Asia Pacific Journal of Research
A peer reviewed international Journal
Print -ISSN -2320 - 5504
Online-E-ISSN - 2347 - 4793

A STUDY ON THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CITIZEN SATISFACTION FOR SETU, AN E-GOVERNANCE INITIATIVE, IN MAHARASHTRA, INDIA

Prajakta N.Warale
Assistant Professor, SSMS'SIMR, Pune University
Maharashtra, India

Dr.Hemalatha Diwakar
Ex-SBI IT Chair Professor, NIBM, Pune,
Maharashtra, India

ABSTRACT

Every state in India is introducing citizen centric e-governance projects for the benefit of its citizens. An important e-governance initiative, SETU that spans the entire state of Maharashtra, with more than thirty services to offer is being implemented. Ever since its inception of fourteen years, no analytical study has been carried out to find out how SETU is performing, whether the citizens are satisfied, government's aim of providing corruption free and transparent services are fulfilled. Hence keeping this as the main objective, a descriptive research method based study of SETU was conducted using multistage sampling. The analysis revealed that the citizens are only marginally satisfied. The shortcomings in the system and the corrective measures to rectify them are also presented.

KEY WORDS: *E-governance, SETU, Maharashtra, service quality, citizen satisfaction*

1. INTRODUCTION

The tremendous growth in ICT has paved a way for all the countries over the world to provide e-government services to their citizens. Republic of Korea, Australia, Singapore and France are world leaders in e-governance and one hundred & ninety countries are using web channels to deliver public services [UNDESA, 2014]. In India, the government is providing e-governance services encompassing services from cradle (birth certificates), education (like domicile, age proof), healthcare etc., upto the grave (death certificates). Governments like India have to tackle unending problems and challenges emanating from over-population, poverty, illiteracy, unemployment and underdevelopment [e-governance PLC Handbook,

ISSN: 2320-5504, E-ISSN-2347-4793

documents needed and corrections if any in the application. Citizen attaches necessary proofs, does the correction .After this, the next process is to purchase stamps and make affidavits which takes around one & half hrs. After making affidavit the operator enters application specific data into the digital database .Citizen then pays the necessary fees and collects system generated token. The token is generated by the system and given to citizens. Generally certificates are printed after 7 days.

- After 7 days when citizen visits SETU center with token, then only he comes to know about any discrepancy or problems related to the application / documents. There is no mechanism to inform to citizens about progress of application whether it is pending, rejected, whether certificate is ready, additional proofs to be attached etc. Citizen submits once again the correct documents, for which he again gets token extending date by more 7 days. Like this time in terms of number of days and visits go on increasing that adds to his frustration.

SETU did not scale up to the expectations. Only 30 types of services are delivered to citizens with the original proposal aimed at more than fifty services. In addition, neither the government nor any individual/organization has carried out a detailed study to find out whether the current system has offer qualitative services or any pitfalls exist in the current system so that restructuring can be done.

Keeping this in mind, a pilot study of just one tehsil was carried out before going for a serious detailed study. The study clearly revealed that problems exist in service delivery, staff cooperation and infrastructure related issues. Also latest technologies such as online method of processing of application form are not incorporated in the current system to bring in more ease and transparency. Therefore, a detailed study using a descriptive research based method along with multistage sampling is carried out. In the next section the objective and research methodology followed are presented.

3. OBJECTIVES & RESEARCH METHODOLOGY

3.1 Objectives

The primary objective of research was to study and analyze the relationship between service quality and citizens' satisfaction towards e-governance initiative SETU in Maharashtra. In our study, we have identified eight parameters viz., timeliness of service, accuracy of service, cooperation from SETU staff, easiness of procedure, promptness in service delivery, privacy of documents, cost of the service and transparency as the major contributing factors for service delivery. Accordingly, suitable questions were incorporated in the questionnaire. Next section explains conceptual framework for citizen satisfaction.

3.2 Citizen Satisfaction:

[Parasuraman, A., Zeithaml, 1985] defined service quality as a "function of the differences between expectation and performance along the quality dimensions". According to [Nour Yaghoubi,2011] Services quality and citizen satisfaction are very closely related .Citizen's satisfaction can be ensured by offering better quality services [Umesh Gunarathne,2014]. Figure 3 explains conceptual framework for citizen satisfaction.

