

# The Impact Of Technology In E-Banking Services

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## Abstract

Information technology is taken into account because the vital driver for the changes happening round the creation and within the future enlargement of monetary services and banking is one among the foremost significant between them. With the rapid climb of the web most banks are trying to draw in and retain customers during this highly competitive market through providing various e-banking services. Electronic banking service is gradually important in providing customers with a suitable and interactive facility. The target of this study is to explore factors like reduced cost of deal processing, improved payment efficiency, suitability, ease usage, improved banker customer link, less transaction time, consciousness and access to internet facility that shape the customer decision in adoption of e-banking service and to see the customer's level of satisfaction with reference to electronic banking services provided by Indian banks. The purchasers consuming banking services with the various e-channels are more satisfied but the shortage of alertness and safety may be a major issue within the spread of e-banking services. The paper also aims to look at the present status of banking e-services, identify its strengths and weaknesses, and use the findings in formulating future recommendations to form a contribution to knowledge within the chosen area. The paper concludes with suggestion to form e-banking services simpler within the future.

**Key words:** Internet, consumers, attitude, web advertising, business.

## INTRODUCTION TO THE TOPIC

Banks plays an essential role in our life. E- Banking has been a next expansion stage of banking business selling its services & products via electronic & communication networks directly to customers. These include automated teller machines (ATMs), personal computer, private & public network, internet, mobile devices & telephones. The services of e-Banking offered are outside the normal banking hours. It has opened banks for business 24X7. The daily banking activities can be performed without waiting for long hours in queue and that too efficiently. The adoption of new know-how by the banks can boost their income by providing customer-made products & novelty in services and in addition lessen the cost of current services & furthermore increases the efficiency. The cost mindful banks in the country have therefore keenly well thought-out the use of internet as a medium for giving services. All the banks render hi-tech services and started by private banks and MNC banks e.g. ATMs, internet banking, credit cards & online banking etc. Public sector banks followed the private banks in their hi-tech initiatives & services. The estimation of Mckinsey says that by shifting completely to electronic payment systems, there could be annual savings of about \$ 6.3 billion in India

## E- BANKING TECHNOLOGIES:-

There are various services which have been provided by the Indian banks in the modern era of the fast moving environment to the customer so that the people can access the operations of the bank without visiting any branch of the bank. The services are as follows:

- ❖ Net/Online Banking
- ❖ Automated Teller Machine
- ❖ Credit Cards, Debit Cards
- ❖ Telephone Banking
- ❖ RTGS, EFT, ECS

## 2.0 OBJECTIVES OF THE STUDY

The various purposes of the study are:

- ❖ To assess the impact of adoption of electronic banking technologies
- ❖ To study the impact of demographic features of consumers on adoption of ATM & Internet banking
- ❖ To identify the services which are frequently used by the consumers?

## 3.0 SCOPE OF THE STUDY

Electronic banking has been trembling and determining the financial sector globally. Thus it has become very vital to know the issue automated funding. The scopes of the study are:

- ❖ To know the electronic banking and its evolution.
- ❖ To analyze the practicability and finding out suitable business model.
- ❖ To assess the present position of electronic banking worldwide.
- ❖ To study the influence of features of users on adoption of ATM & internet banking.

## 4.0 LITERATURE REVIEW

In actuality getting a new concept adopted is often difficult even when it has a few relative advantages. So not unusual problem related to innovation is the way to accelerate the rate of its adoption. In this regard, Rogers proposed a model of the diffusion of innovations that included five traits postulated to steer consumer acceptance of new innovation i.e., Relative advantage, Compatibility, Complexity, Trialability, Observability.

### 5.1. Methodology of the study:

This study is based on both primary and secondary data. I have collected data from 500 customers of prime locations of Mathura district. The sample data comprised of people consisting of different age group, gender, qualifications, residential locality, & occupation.

### 5.2. Sample size

A survey disseminated were 500 but only 437 were recovered out of which 407 were usable on the basis of their completeness & truthfulness.

## NULL HYPOTHESIS:

H<sub>0</sub>: “there is no significant impact of demographic characteristics of consumers on the adoption of ATM & internet banking”

## ALTERNATE HYPOTHESIS:

H<sub>1</sub>: “there is significant impact of demographic characteristics of consumers on the adoption of ATM & internet banking”

Hence,

$$H_0: \mu_1 = \mu_2$$

$$H_1: \mu_1 \neq \mu_2$$

Data collected gives results that; H<sub>1</sub> is accepted and H<sub>0</sub> is rejected i.e. there shall be significant impact of demographic characteristics of consumers on the adoption of ATM & internet banking

So In my study ,I have accepted the alternative hypothesis (H<sub>1</sub>)

## 5.4 TOOLS AND TECHNIQUES USED

**Primary data collection through:** - Questionnaire, Interviews

**Secondary data collection through:** - Internet, Magazines

**Sampling Method:** - Convenience Sampling

**Method of analysis:** - Chi square test: - Testing the independence of two attribute in a contingency table.

## DATA ANALYSIS AND INTERPRETATION

The following data, after collection, has been analyzed for the purpose of the study. The results are summarized in table 1.1, 1.2, 2.1, & 2.2. The findings are given on the basis of hypotheses made in the current research.

