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Self Service Technology – A Study Regarding the Perception and Service Quality in Rural Areas

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ABSTRACT: Self-service technology is the most effective technology that allows customers to involve them directly towards using the services rather than believing the employees. With rural areas the customers who have their banks accounts may be unaware about the services provided by the banks which can be used self. The main objective is to study level of usage of various E-banking facilities and to analyse the awareness towards specific E-banking facilities with the customers in rural areas. For this a sample of 250 was collected from the respondents were percentage analysis, descriptive statistics, factor analysis, One-way Anova and multiple regression were used as tools to analyse the data and the conclusion is that the customers have awareness towards Tele banking, using ATM with machines and Mobile banking but there is a lag towards using internet banking by the customers which has to be taken care by the banks to promote the self-service technology which will reduce the labour cost in future period of time.

KEYWORDS: Banking, Awareness and Customers.

I. INTRODUCTION

To acquire services via service agencies, consumer's routines range from offerings delivered by way of employees for you to services which might be co-produced by just customer on its own (Hilton, Gaines, Little, in addition to Marandi, 2013; Turner and Shockley, 2014). Service providers have presented SSTs to further improve productivity, talents, and efficiency in service course of action (Curran and also Meuter, June 2006; Kelly, Lawlor, & Mulvey, 2017; Kokkinou & Cranage, 2013; Master, Craig-Lees, Hecker, & Francis, 2002; Zeithaml & Gilly, 1987). In addition, the purpose was going to put forward the buyer to access solutions by means of modern-day and easy channels (McGrath & Astell, 2017; Meuter, Ostrom, Bitner, & Roundtree, 2003). To do so, most suitable option better street address the customer's demand in addition to their consciousness (Bitner, Ostrom, & Meuter, 2002). A number of SSTs, for instance ATM, internet banking, mobile phone banking, together with self-check-in products at surroundings ports, buying online, online invoice payment and so forth are famous amongst the users.

Meuter et al. (2000) defined SSTs as "technological interfaces which often allow prospects to get providers free from typically the direct input of assistance firm's employees". With regarding multi-channel promoting, combinations involving SSTs extrême are provided with the companies intended for flawless distribution of shopper services. For example that user of commercial airline services never only preserve but will probably pay for offenses by using on line check-in by using the Internet as well as mobile phones. They might pick up boarding passes with airport kiosks, and obtain airline flight information on their very own mobile devices. Quite a few services are actually offered by Banking companies through World wide web, hotline or maybe through "interactive phone systems", ATMs, and also mobile phones.

II. RELATED WORK

i) PERCEIVED SERVICE QUALITY IN CONTEXT OF RURAL AND URBAN BANKS IN PAKISTAN

Perceived service quality is very important concept in banking sector. It is therefore necessary to acknowledge the perception of customers from different areas-as they are becoming more critical and demanding. After studying many research papers and literature, the SERQUAL model modifies by adding up three variables (Sincerity, Formality,

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personalization) and excluding two variables (Empathy and tangibility) by keeping in view urban and rural banks services and perceived differences of both types of customers. Using a sample of 240 respondents, a self-completion questionnaire was given to rural and urban banks' customers from Bahawalpur City and surrounding rural areas to determine perception of service quality of banks. Descriptive statistics, T-test and Cronbach's alpha were employed to get results of the study. The results show that urban banks customers have highest perception in assurance and lowest in personalization. Similarly, rural customers also perceive that they are getting highest assurance while formality is the lowest service quality dimension they are getting. Surprisingly, this study indicates that overall rural customers have more perceived satisfaction. This study suggests that rural banks should improve technology and infrastructure. Urban banks should focus on hiring and training employees having high level of sincerity, formality, and personalization for customers.

ii) Impact of self-service technology (SST) service quality on customer loyalty and behavioral intention: The mediating role of customer satisfaction.

Service quality has been a topic of extensive inquiry for decades that has emerged now in form of self-service technology (SST) which has profound effects on the way customers interact with firms to create positive service outcomes i.e. customer satisfaction, loyalty, and behavioral Intentions. Therefore, the main objective of this study is to examine that how the technology based Services i.e. SSTs impact the customer satisfaction, loyalty, and Behavioral Intentions in service sector of Pakistan. The data have been collected from the 238 SST's users through the online survey. In order to test the model, Structural Equation Modeling is applied by using the LISREL program. The results of this study reveal positive and significant relationship between SSTs service quality, loyalty, and behavioral Intentions directly and indirectly via customer satisfaction. These results provide insights for the service sector of the Pakistan to invest in the new technology in order to enhance the consumer experience, satisfaction, loyalty, and Intentions.

