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STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

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IMPACT OF SERVICE QUALITY DIMENSIONS ON CUSTOMER SATISFACTION OF SBI ATM

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ABSTRACT

Core banking solutions is a new jargon frequently used in banking circles. The internet and information technology has introduced new delivery channels through which the customers can transact their business with the bank. ATM is one of the important and popular delivery channels of core banking. Customers do not perceive quality in one dimension but rather judge quality based on multiple dimensions, relevant to the context. The present paper adopts an explorative research design to focus the customers' perception on the service quality dimensions of SBI ATM and its impact on customer satisfaction, that drive the customers to go for it. The information provided by this paper can be used by SBI in designing marketing strategies and to improve customer satisfaction on ATM. Convenience sampling technique was used to collect data using survey questionnaire with five point Likert scale from a sample of 50 customers who use the ATM services of SBI. Factor analysis, correlation and regression were used to re categorize the service factors and ANNOVA was used to determine whether demographic characters influence the customer satisfaction. It was found that the assumed factors are not equally significant in influencing the customers' satisfaction. There is significant relationship between individual service quality dimensions and customer satisfaction. There is no impact of demographic characters on the customer satisfaction.

KEYWORDS

ATM, customer perception, customer satisfaction, factor analysis, service quality dimensions.

INTRODUCTION

Core banking is the buzzing word in the baking scenario. CORE stands for centralized online real time electronic banking. Technically it is a platform where communication technology and information technology are merged to suit core needs of banking**.** Delivery channels are the means through which the customers can transact their business with the bank. ATM, internet banking, mobile banking are the core banking delivery channels. ATM card is a document that enables the customer to withdraw and transfer cash using automated teller machines. ATM machine was invented by Scot John Shepherd Barron and it was introduced in the year 1967 by Barclays bank in Enfield town in north London. It has used paper vouchers that had to be purchased from tellers in advance. In 1971 Docutel introduced its first fully functioning bank ATM with magnetic strip card at New York's Chemical bank. ATM card can be used for making purchases, recharging of pre paid mobile phones, e-bill payments of MTNL / electricity bills of selected areas, donating to selected temples / trusts and relief funds, transfer of cash from card to card. (including third party transfers). ATM is a switched, connection-oriented networking technology that provides dedicated, high-speed connections to virtually an unlimited number of users. It operates on fast-packet communication method that supports transfer rates from 1.544 Mbps to 10 Gbps. HSBC in 1987 was the first bank to introduce ATM in India (Mumbai). In 2003 SBI using BaNCS system of TCS has introduced core banking system and ATMs in India.

As per RBI report by the end of March 2011 (table-1) there are 74,505 ATMs for scheduled commercial banks in India. SBI group hold a lion's share of 33% with 24,651 ATMs.

TABLE - 1: ATMS OF SCHEDULE COMMERCIAL BANKS OF INDIAN (TOP 5) AS AT THE END OF MAR 2011

Sno.	*Name of the bank*	*No. of ATMs (March 2011)*
1	SBI Group	24,651
2	Punjab National Bank	5,050
3	Union Bank of India	2,634
4	Canara Bank	2,173
5	Bank of Baroda	1,561

(Source: Trend and progress of Banking in India – Appendix table IV.9 from www. report.rbi.org.in)

CUSTOMER PERCEPTION OF SERVICES: Perception is an approximation of reality. It is about recognizing how consumers view a company's service. The value, quality and satisfaction levels influence the customer perception. IT based distribution channels reduce personal contact between service provider and the customer, which inevitably leads to a complete transformation of traditional bank customer relationship (Barnes & Howlett, 1988).

SERVQUAL: SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses (Parasuraman et. al., 1988). This scale decomposes the notion of service quality into five dimensions as follows:

- Tangibles - physical facilities, equipment, staff appearance, etc.
- Reliability - ability of staff to perform service dependably and accurately.
- Responsiveness - willingness of staff to help and respond to customer's need.
- Assurance - ability of staff to inspire confidence and trust.
- Empathy - the extent to which caring, and individualized service is given.

