The Effect of Age as a Moderator on the usage of E-CRM practices in public and private sector banks

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Abstract: In the Indian banking sector, Electronic customer relationship management deals with maintaining and optimizing long term relation with the consumers. The current study analyzed the relationship between demographic characteristic 'AGE' and the quality of E-CRM practices perceived by the customers. Primary data was collected using survey method. The structured questionnaires were distributed to a total of 600 respondents , out of which 463 responses were collected. Post data collection, ANOVA was applied to study the difference of Age with service quality dimensions. The major findings revealed that in public &private sector banks, usage of ATM services has the significant difference between the age group of **"18-29 yrs and 40-49 yrs"** as the *p-value* **is less than** *0.05.* This implies that in both public &private sector banks, younger and middle age group of consumers are having different perception towards the utilization of ATM services

Keywords: Consumers, E-CRM practices, Banking sector, Public Banks, Private Banks.

1. **INTRODUCTION**

The banking industry is getting more &more consumer-centric with growing focus on consumer oriented services. Be it public banks or private sector banks; both have resorted the profit oriented approach lately. The initiation of e- commerce; banks in both the sectors started employing latest technological tools such as Internet and mobiles for communication as well as transactions. Customer relationship management is perhaps the best precedent of utilization of technological tools to generate the accelerated consumer satisfaction with time box approach. Such traditional Customer relationship management when combined with the latest technological tools is termed as "Electronic Customer Relationship Management". "Dyche, (2001) elaborated that *E-CRM is a scientific combination of software, hardware, application, and management commitment addressed towards improvement of customer service, relationship developing &finally to retain the valuable customers and in turn motivates valuable customers to stay loyal by utilizing enhanced E-CRM features."*

1.1 E-CRM TOOLS ADOPTED BY BANKS

Banks' utilize allied E-CRM tools, some of them are hereunder:

1. Internet Banking: It refers to using internet for doing bank transactions. Banks offer various facilities to their customers via websites.

2. Automated Teller Machines (ATMs): It offers customer facilities like cash withdrawal, cash deposit etc. after authentication process.

3. Mobile Banking: This is the facility through which banks offer their customers various

Services on their mobiles.

4. E-mail Service: Banks are providing one of the cheapest communication medium E-mail.

5. Smart Cards: These cards are issued to banks customers which contain customers account

details.

6. Electronic Fund Transfer: This is the facility which is introduced by RBI to offer banks and customers

money transfer service. Thus the inception of E-CRM, enabled banks to shift their focus from physical

payment towards electronic money. Now a day's Bank's Customer's prefer online banking transactions.

1.2 SERVQUAL

Parasuraman et al. (1985) designed a service-model which revealed that "basically consumers use

similar criteria to evaluate service quality irrespective of the service type. They defined five dimensions

including reliability, assurance, responsiveness, tangibles, &empathy as 'service quality determinants'.

Five service quality dimensions of SERVQUAL model are defined by "Parasuraman et al. (1985)" as

follows:

Tangibles

It refers to the physical facilities, personnel, equipment, &written materials.

Reliability

It is the capability to perform the promised service dependably &accurately.

Responsiveness

It refers to the "promptness of services". Later in 1988, they redefined it as "the willingness to help

customers and provide prompt service".

Empathy

It refers to individual attention and care offered to customers by their organization.

Assurance

It is the courtesy, knowledge and skills of organizations employees to develop trust &confidence among customers.

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2. LITERATURE REVIEW

Ashfaq Ahmad et al., (2010) in their study examined "perception of customers towards the service quality of products offered by Islamic and conventional banks of Pakistan". They focused their study on the evaluation of variants of service quality namely - reliability, tangibles, responsiveness, assurance, empathy as upheld by parasuraman et al., in the year 1988. They used scientific group sampling and chose questionnaire method for collecting data by targeting around 720 customers the banks selected by them. They used quantitative tools like that of Mean, standard deviation and t-test to testify their findings and concluded *that Islamic banks piped conventional banks in terms of services quality which marks a need of improvement in the quality of services in the case of conventional banks.*

