Self Services Banking Kiosks
A Study of Customers awareness

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Abstract

Now a time, in Indian banking industry the use of Self Service Banking Kiosks is at its revolutionary stage and provides various services like Cash Deposit, Cheque Deposit, Passbook Printing Automated Teller Machine services, Bank Queue Management System, withdrawal of cash, fund transfer to another account etc. These kiosks are working on very easy technology and customers are quite comfortable to use them. But still some customers are not aware about these or they are rigid to know about this self service banking kiosk. The present paper is an attempt to know the awareness of customers of various banks for self service banking technologies. The paper also focuses the certain factors (seven) identified in the study for awareness of self services kiosk of banking sector. The data was collected through self designed questionnaire from bank customers and analyzed by statistical technique and tools. The conclusion would be interpreted accordingly.

Keywords: *Self service, Banking Technology, Kiosk, Nationalised Banks, Private Banks, Customer Satisfaction.*

Conceptual Framework

Customer services have come to occupy the centre stage of operations in the banking industry in India. Self-service empowers people to do things on their own. The main advantage of using Self Service technology is to be able to conduct a business round the clock. Reducing cost and improving services are two primary reasons organizations are putting in self-service applications. Customer services have come to occupy the centre stage of operations in the banking industry in India. Banks are trying to provide a variety of self-service channels and Kiosk such as ATM, Internet Banking, Mobile Banking etc. in order to increase customer convenience, reduce cost and maintain profitability. In the competitive service, banking sector provides so many services to the customers to retain them.

Self Service Banking Kiosk

Banking Kiosk is a self-service terminal (Machineries) which integrates hardware and software to create an interactive environment. Banking self services kiosks is the service provided by the bank with the help of technology through which a customer can perform various banking activities without having help of any employee and without visiting the bank. The Reserve Bank of India also pushes the financial inclusion in which delivery of Banking services and Credit services at affordable cost to the vast section, which could be possible only by banking self service facilities.

(This new technology brings users numerous benefits, including ease of access, reduced transaction time, access to information and the ability to perform multiple transactions.)

Self Services banking provide machineries to perform:

Deposit of Cash

Deposit of Cheques

Withdrawal of Cash

Money transfer to another account holder in other locations

Passbook printing

The pay in machine

Automated Teller Machine

Bank Queue Management System.

Recharge, Utility bill payments, Loan Payments

Transfer of Money from one account to another

Advantages of Using Self Service Providing Machine

There are many advantages to use the self service machines for banking transactions some of them are as, 24x7-Anywhere, Anytime Banking, Time Saving, Easy Withdraw & Deposit Cash, Fund Transfer, Payment of Utility Bill like Electricity, Telephone bill etc., Updating Passbooks, Open Fixed Deposit, Cheque Deposit any time, Make Donation, Tax payment etc.

Review of Literature

Introduction this chapter summarizes other studies from researchers in the same field of study. It reviews available literature that is relevant, focusing on theoretical framework and influence of use of service enabled technology strategy on performance of commercial banks.

Theoretical Framework This study is anchored on theory of Reasoned Action and Resource Matching Theory as discussed below :

Jubair (2014) states that developments in banking technology, customer is able to perform not only basic banking transactions like depositing and withdrawing cash through service providing machine but also non-banking transactions and value added services through these machine either free of cost or at a nominal transaction fee. He recommends that self-service machine with a biometric access avoid fraudulent activities, and also suggest that solar based machines are helpful to reducing the power supply.

Tanya and Nicola (2006) also stated as they found that self service banking technology provide opportunity to increase accessibility of each services and directly enhance the positive impact of increased market share. Technological advancement can ensure the productivity leads to loyalty and satisfaction of customers. The bank also secure improvement of goodwill and reputation.

Shende, A et al (2014) pointed out that ATM users are increasing day by day. Due to increasing users the fraud cases and problems are also increasing like ATM skimming, Penetration etc., To avoid these problems she suggest that bank must have innovate and include HCI(Human Computer Interface) in the ATM. She also recommends that banks should give special devices must be embedded with ATM for senior citizen and physically challenged person.

Olusanya and Fadiya, (2015) also conducted a study on users of ATM Services. He states that customers are avoiding to go for banking halls, now can go to the closet ATM to do their banking transactions like withdrawal, utility bill payment, fund transfer etc. He also suggest that to retain customers, bank should give more services through ATM. Banks should also focus on important aspect of security and privacy as well as efficient operation of ATM.

Pitt et al., (2010) Analyze relationship between Customer Satisfaction and Self Service Banking Kiosk and stated that technology strategy and performance is playing very important role in satisfaction of users. Where as in the same manner Bitner also stated that the overall service quality through advanced technology based system established customer satisfaction.