REVIEW OF LITERATURE

Satisfied customers are key to long term business success. This was well established by Kristen (1992), Zeithaml (1996), McColl-Kennedy and Schneider (2000). It is also well accepted fact (Ho, C., Wu, W 1999) that customer satisfaction is a crucial topic for success in any business either traditional or online. Services are intangible because unlike a product, a service can't be experience before it is used. Measuring customer satisfaction has gained importance in service marketing. Service quality is an important tool to measure customer satisfaction (Pitt, L.F, Watson R.T., and Cavan C.B.1995). Satisfaction is customers' fulfillment response.

The traditional customer has become online customer with the advent of information technology; hence there is no personal contact with the service provider. In this regard Santos L. (2003) observed that online customers' expectation is higher than traditional customers. Parasuraman, A. and Grewal, D.(2000) proved that the traditional five dimensions of service quality changes when customers deal with technology instead of service personnel. As customers become more sophisticated, it will become imperative for banks to use technology to respond to the continuous changing requirements. Coming to the core banking services Neha Dixit (2010) found that adult customers are more reluctant to new technology and Ganesan R (2009) also confirmed that those who are interested in new technology were worried of security and privacy constraints (Reliability). Other assurance factors like usefulness, ease of use (Rahmath Safeena, Abdullah, Hema 2010) are the main perusing factors of business value. While measuring the various factors of service quality dimensions Thamarai Selvan Natarajan (2010) suggested that some factors like purpose, perceived risk, benefits and requirements (Empathy) of self service technologies cannot be quantitatively & precisely measured. With reference to Joseph, M., & Stone, G. (2003) the factors like easy access, user friendliness and security are important for analyzing the online banking customer's perception. Studies on ATM made by Leonard and Spencer (1991) it is argued that customers perceive ATM as indicative of achievement and contribute towards a positive organizational image. The cost of customer acquisition is higher than the cost of retention of customers. In the technology driven marketing scenario to induce positive attitude in the mind set of a dynamic customers is an added flavor for retaining organizational image. The perceptional outcomes in turn will affect the customers' level of satisfaction, retention and switching rates. Probing into the customers' perception on ATM, Howcroft (1991) stated that customers develop positive attitude towards ATM based on factors like convenience, accessibility, easy to use. The banks are concentrating on improving the service delivery channels for retaining the customers. Failure to meet the needs and expectations is assumed to result in dissatisfaction. It is well proved by Leeds (1992) that 40% of customers switched banks due to poor service, adds weight on the importance of customer retention strategy for marketing. Dove and Robinson's (2002) study indicated that when the customers believe that their troubles with the banks, has been resolved, then their satisfaction levels are at the top gear. Inquisitive study by Muhammad Asif Khan (2010) concluded that banks should focus on important aspects of security and privacy as well as efficient operations of ATMs. Extracting the customer attributes on level of satisfaction Hernan E. Riquelme (2010) in his study found that less satisfied customers are less technologically ready.

NEED FOR THE STUDY AND STATEMENT OF THE PROBLEM

It is known from the table-1 that SBI does not have nearby competitor with reference to market share based on number of ATMs among the scheduled commercial banks of India. But it is an alarming fact that out of 17,116 complaints received during 2010 - 2011 at banking Ombudsman offices on ATM cards, the complaints from SBI group are 5,874 accounting for 34.3% of total complaints (table-2). Here also SBI group is at pinnacle. This clearly illustrates that SBI group's ATMs are sharing proportionate complaints with reference to the no of ATMs. It's an indication that the performance of SBI ATM is not noticeably better than other banks. This scenario points to the fact that there is an element of dissatisfaction among the ATM customers of SBI group. If left unnoticed it will decline the organizational image. Hence there is a pinching need to study the customer's perception. The customers have become dynamic and their perceptions too are dynamic. Due to financial inclusion, technological advancement in the market, there is an aggravated need to re categorize the various factors of service quality dimensions and to study the impact of new categories on the customer satisfaction.

TABLE - 2: COMPLAINTS RECEIVED AT BANKING OMBUDSMAN OFFICES DURING 2010-11

Nature of Complaint	*Public sector banks*	*Nationalized banks*	*SBI group*	*Private sector banks*	*Old private sector banks*	*New private sector banks*	*Foreign banks*	*All SCBs*	*UCBs/ RRBs/ others*	*Total*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*9+10)*
ATM cards	9,217	3,343	5,874	4,458	149	4,309	3,196	16,871	245	17,116
% of complaints	53.9	19.5	34.3	26	0.9	25.2	18.7	98.6	1.4	

(Source: Trend and progress of banking in India – Appendix table IV.9 from www. report.rbi.org.in)

OBJECTIVES OF THE STUDY

Following are the objectives for the study:

1. To examine the essential service quality dimensions of SBI ATM.
2. To analyze the effect of service quality dimensions on customer satisfaction of SBI ATM.
3. To analyze the impact of demographic characters like education and area on the levels of customer satisfaction on the services of SBI ATM
4. To suggest measures for the policy makers in improving customer satisfaction.