Zaeim et al. (2011) attempted to evaluate the customer perception in terms of services quality availed by them "by recognizing the gap between customers expectation and perception' in Islamic banks of Malaysia. They adopted "CARTER instrument' &disconfirmation model for quantifying consumer's perception towards service quality. By using CARTER instrument they discovered there existed a gap between the expectation level of customer and that of their perception towards the quality of services. For distribution of focused questionnaire regarding the study of the customers of these Islamic banks,

they resorted the options like emails and some survey websites. In total they collected the responses of 102 candidates. The interrelation between the data collected was examined by the technical tools such as EFA (exploratory factor analysis), multiple regression analysis and Pearson correlation analysis (r). *"The result found that all the five dimensions of service quality had positive relation with perceived service quality".*

Anber et al. (2011) in their study "*measured the perceived service quality by the* customers of commercial bank in Jordan and its effect on customer satisfaction. For measurement of service quality, SERVQUAL model of (parasuraman et al., 1988) was used. These five dimensions were assurance responsiveness, empathy, reliability, &tangibles. Satisfaction was quantified by focusing on 9 items taken from (Walfried et al., 2000)". The study took the response of thirty respondents into consideration with applied distribution method. For direct data collection a tailor made questionnaire was randomly disbursed to two hundred and sixty banking customers. The result was analyzed by using multiple regression analysis. "*The result indicated that improvement in service-quality features can be a significant antecedent of customer satisfaction".*

Kalyanaraman et al. (2013) evaluated the perception of customers of private banks of Chennai city specifically as regard the services quality and earmarked the areas of improvements in the baking service. They carried their study on the basis of sample of hundred respondents of selected four branches of HDFC bank. They inferred that the perception of customers as regard to quality of service rendered by the HDFC Bank was quite satisfactory and that their perception was deeply pretentious by various demographic factors like that of customers - gender, age, occupational status , income per month etc. They also proposed that: banks' are required to upgrade their customer base with the credit card facilities offered by them.

"Mahalakshmi et al. (2013) in their paper titled "the influence of demographic variables of bank customers towards CRM" explored the main effecting demographic factors of CRM and found that there exist significant relation between the demographic variables and that of CSR (customer relationship services) rendered by banks". They adopted handy statistical sampling method for collecting data from one thousand and forty respondents from various cities viz. Chennai, Coimbatore, Salem and Trichy and used various statistical tools for the purpose of analysis of the data collected by the sampling technique such as Cluster Analysis, ANOVA, Chi-square analysis, t-test and Cross tabulation etc. "*Results of their study revealed that a significant positive relationship exists between the demographic factors &customer relationship services of banks. The outcome model projected the segmentation of dominant factors*".

Mathimaran et al. (2017) studied "the demographic characteristic of customers and their perception towards CRM practices, customer awareness of CRM policies, factors that influence CRM practices &role of Manatec E-CRM measures in customer satisfaction". They employed simplified random sampling method for their study on the sample of fifty two, and adopted statistical tools like mean, standard deviation, factor analysis, correlation &correspondence analysis. "*This study revealed that the customer relationship management practices followed in Manatec was satisfactory to the customers*".

3. RESEARCH METHODOLOGY

The current study is based on Descriptive research where the study was concerned with the specific predictions and characteristics concerning individual, group or situation. Survey method was used to collect data, &online and off-line structured questionnaire was distributed to evaluate the impact of

period of availing banking services on service quality perception in respect of ECRM practices of 3 selected public & private sector banks located in selected cities of Rajasthan. Purposive sampling was employed for collecting data from consumers availing E-CRM practices from these banks. Online &offline standardized questionnaires were distributed to 600 online users of which 463 were found completed. The present study has considered three public & private sector banks of Rajasthan which were selected from top five populous cities of Rajasthan. These cities were Jaipur, Jodhpur, Kota, Bikaner, and Ajmer (Source: http://www.census2011.co.in). The criteria of choosing these 3 banks were the largest banks of India in terms of market capitalization (Source: http://Listz.in). The banks taken for sample in present study were "SBI, Bank of Baroda, Punjab National Bank from public sector banks and ICICI, HDFC, Axis bank" from private sectors banks.

4. OBJECTIVE AND HYPOTHESIS

The objective of this study is as follows:

To evaluate the relation between demographic variable 'AGE' and the service quality perceived by consumers towards E-CRM practices of public &private sector banks.