**Table -1.1 Adoption of ATM**

Characteristic		Non adopter	Adopter	Total N	Chi square
Gender	Male	17.1%	82.9%	245	X <sup>2</sup> =27.98 P=0.000
	Female	50.9%	49.1%	53	
Age	Less than 30 years	5.9%	94.1%	101	X <sup>2</sup> =50.10 P=0.000
	30-50 years	25.7%	74.3%	152	
	51-60 years	42.9%	57.1%	35	
	More than 60 years	90.9%	10.0%	10	
Locality	Urban	13.7%	86.3%	190	X <sup>2</sup> =26.43 P=0.000
	Rural	39.8%	60.2%	108	
Qualification	Undergraduate	36.5%	63.5%	115	X <sup>2</sup> =18.93 P=0.000
	Graduate	15.8%	84.2%	95	
	Postgraduate	13.6%	86.4%	88	

Monthly Family Income	Less than 10,000	31.6%	68.4%	98	X <sup>2</sup> =8.07 P=0.000
	10,000-20,000	20.4%	79.6%	113	
	20,001-40,000	21.3%	78.7%	61	
	More than 40,000	7.7%	92.3%	26	

**Table - 1.2 Services used through ATM**

Characteristic		Cash withdrawal	Banking services	All services	Total N	Chi square
Gender	Male	68.0%	21.2%	10.8%	203	X <sup>2</sup> =9.20 P=0.01
	Female	96.2%	0%	3.8%	26	
Age	Less than 30 years	54.7%	28.4%	16.8%	95	X <sup>2</sup> =22.43 P=0.001
	30-50 years	83.2%	12.4%	4.4%	113	
	51-60 years	80.0%	10.0%	10.0%	20	
	Above 60 years	100%	0%	0%	1	
Locality	Urban	63.4%	23.2%	13.4%	164	X <sup>2</sup> =17.37 P=0.000
	Rural	90.8%	7.7%	1.5%	65	
Qualification	Undergraduate	57.5%	28.8%	13.7%	73	
	Graduate	81.3%	11.3%	7.5%	80	
	Postgraduate	73.7%	17.1%	9.2%	76	
Monthly Family Income	Less than 10,000	58.2%	26.9%	14.9%	67	X <sup>2</sup> =10.47 P=0.106
	10,000-20,000	78.9%	15.6%	5.6%	90	
	20,001-40,000	75.0%	16.7%	8.3%	48	
	More than 40,000	70.8%	12.5%	16.7%	24	

**Table – 2.1 Adoption of Internet Banking**

Characteristic		Non adopter	Adopter	Total N	Chi square
Gender	Male	77.0%	23.0%	139	X <sup>2</sup> =50.10 P=0.074
	Female	90.9%	9.1%	33	

Age	Less than 30 years	65.5%	34.5%	58	X <sup>2</sup> =11.48 P=0.009
	30-50 years	85.9%	14.1%	92	
	51-60 years	87.5%	12.5%	16	
	More than 60 years	100%	0.00%	06	
Locality	Urban	76.5%	23.5%	132	X <sup>2</sup> =3.44 P=0.063
	Rural	90.0%	10.0%	40	
Qualification	Undergraduate	89.1%	10.9%	46	X <sup>2</sup> =9.12 P=0.01
	Graduate	85.7%	14.3%	56	
	Postgraduate	68.6%	31.4%	70	
Monthly Family Income	Less than 10,000	87.5%	12.5%	40	X <sup>2</sup> =12.24 P=0.007
	10,000-20,000	86.2%	13.8%	65	
	20,001-40,000	75.6%	24.4%	45	
	More than 40,000	54.5%	45.5%	22	

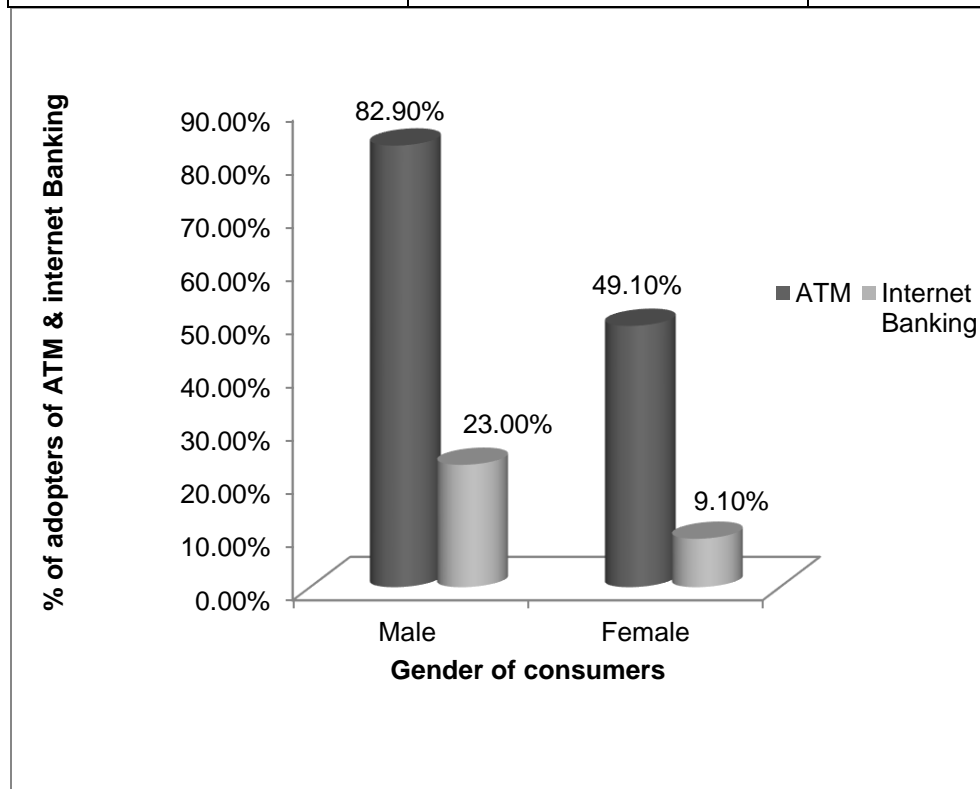
**Table – 2.2 Services used through Internet banking**

