

SOUTH ASIAN JOURNAL OF MANAGEMENT RESEARCH (SAJMR)

Volume 3 Number 1

January 2011

Contents

Editorial

- Personality Mapping: Tool to understand interpersonal need and enhance performance: Dr. Ekta Sharma** 138
- Effect of future trading on spot price volatility for NSE Nifty using time series regression and GARCH model: Dr. Neha Parashar, Amey Karambelkar, Tarang Jibhake, Manit Goyal, Aditi Kulkarni, Puneet S. Deshpande** 148
- Impact of Irrigation on Cotton Cultivation in Kurnool District (A.P.): Dr. K. Visweswara Reddy and Prof. K. Satyanarayana Reddy** 160
- Satisfaction of ATM card users with reference to Gujarat : Dr. J. M. Badiyani** 168
- A STUDY OF JOB STRESS AND ITS IMPACT ON JOB ATTITUDE : Dr. V. S. Dhekale** 180
- CASE STUDY**
- The Landscape Resorts Limited (A), Barnabas N. and Nandakumar Mekoth** 196
- BOOK REVIEW**
- Never Stop Learning : Straight Talk from the World's Top Business Leaders (Boston: Harvard Business School Press, 2010)** 199



**Chh. Shahu Institute of Business
Education and Research (SIBER)**

(An Autonomous Institute)

Kolhapur - 416 004, Maharashtra State, INDIA

SOUTH ASIAN JOURNAL OF MANAGEMENT RESEARCH (SAJMR)

ISSN 0974-763X

(An International Peer Reviewed Research Journal)



Published by

Chh. Shahu Institute of Business Education & Research (SIBER)
University Road, Kolhapur - 416 004, Maharashtra, India

Contact: 91-231-2535706 / 07 Fax: 91-231-2535708 Website: www.siberindia.co.in, Email: sajmr@siberindia.co.in, sibersajmr@gmail.com

■ *Patron*

Late Dr. A.D. Shinde

■ *Editor*

Dr. Babu Thomas
SIBER, Kolhapur, India

■ *Editorial Board*

Dr. Francisco J.L.S. Diniz
CETRAD, Portugal

Dr. R.V. Kulkarni
SIBER, Kolhapur, India

Dr. R.A. Shinde
SIBER, Kolhapur, India

Dr. Paul B. Carr
Regent University, USA

Dr. M.M. Ali
SIBER, Kolhapur, India

Dr. Lal Das
RSSW, Hyderabad, India

Dr. M. Nand Kumar
Goa University, Goa, India

Dr. Babu Zachariah
SIBER, Kolhapur, India

Dr. Gary Owens
CERAR, Australia

Dr. K. Pradeepkumar
SIBER, Kolhapur, India

Dr. R.M. Bhajracharya
Kathmandu University, Nepal

Dr. P.R. Puranik
NMU, Jalgaon, India

Prof. K.R.R. Mahanama
Colombo University, Sri Lanka

Dr. Yogesh B. Patil
SIBER, Kolhapur, India

Dr. Rajendra Naragundkar
IFIM, Bangalore, India

Dr. K.V.M. Varambally
Manipal Institute of Management, India

Dr. R.L. Hyderabad
Karnataka University, India

Dr. B.U. Dhandra
Gulbarga University, India

Dr. T.V.G. Sarma
SIBER, Kolhapur, India

Academic Assistance

Mr. V. Ravi Kishore Kumar
SIBER, Kolhapur, India

In the last issue of South Asian Journal of Management Research, in the editorial note I mentioned about humor. Humor can increase the happiness and reduce the stress.

Stress is most vulnerable condition in the organization because experts as well as non-experts are handling the stress situation of the employees. Some scientists still argue that they know little about stress whereas many people claim that they know everything about stress. And the result is handling the stress improperly.

Job stress has several impacts on individual employee and organization. Most of the employees in modern organization experience stress. It can have a damaging effect on employee, especially managers. It can affect the effectiveness of the organization as well as employees. The problem of stress is very much relevant of change that is spreading across the globe in all the fields. The employees are unable to cope of with changes. Organizations are doing little to handle the change process. For any organizational process the change must be helping the employees in improving the ability of organization to cope up with the change in its environment.