III. STATEMENT OF THE PROBLEM

The rural consumers have a lag towards the use of technology implemented by various banks. The technology towards banks are changing each and every day and the rural consumers are having a lag of awareness towards the technology used with the banks and that has been taken as a problem towards the study.

IV. OBJECTIVES OF THE STUDY

- To study about the demographic and socio graphic profile of the respondents who use banks service in rural area.
- To evaluate the service quality of banks among rural consumers.
- To compare the demographic factors with the factors related to service quality.
- To evaluate the impact of service quality of the respondents towards awareness among customers.

V. SCOPE OF THE STUDY

The main scope of the study is that it will help the banks to know about the perception of rural consumers about the service provided by the banks which leads to quality improvement in near future.

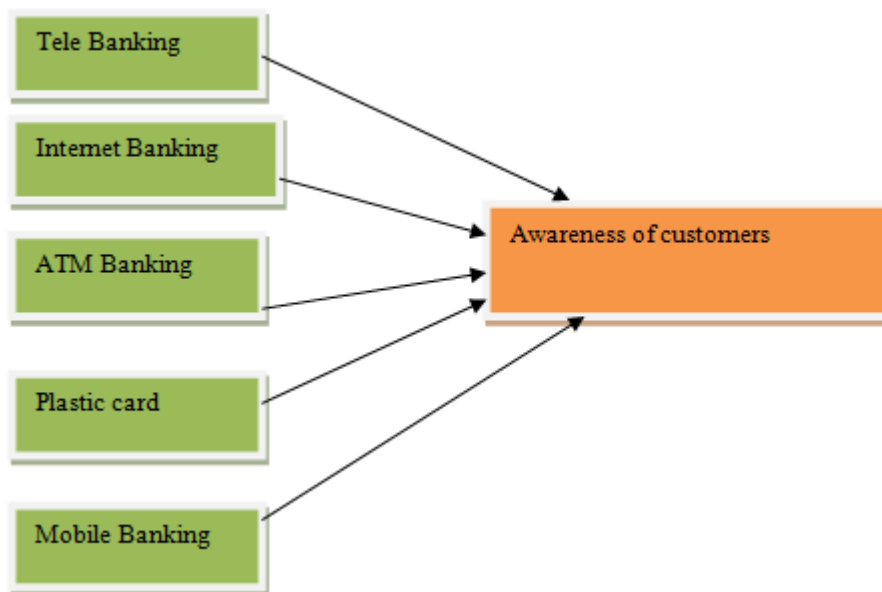
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VI. CONCEPTUAL FRAMEWORK



VII. RESEARCH METHODOLOGY

Nature of Research: Descriptive Research design is used for study. It is used to describe characteristics of a population or phenomenon.

Sampling Design:

Sampling unit: The research was surveyed with both the gender with different age group and educational qualification and people working in different occupation were also taken for the study.

Sample size: It is the substantial portion of the target population that is sampled to achieve reliable results. The sample size for the study includes 250 respondents.

Sample technique: Survey method

Type of sampling: As we don't have criteria towards population size of the research convenient sampling method was used to collect the data.

Data Collection

Primary data : The primary data was collected through a structured questionnaire.

Secondary data: The secondary data was collected from various websites, journals and magazines.

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Tools used for the analysis: Simple percentage Analysis Method, Descriptive analysis method, Factor analysis, OnewayAnova and Multiple regressionwere used as tools to analyse the data.

Limitations of the study

The study area is restricted to Coimbatore.

Only limited sample size was taken for the study.

There may be a bias towards primary data collection of the study.