Characteristic		Informational services	Banking Transactional services	All services	Total N	Chi square
Gender	Male	37.5%	25.0%	37.5%	32	X <sup>2</sup> =1.35 P=0.510
	Female	66.7%	0%	33.3%	20	
Age	Under 30 years	40.0%	30.0%	33.0%	20	X <sup>2</sup> =5.29 P=0.259
	30-50 years	30.8%	15.4%	53.8%	13	
	51-60 years	100%	0%	0%	2	
	Above 60 years	0%	0%	0%	0	
Locality	Urban	35.5%	22.6%	41.9%	31	X <sup>2</sup> =3.07 P=0.216
	Rural	75.0%	25.0%	0%	4	
Qualification	Undergraduate	80.0%	20.0%	0%	5	X <sup>2</sup> =8.39 P=0.078
	Graduate	62.5%	12.5%	25.0%	8	
	Postgraduate	22.7%	27.3%	50.0%	22	

Monthly Family Income	Less than 10,000	80.0%	0%	20.0%	5	X <sup>2</sup> =4.95 P=0.551
	10,000-20,000	33.3%	33.3%	33.3%	9	
	20,001-40,000	36.4%	18.2%	45.5%	11	
	More than 40,000	30.0%	30.0%	40.0%	10	

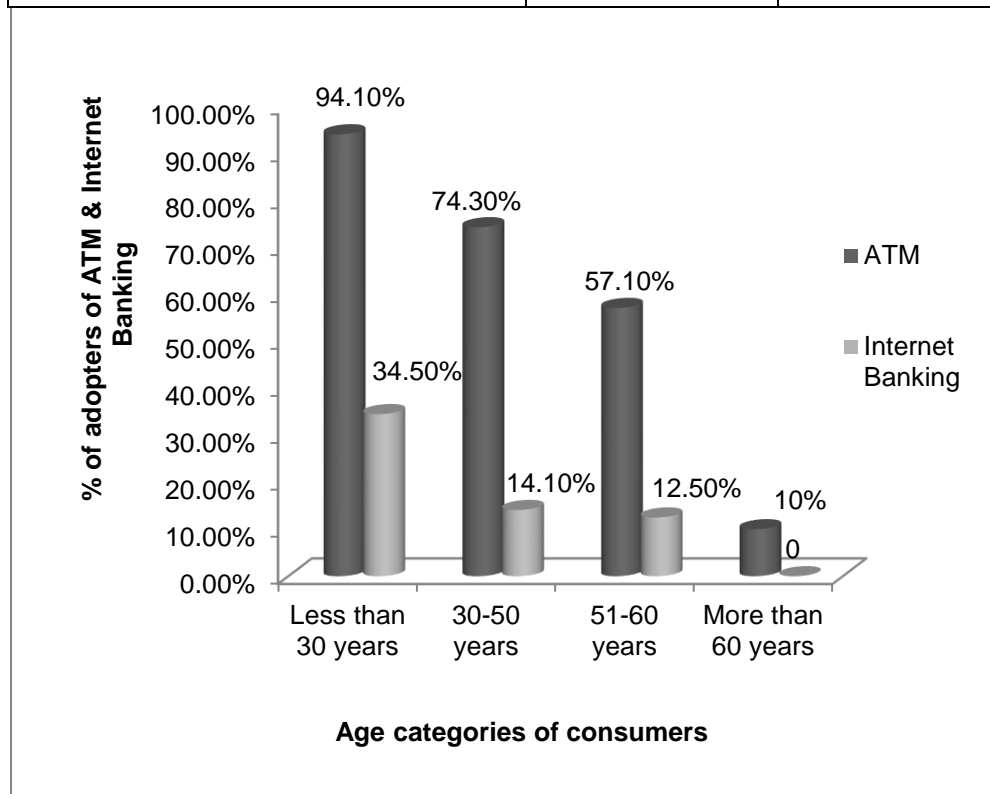
### 1.1 Gender affects the adoption of ATM & Internet Banking