Lazarus's view on stress is that an individual perception of the psychological situation is the critical factors for stress. It includes potential harms, threats, and challenges on one hand, and on another an individuals ability to cope with them. The ability or inability to cope with stress is the perceived ability of an individual. Coping strategy differs from individual to individual in a different manner.

Less research is available on coping strategies of stress. Readers can contribute research articles on coping strategies of stress.

Dr. Babu Thomas
Editor

Satisfaction of ATM Card Users with reference to Gujarat

Dr. J. M. Badiyani ^{1*}

^{1*} Department of Business Administration, Bhavnagar University, Gujarat.

* Email : jaybjayb@gmail.com

Abstract

This paper examines the perceived satisfaction of ATM card users based on various attributes in Gujarat. It evaluates the difference of satisfaction for some demographic factors of ATM users. A sample of 389 consumers was personally surveyed using structured questionnaire. Using statistics like descriptive analysis, t – test, ANOVA test, factor analysis and median ranking, the hypotheses were tested. The factor analysis reduced variables from 16 to 5 and then t – test and ANOVA test for different demographic groups are conducted. Significant difference of satisfaction is found out in some demographic groups which may be useful for decision makers in ATM card users' markets. Through median ranking, relative importance to factors are identified. The results may help the decision makers to serve consumers better. The findings may also be useful for further researchers. The decision makers may also be helped by knowing relative importance assigned to different factors by respondents so that they can serve the market better.

Key words : ATM card user; Consumer Satisfaction; Demographic factors; Modern banking; Median ranking.

1. Introduction

Automated Teller Machines (ATMs) are the first well-known machines to provide electronic access to consumers. ATM is designed to perform one of the most important functions of bank i. e. delivery of cash. It is operated by plastic card with its special features. The plastic card is replacing cheque, personal attendance of the consumer, restrictions of banking hours and paper based verifications. ATMs have made cash just seconds away throughout the day and night in every corner of the globe. One has reasons to assume that consumers are more satisfied with ATMs compared to traditional banking methods.

2. Review of literature

Consumer satisfaction is described as psychological state to evaluate the reasonableness between what a consumer actually gets and gives (Howard and Sheth, 1969). It is observed that consumer satisfaction resulted from purchasing and using a certain product makes consumer to compare the expected reward and the actual cost of the purchase (Churchil and Suprenant, 1982). Studies show that the price decision also influences consumers' satisfaction in service industries (Voss, Parasuraman and Grewal,

1998). The service industries are mostly consumer driven and their survival in competitive environment largely depends on quality of the service provided by them. In this context, quality of service furnished by banking industry, which is a part of service sector is very important and profitability of their business is closely connected to the quality of service they render (Zahorik and Rust, 1992; Rust, Zaorik and Keiningham, 1996).

The demographics and consumer satisfaction in general is related as observed by several researchers in services marketing (Badiyani, 2009). Gender is not found very much impacting factor in adoption of technology in general (Taylor and Todd, 1995) but when we talk of computer specific technology, men were found more likely to adopt the technologies (Gefen and Straub, 1997). Young people tend to adopt more of technology if age is a factor (Zeithaml and Gilly, 1987; Trocchia and Janda, 2000; Lee, Lee and Schumann, 2002). Adoption of innovation is directly related with education and income (Jayawardhena and Foley, 2000; Karjaluoto, Mattila and Pento, 2002).

The adoption of technology and satisfaction of consumers in using technology in banking is

being extensively researched by several authors (Mukherjee and Nath, 2003; Wang, Wang, Lin and Tang, 2003; Jaruwachirathanakul and Fink, 2005; Eriksson, Kerem and Nilsson, 2005; Sayar and Wolfe, 2007). Some researchers examined banks' ATM adoption decisions (Saloner and Shepard 1995). Many researchers worked on empirical examination of the various factors affecting ATM pricing (Prager, 1999, Prager, 2001; Hannan, et al., 2003). A few researchers have worked on developing theoretical models to introduce and analyse the idea of indirect effect of ATM surcharges on bank profitability (Massoud and Bernhardt, 2004). Some researchers observed an association between consumers' usage patterns of ATMs and their demographic profiles (Hood, 1979; Murphy, 1983) and consumer psychographic profiles (Stevens *et al.*, 1986). The adoption rates of new technologies for the elderly are usually much lower than those for the younger age groups (Kerschner and Chelsvig, 1984). A study on ATMs observed how retail bank consumers perceive ATM technology and how far they accept this innovation as one, which can fully and satisfactorily replace human tellers in all the banking functions handled by the innovation (Rugimbana and Iversen, 1994).

