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A Study on Customer Perception towards Adoption of Self Service Technologies (SSTs) in Banking with Reference to Jhansi City

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Abstract – Self Service Technologies brought revolutionized in the whole technological worlds, which changed the Present scenario of banks from primitive to modernize. This evolution of SSTs includes various advance machineries likes self kiosks, CDM, PUM, ATMs, and other online portals, Internet banking, Mobile Banking, Mobile Apps (UPI, BHIM, e-wallets etc. These portals are irresistible and the customer is getting dependent on it.

As we now "Time is as precious as Cash" People have a very hectic schedule. They don't want to go bank for their regular transaction therefore, they want easy and convenient banking for their business. Bank has realized need of customer and customized a wide range of products and value added services for their customers. By adapted the concept of self service technologies in banks. Now the consumer can make their work more convenient way. And can operate their accounts transactions from anywhere, it is cheap and fast and also provide various attractive offers by which consumers are prone to use it.

Banks is introducing Self services not only in urban areas but in rural area as well because it has to take the whole country combined fully digitalized one. And yes despite of all the positive factors, it still have some negative ones, like people are bit afraid to use SSTs due to lack of knowledge of computers, Internet Banking, Mobile banking or may be due to risk of theft, Fear of lose money and many more, but still the literate people are confidentially accepting SSTs and cherishing this wonderful time saving change.

This study aims to analyze the influence of demographic variable on perceived usefulness, perceived ease of use, Behavioral intention, Attitude and to analyze the reason of non acceptance of SSTs. This study aims to test the applicability of TAM in predicting intention, attitude and perception to use Self services technologies like, ATM, Internet banking and mobile banking adoption by users, author found that Perceived usefulness, Perceived ease of use, Attitude and Behavioural Intention is affected by Demographical Variable towards adoption of Self Service Technologies.

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1. INTRODUCTION

The SSTs have proved to be a revolution in the Indian banking system as it has outreaching effects in this digitalised world. Modern banking system offers a wide range of products and services to enhance its customer base and built a strong relationship with its clients. In this competitive world, today PSUs too are ensuring similar banking services, especially SSTs as their private counterparts, giving a neck to neck competition to them. These SSTs usually include services like ATM facility, mobile banking and internet banking which are seen to be common in today's digitalised world.

In competitive environment customers need efficiency, speedy and quality services, for the completion of day to day transactions. This includes immediate banking resolution through the use of self-service technology, this noteworthy development gain customer confidence and trust towards the banks. In present world the customers are using internets and engaging him or her by adopting self service technology of banks. This significant development is beneficial aspect for banks and gaining popularity among bank customers, but still there are some significant hurdles, banks need to tackle to increase no of self service users and it also an urgent need to make the services more customer-centric in relation to

provide efficiency services to that section of the society where self services are unreachable and still not widely accepted/ adopted. Due to stiff competition, Banks are continuously expanding their self services by adding multi functional features in their self services for survival and growth and are trying to develop their own strategies to stay in the market in the long term and gain revenues.

In present scenario, due to various changes in Indian economy such as competition, technology changes, need, expectation and changing lifestyle of customers wants smarter banking which is easy accessible convenient and save time for them it resulted bank introducing various self service technologies to their customers. It gives benefit to banks reduce rush in banks, its automatically reduce operational cost of banks. Banks are continuously providing quality products and services to their customers by using interconnected networks, gaining consumer satisfaction and achieving greater economy. It saves time and gives greater speed of transactions and delivery. These changes not only change the consumer perception, but can bring vast changes in the consumer attitude towards adoption of new technology of banks.

2. Objectives of Study:

1. To analyse the influence of demographic variables on perceived usefulness, perceived ease of use, Behavioural Intention and attitude.

2. To analyse the reasons of Non acceptance of Self Service Technologies.

3. Research Methodology

1. Title of the study: A study on factors affecting to adoption of SSTs in Banking with reference to Jhansi City

2. Area of the Study: Jhansi City

3. Time Period of the study: 2019

4. Research Design: Descriptive Design

5. Sampling Technique: Simple Random Sampling

6. Sample Size: Total 450 respondents were taken as sample size.

7. Sampling Unit: Bank Customer

8. Data Collection: the data for the title "A study on factors affecting to adoption of SSTs in Banking with reference to Jhansi City" have been collected from both the sources. As primary source a schedule method was adopted and as secondary information different bank websites, journals, news papers and thesis was studied.

9. Data Analysis tools: in the analysis of this study simple percentage, mean, Chi-square test, and Mann- Whitney U Test, Kruskal Wallis Test are performed.

10. Hypothesis of the study:

1. As hypothesis, the Relationship between External variables and Behavioural intention is tested

2. Hypothesis testing for significant difference among mean responses of the various groups of respondents with respect to Perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage and Behavioural Intention of SSTs is done.