Gender	ATM Adopter	Internet Banking Adopter
Male	82.9%	23.0%
Female	49.1%	9.1%



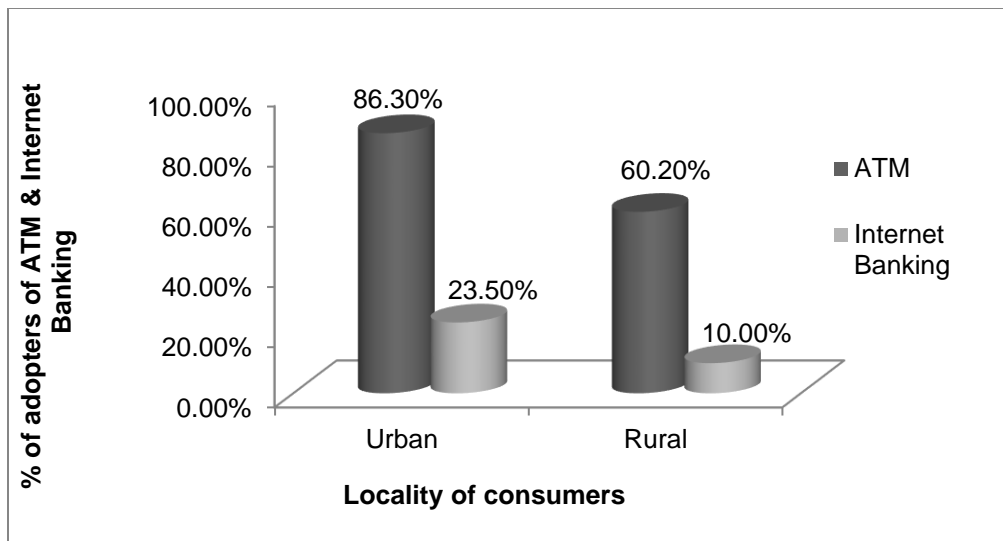
### 1.2 Age influence the ATM & Internet Banking

Categories	ATM Adopter	Internet Banking Adopter
Less than 30 years	94.1 %	34.5%
30-50 years	74.3 %	14.1%
51- 60 years.	57.1%	12.5%
Above 60 Yrs.	10.0%	0.00%



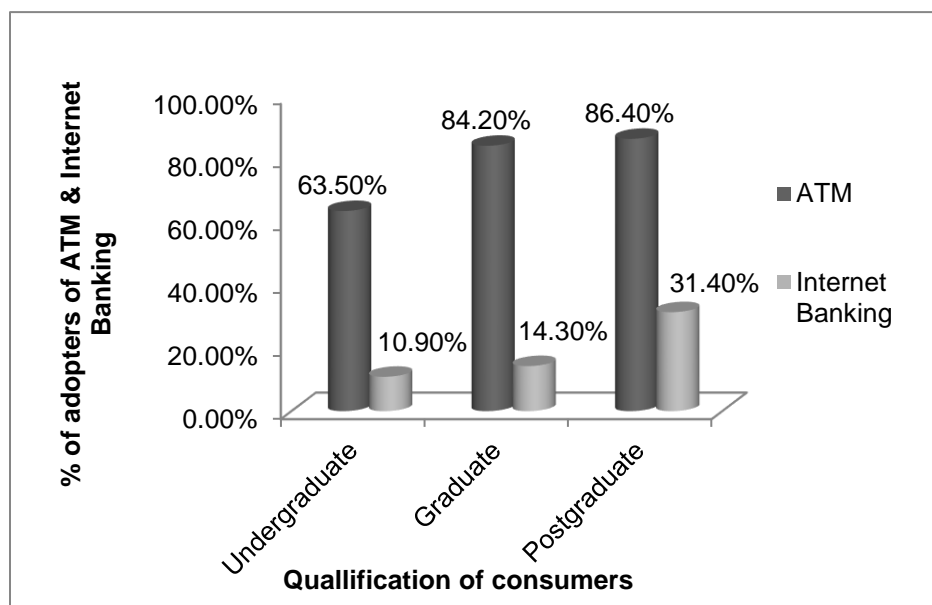
### 1.3 Effect of locality on adoption of ATM & Internet Banking

Locality	ATM Adopter	Internet Banking Adopter
Urban	86.3%	23.5%
Rural	60.2%	10.0%