3. Objectives and hypotheses

The objectives of the study are

1. To identify the difference of perceived satisfaction between male and female.
2. To uncover the difference of perceived satisfaction among different age groups.
3. To examine the difference of perceived satisfaction among different education groups.
4. To unearth the difference of perceived satisfaction among different income groups.
5. To know the relative importance of factors in ATM card usage.

From the objectives, following hypotheses are framed.

H₀1 : There is no significant difference in perceived satisfaction between male and female.

H₀2 : There is no significant difference in perceived satisfaction among different

age groups.

H₀3 : There is no significant difference in perceived satisfaction among different education groups.

H₀4 : There is no significant difference in perceived satisfaction among different income groups.

In addition to above hypotheses, the researcher attempted to find out the relative numbers given by consumers to the factors related to ATM card usage.

4. Research methodology

4.1. Data collection tool.

One of the primary concerns of this paper is to identify the important factors affecting the ATM card users' satisfaction in Gujarat. The 16 service quality dimensions of ATM service are identified in consultation with several bank officers and few frequent users which are taken here to evaluate satisfaction of ATM card users. Through a structured questionnaire data were collected for final analysis. The structured questionnaire was administered by the researcher. Survey questionnaire included a number of questions related to ATM card users' satisfaction and the responses have been recorded on five point likert type scale (1 = not at all important and 5 = extremely important). The questions related to demographic profiles of the respondents such as gender, age, education and income were also included. The pearson correlation *r* between even and odd items found is 0.807241 which shows that the scale is reliable.

4.2. Sampling

Out of total 400 questionnaires administered, 389 questionnaires were found valid for analysis. Sample size selection here is based on expert opinion. Sampling technique used here is convenience sampling. The geographic area selected here is Gujarat state. Three cities, five towns and eight villages are selected for collecting the data.

4.3. Data analysis

Data collected were analysed through MS Excel and SPSS. Data analysis methods used in the study are *t* test, ANOVA test, factor analysis and median ranking.

5. Data Analysis and Discussion

Satisfaction with reference to each of 16 factors is measured on five point likert scale. The reliability analysis is done for 16 factors and the cronbach alfa found is 0.7142. Comparison of observed satisfaction is also made on the basis of

various demographic factors which is shown below.

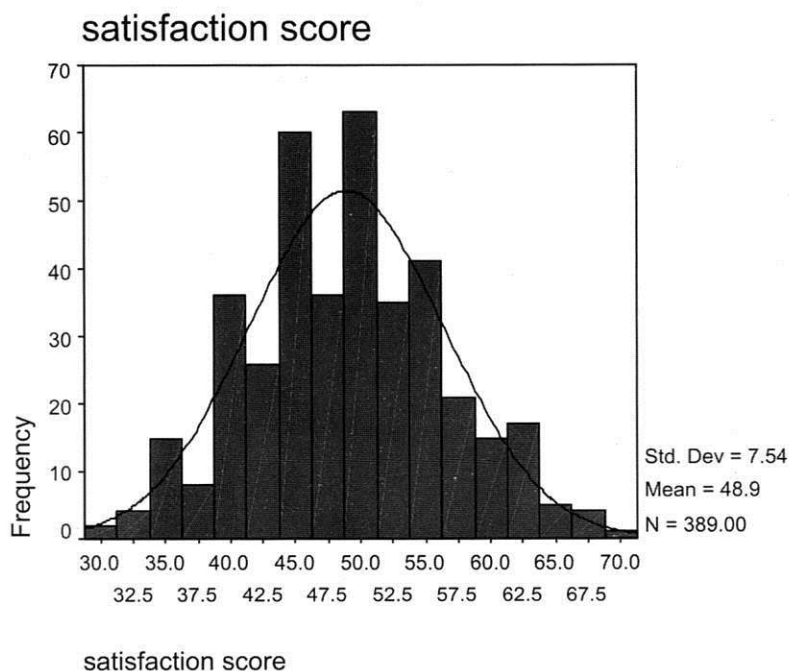
5.1. Consumers' profile

The consumers' demographic profiles are shown in table 1.

Table No. 1 : Demographic profile of consumers.