HYPOTHESES

Against the background of the research objectives and review of literature following hypotheses were set for the study:

H_o1: All the assumed factors are not equally significant in influencing the customers' satisfaction on the services of SBI ATM.

H_o2: There is no significant relationship between individual service quality dimensions and customer satisfaction on the services of SBI ATM.

H_o3: There is no influence of area on the levels of customer satisfaction on the services of SBI ATM.

H_o4: There is no influence of education on the levels of customer satisfaction on the services of SBI ATM.

RESEARCH METHODOLOGY

SAMPLING AND DATA COLLECTION: Convenience sampling technique was used to collect data from a sample of 50 customers who use the ATM services of SBI. Customers were sampled from rural, urban and semi urban areas with different educational levels.

RESEARCH INSTRUMENT: The survey questionnaire gathers response with respect to 25 factors of service quality of SBI ATM. Five point Likert scale ranging from five (very good) to one (very bad) was used to measure the perception and satisfaction.

LIMITATIONS OF THE STUDY

The study has the following limitations

1) The sample taken for the study is confined to 50 customers of Tirupati town and rural areas around Tirupati town. With the small sample size and restricted area it is difficult to interpret and generalize the response of the entire population.
2) Only 25 factors which seemed to be dominant were selected for the study. There may be other significant factors dominating the customer perception in other localities / cultures in the subcontinent of India.
3) Non inclusion of bankers (the service providers) perspective to identify the problem domain.

RESULTS AND DISCUSSION

The data was collected from 50 respondents using SBI ATM with the aim of analyzing the relationship between service quality dimensions and customer satisfaction. 62% of the sample respondents were male where as 38% were female. Among the respondents 54% are from rural area, 26% are from Semi urban area, 10% are from urban area. The level of education was also felt as an important constraint. The category of illiterates was not included, as SBI is not issuing

ATM cards to them. 22% of the sample respondents were having primary education, 30% of them were having secondary education remaining 48% were graduates and above.

TABLE - 3: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Demographic character	*Categories*	*No of respondents*	*Percentage*
Gender	Male	31	62 %
	Female	19	38 %
Area	Rural	27	54 %
	Semi Urban	18	36 %
	Urban	5	10 %
Education	Primary	11	22 %
	Secondary	15	30 %
	Graduate and above	24	48 %

(Source: Primary data)

FACTOR ANALYSIS

Factor analysis was used to reduce the 25 factors by encapsulating them into 4 components using SPSS 13.0. The factor analysis is done using principle component extraction method with Varimax rotation and Kaiser Normalization. Factor loading represents the quantum of the component explained by the factor. It is observed that one factor 'written guarantee' had no factor loading hence it was not encapsulated. The remaining 24 factors were then encapsulated into 4 components based on factor loading score. The rotated values for factor loading with minimum value of 0.5 are considered for encapsulation. If a given factor is encapsulated in more than one component then the factor is retained in the component where it has exhibited maximum factor loading. 72% of variance is explained by the components is a satisfactory symptom (table-5). Eigen values are the variances of the factors, in the current study the Eigen values greater than 1.0 are considered significant. Communalities is the proportion of each factors variance that can be explained by the retained factors. Factors with high values are well represented in the common factor space, while variables with low values are not well represented.

TEST OF SAMPLE ADEQUACY

Kaiser-Meyer-Oklin measure of sampling adequacy and Bartlett's test of sphericity together, provide a minimum standard which should be passed before a factor analysis (or a principal components analysis) is administered. In general KMO measure of sample adequacy varies between 0 and 1, and values closer to 1 are considered better. The KMO value as in the table-4 illustrates sampling adequacy of 0.864 is a good indication. The sampling data is 86.4% adequate for factor analysis and falls in the meritorious range of 0.8 and above (Hair et al., 1998). The sample further got approved in the Bartlett's test of sphericity with approximate Chi-Square value of 1225.826 for 300 dof at 0.000% level of significance. This tests the null hypothesis and also notifies that the correlation matrix is an identity matrix. An identity matrix is a matrix in which all of the diagonal elements are 1 and all off diagonal elements are 0 (An identity matrix indicates the rejection of null hypothesis). Thus the method is suitable for identifying the important factors in the individual components.