4. LITERATURE REVIEW

Chawla and Joshi (2018) analyzed demographic variable influence user's attitude towards the adoption of mobile banking. In their study author tested moderating effect of demographic variables by using TAM and the Diffusion of Innovation (DOI) model. The result showed that age, gender, qualification, occupation, income and experience moderating variables significantly affect user attitude towards adoption of mobile banking. While other moderator factor such as educational background has not showed any effect on user attitude.

L.M. Ashoka and D. Ramaprabha (2018) indicated certain factors which were important for adoption of mobile banking, perceived risk, perceived ease of use, perceived cost, security, and trust. author found security is the important factor for the success of mobile banking its enhance trust towards adoption of mobile banking where as other factor like perceived risk shown negative effect on usage of mobile banking and author found that region didn't matter for adoption of mobile banking and also concluded that cost cut and security level enhance usage rate of mobile banking adoption.

Suresh and Singh (2017) in their study on Changing Consumer behaviour for mobile banking services in India has stated that there are substantial changes seen in the tele-communication sector in the nineteen nineties which have brought a revolution in the sector on the development front. This has led to mushrooming of mobile users in India which is a boon for the ICT. Viewing this trend the mobile banking service has also envisaged a way of banking though convenience and has developed the usage of self service banking in India too. The consumers' inclination towards mobile banking is highly associated with the demography, motivation, bank preference, knowledge of technology and computer knowledge. The satisfaction of consumers for mobile banking can be measured through the increasing number of mobile banking

users in India. They finally concluded that the mobile banking in India can be more developed by increasing the awareness of this self service technology and also it should reach every person. The mobile banking service is developing at a gigantic pace in not only in India but around the globe and so this new era in banking should be welcomed with an open hand and mind and pace up with the developing World.

Kapadia M. J and Vaghela Pratik Singh (2016) in their study author considered TAM factor perceived usefulness perceived ease of use, attitude and other variable Trust, social influence, perceived risk and self efficacy influence student intention to use of internet banking. He found that perceived ease of use, perceived usefulness and attitude positively affect student intention for usage of internet banking and other than TAM variable, trust, self efficacy, and social influence had positively influenced on perceived ease of use and perceived usefulness. While perceived risk negatively influence on perceived usefulness and perceived ease of use. In this research author found trust is most important factor which influences student behavioral intention towards adoption of internet banking.

Charles Sang kiprono keter (2015) analysed determinants of self services banking technology in Kenya they discussed about different factor responsible for influencing customer towards the usage of self service banking technologies the emphasized that SSTs should be adapted in order to increase convenience, performance of the banks as well as customers and it also cuts cost by making aware of different SSTs like ATM, telephone banking mobile services and making customer aware of the self service banking technology is dependent on customer usage / adoption in order to justify investment cost. He analysed four dependent variables which increases SSTs adoption they are perceived risk, ease of use, facilitation conditions and fourth was need of interaction. Author concluded in his research that the young people of age 35 uses more SSTs because they are aware of computers.

These studies and further more studies have outspoken of the importance and the changing trend of Self Service Technologies in India. They truly reveal that only development of self service technologies reaching and benefitting the urban population does not solve the problem but true development in modern paperless banking will be seen where customers do not face difficulties in usage and there is adoption of these new services.

5. DATA ANALYSIS

Table No.1

Demography of the Sample							
	Age of Respondents (in years)						
	less than 25	25-30	30-35	More than 35	Total	**Sample statistics**	
F	150	85	97	118	450	Average age is 29.4 years	
%	33.33	18.88	21.55	26.22	100		
	Gender of Respondents						
	Male	Female	Total				
F	230	220	450				
%	51.11	48.88	100				
Education of Respondents							
	Graduate	Post graduate	PhD	Others	Total	**Sample statistics**	
F	157	239	31	23	450	The sample represents post graduate customers.	
%	34.88	53.11	6.88	5.11	100		
Occupation of Respondents							
	Business	Employee	Student	Others	Total	**Sample statistics**	
F	132	168	150	0	450	The sample majorly represents employee segment	
%	29.33	37.33	33.33	0	100		
Income of Respondents(in Lakh)							
	Nil	< 1	1 to 2	2 to 3	3 to 4	4 >	**Sample statistics**
F	85	78	65	68	56	98	The average annual income of the sample is Rs. 134000/-
%	18.88	17.33	14.44	15.11	12.44	21.77	

The above table show the demography of the sample. Here total 450 is the sample size. In this sample the average age is 29.4 years. This sample is composite of Male and Female in approx equal number. The sample has mostly post graduates' respondents. The most of the respondents comes under employment category. The average annual income of the sample is Rs 134000/