Gender groups			%	Education groups		%
Male	290	74.55		Upto schooling	102	26.22
Female	99	25.45		College graduate	204	52.44
Age groups (years)				Post graduates or more	83	21.34
Less than 25	84	21.59		Income groups (p. a.)		
25 – 55	164	42.16		Less than 1,00,000	83	21.34
Above 55	141	36.25		1,00,001 – 3,00,000	166	42.67
				Above 3,00,000	140	35.99

Frequencies for satisfaction shows a normal curve which is shown in Graph 1.



5.2 Comparison of satisfaction through different demographic factors

Various factors are considered for comparison like gender, age, education and income.

5.2.1. Factor analysis

To reduce the no. of factors the factor analysis

is done. Sixteen factors are classified in five groups. The extraction method is principal component analysis and varimax rotation. The total variance is explained in table 2 and rotated matrix is shown in table 3.

Table No. 2 : Total variance explained.

	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.050	25.312	25.312	4.050	25.312	25.312	3.115	19.467	19.467
2	2.481	15.509	40.821	2.481	15.509	40.821	2.734	17.086	36.553
3	2.389	14.932	55.754	2.389	14.932	55.754	2.437	15.230	51.783
4	2.209	13.805	69.559	2.209	13.805	69.559	2.353	14.708	66.490
5	1.661	10.382	79.941	1.661	10.382	79.941	2.152	13.451	79.941
6	0.777	4.856	84.797						
7	0.608	3.800	88.597						
8	0.521	3.254	91.851						
9	0.445	2.781	94.632						
10	0.284	1.774	96.406						
11	0.179	1.121	97.526						
12	0.128	0.797	98.323						
13	0.094	0.584	98.908						
14	0.068	0.428	99.335						
15	0.058	0.365	99.701						
16	0.048	0.299	100.000						
Extraction Method: Principal Component Analysis.									

Here the total variance explains that the five factors explain 79.941 % of the total variables which are grouped and named accordingly in the rotated component matrix shown in table 3.

The extraction method used here is principal component analysis. The rotation method is varimax with Kaiser normalization.

Table No. 3 : Rotated component matrix

	Component				
	Trust and security	Speed	Convenience	Cost	References
safe place	0.55547	-0.05626	-0.02353	-0.08474	0.059382
safe pin no.	0.945691	0.124593	-0.02766	0.023056	0.112019
trustworthiness of machine	0.95098	0.113211	-0.07016	0.030487	0.105287
security person at the ATM machine	0.953634	0.130414	-0.04706	0.022681	0.115305
speed of transaction	0.030975	0.901745	0.035472	-0.04802	0.030929
ATM centre having no longer queues	0.107387	0.932494	-0.02278	-0.03629	0.076088
speed of solution if problem	0.079419	0.919749	-0.03894	-0.0304	0.098156
references by consumers	0.163107	0.038145	0.056693	-0.06421	0.943085
advertisements	0.14811	0.023051	0.055971	-0.07999	0.949731
references by bank persons	0.078938	0.380621	-0.24712	-0.02112	0.541778
proximity from consumer's place	-0.07482	0.007379	0.930671	0.003153	0.033233
convenience of transaction	-0.09289	0.010564	0.937443	-0.00265	0.002745
convenience of other services	0.014583	-0.05769	0.777862	0.057708	-0.04507
charges of card	-0.08723	-0.05831	-0.04168	0.865536	-0.05522
charges for connectivity with other bank	-0.01108	-0.05326	0.043027	0.929777	-0.04678
charges for solving problems	0.047911	-0.00048	0.06332	0.843531	-0.04539
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					

The grouping of the factors are done on the basis of factor analysis and following five names are given accordingly.

1. Trust and security : Trust and security is the most important factor which includes safe place, safe pin no., trustworthiness of machine and security person at the ATM machine.

2. Speed : Speed includes speed of transaction, ATM centre having no longer queues and speed of solution if problem arises.

3. References: References here include references by consumers, advertisements and

references by bank persons.

4. Cost : Cost includes charges of card, charges for connectivity with other banks and charges for solving the problems.

5. Convenience: Convenience here includes proximity from consumer's place, convenience of transaction and convenience of other services.

The abovementioned five factors are then used for the testing of the hypotheses related to demographic factors.