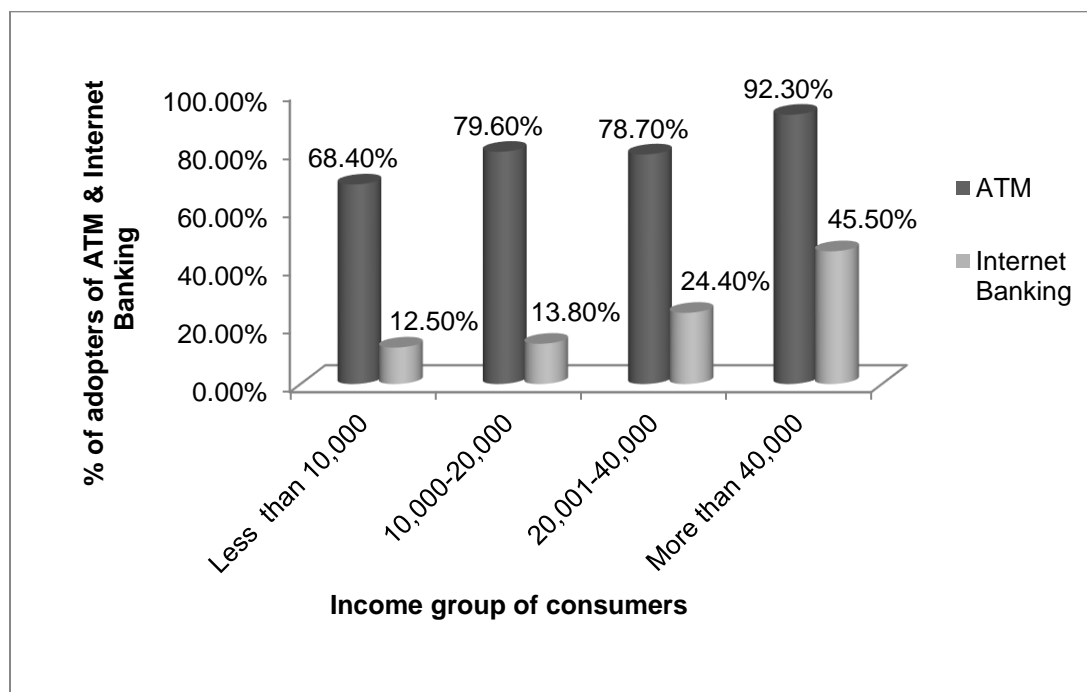
#### 1.4 Education qualification affects the use of ATM & Internet Banking

Education level	ATM Adopter	Internet Banking Adopter
Under graduation	63.5%	10.9%
Graduation	84.2%	14.3%
Post graduation	86.4%	31.4%



### 1.5 Monthly family income influence the adoption of ATM & Internet Banking

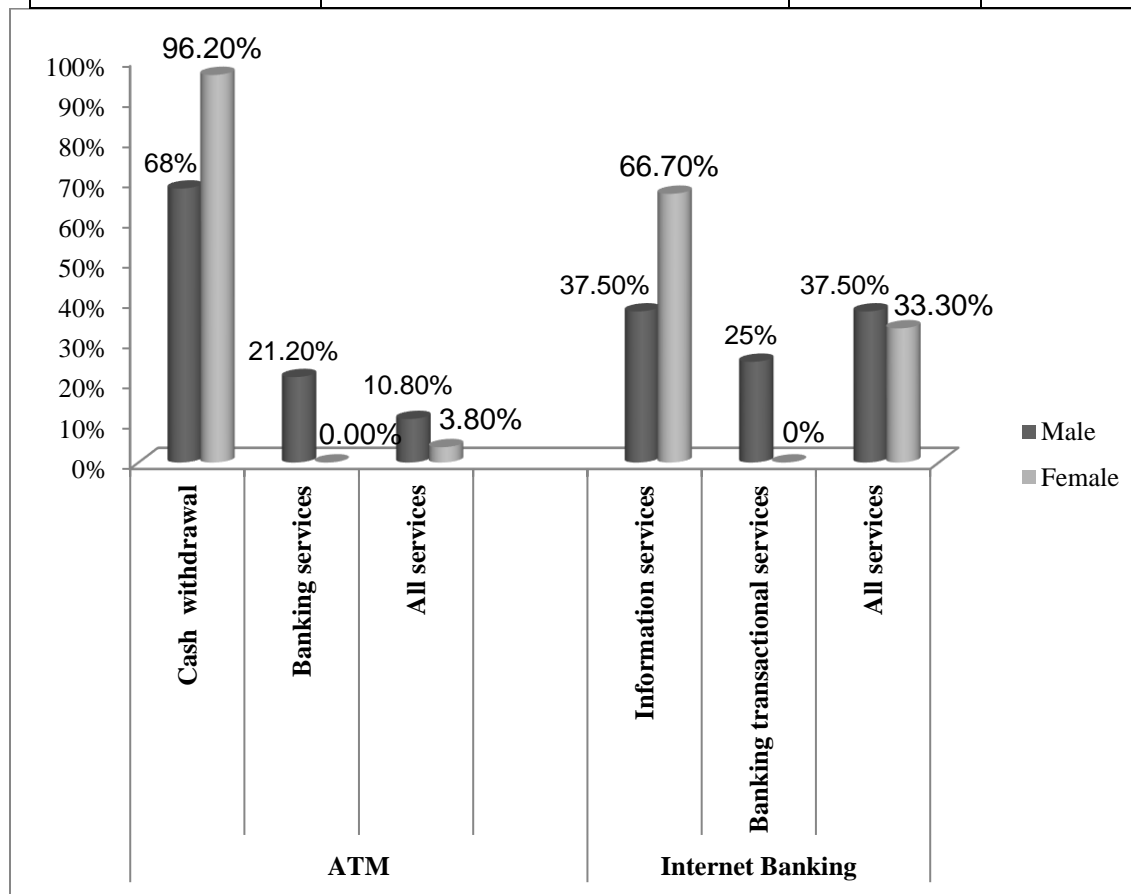
Income Group	ATM Adopter	Internet Banking Adopter
Less than 10,000	68.4%	12.5%
10,000-20,000	79.6%	13.8%
20,001- 40,000	78.7%	24.4%
Above 40,000	92.3%	45.5%