VII. ANALYSIS AND INTERPRETATION

Demo-graphic variables	Particulars	Frequency	Percent
Gender	Male	178	71.2
	Female	72	28.8
	Total	250	100
Age	Below 18	7	2.8
	18-25	93	37.2
	26-35	73	29.2
	Above 35	77	30.8
	Total	250	100
Educational qualification	SSLC	7	2.8
	Higher secondary	7	2.8
	UG	145	58.0
	PG	91	36.4
	Total	250	100
Place of living	Rural	18	7.2
	Urban	78	31.2
	Semi urban	154	61.6
	Total	250	100
Occupational income	Below Rs.1,50,000	15	6.0
	Rs.1,50,001- Rs.3,00,000	127	50.8
	Rs.3,00,001- Rs.4,50,000	69	27.6
	Rs.4, 50,001- Rs.6,00,000	27	10.8
	Above Rs.6,00,001	12	4
	Total	250	100
Sector holding the bank account	Public sector bank	163	65.2
	Private sector bank	87	24.8
	Total	250	100

Out of 250 respondents 71.2% are male and 28.8% are female. 2.8% are from the age group of below 18, 37.2% are from the age group of 18-25, 29.2% are from the age group of 26-35 and 30.8% are from the age group of above 2.8% are

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have completed their SSLC, 2.8% have completed their higher secondary, 58% have completed their UG and 36.4% have completed their PG. 7.2% are from rural area, 31.2% are from urban area and 61.6% are from semi urban area. 6% are earning below Rs.1,50,000, 50.8% are earning from Rs.3,00,001- Rs.4,50,000, 27.6% are earning from Rs.3,00,001- Rs.4,50,000, 10.8% are earning from Rs.4, 50,001- Rs.6,00,000 and 4.8% are earning above Rs.6,00,001. 65.2% are holding their account in public sector bank and 22.8% are holding in private sector bank.

Usage and extent of using banking services

Banking service	Factors	Particulars	Frequency	Percent
Tele banking	Usage of tele banking facility	Yes	141	56.4
		No	109	43.6
		Total	250	100
	Extent of Tele banking facility	Highly	13	9.2
		Moderately	43	30.5
		Low	85	60.3
		Total	141	56.4
Internet banking	Usage of internet banking facility	Yes	123	49.2
		No	127	50.8
		Total	250	100
	Extent of internet banking facility	Highly	0	0
		Moderately	68	55.3
		Low	55	44.7
		Total	123	100
ATM Banking	Usage of ATM banking facility	Yes	156	62.4
		No	94	37.6
		Total	250	100
	Extent of ATM banking facility	Highly	10	6.4
		Moderately	77	49.4
		Low	69	44.2
		Total	156	100.0
Plastic card	Usage of plastic cards	Yes	108	43.2
		No	142	56.8
		Total	250	100
	Extent of plastic cards	Highly	0	0
		Moderately	53	49.1
		Low	55	50.9
		Total	108	100.0
Mobile	Usage of mobile banking facility	Yes	125	50.0

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banking		No	125	50.0
		Total	250	100.0
	Extent of mobile banking facility	Highly	19	15.2
		Moderately	42	33.6
		Low	64	51.2
		Total	125	100.0

Out of 250 respondents 56.4% are using Tele-banking facility and 43.6% are not using tele banking facility. In that out of 86 respondents 5.2% are highly using, 43.6% are moderately using and 35.3% are using low. It shows that majority of the respondents are using tele banking facility and in that majority using it for a higher extent are using tele banking facility. 50% are using internet banking facility and 50% are not using internet banking facility. In that out of 75 respondents 54.6% are moderately using, and 45.43% are using low. It shows that majority of the respondents are moderately using internet banking facility. 62% are using internet banking facility and 38% are not using ATM banking facility. In that out of 62 respondents 6.5% are highly using, 48.3% moderately using, and 45.2% are using low. It shows that majority of the respondents are moderately using ATM banking facility. 42.7% are using internet banking facility and 57.3% are not using ATM banking facility. In that out of 64 respondents 48.5% moderately using, and 51.5% are using low. It shows that majority of the respondents are using low for plastic card banking facility. 50.7% are using internet mobile banking facility and 49.3% are not using mobile banking facility. In that out of 76 respondents 16% are highly using, 34.2% moderately using, and 50% are using low. It shows that majority of the respondents are using low for mobile banking facility.

Descriptive statistics for factors related to satisfaction with various services

Tele banking: The respondents are satisfied towards call answering time (2.96), flawless/ correct Operation (2.58), understanding and reply in queries correctly (2.97), communication skills/positive approach (2.90) and general assessment about the service (2.63). The respondents are unaware towards security(3.04) related to tele banking.