5.2.2 *t*-test and ANOVA test for demographic comparison

The *t* – test for gender wise comparison and one

way ANOVA test for age, education and income wise comparison are shown in table 4.

Table No. 4 : *t* test and ANOVA test results.

Factors	Gender (<i>t</i> test)	Age (ANOVA)	Education (ANOVA)	Income (ANOVA)
Trust and security	4.475*	1.959	42.263*	6.832*
Speed	0.329	0.527	12.806*	3.370*
Convenience	0.562	0.600	16.337*	9.456*
Cost	-0.239	0.40	2.449	0.673
References	0.450	1.608	6.405*	4.855*
Total	3.116*	3.370*	81.986*	18.275*

* = significant at 0.05 significance level.

If we consider gender group differences of satisfaction in the above five factors, only trust and security factors have significant difference between male and female while all other factors including speed, convenience, cost and references do not have significant differences between male and female. Looking at means, males are more satisfied than females in terms

of trust and security factors where decision makers need to pay attention.

Age groups do not have significant differences in any of the factors but, total has a significant difference. For finding out the groups differences post hoc Tuckey test is done which is shown in table 5.

Table No. 5 : Multiple comparison : tuckey HSD for age groups.

Dependent Variable	(I) age (years)	(J) age (years)	Mean Difference (I-J)	Std. Error
Total	Less than 25	25 – 55	2.4562*	1.0056
		Above 55	0.9288	1.0330
	25 – 55	Less than 25	-2.4562*	1.0056
		Above 55	-1.5273	0.8608
	Above 55	Less than 25	-0.9288	1.0330
		25 – 55	1.5273	0.8608

* The mean difference is significant at the .05 level.

Above table shows the significant difference of satisfaction among the age groups for total satisfaction score where “*” means significant difference at 0.05 significance level.

Education groups have significant

differences in four factors including trust and security, speed, convenience and references. For finding out the groups differences post hoc Tuckey test is done which is shown in table 6.

Table No. 6 : Multiple comparison : tuckey HSD for education groups.

Dependent Variable	(I) education	(J) education	Mean Difference (I-J)	Std. Error
Trust and security	Upto schooling	College graduate	0.574107*	0.110121
		Post graduates or more	-0.46831*	0.134237
	College graduate	Upto schooling	-0.57411*	0.110121
		Post graduates or more	-1.04241*	0.118225
	Post graduates or more	Upto schooling	0.468306*	0.134237
		College graduate	1.042413*	0.118225
Speed	Upto schooling	College graduate	0.254867	0.117738
		Post graduates or more	-0.37974*	0.143522
	College graduate	Upto schooling	-0.25487	0.117738
		Post graduates or more	-0.63461*	0.126403
	Post graduates or more	Upto schooling	0.379742*	0.143522
		College graduate	0.634609*	0.126403
Convenience	Upto schooling	College graduate	-0.00186	0.116741
		Post graduates or more	-0.68225*	0.142306
	College graduate	Upto schooling	0.001864	0.116741
		Post graduates or more	-0.68039*	0.125333
	Post graduates or more	Upto schooling	0.68225*	0.142306
		College graduate	0.680385*	0.125333
References	Upto schooling	College graduate	0.135754	0.119721
		Post graduates or more	-0.31109	0.145939
	College graduate	Upto schooling	-0.13575	0.119721
		Post graduates or more	-0.44685*	0.128532
	Post graduates or more	Upto schooling	0.311095	0.145939
		College graduate	0.446848*	0.128532
Total	Upto schooling	College graduate	3.470588*	0.76808
		Post graduates or more	-7.07796*	0.936284
	College graduate	Upto schooling	-3.47059*	0.76808
		Post graduates or more	-10.5485*	0.824608
	Post graduates or more	Upto schooling	7.077959*	0.936284
		College graduate	10.54855*	0.824608

* The mean difference is significant at the .05 level.

Above table shows the significant difference of satisfaction among the education groups for abovementioned four factors where “*” means significant difference at 0.05 significance level. Thus, in the above four areas decision makers need to pay attention to the shown education groups.

If we consider income groups differences of satisfaction in the five factors, trust and security, speed, convenience and references have significant differences among income groups while cost factors do not have significant differences among income groups. For finding out the groups differences post hoc Tuckey test is done which is shown in table 7.

Table No. 7 : Multiple comparison : tuckey HSD for income groups.