Objectives of the Study

To identify the various key factors contributing the awareness of banking kiosk among their customers.

Research Methodology

The Research Study

The study is empirical and exploratory in nature and is aimed to identify the factors on awareness in the use of self-service banking kiosks.

Research Sampling

The respondents are all the customers of banking sector to find the awareness. Total 250 questionnaires distributed as per convenient sampling method out of which 174 responses collected from Indore City. Each questionnaire containing 30 statements related to the awareness towards self service banking kiosks. Out of 174 male and Female responses are 128and 46 respectively.

Table 1 Demographic Analysis of Collected Data

Variables	Category	Frequency	Percentage Frequency
Gender	Male	128	73.56%
	Female	46	26.44%
Age	Below 22	11	6.32%
	22-35 years	123	70.69%
	35-50 years	29	16.67%
	Above 50	11	6.32%
Educational Qualification	Pursuing	67	38.5 1%
	Graduate	100	57.47%
	Others	7	4.02%
Occupation	Employed	67	38.5 1%
	Unemploye	21	12.06%
	Business	46	26.44%
	Housewife	9	5.17%
	Retired	2	1.15%
	Any other,	29	16.67%

Tools for Data Collection

Primary research was conducted using the self structured questionnaire was designed for customers of various users of banking kiosks located in Indore city.

Tools for Data Analysis

The reliability of questionnaire was tested using Cronbach's Alpha which was found to be .935 and no item was dropped (See Table 1). The Factor Analysis was applied on the data collected from 174 respondents by using Principle Component Analysis and Varimax Rotation Method with Kaizen Normalization. The above mentioned test was conducted by Using SPSS 16.0. SPSS is Statistical Package for Social Sciences (See Table 3).

Results and Analysis

KMO and Bartletts Test

a) Test Adequacy of Samples

Normally, 0 < KMO < 1 If KMO > 0.5, the sample is adequate. Here, KMO = 0.760 which indicates that the sample is adequate and we may proceed with the Factor Analysis.

Table 2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.760
Bartlett's Test of Sphericity	Approx. Chi-Square	4511.176
	Df	435
	Sig.	.000

b) Bartlett's Test of Sphericity

Taking a 95% level of Significance, α = 0.05 The p-value (Sig.) of .000 < 0.05, therefore the Factor Analysis is valid.

The Kaiser-Meyer Olkin (KMO) and Bartlett's Test measure of sampling adequacy was used to examine the appropriateness of Factor Analysis. The approximate of Chi-square is 4511.176 with 435 degrees of freedom, which is significant at 0.05 Level of significance. The KMO statistic of 0.760 is also large (greater than 0.50). Hence Factor Analysis is considered as an appropriate technique for further analysis of the data.

Table 3 Reliability Test

	N	%
Valid	174	100.0
Excluded	0	.0
Cases		
Total	174	100.0

Table 4 Reliability Statistics	
Cronbach's Alpha	N of Items
.935	30

Reliability of the questionnaire was tested using SPSS for overall data i.e.175 respondent so Cronbach's Alpha result which was found to be .935 which is more than .7 so data is reliable. On the basis of Varimax Rotation with Kaiser Normalisation, seven factors have been extracted. Each factor is constituted of all those variables that have factor loadings greater than 0.5. Total 30 variables were clubbed into 7 factors. These 7 extracted factors explained 73.778 % of the variability the Awareness about self service banking kiosk Facilities amongst baking customers of Indore city.

Factors Analysis

Identification of Core Factors

The Rotated Factor Matrix represents the rotated factor loadings, which are the correlations between the variables and the factors. The factor column represents the rotated factors that have been extracted out of the total factor. These are the core factors, which have been used as the final factor after data reduction. According to the grouping of the factors, each group of factors is named which will represent the grouped factor and represent the factors. In this study they are –

Service Convenience

Easy and Comfortable

Automated Services

Free Facility No Limitation

Transaction with Receipts

Value Added Service,

Clear Information

Findings & Discussion

1 Service Convenience

This is the major factor related to awareness about self service banking kiosk. The total % of variance came out to be 20.484%. This factor covered the Green channel self services for withdraw, transfer and deposit money (0.795, 0 .781 and 0.700). This factor also covered fund transfer through ATM and Cash Deposit Self Service machine with the item load of 0.688 & 0,681. With this Improve Performance of financial transaction (0.673), Secure Transaction (0.660), Responsible for technical mistake (0.595), Availability (0.585) and Self- Service kiosks are time saving machine (0.549) are also shows their importance.