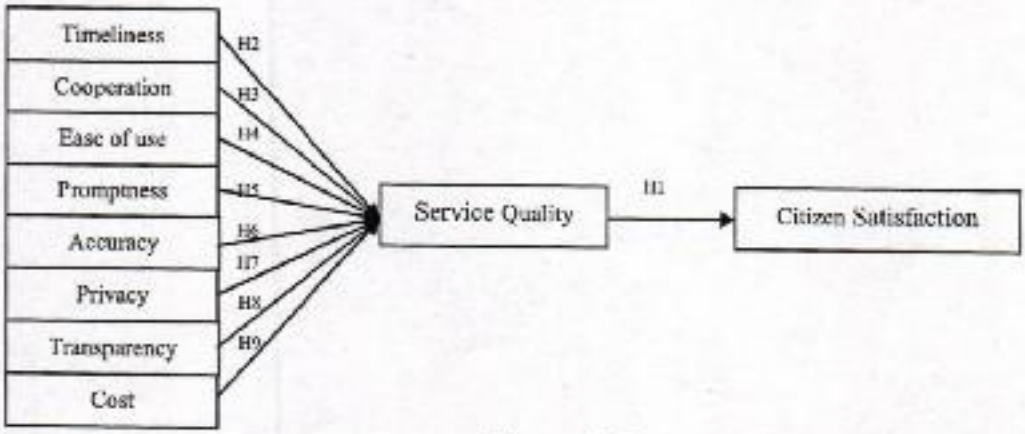

Figure 3: Conceptual framework

ISSN: 2320-5504, E-ISSN-2347-4793

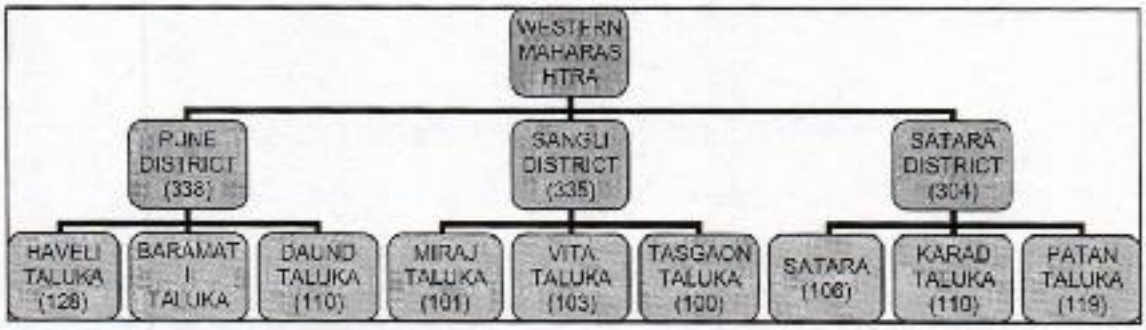

Figure 4: Multistage sampling method with sample sizes

Multistage Sampling method is used because selection of sample involved several stages such as district ,sub district and at SETU center. Figure 4 shows Multistage sampling method with sample sizes. At first stage, three districts within western Maharashtra was selected namely Pune, Sangli and Satara. At second stage, three sub districts places are selected from every district, the criteria used in both the stages are based on population density using census 2011 data. At third stage, the citizens visiting the SETU center will be randomly selected. Morgans table was used for sample selection. In all a sample of 977 was selected from all three districts.

3.3.3 Data Collection

Primary data was collected through two well-structured questionnaires

Questionnaire 1 was designed for citizens. It had twenty-five questions out of which thirteen questions were used to judge services quality parameters viz., timeliness, cost, transparency, ease of service delivery, privacy, cooperation of staff, number of visits to SETU center, number of days required to get the certificate etc. Five questions were used to collect basic information of citizen like name, education age etc. *Eight questions were used to collect data on service quality using 5 point likert scale starting with 1 as highly dissatisfied,2 as disatisfied,3 as neither satisfied nor dissatisfied,4 as satisfied and 5 as highly dissatisfied* whereas remaining questions were used to collect information on overall service delivery mechanism, complaints if any etc.

Questionnaire 2 was designed for service provider. It consists of total thirty seven questions. Fifteen questions were used to collect basic information about employee and SETU center. Ten questions were used to collect data about IT infrastructure deployed in center. Remaining questions were about service delivery, training of employees, e-enablement of services, audits, technology used business continuity planning etc.

Secondary data was collected by visiting various national, state and district level governments' website, books, e-government research papers, e-governance policy, internal documentation of SETU, case studies and PhD thesis etc. After data collection reliability of data was tested.

3.3.4 Reliability analysis

Reliability means consistency. It is the degree to which an instrument will give similar results for the same individuals at different times. Cronbach's alpha is often considered a measure of item homogeneity; i.e., large alpha values indicate that the items are tapping a common domain [Craig, James,2003]. Reliability can take on values of 0 to 1.0, inclusive. For reliability analysis, chronbach's Alpha method was used.

Table 3: Mean score and standard deviation for Data
Descriptive Statistics

Service quality Parameters	Mean	Std. Deviation	N
CS_Timeliness	3.10	1.060	977
CS_cooperation	3.44	1.091	977
CS_Ease of Use	3.48	1.026	977
CS_Promptness	3.51	1.006	977
CS_Accuracy	3.73	.896	977
CS_Privacy	3.53	.919	977
CS_Service cost	3.76	.983	977
CS_Transperancy	3.47	.917	977
overall CS	3.40	.907	977

It is clear that mean score for service cost and accuracy are high; timeliness and cooperation have low value just above average which shows citizen are just a slightly satisfied with service quality. The overall satisfaction is 3.40, which too indicates marginal overall satisfaction.

4.3 Correlation Matrix

Correlation analysis is used to find out relationship between two or more variables. To test the correlation, Pearson correlation coefficient (r) is used. Table No.4 indicates that all service quality parameters have positive and significant relationship with citizen satisfaction .

