privacy since the introduction of ICT.	46.67	46.67	6.67	-	-

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

1. Perusal of the data in above Table 2.2 and Table 2.3 clearly indicates that majority (36) 60 percent of the respondents agree that ICT enhances the speed of service delivery in this Bank whereas only (24) 40 percent respondents strongly agree with that ICT enhances the speed of service delivery in this Bank.

2. Majority (35) 58.33 percent of the respondents agree that ICT enables my Bank to deliver quality services to our customers whereas remaining (25) 41.67 percent respondents strongly agree with that ICT enables my Bank to deliver quality services to our customers.

3. Majority (36) 60 percent of the respondents agree that the introduction of ICT in this bank has since attracted more customers to the Bank whereas remaining (24) 40 percent respondents strongly agree with that the introduction of ICT in this bank has since attracted more customers to the Bank.

4. Majority (33) 55 percent of the respondents agree that Customers are satisfied with the Bank services whereas remaining (27) 45 percent respondents strongly agree with that Customers are satisfied with the Bank services.

5. Majority (40) 66.67 percent of the respondents agree that there are constant updates on the development of ICT in this Bank whereas only (13) 21.67 percent respondents strongly agree with that there are constant updates on the development of ICT in this Bank and remaining respondents are neutral for the statement.

6. Majority (32) 53.33 percent of the respondents strongly agree that ICT has reduced Banking cost whereas only (22) 36.67 percent respondents agree with that ICT has reduced Banking cost and remaining respondents are neutral for the statement.

7. Majority (33) 55 percent of the respondents strongly agree that ICT reduces paper work in this Bank whereas only (18) 30 percent respondents agree with that ICT reduces paper work in this Bank and remaining respondents are neutral for the statement.

8. Majority (35) 58.33 percent of the respondents agree that ICT services are adequately reliable in this Bank whereas remaining (25) 41.67 percent respondents strongly agree with that ICT services are adequately reliable in this Bank.

9. Majority (47) 78.33 percent of the respondents strongly agree that Adopting ICT helps in retaining more customers whereas remaining (13) 21.67 percent respondents agree with that Adopting ICT helps in retaining more customers.

10. Majority (28) 46.67 percent of the respondents strongly agree that Customers are satisfied with the Bank Security and Privacy since the introduction of ICT whereas (28) 46.67 percent respondents agree with that Customers are satisfied with the Bank Security and Privacy since the introduction of ICT and remaining (4) 6.67 percent respondent are neutral about the statement.

**RELATIONSHIP BETWEEN EFFICIENCY AND PRODUCTIVITY OF BANKS AND INFORMATION TECHNOLOGY CONTRIBUTION**

The study examined the relationship between efficiency and productivity of banks and Information Technology. The variables included were: efficiency and productivity of banks.

**TABLE-3**  
**RELATIONSHIP BETWEEN EFFICIENCY AND PRODUCTIVITY OF BANKS AND INFORMATION TECHNOLOGY**

S.NO.	INDEPENDENT VALUE	(r) CORRELATION COEFFICIENT	(t) CALCULATED VALUE
1.	EFFICIENCY OF BANKS	0.96	10.83
2.	PRODUCTIVITY OF BANKS	0.87	5.61

**\*Significance at 0.05 level of probability; t value at 0.05 level of significance (df=12) =2.179**

**EFFICIENCY AND PRODUCTIVITY OF BANK**

**Null Hypothesis (H<sub>0</sub>)**

“Information Technology has not contributed positively to the efficiency and productivity of bank in Udham Singh Nagar.”

**Alternate Hypothesis (H<sub>1</sub>)**

“Information Technology has contributed positively to the efficiency and productivity of bank in Udham Singh Nagar.”

The data presented in Table (3) was used for testing the null hypothesis (H<sub>0</sub>) that Information Technology has not contributed positively to the efficiency and productivity of bank in Udham Singh Nagar. In case of efficiency of bank the value of correlation coefficient (r) =0.96 and t calculated = 10.83 and in case of productivity of banks the value of correlation coefficient (r) =0.87 and t calculated = 5.61 in both case t calculated value was more than t tab value (2.179) at 5 per cent level of significance. Thus, null hypothesis was rejected and alternative hypothesis was accepted. It was found that there was positive and significant relationship between efficiency and productivity of banks and Information Technology by banks. As the obtained values are in positive in nature therefore there is a positive significant relationship between efficiency and productivity of banks and Information Technology by banks. The reason behind such results may be due to the fact that IT has had a positive impact of banking in terms of efficiency, productivity, customer service arrival of cards and introduction of electronic clearing services. The efficient use of technology has facilitated accurate and timely management of the increased transaction volumes of banks which comes with large customer base. Heavy investments are in the expectation of improvement in their performance.

**RELATIONSHIP BETWEEN SOCIO-ECONOMIC, PSYCHOLOGICAL, COMMUNICATION CHARACTERISTICS OF BANK EMPLOYEES AND LEVEL OF SATISFACTION TOWARDS UTILIZATION OF ICT TOOLS BY EMPLOYEES**

The study examined the relationship between selected socio-economic, and communication characteristics of employees and their level of satisfaction towards utilization of ICT tools. The variables included were: Age, Education, Mass Media Exposure, Information Seeking Behavior, Professional Qualifications and Training Exposure.