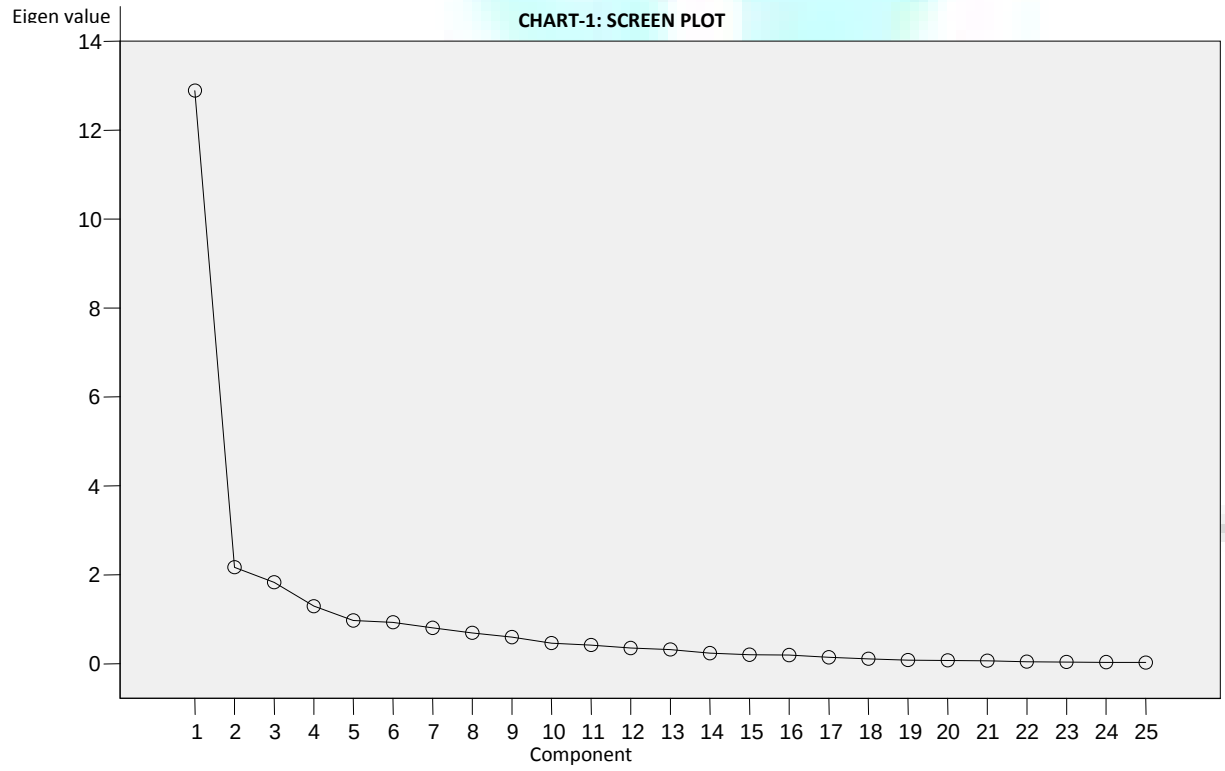
TABLE - 4: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.864
Bartlett's Test of Sphericity	*Approx. Chi-Square*	1225.826
	df	300
	Sig.	0.000

(Source: Primary data)

In the screen plot for Eigen value against the component number as shown in chart-1 indicates that from the fifth factor on the line is almost flat, meaning that each successive factor is accounting for smaller and smaller amounts of the total variance. Justifying the same, principle component extraction method with Varimax rotation and Kaiser Normalisation also encapsulated the 25 factors into 4 components.