Internet banking: The respondents are satisfied towards page setup and menu flow (2.69), general assessment about the service (2.73) and security with internet Banking (2.99). The respondents are unaware towards speed of page loading (3.57), speed of page loading (3.55) and general assessment about the service (3.32) related to internet banking.

ATM banking: The respondents are unaware towards ATM network distribution (3.05), continuous service (3.01) and variety of transactions (3.25). The respondents are unaware towards easy of screen use (3.35) and general assessment about the service (3.47) related to ATM banking.

Plastic card: The respondents are satisfied towards solving of problems by bank (2.91), purchasing of goods and service (2.57) and security with reference to plastic card (2.95). The respondents are unaware towards availability of receipt (3.05) and transaction cost (3.13) related to usage of plastic card.

Mobile banking: The respondents are highly unaware towards understanding the menu with mobile banking at the time of purchase (4.83). The respondents are unaware towards menu navigation (3.25), payment of bills (3.41), balance inquiry (3.71) and security (3.27) with reference to mobile banking.

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Opinion towards various e-banking services

KMO AND Bartlett's test for opinion towards various e-banking services

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.797
Bartlett's Test of Sphericity	Approx. Chi-Square	1.693
	df	91
	Sig.	.000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy for factors related to e-banking services is at 0.797 which is greater than 0.5. It reveals that the factors are normally distributed. Out of 14 variables the common factors above 0.5 are taken for decision making process of the study. The factors are awareness towards Utility bill payment, RTGS, Bulk note acceptor, E-Lounge, Tele banking service and ATM banking service.

OnewayAnova

Comparative analysis between age and factors related to level of awareness towards various factors

H0: There is no significant relationship between age and factors related to level of awareness towards various factors

		N	Mean	Std. Deviation	F	Sig
Level of awareness towards tele banking	Below 18	4	2.8250	.00000	28.603	.000
	18-25	56	2.6739	.32507		
	26-35	44	3.3414	.45505		
	Above 35	46	2.5817	.52271		
	Total	250	2.8456	.53299		
Level of awareness towards internet Banking	Below 18	4	4.1700	.00000	11.499	.000
	18-25	56	2.9745	.59961		
	26-35	44	3.4532	.59497		
	Above 35	46	2.9589	.55983		
	Total	250	3.1420	.63827		
Level of awareness towards ATM Banking	Below 18	4	2.0000	.00000	5.866	.001
	18-25	56	3.2029	.54895		
	26-35	44	3.4782	.50745		
	Above 35	46	3.1754	1.01446		
	Total	250	3.2431	.74578		
Level of awareness towards Plastic card	Below 18	4	3.4000	.00000	8.374	.000
	18-25	56	2.9536	.79360		
	26-35	44	3.2364	.46310		
	Above 35	46	2.5391	.76347		
	Total	250	2.9213	.74253		
Level of awareness towards Plastic card	Below 18	4	2.6000	.00000	6.764	.000
	18-25	56	3.1964	.53597		
	26-35	44	3.7000	.69080		
	Above 35	46	3.3348	.78548		
	Total	250	3.0729	.74253		

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	Total	250	3.3707	.69991		
Opinion towards various e-banking services.	Below 18	4	2.0000	.00000	14.802	.000
	18-25	56	3.2746	.72343		
	26-35	44	3.6950	.46217		
	Above 35	46	3.0261	.63628		
	Total	250	3.2877	.70128		

Interpretation

The above table depicts that the mean value of level of awareness towards tele banking, ATM Banking, Plastic card and e-banking services is high with the age group 26-35. It depicts that the mean value of awareness towards internet Banking, of awareness towards Plastic card is high with the age group below 18. It shows that there is a relationship between age and level of awareness towards tele banking., awareness towards ATM Banking, awareness towards Plastic card, awareness towards Plastic card and opinion towards various e-banking services as it is lesser than 0.05.