Dependent Variable	(I) income	(J) income	Mean Difference (I-J)	Std. Error
Trust and security	Less than 1,00,000	1,00,001 – 3,00,000	0.10006	0.132457
		Above 3,00,000	0.443317*	0.136495
	1,00,001 – 3,00,000	Less than 1,00,000	-0.10006	0.132457
		Above 3,00,000	0.343257*	0.113061
	Above 3,00,000	Less than 1,00,000	-0.44332*	0.136495
		1,00,001 – 3,00,000	-0.34326*	0.113061
Speed	Less than 1,00,000	1,00,001 – 3,00,000	0.307331	0.13362
		Above 3,00,000	0.33128*	0.137693
	1,00,001 – 3,00,000	Less than 1,00,000	-0.30733	0.13362
		Above 3,00,000	0.023949	0.114053
	Above 3,00,000	Less than 1,00,000	-0.33128*	0.137693
		1,00,001 – 3,00,000	-0.02395	0.114053
Convenience	Less than 1,00,000	1,00,001 – 3,00,000	0.539277*	0.131596
		Above 3,00,000	0.510009*	0.135608
	1,00,001 – 3,00,000	Less than 1,00,000	-0.53928*	0.131596
		Above 3,00,000	-0.02927	0.112326
	Above 3,00,000	Less than 1,00,000	-0.51001*	0.135608
		1,00,001 – 3,00,000	0.029267	0.112326
References	Less than 1,00,000	1,00,001 – 3,00,000	0.240449	0.133117
		Above 3,00,000	0.425915*	0.137175
	1,00,001 – 3,00,000	Less than 1,00,000	-0.24045	0.133117
		Above 3,00,000	0.185467	0.113624
	Above 3,00,000	Less than 1,00,000	-0.42592*	0.137175
		1,00,001 – 3,00,000	-0.18547	0.113624
Total	Less than 1,00,000	Less than 1,00,000	4.150602*	0.971401
		1,00,001 – 3,00,000	6.031756*	1.001017
	1,00,001 – 3,00,000	1,00,001 – 3,00,000	-4.1506*	0.971401
		Above 3,00,000	1.881153	0.829153
	Above 3,00,000	Less than 1,00,000	-6.03176*	1.001017
		Above 3,00,000	-1.88115	0.829153

* The mean difference is significant at the .05 level.

Above table shows the significant difference of satisfaction among the income groups for four factors where “*” means significant difference at 0.05 significance level. The rest one factor does not have significant difference at 0.05 significance level as shown in table 4. Thus, in the above four areas decision makers need to

pay attention to the shown income groups.

6. Median ranking to factors.

To know the relative importance of various factors, median ranking of factors is used here. Median of each factor is found out from the numbers given to it by consumers. Median rank is corresponded with the median score.

Table 8 : Median ranking to factors.

Parameter	Median score.	Median rank.
safe place	4.9	3
safe pin no.	2.42	2
trustworthiness of machine	2.3	1
security person at the ATM machine	5.04	4
speed of transaction	5.42	5
ATM centre having no longer queues	8.6	10
speed of solution if problem	11.99	13
references by consumers	10.74	12
advertisements	14.19	15
references by bank persons	8.21	9
proximity from consumer's place	6.1	7
convenience of transaction	7.54	8
convenience of other services	14.74	16
charges of card	5.44	6
charges for connectivity with other bank	8.73	11
charges for solving problems	13.95	14

Here, trustworthiness of machine has got minimum median score i. e. 2.3 which means it is the most important factor considered by respondents. Thus, it is given first rank. Similarly, medians for all 16 factors are calculated and accordingly median ranks are corresponded to all 16 factors.

7. Policy implications.

Where trust and security factors are in consideration, decision makers should pay more attention to females as significant difference is found in satisfaction for the factors. In the case of overall satisfaction,

significant difference is found between males and females. Here also, females need more attention from decision makers as also found earlier (Gefen and Straub, 1997).

In age, no factors have significant difference in satisfaction. However, total satisfaction has significant differences in satisfaction. Here, less than 25 years group is more satisfied than 25 – 55 years group. Thus, 25 – 55 years group need attention from decision makers which are more prone to adapt newer technologies as found earlier. (Zeithaml and Gilly, 1987; Trocchia and Janda, 2000; Lee, Lee and Schumann, 2002).