Summary of Hypothesis Testing

Table No.2

Relationship	**Hypothesis statements**	**Test Name and significant value**	**Result**
Relationship between External variables and Perception towards SSTs Usages	Ho: There is no relationship between perception towards mobile baking and high tech services offered Banks. H_1: There is a relationship between perception towards mobile baking and high tech services offered Banks	Chi – Square, Sig. Value p =.005	**H_1 Accepted**
	Ho: There is no relationship between perception towards physical and mental effort and high tech services offered Banks. H1: There is a relationship between	Chi – Square, Sig. Value p =.015	**H_1 Accepted**

	perception towards physical and mental effort and high tech services offered Banks.		
	Ho: There is no relationship between perception towards internet banking and high tech services offered Banks. H1: There is a relationship between perception towards internet banking and high tech services offered Banks.	Chi – Square, Sig. Value p =.009	**H_1 Accepted**
	Ho: There is no relationship between perception towards benefits on idea and high tech services offered Banks. H1: There is a relationship between perception towards benefits on idea and high tech services offered Banks.	Chi – Square, Sig. Value p =.001	**H_1 Accepted**
	Ho: There is no encouragement made by Friends, Relatives, family Members to reduce physical and mental effort in adoption of any SSTs offered by banks. H1: There is an encouragement made by Friends, Relatives, family Members to reduce physical and mental effort in adoption of any SSTs offered by banks.	Chi – Square, Sig. Value p =.030	**H_1 Accepted**
	Ho: There is no relationship between perception towards internet banking and advertisement. H1: There is a relationship between perception towards internet banking and advertisement.	Chi – Square, Sig. Value p =.002	**H_1 Accepted**
	Ho: There is no encouragement made by Friends, Relatives, family Members on perception towards using internet banking. H1: There is encouragement made by Friends, Relatives, family Members on perception towards using internet banking.	Chi – Square, Sig. Value p =.000	**H_1 Accepted**
	Ho: There is no encouragement made by Friends, Relatives, family Members on perception using of SSTs is a beneficial idea. H1: There is encouragement made by Friends, Relatives, family Members on perception using of SSTs is a beneficial idea.	Chi – Square, Sig. Value p =.003	**H_1 Accepted**
Relationship between External variables and Behavioural intention	Ho: The intention to use SSTs in future is no depend on encouragement of Friends, Relatives and Family Members. H1: The intention to use SSTs in future depends on encouragement of Friends, Relatives and Family Members.	Chi – Square, Sig. Value p =.000	**H_1 Accepted**

	Ho: The intention to use SSTs in future is no depend on range of Bank products H1: The intention to use SSTs in future depends on range of Bank products.	Chi – Square, Sig. Value p =.016	**H_1 Accepted**

Compare of Mean Response of the various Age groups customers with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioural Intention:

Table No.3

		Test applied	Chi-Square	Df	Asymp. Sig.	Result
Perceived Usefulness	Save time compare to traditional banking	Kruskal Wallis Test	51.462	3	.000	**H_1 Accepted**
	Easily accessible at any time		17.900	3	.000	
	SSTs completing transaction fast and efficient		19.103	3	.000	
Perceived Ease of Use	SSTs are easily operated with less effort		24.095	3	.000	**H_1 Accepted**
	SSTs are easy to learn		16.694	3	.001	
	Easy option to understandable language		30.688	3	.000	
Attitude towards SSTs Usage	Positive attitude towards ATM		8.605	3	.035	**H_1 Accepted**
	Positive perception towards mobile banking		17.446	3	.001	
	Physical and mental effort reduce		15.276	3	.002	
	Positive perception about internet banking		16.881	3	.001	
	beneficial idea for customers		8.934	3	.030	
Behavioural Intention	Intend to use SST in Future		9.408	3	.024	**H_1 Accepted**
	I trust traditional lesser intention to use SSTs		8.267	3	.041	

Compare of Mean Response of the various Occupation groups customers with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioural Intention:

Table No.4

		Test Applied	Chi-Square	df	Asymp. Sig.	Result
Perceived Usefulness	Save time compare to traditional banking	Kruskal Wallis Test	46.629	2	.000	**H_1 Accepted**
	Easily accessible at any time		14.645	2	.001	
	SSTs completing transaction fast and efficient		7.572	2	.023	
Perceived Ease of Use	SSTs are easily operated with less effort		9.326	2	.009	**H_1 Accepted**
	SSTs are easy to learn		19.394	2	.000	
	Easy option to understandable language		12.987	2	.002	
Attitude towards SSTs Usage	Positive attitude towards ATM		2.125	2	.046	**H_1 Accepted**
	Positive perception towards mobile banking		8.957	2	.011	
	Physical and mental effort reduce		9.328	2	.009	
	Positive perception about internet banking		9.610	2	.008	
	beneficial idea for customers		.027	2	.086	
Behavioural Intention	Intend to use SST in Future		14.455	2	.001	**H_1 Accepted**
	I trust traditional lesser intention to use SSTs		16.971	2	.000	