CHART-1: SCREEN PLOT



FINDINGS OF FACTOR ANALYSIS

In the current study the encapsulated 4 components were different from the traditional service quality dimensions. It is proved that the traditional five dimensions of service quality changes when customers deal with technology instead of service personnel as stated by Parasuraman, A. and Grewal, D.(2000). This is due to the fact that, there is a difference in customer's perception on variables from service to service. The null hypothesis H_o1 is accepted that all the assumed factors are not equally significant in influencing the customers' satisfaction on the services of SBI ATM. Based on the factor loading values from table-5 it can be concluded that some variables with less than 0.8 factor loadings need attention for quality improvement in the present context. The 4 components depicting the same are discussed below:

COMPONENT – 1

This component comprising of 13 factors accounts for 33.18% of variance explained. From table-5 it can be accessed that customers perceive 'round the clock' (0.882) with highest factor loading followed by 'user friendliness' (0.869), 'confidentiality' (0.845),' instant & accurate' (0.82), 'trust worthy' (0.819), 'identifying & greeting customer' (0.811), 'personal attention' (0.765), 'thanking customer' (0.748), 'emergency handling equipment' (0.72), 'advising customer' (0.693), 'handling service interrupts' (0.595) , 'special attention' (0.586), 'promised time' (0.582). This indicates that the factors 'round the clock' and 'promised time' play a leading and least roles in gaining customer satisfaction. Communalities of the factors are ranging high (except for 'handling service interrupts') gives an indication that there is a stronger and closer association among variables encapsulated in the component.

COMPONENT – 2

This component comprising of 4 factors accounts for 16.59% of variance explained. From table-5 it can be accessed that customers perceive 'not misusing information' (0.797) with highest factor loading followed by 'PIN security' (0.756), 'feedback system' (0.648), 'lighting and ventilation' (0.5). This gives a signal to the management that the ATM customers perceived tangibles especially air and light as poor.

COMPONENT – 3

This component comprising of 3 factors accounts for 12.14% of variance explained. From table-5 it can be accessed that customers perceive 'accessibility' (0.771) with highest factor loading followed by 'educating the customer' (0.726), 'visually appealing ATM' (0.667). SBI should observe that though only 3 factors were put into the nutshell of this component these are very important factors as they explain 12.14 % of variance. The lower factor loading for 'visually appealing ATM' gives a hint for the management, that the customers prefer a trendy ATM.

COMPONENT – 4

This component comprising of 4 factors accounts for 10.81% of variance explained. From table-5 it can be assessed that customers perceive 'cleanliness of ATM' (0.851) with highest factor loading followed by 'consistency in level of service' (0.759), 'consideration on property and value' (0.708), 'guaranteed service' (0.625). As this component explains only 10.81% of variance it does mean that customers have not perceived these factors to a favorable extent and should not be neglected, if so there may imbibe dissatisfaction.

TABLE - 5: ROTATED COMPONENT LOADING – WITH VARIMAX ROTATION AND KAISER NORMALIZATION

Component	*Brief description of the factor*	*Factor loading*	*Communalities (sum of squared factor loadings)*	*Eigen values*	*Rotation sum of squared loading of component*
1	Round the clock	0.882	0.882	12.89	No of variables :13 Eigen value :8.295 Variance explained :33.180 Cumulative variance :33.180
	User friendly	0.869	0.912	0.974	
	confidentiality	0.845	0.856	1.293	
	Instant & accurate	0.82	0.806	1.831	
	Trust worthy	0.819	0.843	2.169	
	Identifying & Greeting customer	0.811	0.847	0.805	
	Personal attention	0.765	0.93	0.933	
	Thanking customer	0.748	0.842	0.597	
	Emergency handling equipment	0.72	0.701	0.034	
	Advising Customer	0.693	0.803	0.695	
	Handling service interrupts	0.595	0.528	0.321	
	Special attention	0.586	0.83	0.464	
	Promised time	0.582	0.853	0.42	
2	Not Misusing information	0.797	0.762	0.202	No of variables:4 Eigen value:4.147 Variance explained:16.590 Cumulative variance:49.770
	PIN security	0.756	0.872	0.236	
	Feedback system	0.648	0.56	0.194	
	Lighting and ventilation	0.5	0.383	0.044	
3	Accessibility	0.771	0.657	0.04	No of variables:3 Eigen value:3.037 Variance explained:12.147 Cumulative variance:61.917
	Educating the customer	0.726	0.538	0.143	
	Visually appealing ATM	0.667	0.579	0.026	
4	Cleanliness of ATM	0.851	0.81	0.067	No of variables:4 Eigen value:2.703 Variance explained:10.81 Cumulative variance:72.727
	Consistency in level of service	0.759	0.658	0.082	
	Consideration on property and value	0.708	0.533	0.075	
	Guaranteed service	0.625	0.618	0.112	

Source: Primary data

Extraction Method: Principal Component Analysis

CORRELATION ANALYSIS

To determine the relationship between encapsulated service quality dimensions and level of satisfaction on the ATM services of SBI correlation analysis is administered. Analysis shows that there exists a positive correlation.