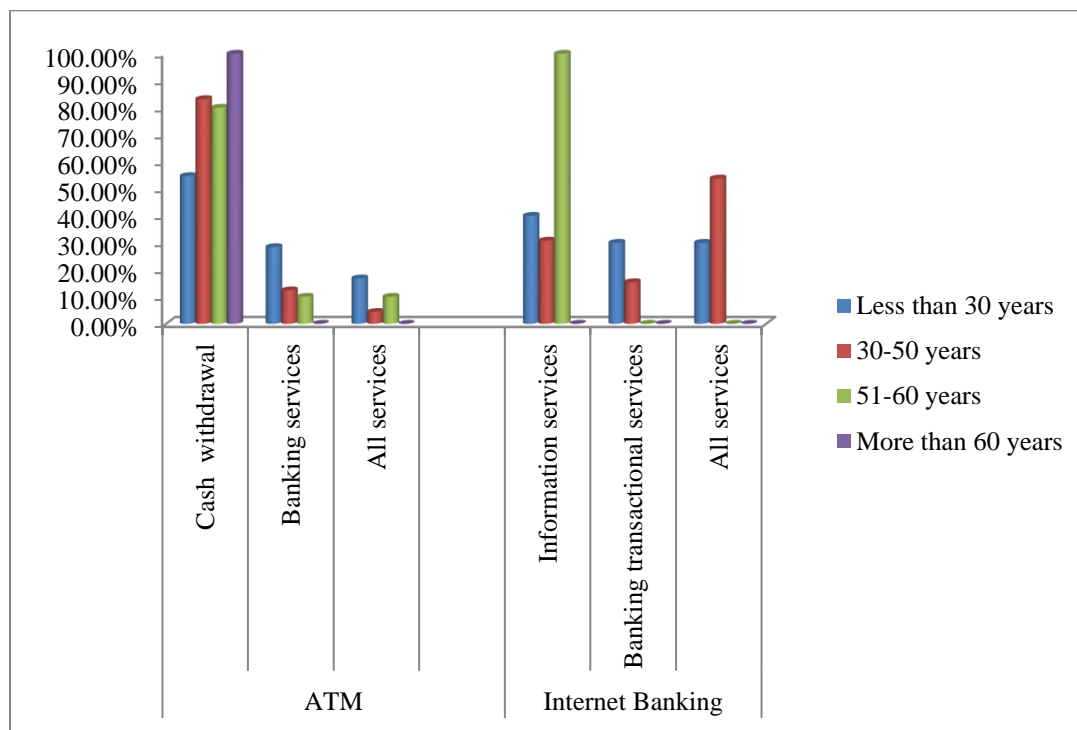
### Demographic factors & ATM & Internet Banking services:-

#### 2.1 Gender of the consumers:-

	Services	Male	Female
ATM	Cash withdrawal	68.0%	96.2%
	Banking services	21.2%	0%
	All services	10.8%	3.8%
Internet Banking	Information services	37.5%	66.7%
	Banking transactional services	25.0%	0%
	All services	37.5%	33.3%