**TABLE-3.1**

**RELATIONSHIP BETWEEN SOCIO-ECONOMIC, PSYCHOLOGICAL, COMMUNICATION CHARACTERISTICS OF BANK EMPLOYEES AND LEVEL OF SATISFACTION TOWARDS UTILIZATION OF ICT TOOLS BY EMPLOYEES**

S.NO.	INDEPENDENT VALUE	( r ) CORRELATION COEFFICIENT	t CALCULATED VALUE
1	AGE	0.0432	0.3295
2	EDUCATION	0.0417	0.3183
3	MASS MEDIA EXPOSURE	0.0056	0.0424
4	INFORMATION SEEKING BEHAVIOR	-0.2946	-2.4571
5	PROFESSIONAL STATUS	-0.0873	-0.6700
6	TRAINING EXPOSURE	0.1848	1.4570

\*Significance at 0.05 level of probability; t value at 0.05 level of significance (df = 60) =2.0008

**SUMMARY OF INTERPRETATIONS**

**TABLE-4**

**SUMMARY OF INTERPRETATIONS**

HYPOTHESIS	STATEMENTS	CONCLUSION
H <sub>0</sub>	Information Technology has not contributed positively to the efficiency and productivity of bank in Udham Singh Nagar.”	<b>REJECTED</b>

**CONCLUSION**

The research brought to light the fact that Information Technology has been of great impact on banking sector in Udham Singh Nagar district Uttarakhand. The findings both from the questionnaires and the library research reveal that Information Technology leads to saving the time of the employees conspicuously, cutting down the expenses and facilitating the network transactions. 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. The above Table (1) elucidates that majority of the respondents (42) 70 percent had medium level of satisfaction towards utilization of modern day banking technology. Majority (53) 88.30 percent of the respondents agree that the cost of adopting ICT is very high. Majority (36) 60 percent of the

respondents strongly disagree that traditional banking still remains the best option for our clients. Majority (25) 41.67 percent of the respondents disagree that the services are simply too expensive for consumers. Majority (33) 58.33 percent of the respondents disagree that no difference in profitability as compared to branch banking percent of the respondents agree that Customers are satisfied with the Bank services. Majority (39) 65 percent of the respondents agree that there is technological illiteracy among bankers. Majority (43) 71.67 percent of the respondents strongly agree that Lack of infrastructure is the main hurdle/problem. Majority (41) 68.33 percent of the respondents neutral that many banks fear cross-border risk since the laws are different from one country to another. Majority (33) 55 percent of the respondents agree that many Banks fear because there are no proper laws and regulations regarding ICT. Majority (27) 45 percent of the respondents strongly agree that many Banks fear risk management challenges identical reputation risk, operational and capital adequacy risk. Majority (33) 55 percent of the respondents strongly agree that security concerns is the most discouraging factor in using ICT because customer feel insecure as they do not know where electronic transaction pass and whom they meet. Majority (34) 56.67 percent of the respondents strongly agree that most of the customers do not know how to use and are not aware of some ICT services provided by their banks. Majority (44) 73.33 percent of the respondents strongly disagree that ICT services generally do not have privacy of customer's information. Majority (43) 71.67 percent of the respondents strongly disagree that Bankers charge high fees on using ICT services. Majority (48) 80 percent of the respondents strongly agree that Customers fear using ICT because electronic crimes are arising greatly. Table 2 and Table 2.1 clearly indicates that majority (51) 85 percent of the respondents strongly agree that ICT services are generally faster than traditional banking which helps customers to avoid long queue in banking halls. Majority (36) 60 percent of the respondents strongly agree that there is high degree of convenience in ICT as you can access the banking services from anywhere and anytime. Majority (32) 53.33 percent of the respondents agree that Application of ICT tools in banking services maintains high level of proficiency and efficiency. Majority (33) 55 percent of the respondents strongly agree that ICT services are generally cheaper than traditional banking at the branch as the cost of providing them is less. Majority (33) 55 percent of the respondents agree that Using ICT service is more prestigious than queuing at the Bank halls. Majority (34) 56.67 percent of the respondents agree that Adopting ICT helps in retaining more customers. Majority (35) 58.33 percent of the respondents strongly agree that ICT may help in avoiding many risks like robbery in physical handling of large amount of cash. Table 2.2 and Table 2.3 clearly indicate that majority (36) 60 percent of the respondents agree that ICT enhances the speed of service delivery in this Bank. Majority (35) 58.33 percent of the respondents agree that ICT enables my Bank to deliver quality services to our customers. Majority (36) 60 percent of the respondents agree that the introduction of ICT in this bank has since attracted more customers to the Bank. Majority (33) 55 percent of the respondents agree that Customers are satisfied with the Bank services. Majority (40) 66.67 percent of the respondents agree that there are constant updates on the development of ICT in this Bank. Majority (32) 53.33 percent of the respondents strongly agree that ICT has reduced Banking cost. Majority (33) 55 percent of the respondents strongly agree that ICT reduces paper work in this Bank. Majority (35) 58.33 percent of the respondents agree that ICT services are adequately reliable in this Bank. Majority (47) 78.33 percent of the respondents strongly agree that Adopting ICT helps in retaining more customers. Majority (28) 46.67 percent of the respondents strongly agree that Customers are satisfied with the Bank Security and Privacy since the introduction of ICT. **Certification Programs in IT and Cyber Security** these programs for Board Members, Senior Management and CXOs aim to enhance the awareness of IT and Cyber security issues in a systematic and structured manner. **Online Certificate Course in Ethical Hacking** a unique course that aims to equip bankers with the latest ethical hacking skills so that they can effectively maintain a cyber-safe environment resilient against cyber-attacks. Information Technology has considerable influence on the use of banking services and affords greatest satisfaction to the 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 employees in a cost effective way.

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