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"Hypothesis:

Null hypothesis (H$_0$): There is no significant difference between demographic variable "Age" and consumer usage related to E-CRM practices provided by selected private and public sector banks

Alternative Hypothesis (Ha): There is significant difference between demographic variable "Age" and consumers usage related to E-CRM practices provided by selected private and public sector banks

5. STATISTICAL TECHNIQUES

Anova has been used to evaluate the gap among the 'Age" and service quality dimensions.

6. DATA ANALYSIS AND INTERPRETATION

One way ANOVA: Difference between Age and consumer usage related to E-CRM practices provided by selected public & private sector banks

Table 1: Test of Homogeneity of Variances (Age)

Test of Homogeneity of Variances					
Sector		Levene Statistic	df1	df2	Sig.
Public	Usage of Website	1.372	4	195	.100
Sector Banks	Usage of ATM Services	2.195	4	195	.071
Private	Usage of Website	.466	4	195	.761

Sector	Usage of ATM	1.869	4	195	.117
Banks	Services				

Homogeneity of variance test is used to know whether the present data is suitable for ANOVA test or not. Homogeneity variance test, we have considered the sig. value in the sig. column. If the *p*-value (sig. value) is more than 0.05, then assumption of homogeneity of variance is met and can conduct a one-way ANOVA. If the *p*-value (sig. value) is less than 0.05, then assumption of homogeneity of variance is violated and non-parametric Kruskal-Kallis test will be used to conduct the analysis. P-value (sig. Value) in the above analysis > 0.05 in all the case which met the assumption of homogeneity of variance hence, a one-way ANOVA is used for further analysis.

Table 2: One way ANOVA (usage of websites and ATMs)

ANOVA							
Sector			Sum of Squares	Df	Mean Square	F	Sig.
Public Sector Banks	Usage of Website	Between Groups	2.312	4	.578	2.113	.081
		Within Groups	53.348	195	.274		
		Total	55.660	199			
	Usage of ATM Services	Between Groups	3.007	4	.752	3.388	.010
		Within	43.264	195	.222		

		Groups					
		Total	46.271	199			
Private Sector Banks	Usage of Website	Between Groups	2.130	4	.533	2.419	.051
		Within Groups	42.924	195	.220		
		Total	45.054	199			
	Usage of ATM Services	Between Groups	1.692	4	.423	2.444	.048
		Within Groups	33.739	195	.173		
		Total	35.430	199			

Source: Output of IBM-SPSS 22

The above table 2 shows the output of the ANOVA analysis and it has been found that no statistically significant difference exists among the age group means. On the basis of public sector banks consumers' responses, it can be seen that in the case of usage of website, **null hypothesis is accepted as the sig. value is 0.***081,* **which is more than 0.05** and it has been proved that *statistically significant difference exists among age and in the usage of website services provided by public sector banks.*

Whereas in the case of usage of ATM services, n**ull hypothesis is rejected as the sig. value is** *0.010* **is <0.05** and it has been proved *that statistically significant difference exists in the usage of ATM services provided by public sector banks.*

On the basis of private sector banks consumers' responses, it can be seen that in the case of usage of website, **null hypothesis is accepted as the sig. value is 0.*051,is* >0.05** and it is proved that *no statistically significant difference exist between age and in the usage of website services provided by private sector banks.*

Whereas in the case of usage of ATM services, **null hypothesis is rejected as the sig. value is *0.048* is <0.05** and it is proved that *statistically significant difference exists in the usage of ATM services provided by private sector banks.* So Tukey's HSD Post Hoc test was conducted to know which age group had differences with the usage of ATM services in private & public sector banks.