Table 4: Correlation matrix

Service Quality Parameters		CS_ Timelines s	CS_c ooperation	CS_Ease of Use	CS_Promptness	CS_ Accuracy	CS_ Privacy	CS_ Service Cost	CS_ Transperancy	Overall CS
CS_Ttimeliness	Pearson Correlation	1								
	Sig. (2-tailed)									
CS_cooperation	Pearson Correlation	.633**	1							
	Sig. (2-tailed)	.000								
CS_Ease of Use	Pearson Correlation	.563**	.639**	1						
	Sig. (2-tailed)	.000	.000							
CS_Promptness	Pearson Correlation	.550**	.566**	.632**	1					
	Sig. (2-tailed)	.000	.000	.000						
CS_Accuracy	Pearson Correlati	.472**	.543**	.549**	.609**	1				

- The multiple correlation coefficient R, is the linear correlation between the 'observed' and the 'mod el-predicted' values of the dependent variable . The value of R is 0.851which signifies a strong relationship.
- R Square, the coefficient of determination, is the squared value of the multiple correlation coefficients. Value of R square shows that 72.5% of variability in the overall satisfaction is accounted for by all of the IVs together
- 0.723 is the adjusted R square value that tries to reduce improvement in the R square due to chance rather than improvement by adding more independent variables .Adjusted R square attempts to give yield more honest answer.
- Less value of standard error of estimates show better fit of the model.

The following table no. 6 shows result of the analysis of variance (ANOVA) for hypotheses of study. ANOVA provides a statistical test of whether or not the means of several groups are all equal, and therefore generalizes t-test to more than two groups. ANOVAs are helpful because they possess an advantage over a two-sample t-test. For this reason, ANOVAs are useful in comparing two, three or more means.

Table 6: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	582.265	8	72.783	319.020	.000[b]
	Residual	220.845	968	.228		
	Total	803.110	976			

a. Dependent Variable: overall CS
b. Predictors: (Constant), CS_Transparency, CS_Service cost, CS_time, CS_Accuracy , CS_Ease of use , CS_Privacy , CS_Promptness, CS_cooperation

The ANOVA table shows that for 8 degree of freedom and 968 denominators degree of freedom , calculated value of F is far above than table value of F ,so it is seen that regression as a whole is significant .

Table 7: Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.048	.05		.637	.524
	CS_Time	.188	.020	.220	9.395	.000
	CS_cooperation	.105	.021	.126	4.875	.000
	CS_Ease of use	.142	.023	.161	6.214	.000
	CS_Promptness	.077	.023	.086	3.374	.001
	CS_Accuracy	.069	.024	.068	2.831	.005
	CS_Privacy	.046	.025	.046	1.871	.062
	CS_Service cost	.098	.021	.106	4.740	.000
	CS_Transperancy	.247	.028	.250	8.983	.000

a. Dependent Variable: overall CS

ISSN: 2320-5504, E-ISSN-2347-4793

Finally unstandardized beta coefficients are considered over standardized one because constant in included .The value of Beta under unstandardized coefficients is highest (0.247) for transparency, which is significant at 0.05 level followed by timeliness and ease of use. It may also be seen that p value for cooperation , promptness, accuracy and service cost is less than 0.05 hence the hypotheses H2,H3,H4,H5,H7,H8 are accepted .

The result of regression also confirms that p value for privacy is more than .062 which means it has no impact on citizen satisfaction. Hence, the hypothesis H6 is rejected.

5. SUMMARY OF FINDINGS:

- The descriptive study revealed that the overall citizens are marginally satisfied with services, its delivery mechanism and overall management at setu centre .
- Correlation result shows significant positive relationship between all eight-service quality parameters and citizens' satisfaction. Correlation coefficient for transparency & ease of use are high; low for service cost.
- Regression analysis demonstrates that transparency has more influence on citizen satisfaction as compared to other parameters whereas "privacy" has no influence on citizen satisfaction.

6. INFERENCES:

- Correlation for service cost with overall citizen satisfaction is just 0.592 shows that there exists slight positive correlation between them. Thus in order to ensure more citizen satisfaction services must be offered at a lower cost. However the service costs, which have not increased for many years were surprisingly found to be quite low. Hence it strongly indicates that the citizens may be paying more than what is the actual service cost which in turn indicates the possible presence of corruption or agents / middlemen.
- Also values of r for transparency & ease of use high indicate that there is high degree of positive relationship among them and citizen satisfaction. Thus it is evident that if overall satisfaction is to increase, both these aspects should increase further. This in turn directly calls for increased transparency such as giving status updates to the applicants at any point in time
- Regression results show value of beta for privacy and accuracy less; This means that privacy of citizens is not taken care of. From the data collected from questionnaire II it was found that citizens have complained about inaccuracy in the certificate that indirectly results into resubmitting of the applications for correction, which further takes 15 more days for correction. Thus accuracy in certificates should be maintained to ensure better citizen satisfaction.
- Timeliness, cooperation, ease of use and promptness also contribute positively towards citizens satisfaction.

The other questions present in questionnaire I and II are related to the currently existing problems in the system with respect to service quality parameters, center staff, infrastructure and so on.. Further analysis is in progress and will be reported later.