TABLE - 6: CORRELATION MATRIX

		Component 1	*Component 2*	*Component 3*	*Component 4*	*Level of Satisfaction*
Component 1	Pearson Correlation	1	.000	.000	.000	**.388(**)**
	Sig. (2-tailed)		1.000	1.000	1.000	.005
	N	50	50	50	50	50
Component 2	Pearson Correlation	.000	1	.000	.000	.138
	Sig. (2-tailed)	1.000		1.000	1.000	.341
	N	50	50	50	50	50
Component 3	Pearson Correlation	.000	.000	1	.000	.064
	Sig. (2-tailed)	1.000	1.000		1.000	.658
	N	50	50	50	50	50
Component 4	Pearson Correlation	.000	.000	.000	1	**.424(**)**
	Sig. (2-tailed)	1.000	1.000	1.000		.002
	N	50	50	50	50	50
Level of Satisfaction	Pearson Correlation	**.388 (**)**	.138	.064	**.424(**)**	1
	Sig. (2-tailed)	.005	.341	.658	.002	
	N	50	50	50	50	50

Source: Primary data

** Correlation is significant at the 0.01 level (2-tailed).

REGRESSION ANALYSIS

R square (0.353) tells how well regression approximates the real data. The value of R square suggests that various factors considered for service quality dimensions explain only 35 % of satisfaction. Hence other factors of the dimensions are to be considered. The validity of regression can be accessed by the *significant F* value, smaller F value (0.000491) confirms that regression output is not obtained by chance. P value of 5.72E-31 of regression co-efficient indicate that there is less than 0% scope that the result occurred as a result of chance.

REGRESSION EQUATION

For a deeper understanding of relationship regression analysis is used. The result of regression (table-7) clarifies that there is a positive and statistically significant relationship (F 6.149 and p <0.001) between independent variables (component 1,2,3,4) and the dependent variable (level of satisfaction). Mathematical representation of regression equation can be written as:

$Y= b_o+ b_1 X_1+ b_2 X_2 + b_3 X_3 + b_4 X_4$

where value of dependent variable b_o is constant and is also called as intercept. b_1 , b_2 , b_3 , b_4 are the co-efficients that represents the estimated change in mean value of dependent variable for each unit change in independent variable value, X_1 , X_2 , X_3 , X_4 are the components 1,2,3,4 respectively . Considering the values from table-7 the regression equation will be as follows

$Y = 3.94 + 0.439\ X1 + 0.155\ X_2 + 0.072\ X_3 + 0.479\ X_4$.

Indicating that component 4 is contributing more for the customer satisfaction level and component 3 needs an improvement. Further the adjusted R^2 value (0.295) shows an indication that the relationship is not statistically significant between overall dimensions and satisfaction levels.

TABLE - 7: SUMMARY OUTPUT OF REGRESSION ANALYSIS

Regression Statistics					
Multiple R	0.594489				
R Square	0.353418				
Adjusted R Square	0.295944				
Standard Error	0.950068				
Observations	50				
ANOVA					
	df	*SS*	*MS*	*F*	*F- signi*
Regression	4	22.2017	5.550426	6.149178	0.000491
Residual	45	40.6183	0.902629		
Total	49	62.82			
	Coefficients	*Standard Error*	*t - Stat*	*P-value*	
Intercept	3.94	0.13436	29.32423	5.72E-31	
Component-1	0.439564	0.135724	3.238661	0.002259	
Component-2	0.15575	0.135724	1.14758	0.257209	
Component-3	0.072677	0.135724	0.535474	0.594959	
Component-4	0.479936	0.135724	3.53612	0.000954	

Source: Primary data

FINDINGS OF CORRELATION AND REGRESSION ANALYSIS

Results from table-6 it can be predicted that the value of Pearson correlation co-efficient shows positive relation between component-1 (.388), component-2 (.138) component-3 (.064), component-4 (.424) and level of satisfaction. Hence the null hypothesis H_o2 is rejected at 0.01 level of significance; this proves that there is a significant relationship between service quality dimensions and customer satisfaction. Probing further into the relationship of independent components and level of satisfaction, it can be observed from table-7 that Component 1 and 4 where $p < 0.05$ shows that the relationship is statistically significant, where as the relationship is statistically insignificant for component 2 and 3**.** There is a demanding need in improving the factors relating to component 2 and 3 consisting of security, feedback system, educating the customer etc. On the other hand it is evident that the factors relating to component 1 and 4 consisting of user friendliness, special attention, guaranteed service etc., should not be neglected as they have greater influence on the level of customer satisfaction.