This factor plays a major role in Self Service banking Kiosk. This means that this factor is considered to be the highest factor which is affecting awareness of banking customer while taking for the awareness of self service banking kiosk. Thus, indicating strong acceptance of respondents towards awareness about Self service Kiosk technology in banking sector. (Ref. Table 5 & 12)

2 Easy and Comfortable

This is the second highest factor in awareness about Self service banking kiosk facilities. The total % of variance came out to be 16.937. It covers awareness as comfortable without computer knowledge and user friendly (0.775 & 0.770) loadings also. The cash and cheque deposit machines are easy to use with item load 0.684 & 0.582 indicates the users experience of Self service banking instruments. (Table 6 & 12)

This is the second highest factor which is indicating the awareness and signifies the availability of self service kiosks in different banks.

3 Automated Services

This factor tell about the awareness of ATM and Green channel services and covered some items as ATM machine provide facility of mobile number registration for KYC with highest item load of 0.714. With this Through the ATM machines they can request for new cheque book (0.713). No charges to transfer money through ATM and use of green channel (0.588 and 0.579). Cash and cheque deposit machine (0.546)are same in some banks. (Table 7& 12).

An strong awareness of each kiosk with particular features is a proof to accept that customer are using the services. Total % of variance of this factor was 9.652.

4 Free Facilities no Limitation

This is the third highest factor as the total factor load is 3.131 in which three items only. In which the items showing as chaque deposit machine is free of charge having item load .880, No limit for no of cheque to deposit with the load of 0.816 and the free facility of cash deposit machine with .664 item load. The total % of variance came out to be 9.040%. This factor signifies the different kiosks facilities with free and no limits. Customers are quite aware about the use and charges of each facility. (Table 8 & 12).

5 Transaction with Receipt

This factor tells about the cheque and cash deposit self service machine. In this the first item as Cheque deposit provide the complete receipt also (0.838) and Cash withdrawal with cash deposit machine (0.759). That way the total factor load is 1.597. The total percentage of variance is 6.955%. (Table 9 &12)

This factor is inculcate the feature of Cheque Deposit kiosk and withdrawal through Cash Deposit self service machine and found that customers are quite aware such kiosks in banking services.

6 Value added Services

The total factor load of value added services is (-0.327) and the total percentage of variance is 5.614%. This factor indicates about the negative awareness of request and payment to Railway Reservation through ATM service and Positive awareness about Passbook printing self service kiosk (-0.860 & 0.533) of banks. (Table 10 & 12)

The request or transfer of payment and request for Railway reservation was asked to analyze the confidence of customer on ATM self service technology, which was refused by customers (-0.860). This concluded that customers having strong awareness about all the features of self service ATM kiosk. The Passbook Printing Kiosk also having positive items load that is the reason these two services came with the low total load and hence covered in sixth factor. The awareness is low and still required to work in this area.

7 Clear Information

This is the factor having item load and total load is same (0.852)as only one item in this. The total percentage of variance is 5.094%. so found very less awareness as is the last factor. But customers are aware about this feature that a limited cash can be deposit through cash deposit machine. (Ref. Table 11 & 12)

Table 5, Factor 1: Service Convenience

S. no.	Factors	Variables / Items	Item	Total Factor	% Of

			Load	Load	Variances
1	Service Convenience	21. I can withdraw money through the Green Channel self-service.	.795	.795	20.484%
		22. Through the Green Channel self-service, I can transfer money also.	.781	1.576	
		20. Through the Green Channel self service, I can deposit money.	.700	2.276	
		11. Through the ATM self-service machine I can request for the fund transfer also.	.688	2.964	
		15. Fund transfer through the Cash Deposit Self Service Machine is also possible.	.681	3.645	
		30. Self service kiosks improve the performance of financial transaction of banks.	.673	4.318	
		29. The financial transactions are secure from self service kiosks.	.660	4.978	
		23. My bank is responsible for technical mistake through self service kiosk.	.595	5.573	
		8. Green Chanel Self Service Kiyosk is available in my bank.	.585	6.158	
		12. Self- Service kiosks are time saving machine.	.549	6.707	

Table 6, Factor 2: Easy and Comfortable

Sr.No.	Factors	Variables / Items	Item Load	Total Factor Load	% Of Variances
2	Easy and Comfortable	4. I am comfortable to use self service machine of bank without having computer knowledge.	.775	.775	16.937%
		2. Self service kiosks are very user friendly.	.770	1.545	
		1 My bank provides self-service kiosks facilities.	.737	2.282	
		3. Banking machine for self service are free from time bounding.	.723	3.005	
		5. Cash deposit self-service kiosk is easy to use.	.684	3.689	
		6. Cheque deposit self service kiosk is available in my bank.	.582	4.271	