7. CONCLUSION:

In this paper, SETU old and important initiatives of e-Governance project implemented in the state of Maharashtra is studied for relationship between service quality and citizen satisfaction. Data was analyzed by using correlation and regression techniques using SPSS. The first level analysis of the system pointed out that all service quality parameters except privacy are satisfied. Transparency, ease of use, timeliness are more dominant for citizen satisfaction and hence they must be improved. Inferences drawn in the study can be useful for the government to improve the service quality of SETU.

9 REFERENCES:

- UN's e-government report prepared by UN's Department of economics and social affairs 2014 .
- e-governance PLC Handbook, Department of electronics and IT,GoI, 2012
- Mrinalini Shah, (2007), E-Governance in India: Dream or reality, *(IJEDICT),* Vol. 3, Issue 2, pp. 125.
- Bhatnagar S.C., (2004) "E-Government: From Vision to Implementation – A Practical Guide with Case Studies", SAGE Publications Pvt. Ltd., New Delhi,
- State of e-governance in Maharashtra, Annual report published by DIT, GoM,2014.
- Parasuraman, A., Zeithaml, V., Berry, L. L., "A Conceptual Model of Service Quality and Its Implication for Service Quality Research", Journal of Marketing, 49, Fall, 1985, p. 44 and Zeithaml.
- Nour Mohammad Yaghoubi, *1Atiyeh Haghi and 2Sadegh Khazaee Asl,(2011),* E-Government and Citizen Satisfaction in Iran: Empirical Study on ICT Offices, World Applied Sciences Journal 12 (7): 1084-1092, 2011
- Sushil Kumar Singla,Himanshu Aggarwal(2012) , Impact and Scope of e-Governance Initiatives in State of Punjab (INDIA),IJCA, *Volume 44– No14, April 2012.*
- A., Berry, L. Umesh Gunarathne W.H.D.P ,Relationship between Service Quality and Customer Satisfaction in Sri Lankan Hotel Industry, International Journal of Scientific and Research Publications, Volume 4, Issue 11, November 2014
- Hopkins, K.D. & Glass, G. V (1978). *Basic Statistics for the Behavioral Sciences.* Englewood Cliffs, N.J.: Prentice-Hall.
- Notes on Factor Analysis: Charles M. Friel Ph.D.,Criminal Justice Center, Sam Houston State University,June 2015
- SETU Detail tender document(District SETU),Court naka ,Thane,Maharashtra,India,,Tendor No:General/section-4/SETU,F-2,Date:14/8/2014
- Ashok Agarwal (2008-09), e-Governance case studies, university press publication.
- P.N.Gupta, (May 2008), e governance: A comprehensive framework, new century publication,
- Xenakis A and Macintosh A (2005) "Using Business Process Re-engineering (BPR) for the Effective Administration of Electronic Voting" The Electronic Journal of e-Government Volume 3 Issue 2, pp 91-98,
- Information technology annual report (2010-11), Government of India.
- Prof. T.P. Rama Rao, *(December, 2004)* ICT and e-Governance for Rural Development, December 2004
- M.J.Xavier, Indian experience on G2C service delivery models: select case studies and lessons for future development, 11,141-149.
- Gurshaminder Singh Bajwa, (2008), "ICT policy in India in the era of liberalization: its impact and
- consequences" Jawaharlal Nehru University, New Delhi, GBER Vol. 3 No.2. pp 49 – 61
- Ashok Jhunjhunwala& Roshni Menon, 2006, ICT to empower Rural India" Rural Technology and Business Incubator (RTBI), IIT Madras, 2006
- Bhatnagar, S. and R. Schware (2000) Information and Communication Technology in Development: Cases from India. New Delhi, Sage Publications.
- Shahriar,Akter,John,Pradeep Ray(2013),Development and validations of an instrument to measure user perceived serice quality of mhealth,Informtion&Management,180-193.
- www.indg.in/e-governance/.../e-governance-initiatives-in-Maharashtra/
- www.maharashtra.gov.in/egovProjects
- http://www.digitalpartners.org/pubs/expansive.pdf
- http://www.worldbank.org/publicsector/egov/

ISSN (o) : 2347-4793
ISSN (p) : 2320-5504

Asia Pacific Journal of Research

Certificate of Publication

This is to certify that ***Prajakta N.Warale & Dr.Hemalatha Diwakar*** *has published Research article entitled "* ***A STUDY ON THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CITIZEN SATISFACTION FOR SETU, AN E-GOVERNANCE INITIATIVE, IN MAHARASHTRA, INDIA*** *" in Asia pacific Journal of research (A Peer Reviewed International Journal),* ***Vol - 1 Issue - XXIX, , pp: 86-97.***

www.apjor.com

Chief Editor

Shri Shivaji Maratha Society's Institute of Management & Research, Pune-5

ISSN (o) : 2347-4793
ISSN (p) : 2320-6504

Asia Pacific Journal of Research

Certificate of Publication

This is to certify that ***Prajakta N.Warale & Dr.Hemalatha Diwakar*** *has published Research article entitled "* ***A STUDY ON THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CITIZEN SATISFACTION FOR SETU, AN E-GOVERNANCE INITIATIVE, IN MAHARASHTRA, INDIA*** *" in Asia pacific Journal of research (A Peer Reviewed International Journal),* ***Vol - 1 Issue - XXIX, , pp: 86-97.***

www.apjor.com

Chief Editor

A Study of Citizen Satisfaction for e-Governance Initiative SETU in Maharashtra (INDIA)