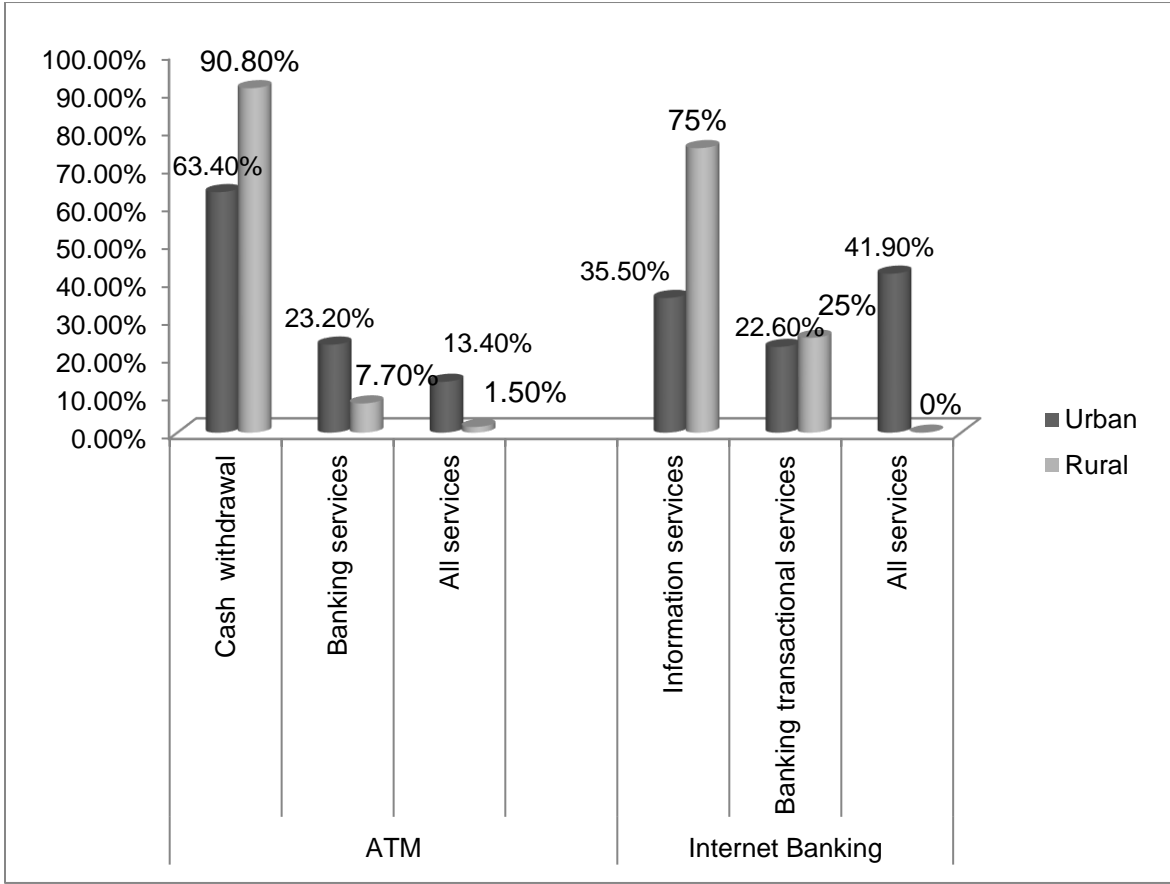
## 2.2 Age of the consumers:-



### 2.3 Locality of consumers:-

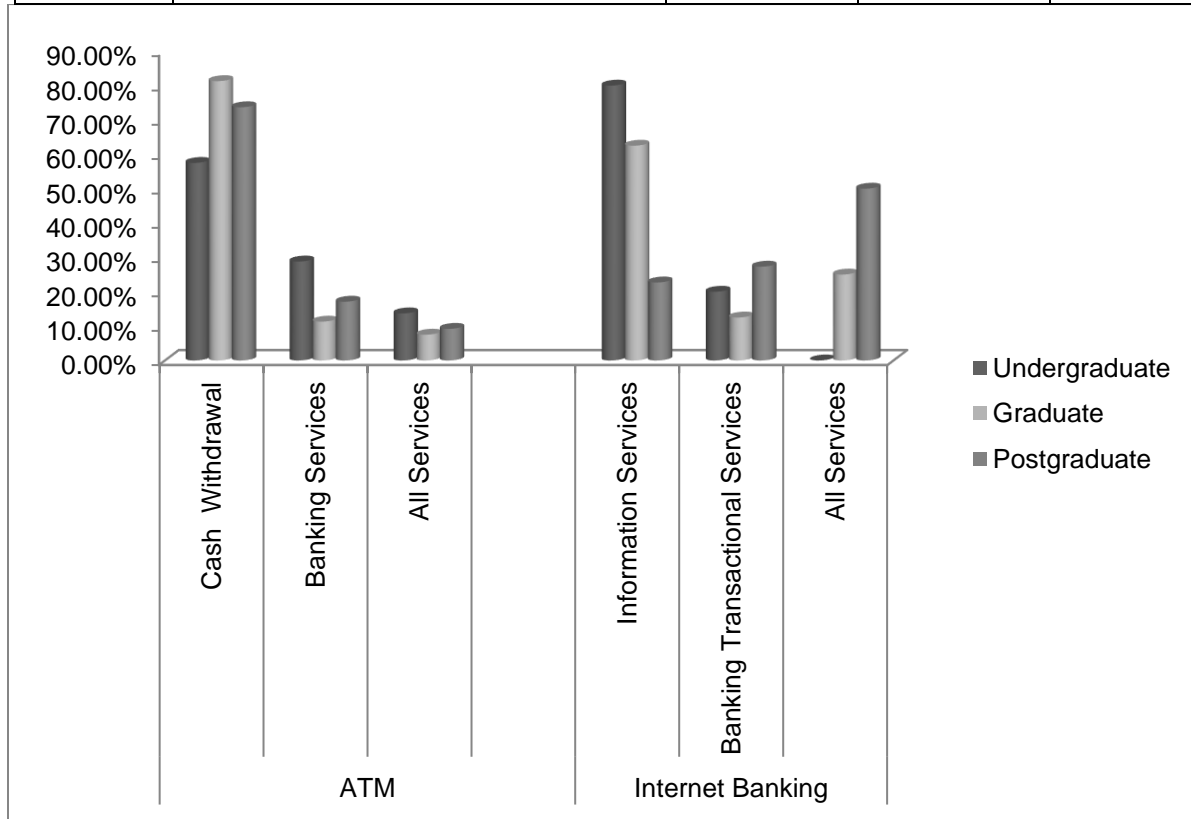
	Services	Urban	Rural
ATM	Cash withdrawal	63.4%	90.8%
	Banking services	23.2%	7.7%
	All services	13.4%	1.5%
Internet Banking	Information services	35.5%	75.0%

		Banking transactional services		22.6%		25.0%	
	Services	All services	Under 30 years	41.90% 30-50 years	51-60 years	Above 60 years	
ATM	Cash withdrawal	54.7%	83.2%	80.0%	100%		
	Banking services	28.4%	12.4%	10.0%	0%		
	All services	16.8%	4.4%	10.0%	0%		
Internet Banking	Information services	40.0%	30.8%	100%	0%		
	Banking transactional services	30.0%	15.4%	0%	0%		
	All services	30.0%	53.8%	0%	0%		