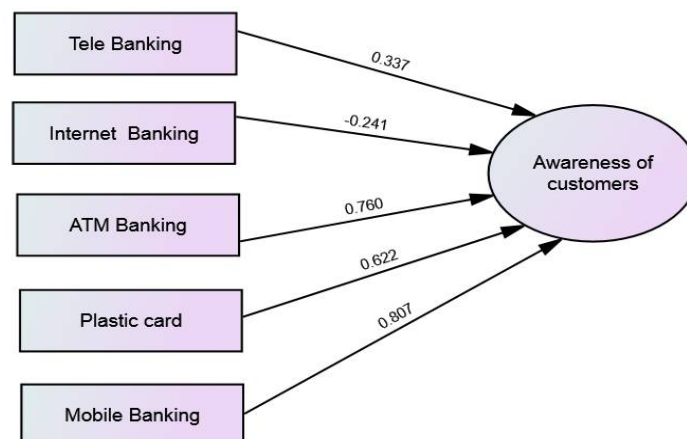
AGE * LEVEL OF AWARENESSTOWARDS PRIVACY OF CUSTOMER INFORMATION

H0: There is no significant association between age and Level of awareness towards privacy of customer information

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.571 ^a	12	.000

Interpretation : there is a significant association between these two factors were the majority of the respondents who are from the age group of 18-25 don't have idea towards privacy of customer information.

COMPARISON BETWEEN AWARENESS OF CUSTOMERS TOWARDS BANKING FACILITIES AND VARIOUS FACTOR RELATED TO BANKING



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The above chart reveals that the factors awareness towards tele banking services, ATM banking, plastic cards and mobile banking are positively related to awareness of banking facilities.

IX. FINDINGS

- Most of the respondents are male.
- Maximum of the respondents are from the age group of 18-25.
- Most of the respondents have completed their UG.
- Maximum of the respondents are from semi urban area
- Most of the respondents are earning from Rs.1,50,001 - Rs.3,00,000.
- Maximum of the respondents are holding their account in public sector bank.
- Majority using it for a higher extent are using tele- banking facility.
- Majority of the respondents are moderately using internet banking facility.
- Majority of the respondents are moderately using ATM banking facility.

Awareness towards telebanking: The respondents are aware towards call answering time, flawless/ correct Operation, understanding and reply in queries correctly, communication skills/positive approach and general assessment about the service. The respondents are unaware towards security related to tele-banking.

Awareness towards internet banking: The respondents are aware towards page setup and menu flow, general assessment about the service and security with internet Banking. The respondents are unaware towards speed of page loading, speed of page loading and general assessment about the service related to internet banking

Awareness towards ATM banking: The respondents are unaware towards ATM network distribution, continuous service and variety of transactions. The respondents are unaware towards easy of screen use and general assessment about the service related to ATM banking.

Awareness towards usage of plastic card: The respondents are aware towards solving of problems by bank, purchasing of goods and service and security with reference to plastic card. The respondents are unaware towards availability of receipt and transaction cost related to usage of plastic card.

Awareness towards usage of mobile banking: The respondents are highly unaware towards understanding the menu with mobile banking at the time of purchase. The respondents are unaware towards menu navigation, payment of bills, balance inquiry and security with reference to mobile banking.

Opinion towards various e-banking services: The factors awareness towards Utility bill payment, RTGS, Bulk note acceptor, E-Lounge, Tele banking service and ATM banking service are taken for decision making process of the study. There is a relationship between age and level of awareness towards tele-banking., awareness towards ATM Banking, awareness towards Plastic card, awareness towards Plastic card and opinion towards various e-banking services. There is a relationship between educational qualification and Level of awareness towards internet Banking, Level of awareness towards ATM Banking and Opinion towards various e-banking services as the level of significance. There is a relationship between educational qualification and all the factors related to level of satisfaction. There is a relationship between educational qualification and all the factors related to level of satisfaction.

X. SUGGESTIONS & CONCLUSION

- As the present study is related to nationalized banks this study tries to explore as to whether application of modern marketing techniques can be helpful in facing this challenge. In a customer-oriented industry like banking, the marketing concept has its own importance.

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- More self-awareness programs can be conducted with the concerned branch in rural areas to make reach of the technology.
- The nationalized banks can follow technology implemented by private sector banks and foreign banks for further enhancement of services in rural areas.

The conclusion is that the customers have awareness towards Tele banking, using ATM with machines and Mobile banking but there is a lag towards using internet banking by the customers which has to be taken care by the banks to promote the self-service technology which will reduce the labour cot in future period of time.

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