Prajakta N. Warale
SSMS'S IMR
SP Pune University
Pune (Maharashtra)

Hemalatha Diwakar
Ex-state Bank of India IT Chair Professor,
National Institute of Bank Management,
Pune (Maharashtra)

ABSTRACT
Every state in India is introducing citizen centric e-governance initiatives with the objective of providing government services [1] with greater transparency (hence corrupt free), accessibility, efficiency and high level of service quality in an integrated manner. Being a densely populated country, the implementations are challenging and time consuming [2]; hence a time-to-time evaluation of these systems, while in progress will aid in making mid-course corrections and improvements to attain their objectives in totality. "SETU" a very important e-governance initiative of Maharashtra state provides more than thirty vital services with a target of twenty more additional services. This paper describes the first of its kind study on SETU that has been in existence for more than a decade and spans the entire state. The key outcomes of the study revealed that the citizens are marginally satisfied with service quality and that the government has to reengineer its current processes and introduce latest technologies in order to accomplish its objectives of accessibility, efficiency and service levels.

Keywords
E-governance, Maharashtra, India, service quality, citizen satisfaction,

1. INTRODUCTION
The tremendous growth in ICT has paved a way for all the countries over the world to provide e- government services to their citizens [3]. India being no exception, all the states in India is into introducing e-governance projects for providing various citizens centric services [4]. One of the most literate industrialized states with a population density of 950 per square mile (second largest populated state) Maharashtra, has come up with a very large e-governance initiative called 'SETU ' that spans the entire state.

Department of Information Technology (DIT) and Government of Maharashtra (GoM) initiated SETU in 2001 with a single window citizen service centers called SETU Suvidha Centers (SSC) providing various services to the citizens [5]. Some of the key features of SETU are:

- Spread across all 36 districts and covers 333 sub districts in Maharashtra.
- On an average 30 services/certificates are offered through their centers; Nationality certificate, caste certificate, non-creamy layer certificate, income certificate, rahivasi dakhala, different certificates required by freedom fighter's relatives, various certificates required by farmers and so on [6].

SETU is implemented and run on BOT (Built operate and transfer) basis that allows vendors to have free hand to develop their own software for SETU [5]. Hence, every district or even sub district may have different software, the only requirement being strict adherence to the standard inputs (fields in application) and outputs (certificates format) set by GoM. Due to the heterogeneity in the software, the system remains decentralized till now. All SSCs are standalone delivery centers. It is interesting to note that the Government has set 'providing services in an integrated manner' [6] as one of its main objectives which is still a distant dream!.

Due to heterogeneity, decentralized structure, wide geographical spread, its enormity in scale, it is critical to evaluate whether the initiative SETU has accomplished the objectives such as

- Service quality
- Citizen satisfaction
- Easy availability, timeliness
- Transparency (which directly implies corruption free system)
- Service delivery in an integrated manner.

It is worthwhile to mention that though the system has been in existence for more than a decade, a critical study of the system was never carried out. This forms the main theme of the paper. In the next section, we present the current working of the system.

2. CURRENT WORKING OF SYSTEM SETU
The time sequence diagram of application processing for certificates in the current system SETU is presented in figure1. It is to be noted that the same operational flow is followed for the past fourteen years.

- Citizens approach SETU center with service request . They submit application forms.
- Every application undergoes initial scrutiny for accuracy.
- On submission, the application is stamped and is accepted with enclosures (proofs) and affidavit, for further scrutiny, done later.
- Fees are collected from applicant and token with expected date of delivery of certificate is handed over to citizen.
- Lead time set by the government for certificate delivery is generally 7 days for most of the services. Citizens are informed about the status of application only after 7 days when they come personally to the same SSC as the current system doesn't offer any status tracking facility [7].

results in knowing the status of applications at any given point in time.

3.3 Hypotheses:

3.3.1. Primary Hypothesis:

There is significant positive relationship between service quality and citizens' satisfaction for SETU project.

H0: There is no significant positive relationship between service quality and citizens' satisfaction.

H1: There is significant positive relationship between service quality and citizens' satisfaction

As service quality comprises of eight parameters, primary hypothesis further alienated into eight hypotheses.

3.2.2 Secondary Hypotheses:

H2: There is significant positive relationship between timeliness of service and citizens' satisfaction.

H3: There is significant positive relationship between cooperation of Staff and citizens' satisfaction.

H4: There is significant positive relationship between Ease of use of procedure and citizens' satisfaction.

H5: There is significant positive relationship between promptness in service delivery and citizens' satisfaction.

H6: There is significant positive relationship between accuracy of service and citizens' satisfaction.

H7: There is significant positive relationship between privacy of documents and citizens' satisfaction.

H8: There is significant positive relationship between cost of the service offered and citizens' satisfaction.