Table 3: Post HOC Test (Private and public sector banks)

Multiple Comparisons									
Tukey HSD									
Sector				Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
								Lower Bound	Upper Bound
Public Sector Banks	Usage of ATM Services	18-29 yrs	30-39 yrs	.19135	.07934	.116	-.0271	.4098
			40-49 yrs	.34196[*]	.10051	.007	.0652	.6187
			50-59	.13571	.13052	.837	-.2237	.4951

		yrs				
		60 & Above	.25844	.15277	.441	-.1622	.6791
	30-39 yrs	18-29 yrs	-.19135	.07934	.116	-.4098	.0271
		40-49 yrs	.15062	.10029	.563	-.1255	.4268
		50-59 yrs	-.05563	.13035	.993	-.4146	.3033
		60 & Above	.06709	.15263	.992	-.3532	.4873
	40-49 yrs	18-29 yrs	-.34196*	.10051	.007	-.6187	-.0652
		30-39 yrs	-.15062	.10029	.563	-.4268	.1255
		50-59 yrs	-.20625	.14422	.609	-.6034	.1909
		60 & Above	-.08352	.16463	.987	-.5368	.3698
	50-59 yrs	18-29 yrs	-.13571	.13052	.837	-.4951	.2237
		30-39	.05563	.13035	.993	-.3033	.4146

			yrs					
			40-49 yrs	.20625	.14422	.609	-.1909	.6034
			60 & Above	.12273	.18449	.964	-.3853	.6307
		60 & Above	18-29 yrs	-.25844	.15277	.441	-.6791	.1622
			30-39 yrs	-.06709	.15263	.992	-.4873	.3532
			40-49 yrs	.08352	.16463	.987	-.3698	.5368
			50-59 yrs	-.12273	.18449	.964	-.6307	.3853
Private Sector Banks	Usage of ATM Services	18-29 yrs	30-39 yrs	.12421	.06850	.369	-.0644	.3128
			40-49 yrs	.26567*	.08675	.021	.0268	.5045
			50-59 yrs	.13234	.14767	.898	-.2743	.5389
			60 & Above	.15139	.16523	.890	-.3036	.6063
		30-39	18-29	-.12421	.06850	.369	-.3128	.0644

			yrs	yrs					
				40-49 yrs	.14146	.08398	.446	-.0898	.3727
				50-59 yrs	.00813	.14606	1.000	-.3940	.4103
				60 & Above	.02718	.16379	1.000	-.4238	.4782
			40-49 yrs	18-29 yrs	-.26567[*]	.08675	.021	-.5045	-.0268
				30-39 yrs	-.14146	.08398	.446	-.3727	.0898
				50-59 yrs	-.13333	.15546	.912	-.5614	.2947
				60 & Above	-.11429	.17222	.964	-.5885	.3599
			50-59 yrs	18-29 yrs	-.13234	.14767	.898	-.5389	.2743
				30-39 yrs	-.00813	.14606	1.000	-.4103	.3940
				40-49 yrs	.13333	.15546	.912	-.2947	.5614
				60 &	.01905	.20962	1.000	-.5581	.5962

			Above					
		60 & Above	18-29 yrs	-.15139	.16523	.890	-.6063	.3036
			30-39 yrs	-.02718	.16379	1.000	-.4782	.4238
			40-49 yrs	.11429	.17222	.964	-.3599	.5885
			50-59 yrs	-.01905	.20962	1.000	-.5962	.5581

Source: Output of IBM-SPSS 22

The above table 3 is showing the multiple comparisons table which contains the results of post-hoc tests. The Tukey post-hoc test has been used for conducting post-hoc tests on a one-way ANOVA. It can be analyzed from the above table 3 that in public sector banks, usage of ATM services has the significant difference between the age group of **"18-29 yrs and 40-49 yrs"** as the *p-value* **is less than** *0.05.* Similarly, in private sector banks, the usage of ATM services has the significant difference between the age group of **"18-29 yrs and 40-49 yrs"** as the *p-value* **is less than** *0.05.*

7. DISCUSSION AND CONCLUSION

It has been analyzed from the current study that there is a significant difference between 'usage of ATM services' and the age group of "18-29 yrs and 40-49 yrs" in both private & public sector banks. This implies that in both private and public sector banks, younger and middle age group of consumers are having different perception towards the usage of ATMs. This is in line with the study by (Sharma, 2011; Hamid, 2008, Himani;2011,Anisha;2018) who found that younger and middle age group consumers are

major users of ATM services as compare to older age group of consumers. This finding is supported by Surulive et al. (2014) who revealed that usage of electronic banking services was found higher in younger generation as compare to older generation. This shows that younger and middle age consumers of both banks are the major users of ATM services.

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