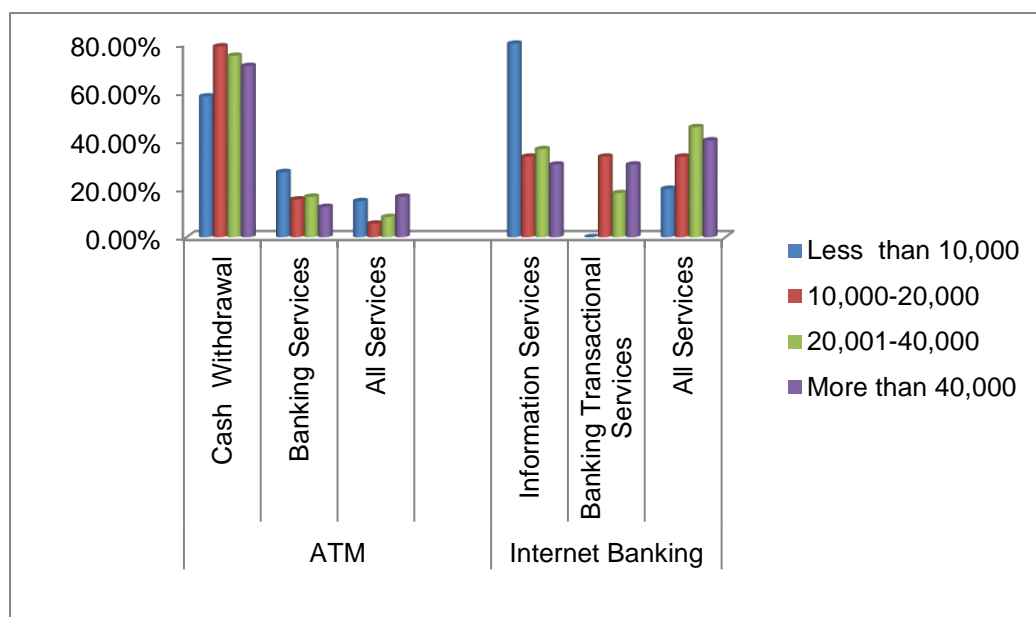
**2.4 Qualification of consumers:-**

	Services	Under graduation	Graduation	Post graduation
ATM	Cash withdrawal	57.5%	81.3%	73.7%
	Banking services	28.8%	11.3%	17.1%
	All services	13.7%	7.5%	9.2%
Internet Banking	Information services	80.0%	62.5%	22.7%
	Banking transactional services	20.0%	12.5%	27.3%
	All services	0%	25.0%	50.0%



	Services	Less than 10,000	10,000-20,000	20,001-40,000	More than 40,000
ATM	Cash withdrawal	58.2%	78.9%	75.0%	70.8%
	Banking services	26.9%	15.6%	16.7%	12.5%
	All services	14.9%	5.6%	8.3%	16.7%
Internet Banking	Information services	80.0%	33.3%	36.4%	30.0%
	Banking transactional services	0%	33.3%	18.2%	30.0%
	All services	20.0%	33.3%	45.5%	40.0%

## 2.5 Income of Consumers:-



## MAJOR FINDINGS

- ❖ Male consumers use electronic banking technologies more than the female consumers
- ❖ Young consumers use electronic banking frequently than the old age consumers

- ❖ Young consumers feel more confident & comfortable with the new technologies
- ❖ Consumers in the urban area use ATM & internet banking more than the consumers in the rural area. The findings can be acceptable because of still low accessibility of ATM machines & electronic & communication devices in the rural area than the urban area.
- ❖ Income & education level are positively related to the adoption of new technology. Consumers of high income group use more than the consumers of low income group in the same way well educated consumers use technologies more comfortably than the consumers of low education status.

## CONCLUSION

It can be concluded here that ATMs have reasonably good presence in the urban areas as compared to the rural areas due to lesser number of consumers. The internet banking is negligible in the rural area due to the poor availability of infrastructure & non offering of internet banking by the banks in the rural area. The study also found the influence of age on the adoption of ATM & internet banking. Young consumers are more convergent & confident with the technology as compared to the old age consumers. Gender also affects the use of technology in a significant way because most of the outside work has been by the male members of the family in the Indian culture so use of technology for the banking operations is more popular in the male as compared to the female. Education level is positively related to the use of ATM & internet banking technologies. This study also highlights that family income does not affect the adoption of new technology. Electronic banking will recognize its full potential when the following key elements fall in place:

- Internet get to turns out to be more boundless in the nation.
- The improvement of ease intuitive access terminals for home just as teaming up home data administrations, for example set top boxes to change over TV sets into work stations
- Security parts of exchanges over the electronic banking improve.
- Cyber Laws are actualized to give legitimate authorization and legitimacy to electronic marks

The following limitations are observed during the research:

- ❖ The study is based on primary data (questionnaire) so it might be possible that information provided by respondents may not be hundred percent true.
- ❖ Respondents often unwilling to response
- ❖ Busy schedule of the persons
- ❖ Respondent were not interested in giving their personal information.
- ❖ Generally unawareness about E-Banking technologies in rural sector

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