H9: There is significant positive relationship between transparency and citizens' satisfaction.

3.4 Research Design:

3.4.1 Sampling Method:

A descriptive research method is used for the study. It includes surveys, fact-finding enquiries of different kinds, gathering data that describe events and data collection. **Multistage Sampling method** is used because selection of sample involved several stages viz., district, sub district and at SSC [10].The selection of the first two stages are based on **population density using census 2011 data** [11]. At first stage, three districts from Maharashtra were selected namely Pune, Sangli and Satara. At second stage, three Tehsils /sub districts were selected from the already chosen districts in a similar way. At third stage, i.e., selection of SETU centers, viz., SSCs. was done randomly. Morgan table was used for sample selection. A sample of 977 respondents was selected in total, from all three districts. Table 1 shows the distribution of sample.

Table 1 Sample Sizes

District	Sub-District	Sample size	Total sample size per district
Pune	Haveli	138	338
	Baramati	100	
	Daund	110	
Satara	Satara	116	335
	Karad	110	
	Patan	109	
Sangli	Miraj	101	304
	Vita	103	
	Tasgaon	100	
	Total	977	977

3.4.2 Data Collection

Primary data was collected through two well-structured questionnaires.

Questionnaire I was designed for citizens. It consists of twenty five questions.

- Thirteen questions were related to service quality parameters viz., timeliness, cost, transparency, ease of service delivery, privacy, cooperation of staff, number of visits to SETU center, number of days required to get the certificate etc. *Eight questions out of these thirteen, used 5 point Likert scale starting with 1 as "highly dissatisfied", 2 as "dissatisfied" 3 as "neither satisfied nor dissatisfied", 4 as "satisfied" and 5 as "highly dissatisfied".*
- Five questions were used for gathering basic information of citizens like name, education age etc.
- The remaining questions were used to collect information on overall service delivery mechanism, complaints if any etc.

Questionnaire II was designed for service provider & IT infrastructure, with thirty-seven questions in total.

- Fifteen questions were used to collect basic information about SSC and the employees /operators working there.
- Ten questions were used to collect data about IT infrastructure deployed in center.
- Remaining questions were about service delivery, training of employees, e-enablement of services, audits, technology used, disaster recovery, business continuity planning etc.

Secondary data was collected by visiting various national, state and district level governments' website, books, research papers on e-governance, e-governance policy, internal documentation of SETU, case studies and PhD thesis etc.

After data collection reliability of data was tested.

3.4.3 Statistical tools used:

Statistical package SPSS 20.0 was used to perform descriptive analysis, chi square analysis, and factor analysis on the data.

3.4.4 Reliability analysis

Reliability means consistency. *It is the degree to which an instrument will give similar results for the same individuals at different times. Reliability can take on values of 0 to 1.0, inclusive.* [10]

For reliability analysis, Chronbach's Alpha method was used.

Table 2: Reliability analysis

District	Sample Size	No of Items	Chronbach's Alpha
Pune	338	25	0.952
Sangli	304	25	0.880
Satara	335	25	0.906

(Source: Data Analysis performed with IBM SPSS 20.0)

Since value of alpha is greater than 0.70, the sample is said to be reliable. In the next section data analysis is carried out.

4.4. Factor Analysis:

Factor analysis is used when data contains many variables. It is used to reduce the number of variables. First step is to check whether the data are adequate to perform factor analysis. [12] Kaiser Meyer Olkin Test (KMO) and Bartlett's Test of sphericity shows value of 0.940 and 0.000 respectively, which indicated the significance.

4.4.1 Total Variance Explained

Extraction method used was principal component analysis. Table No.6 shows all the factors extractable from the analysis along with their Eigen values, the percent of variance attributable to each factor, and the cumulative variance of the factor.

Table 6: Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.962	44.02	44.026	3.96	44.02	44.026
2	1.663	18.47	62.500	1.66	18.47	62.50
3	1.541	17.12	79.626	1.54	17.12	79.63
4	0.543	6.033	85.659			
5	.462	5.135	90.794			
6	.384	4.271	95.065			
7	.221	2.457	97.523			
8	.210	2.335	99.857			
9	.013	0.148	100			

(Source: Data Analysis performed with IBM SPSS 20.0)

It is clear from the table that first component accounts for 44.02% of the variance, the second one 18.47% of the variance whereas 3rd component accounts for 17.12 % of the variance. The remaining factors 4 to 9 have Eigen value less than 1 and therefore explain less variance. It is significant to note that the cumulative percentage of variance explained by the first 3 factors is 79.63%

4.4.2 Component Matrix

The component matrix indicates the correlation of each variable with each factor. The key to determining what the factors measure is the factor loadings [12].