ANALYSIS ON DEMOGRAPHIC CHARACTERS

ANNOVA tests were conducted for analyzing the influence of demographic characters on service quality dimensions. The results of the tests are shown in table-8 (area and level of satisfaction) and table-9 (education levels and level of satisfaction).

FINDINGS OF ANNOVA

Based on the results of one way ANOVA (table-8) P value is 0.2 > 0.05 hence it is concluded that there is no influence of area of the customers' levels of satisfaction i.e., customers from various areas have same level of satisfaction on ATM services of SBI. Hence the null hypothesis H_o3 is accepted**.**

TABLE - 8: SINGLE FACTOR ANOVA ON AREA AND LEVEL OF SATISFACTION

Area	*Count*	*Sum*	*Average*	*Variance*		
Rural	27	113	4.185185	0.695157		
Urban	18	65	3.611111	2.133987		
Semi urban	5	19	3.8	1.2		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	3.668148	2	1.834074	1.457291	0.243195	3.195056
Within Groups	59.15185	47	1.25855			
Total	62.82	49				

Source: Primary data

Based on the results of one way ANOVA (table-9) where P value is 0.09 > 0.05 it is concluded that there is no influence of education on levels of satisfaction i.e., customers from various education levels have same level of satisfaction on ATM services of SBI. Hence the null hypothesis H_o4 is accepted.

TABLE - 9: SINGLE FACTOR ANOVA ON EDUCATION LEVELS AND LEVEL OF SATISFACTION

Groups	*Count*	*Sum*	*Average*	*Variance*		
Primary	11	37	3.363636	2.254545		
Secondary	15	58	3.866667	1.409524		
Graduate & above	24	102	4.25	0.630435		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F- crit*
Between Groups	6.041212	2	3.020606	2.500379	0.092912	3.195056
Within Groups	56.77879	47	1.208059			
Total	62.82	49				

Source: Primary data

SUGGESTIONS ON 7PS OF MARKETING

SUGGESTIONS ON PRODUCT: It is observed from table-5 that almost all the factors relating to the product (confidentiality, instant and accurate, trust worthy) have been encapsulated into component 1 and are having a maximum factor loading. This indicates that the customers have perceived that ATM service by and large as a good product. But the factor guaranteed service a factor of 4th component has less factor loading (0.625). Hence it is suggested that management should modernize the ATM switching router to meet band width guarantee, giving guarantees on behalf of customers to other banks in respect of discrepancies**,** Powerful MAC (Message authentication code) may be used to guarantee the customer that no information is tampered while in transaction between ATM and the banks network. Introducing biometrics for usage of ATMs such that the customers are guaranteed to full extent from hackers of ATM PIN/Card.

SUGGESTIONS ON PLACE: Round the clock, accessibility are the two factors under consideration relating to place. These were encapsulated in component 1 and 3 respectively. The factor round the clock has got maximum factor loading of 0.882 than all the factors and accessibility with 0.771 factor loading. Hence it is suggested that the availability of ATM round the clock is the most fascinating feature that has attracted the customers and hence the factors of component one has statistically strong positive relationship with the customer satisfaction. It is suggested that convenience in accessibility of the ATM needs a little attention and the management should concentrate on the locating more ATMs. Introduction of mobile ATMs, Door step ATMs would be a better option.

SUGGESTIONS ON PROMOTION: From table-5 it is observed that feed back system of 2nd component and educating the customer of 3rd component are placed at the middle of the component when arranged in the order of factor loadings. Hence these are considered as key anchoring factors of the respective components in influencing the customer satisfaction. It is suggested that the SBI should have a powerful audio video feedback systems such that the customers reactions either positive or negative can be captured if customer wishes to give their feedback. The feed back in turn should be attended to the notice of the customers. Then the customer feels himself as a privileged customer of the bank. The customers should also be educated through clippings on the latest changes or developments in the services.