Compare of Mean Response of the various Income groups customers with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioural Intention:

Table No.5

		Test Applied	Chi-Square	df	Asymp. Sig.	Result
Perceived Usefulness	Save time compare to traditional banking	Kruskal WallisTest	16.648	4	.002	**H_1 Accepted**
	Easily accessible at any time		9.954	4	.041	
	SSTs completing transaction fast and efficient		9.249	4	.050	
Perceived Ease of Use	SSTs are easily operated with less effort		17.831	4	.001	**H_1 Accepted**
	SSTs are easy to learn		25.405	4	.000	
	Easy option to understandable language		10.771	4	.029	
Attitude towards SSTs Usage	Positive attitude towards ATM		6.688	4	.013	**H_1 Accepted**
	Positive perception towards mobile banking		16.414	4	.003	
	Physical and mental effort reduce		8.686	4	.039	
	Positive perception about internet banking		15.275	4	.004	
	beneficial idea for customers		12.700	4	.013	
Behavioural Intention	Intend to use SST in Future		8.401	4	.048	**H_1 Accepted**
	I trust traditional lesser intention to use SSTs		23.466	4	.000	

Compare of Mean Response of the customers Groups using Different Banking with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioural Intention:

Table No.6

		Test Applied	Chi-Square	df	Asymp. Sig.	Result
Perceived Usefulness	Save time compare to traditional banking	Kruskal Wallis Test	16.648	4	.002	**H_1 Accepted**
	Easily accessible at any time		9.954	4	.041	
	SSTs completing transaction fast and efficient		9.249	4	.050	
Perceived Ease of Use	SSTs are easily operated with less effort		17.831	4	.001	**H_1 Accepted**
	SSTs are easy to learn		25.405	4	.000	
	Easy option to understandable language		10.771	4	.029	
Attitude towards SSTs Usage	Positive attitude towards ATM		6.688	4	.013	**H_1 Accepted**
	Positive perception towards mobile banking		16.414	4	.003	
	Physical and mental effort reduce		8.686	4	.039	
	Positive perception about internet banking		15.275	4	.004	
	beneficial idea for customers		12.700	4	.013	
Behavioural Intention	Intend to use SST in Future		8.401	4	.048	**H_1 Accepted**
	I trust traditional lesser intention to use SSTs		23.466	4	.000	

6. FINDINGS OF THE STUDY:

Sample statistics

1. In the study total 450 respondents was taken sample size, whose average age is 29.4 years. This sample is composite of Male and Female merely in equal number. The sample has mostly post graduates' respondents including both bankers and Customers. The average annual income of

the Bank Customer is Rs 134000/.The most of the Banking Customers comes under employment category.

2. It is found in the study there is significant difference between male and female for their mean responses respect to perception on internet banking, and regulations of banks, safe and secure customers information.

3. It is found in the study there are significant differences in the means response among male and female with respect to trust on traditional banking lesser intention to use SSTs.

4. It is found in the study that there is a significant difference in Mean Response of the various Age groups customers with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioral Intention.

5. It is found in the study that there is a significant difference in Mean Response of the among the customers of different Occupation with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioral Intention.

6. It is found in the study that there is a significant difference in Mean Response of the among the customers of different Income Level with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioral Intention.

7. It is found in the study that there is a significant difference in Mean Response among the customers of different Banks with respect to perceived Usefulness, Perceived Ease of Use, Attitude towards SSTs Usage, Behavioral Intention.

8. It is found in the perceived Usefulness study that there is a significant difference in Mean Response among the customers of different Education Level with respect to “SSTs Usage Saves time compare to traditional banking”.

9. It is found in the Perceived Ease of Use study that there is a significant difference in Mean Response among the customers of different Education Level with respect to “SSTs are easy to learn and Easy option to understandable language”.

10. It is found in the study of Attitude towards SSTs Usage, that there is a significant difference in Mean Response among the customers of different Education Level with respect to “SSTs Usage helps in reduction of Physical and mental effort and Positive perception about internet banking.

CONCLUSION:

The present study has identified that perception towards adoption of SSTs is depends on the different demographical variables like Age, Gender, Education, Occupation and Income etc. The perception of male respondents is different from the perception of female. In this study, there are no. of groups has been identified on the basis of their Age, Education, Occupation and Income. The mean responses of these different groups’ have significant difference with respect to perceived usefulness, perceived ease to use, attitude towards SSTs Usage, Behavioural intention to use SSTs, service efficiency of Bank and Trust towards SSTs.

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