Table 7: Rotated Component matrix

	Component		
	1	2	3
CS_Timeliness	.868		
CS_Cooperation	.810		
CS_Ease of Use		.654	
CS_Promptness	.734	.642	
CS_Accuracy		.608	.601
CS_Privacy			.725
CS_Service cost		.761	
CS_Transperancy	.614	.736	
overall CS	.678		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

(Source: Data Analysis performed with IBM SPSS 20.0)

Factors can be grouped together as follows.
Factor 1- CS_Time, CS_Cooperation, CS_Promptness, Overall CS (Expectations of citizens)

Factor 2- CS_Service Cost , CS_Ease of use , S_Transperancy, (Quality of procedure)
Factor 3-CS_Accuracy,CS_Privacy (Quality of information)
It is evident that components 'Timeliness' and 'cooperation' are heavily loaded on factor 1; 'Service cost' is heavily loaded on factor 2 ;whereas component 'privacy' is heavily loaded on factor 3.It is worthy to note that similar results are found in figure 3 viz.,

- timeliness and cooperation are viewed as two critical factors for citizen satisfaction that need to be improved,
- Citizens are content with the 'service cost' which is heavily loaded on factor 2.

In a nutshell we can say that timeliness, cooperation, service cost, accuracy are highly influential for citizen satisfaction. Thus all these four parameters must be improved further to ensure better citizen satisfaction.

5. SUMMARY OF FINDINGS

The purpose of this paper was to evaluate SETU with respect to service quality, citizen satisfaction and attainment of government's objectives. Our Descriptive study offers interesting insights into how service quality is realized by the citizens.

- Findings of the study as stated in section 4.2 based on the bar chart (figure 3) revealed that the citizens are satisfied overall with services, its delivery mechanism and management at setu centers viz.,SSCs .
- Results of chi square test presented in section 4.3 shows that p value for all variables is < 0.05 thus the hypothesis H1 is accepted i.e. there is significant positive relationship between quality of services and citizens' satisfaction.
- The factor analysis presented in section 4.4 clearly indicates the conclusions arrived at are similar to the ones inferred using the bar chart of figure 3.
- In addition, it was observed that there were citizens' complaints about improper guidance of staff, presence of agents, charging of high fees, misdirection, lack of communication between SSCs & citizens and nonintegrated service delivery. All these indicate that the objectives set by GOM for SETU are yet to be accomplished.
- IT audit & inspection, disaster recovery and business continuity plan were found to be totally neglected grey areas.

Next section offers certain noteworthy suggestions for overall improvement of SETU for better performance.

6. SUGGESTIONS

Based on the analysis and findings presented in the previous sections the following actions are mandatory to rectify the shortcomings in the current SETU:-

- Transparency: The transparency aspect of the system is not fully taken care of as citizens have to come to the same SSC to know the status of their application. Better transparency can be achieved by automating most of the business processes in the system such as automatic token generation, tracking, sending SMS alerts, etc., which will eradicate corruption.
- BPR: Business process reengineering is very critical. BPR[13] will help in work assignment to the employees dynamically based on needs and demands, queue monitoring and dynamically assigning various windows for application submission; certificate collection rejection based on the demands for various services along with more technology based automation.
- Waiting period to get the certificate in reality is much more than government set target. Hence, the BPR will help greatly to arrive at realistic deadlines. In addition, some of the main bottlenecks are signing authority's (tahsildar) non-availability and, same number of counters throughout the year; hence, appointment of a signing authority exclusively for this purpose and opening of multiple counters during peak time is mandatory to meet deadlines. This will help in reducing waiting period of citizens.
- Changes in technologies currently used both in the hardware and software level will be needed for streamlining the factors mentioned above.
- Audits are mandatory for better working of the system and this will do away with practices such as higher fees collection; dependence on agents or middle men from the system to provide more corruption free services.
- The very purpose of e-governance is to eradicate corruption. However as said earlier, the SETU service centers in some places are openly charging more fees for certificates than approved by the government. In addition, some of the citizens who were asked to fill the questionnaires turned out to be agents. It indicates clearly that because of agents' presence, preferential service might be possible. If surprise inspections are carried out, corrective measures can be taken.
- Collecting citizen feedback frequently and mechanisms such citizen grievance forums will help the government to provide more effective services.
- SETU is covering the entire state and has a bigger functional scope hence to rectify problems in service delivery it is necessary to offer services in an integrated manner. Further it is necessary to introduce online application and supporting documents submission , tracking the application online, online payment , using the unique aadhar number for application submission (similar to social security number) which will pave a way for better e-governance and higher citizen satisfaction.
- The heterogeneous softwares currently being used are also a bottleneck, as they do not provide interoperability, web based tracking, online submissions and payments. Therefore, there is a need to rewrite or add on software to be deployed as SETU is vital for e-governance and has to proliferate to more services and cover all districts and sub districts.

7. CONCLUSION

E-governance initiatives are being rapidly introduced in many states of the country. These initiatives address a large population, have a wide geographical spread and need to evolve continuously to offer more and more services. Hence, it is vital for the government to constantly monitor the effectiveness of these services and make improvements as required. This paper presents a comprehensive approach to carry out evaluations of e-governance initiatives from quality of service and customer satisfaction perspective to help concerned agencies to rectify the current gaps in the system to achieve the ultimate aims and objectives.