Table 7, Factor-3: Automated Services

Sr. No.	Factors	Variables / Items	Item Load	Total Factor Load	% Of Variances
3	Automated Services	13. I can request for mobile no. registration through the ATM self-service machine	.714	.714	9.652%
		9. Through the ATM self service machine, I can request for new cheque book	.713	1.427	
		24. There are no charges of money transfer through ATM self service machine.	.588	2.015	

| | | 28. In my bank use of Green channel self-service is absolutely free. | .570 | 2.585 | |
| | | 19. Cheque deposit self-service kiosks provide the facility of cash deposit also | .546 | 3.131 | |

Table 8, Factor-4: Free Facility no Limitation

Sr.No.	Factors	Variables / Items	Item Load	Total Factor Load	% of Variances
4	Free Facility No Limitations.	27. No Charges on Cheque Deposit self-service machine	.880	.880	9.040%
		25. There is no limit on number of cheques deposit in Cheque deposit self service machine.	.816	1.696	
		26. In my bank use of Cash deposit self-service machine is absolutely free.	.664	2.360	

Table 9, Factor-5: Transaction with Receipt

Sr. No.	Factors	Variables / Items	Item Load	Total Factor Load	% of Variances
5	Transaction with receipt	18. Self-service kiosks of Cheque deposit provide the complete receipt also.	.838	.838	6.955%
		16. Facility of cash withdrawal from Cash deposit machine is available	.759	1.597	

Table 10, Factor-6: Value Added Services

Sr. No.	Factors	Variables / Items	Item Load	Total Factor Load	% of Variances
6	Value Added Service	10. I can request for Railway reservation Through ATM self-service machine.	(.860)	(.860)	5.614%
		7. My bank provides Passbook printing self-service kiosk.	.533	(0.327)	

Table 11, Factor-7: Clear Information

Sr. No.	Factors	Variables / Items	Item Load	Total Factor Load	% Of Variances
7	Clear Information	17. I can deposit my limited cash through Cash deposit self-service machine any time	.852	.852	5.094%

Conclusion

Self Service Banking is found to be very important for customer of bank for their routine activities such as transfer the money, passbook printing, chaque deposit, transfer the money in other account, etc. The study also advocated the same and found that there are certain factors which help customers to know more about the new self service banking kiosk and also to make their transaction related activities easy. The awareness amongst the customers of bank was

found in the study for self service banking technology of banking sector as a whole and also for its seven identified factors. Besides, the 'service convince' factor of banking was found to be more significance towards the awareness of banking through self service banking kiosk. Customers are well aware about each features of self service machine.The reason were this was they felt that Self service banking kiosks are fast, easy to use, passbook printing easily, cash and cheque deposit are possible without standing in a queue and even actually self service banking kiosks improves the performance of financial transactions. It is also found that Customers very well aware about self service banking technology and this provide opportunity to increase accessibility of each service and directly enhance the positive impact of increased market share of the bank.

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Appendix 1

Table 12, Total Variance Explained

Component	Initial Eigen values [a]			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumul ative %
1	16.110	36.748	36.748	11.719	39.064	39.064	6.145	20.484	20.484
2	4.426	10.095	46.843	2.608	8.694	47.757	5.081	16.937	37.421
3	3.339	7.616	54.459	2.010	6.700	54.457	2.896	9.652	47.073
4	2.608	5.948	60.407	1.713	5.712	60.169	2.712	9.040	56.114
5	2.427	5.537	65.944	1.614	5.381	65.549	2.087	6.955	63.069

6	2.180	4.973	70.917	1.440	4.799	70.348	1.684	5.614	68.683
7	1.599	3.647	74.564	1.029	3.429	73.778	1.528	5.094	73.778
8	1.394	3.181	77.745						
9	1.174	2.679	80.424						
10	1.087	2.479	82.903						
11	1.042	2.377	85.279						
12	.881	2.009	87.288						
13	.760	1.734	89.023						
14	.674	1.537	90.560						
15	.633	1.444	92.004						
16	.486	1.109	93.113						
17	.437	.998	94.111						
18	.399	.909	95.020						
19	.347	.792	95.812						
20	.321	.731	96.543						
21	.272	.621	97.164						
22	.246	.561	97.725						
23	.211	.482	98.207						
24	.188	.430	98.637						
25	.169	.385	99.022						
26	.133	.303	99.325						
27	.107	.243	99.568						
28	.078	.179	99.747						
29	.066	.151	99.897						
30	.045	.103	100.000						