In education groups, four out of five factors have significant difference of satisfaction i. e. trust and security, speed, convenience and references. Regarding trust and security factors, all the three groups i. e. upto schooling, college graduates and post graduates and more have significant differences of satisfaction among them. Here, graduates are less satisfied while post graduates and more are more satisfied than other groups. In speed factors, post graduates and more have significant difference of satisfaction with other two groups. Post graduates and more group is more satisfied than other two groups. In convenience factors, post graduates and more have significant difference of satisfaction with other two groups. Post graduates and more group is more satisfied than other two groups. In reference factors, graduates and post graduates and more groups have significant difference of satisfaction. Here also, post graduates and more group is more satisfied than graduates group. In total satisfaction, all three groups have significant difference of satisfaction. Here, graduates group is less satisfied while post graduates and more group is the more satisfied than other two groups.

In income groups, four out of five factors have significant difference of satisfaction i. e. trust and security, speed, convenience and references. In trust and security factors, above 3,00,000 p. a. income group has significant difference of satisfaction with other two groups. Here, above 3,00,000 p. a. income group is less satisfied than other two groups. In speed factors, there is a significant difference of satisfaction between upto 1,00,00 p. a. income

group and above 3,00,000 income group. Here, above 3,00,000 p. a. income group is less satisfied than upto 1,00,000 p. a. income group. In convenience factors, upto 1,00,000 p. a. income group has significant difference of satisfaction with other two groups. Here, upto 1,00,000 p. a. income group is more satisfied than other two groups. In reference factors, there is a significant difference of satisfaction between upto 1,00,00 p. a. income group and above 3,00,000 income group. Here, above 3,00,000 p. a. income group is less satisfied than upto 1,00,000 p. a. income group. In total satisfaction, upto 1,00,000 p. a. income group has significant difference of satisfaction with other two groups. Here, upto 1,00,000 p. a. income group is more satisfied than other two groups.

It is also found earlier that adoption of innovation is directly related with education and income (Jayawardhena and Foley, 2000; Karjaluoto, Mattila and Pento, 2002).

Median ranking shows directions to decision makers that in which factor, they should pay more attention. Factors ranked at the top should be in the priority list of importance for decision makers in banking industry for better services. Thus, attention may be paid in the sequence to trustworthiness of machine, safe pin no., safe place, security person at the ATM machine, speed of transaction, charges of card, proximity from consumer's place, convenience of transaction, references by bank persons, ATM centre having no longer queues, charges for connectivity with other bank, references by consumers, speed of solution if problem, charges for solving problems, advertisements and convenience of other services.

8. Conclusion.

Banking industry is ever developing. It is true for Gujarat and India. Knowing satisfaction of the consumers can serve the purpose of growth and profit in the competitive environment. Differences in demographic groups and median ranking can indicate the directions to decision makers. With the need for further specific researches, this research may throw light on certain areas of improvement.