SUGGESTIONS ON PRICE: Consideration on property and value is the factor of 4th component relating to price, this has a factor loading of 0.708. Customers' property is to be considered and valued then only the price paid for the service will not be felt by the customers and they feel only the value of the service. Time is also an most important property in the busy life style, the queing times should be reduced by introducing ultramodern ATMs and nano optical networks.

SUGGESTIONS ON PEOPLE: From table-5 it is observed all that the factors relating to people namely identifying and greeting customers, personal attention, thanking customer, special attention are encapsulated in 1st component. Except special attention factor others have got good factor loadings. Hence it is suggested that SBI should implement a strategy where all the customers feel that they are special to the bank. SBI should concentrate to create innovative services for special and specific needs of the customers. From table-8 observations it is suggested that the SBI should modernize even the rural ATMs and treat the rural customers also in the same lines as that of the urban and semi urban customers. Observations from table-9 suggests that the customers with lower education levels are perceiving the service factors in the same trend as that of the highly qualified customers and hence the demarcation of customers based on education levels should not exist for the long run benefit of the organization.

SUGGESTIONS ON PHYSICAL EVIDENCE: From table-5 it is observed that various tangible items relating to physical evidence are scattered in all the components. This shows that customers perceive different tangibles in multidimensional view and load these factors differently. The factors like emergency handling equipment, lighting and ventilation, visually appealing ATM, cleanliness are under consideration. The lowest factor loading is given for lighting and ventilation because of power shortage which is causing inconvenience while operating ATM. Management should use solar power or any other non tradition power systems to compensate power failures. Further a trendy ATM is preferred by the customers.

SUGGESTIONS ON PROCESS: User friendliness, promised time, consistency in level of service are the factors relating to process. It is observed that all these factors except promised time have reasonably good factor loadings. Hence it is suggested that SBI should frame a cut off time for all the processes and an online monitoring system is to be developed to set right those processes which have crossed the promised time.

CONCLUSION

Based on the findings of the above study it is evident that the management has to concentrate on factors like security, confidentiality, feedback system, accessibility, visually appealing, light and ventilation. Failure to meet these needs is assumed to result in dissatisfaction. On the other hand management should not neglect the factors of component one and four as these factors are influencing the customers' satisfaction level and the customers develop positive attitude towards ATM based on these factors. Due to the advent of technology into nook and corner villages and due to the steps taken by the govt. for financial inclusion even the rural customers have shown same level of satisfaction as that of urban and semi urban customers. The technology has simplified the processes and the services are user friendly that there is no difference in the perception of customers with various educational levels on the various service quality factors of SBI ATM.

SCOPE FOR FURTHER RESEARCH

Researchers should also focus on diversifying the sample across different ethnic groups. Study can also be done on dissatisfaction levels of ATM services. Price can also be considered as an important factor which influences the customer satisfaction. A study is to be carried out to establish the challenges encountered by

the customers in the process of using ATM service. Researchers have to probe for other factors of service quality dimensions which have a strong positive correlation for the level of satisfaction. A comparative study between the public sector banks and private banks or a comparative study between different public sector banks will be a better option.

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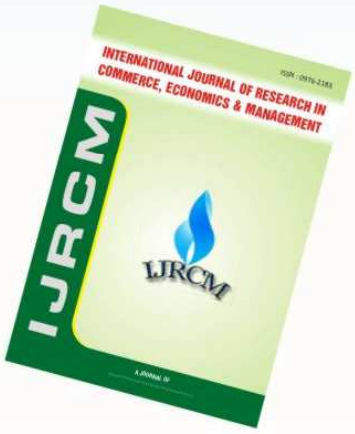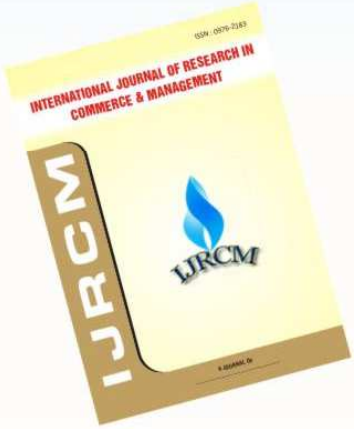
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