References

- Badiyani J. M. (2009), Consumer Satisfaction in Organized Retail Outlet: A Study in Gujarat, *NICE Journal of Business*, Vol. 4, No. 2, July – December, pp. 87 – 95.
- Becker J. And E. Williams (1975), Determinants of the United States Currency Demand – Deposit Ratio, *Journal of Finance*, Vol. 30, No. 1, pp. 57 – 74.
- Churchill Gilbert A. Jr. And Carol Suprenant (1982), An investigation into the determinants of consumer satisfaction, *Journal of marketing research*, 19, pp 291 – 50.
- Eriksson K., Kerem K. And Nilsson D. (2005), Consumer Acceptance of Internet Banking in Estonia, *International Journal of Bank Marketing*, Vol. 23, No. 2, pp. 200 – 216.
- Gefen D. And Straub D. W. (1997), Gender Differences in the perception and use of e – mail: an extension to the technology acceptance model, *MIS Quarterly*, December, pp. 389 – 399.
- Hannan, H. Timothy, Elizabeth K. Kiser, Robin A. Prager and James J. McAndrews (2003), To surcharge or not to surcharge: an empirical investigation to ATM pricing, *Review of economics and statistics*, Vol. 58, No. 4, pp. 990 – 1002.
- Hood, J.M. (1979), Demographics of ATMs, *Banker's Magazine*, November-December, pp. 68-71.
- Howard John A. and Sheth Jagdish N. (1969), The theory of buyer behaviour, New York : Wiley publications.
- Jaruwachirathanakul B. and Fink D., Internet Banking Adoption Strategies of a Developing Country: The Case of Thailand, *Internet Research*, Vol. 15, No. 3, pp. 295 – 311.
- Jayawardhena C. and Foley P. (2000), Changes in the Banking Sector – the case of Internet Banking in the UK, *Internet Research: Electronic Network Applications and Policy*, Vol. 10, No. 1, pp. 19 – 31.
- Karjaluoto H., Mattila M. and Pento T. (2002), Factors underlying attitude formation towards online banking in Finland, *International Journal of Bank Marketing*, Vol, 20, No. 6, pp. 261 – 272.
- Kerschner, P.A. and K. H. Chelsvig (1984), The Aged User and Technology, in Dunkle, Ruth E., Haug Marie R., Rosenberg M., *Communications Technology and the Elderly: Issues and Forecasts*. New York: Springer Publishing Company, pp. 135-144.
- Lee E., Lee J. And Schumann D. (2002), The Influence of Communication Source and Mode on Consumer Adoption of Technological Innovation, *Journal of Consumer Affairs*, 36(1), pp 1 – 28.
- Massoud N. and D. Berhardt (2002), Rip off ATM charges, *Rand journal of economics*, Vol. 33, No. 1, pp. 96 – 115.
- Mukherjee A. and Nath (2003), A Model of Trust in Online Relationship Banking, *International Journal of Bank Marketing*, Vol. 21, No. 1, pp. 5 – 15.
- Murphy, N.B. (1983), Determinants of ATM activity: the impact of card base, location, time in place and system, *Journal of Bank Research*, pp. 231-3.
- Prager R. (1999), ATM network mergers and the creation of market power, *Antitrust bulletin*, Vol. 44, No. 2, pp. 349 – 363.
- Prager R. (2001), The effects of ATM surcharges on small banking organisations, *Review of industrial organisation*, Vol. 18, No. 2, pp. 161 – 173.
- Rugimbana, R.O. and Iversen, P. (1994), Perceived attributes of innovations, *International Journal of Bank Marketing*, Vol. 12, No. 2, pp. 30-35.
- Rust, R.T., Zahorik, A.J. and Keiningham, T.L. (1996) *Service Marketing*, HarperCollins,

New York, Chapter 12, pp.309–320.

Saloner, Garth and Andrea Shepard (1995), Adoption of Technologies with Network Effects: An Empirical Examination of the Adoption of Automated Teller Machines, *The RAND Journal of Economics*, Vol. 26, No. 3., pp. 479-501.

Sayar C. And Wolfe S. (2007), Internet Banking Market Performance: Turkey versus the UK, *International Journal of Bank Marketing*, Vol. 25, No. 3, pp. 122 – 144.

Stevens, R.E., Carter, P.S., Martin, R.T. and Cogshell, D. (1987), ATM non-adopters: how valuable are they?, *Banker's Magazine*, September-October, pp. 51-3.

Taylor S. And Todd P. (1995), Assessing IT usage: the role of prior experience, *MIS Quarterly*, December, pp. 561 – 568.

Trocchia P. J. And Janda S. (2000), A Phenomenological Investigation of Internet Usage among Older Individuals, *Journal of Consumer Marketing*, 17(7), pp 605 – 616.

Voss Glenn B., Parasuraman A. and Grewal Dhruv (1998), The roles of price, performance and expectations in determining satisfaction in service exchanges, *Journal of marketing*, 62, pp 46 – 61.

Wang Y., Wang Y., Lin H. And Tang, T. (2003), Determinants of User Acceptance of Internet Banking: An Empirical Study, *International Journal of Service Industry Management*, Vol. 14, No. 5, pp. 501 – 519.

Zahorik, A.J. and Rust, R.T. (1992) Modelling the impact of service quality on profitability: a review, in Swartz, T.A., Bowen, D.E. and Brown, S.W. (Eds): *Advances in Services Marketing and Management*, JA Press, Greenwich, CT, pp.49–64.

Zeithaml V. A. and Gilly M. C. (1987), Characteristics affecting the acceptance of retailing technologies: a comparison of elderly and non – elderly consumers, *Journal of Retailing*, 63(1), pp 49 – 68.