This survey-based approach has been applied to study SETU – a well-known and important e-Governance initiative, which is being rolled out in the entire state of Maharashtra. This in-depth descriptive study covered all the three dimensions viz., *Beneficiaries, Service Providers and Technology & Business Processes* with focus on "the service quality and citizen satisfaction". The descriptive study approach used SPSS to analyze survey responses. The findings and hence the corrective measures to improve the service quality are presented in this paper. As a next step, work related to issues such as "sufficiency of infrastructure", "latest technological advances versus the present technologies used in SETU implementations" and "service providers' competencies", with respect to objectives of the government is being carried out. The questionnaire II is extensively used for this purpose and analysis is carried out using SPSS [14]. Finally, all the above results will be used in analyzing the whole SETU system in totality to identify existing problems and gaps. Also corrective measures to rectify the same will also be worked out.

8. REFERENCES

[1] P.N.Gupta, (May 2008), e governance: A comprehensive framework, new century publication

[2] Bhatnagar S.C., (2004) "E-Government: From Vision to Implementation – A Practical Guide with Case Studies", SAGE Publications Pvt. Ltd., New Delhi,

[3] UN's e-government report prepared by UN's Department of economics and social affairs 2014.

[4] Sushil Kumar Singla, Himanshu Aggarwal(2012) , Impact and Scope of e-Governance Initiatives in State of Punjab (INDIA),IJCA, *Volume 44– No14, April 2012.*

[5] State of e-governance in Maharashtra, Annual report published by DIT, GoM, 2014.

[6] www.indg.in/e-governance/e-governance-initiatives-in-Maharashtra/

[7] SETU Detail tender document(District SETU),Court naka ,Thane, Maharashtra, India, Tender No: General/section-4/SETU,/F-2,Date:14/8/2014

[8] Parasuraman, A., Zeithaml, V., Berry, L. L., "A Conceptual Model of Service Quality and Its Implication for Service Quality Research", Journal of Marketing, 49, Fall, 1985, p. 44 and Zeithaml, V. A., Berry, L. L.,

[9] Umesh Gunarathne W.H.D.P ,Relationship between Service Quality and Customer Satisfaction in Sri Lankan Hotel Industry, International Journal of Scientific and Research Publications, Volume 4, Issue 11, November 2014

[10] Donald Cooper, Pamela S.Schindler,J K Sharma, Business Research Methods,McGraw –Hill Edition 2012,p. 21-22,172-173 .

[11] www.censusindia.gov.in/2011census/population_enumeration

[12] Notes on Factor Analysis: Charles M. Friel Ph.D., Criminal Justice Center, Sam Houston State University, June 2015.

[13] Xenakis A and Macintosh A (2005)"Using Business Process Re-engineering (BPR) for the Effective Administration of Electronic Voting" The Electronic Journal of e-Government Volume 3 Issue 2, pp. 91-98,

[14] Prajakta warale , Hemalatha Diwakar(2015) "A critical study of SETU , an e-governance initiative of Maharashtra "– under preparation.

APJR

Asia Pacific Journal of Research

A peer reviewed international Journal

Print -ISSN 2320 - 5504
Online-E-ISSN - 2347 - 4793

No.92, 4th Cross, Nazeer Sab Street, Bommanahalli, Bangalore-560068. E-mail- editorasiapacific@gmail.com

www.apjor.com

CERTIFICATE OF PUBLICATION

This is to certify that ***DR. Nutan Vijay Pasalkar*** *has published Research article entitled "* ***FINANCIAL INCLUSION: ROLE OF RBI AND GOVERNMENT OF INDIA*** *" in Asia pacific Journal of research (A Peer Reviewed International Journal),* ***Vol - I Issue - LIII, July 2017, pp: 34-38.***

Pasalkar

Chief Editor

Financial Inclusion: Role of RBI and Government of India

Dr. Nutan Vijay Pasalkar
Assistant Professor
SSMS's Institute of Management and Research, Pune – 09

Abstract:

For developing nations inclusive growth is the key to economic growth. Inclusive growth is achieved through financial inclusion. Financial inclusion is the delivery of banking and financial services to unbanked and under-banked sections of the society at affordable cost. Financial inclusion helps in bringing the financially excluded sections of the society in the formal financial system by providing banking and financial services, arranging financial education programs and strengthening credit delivery mechanism. Regulators and Government have to play an important role in financial inclusion. This paper highlights the need and benefits of financial inclusion. It also focuses on the role played by RBI and Government of India in promoting financial inclusion in India. The paper also discusses the challenges faced by policy makers in implementation of financial inclusion in India.

Key words:

Financial inclusion, Need, RBI, Government of India, Challenges.

Introduction:

Financial inclusion also known as inclusive financing involves the delivery of financial services to the disadvantaged and low-income segments of society at affordable costs. According to the Banking Association, South Africa, financial inclusion is defined as, "the access and usage of a broad range of affordable, quality financial services and products, in a manner convenient to the financially excluded, unbanked and under-banked; in an appropriate but simple and dignified manner with the requisite consideration to protection". Globally, around 2 billion working-age adults do not have access to the formal financial services delivered by banks and financial institutions. In reality banking and financial services are made available by the Government and regulatory authorities for the use by and benefit of the public. No access to such services defeats the very purpose of developing these services. Hence the key objective of Financial Inclusion is to make available the banking and payment services to the entire population without any discrimination.

The process of economic growth with a high growth rate depends upon the participation from all sections of society. But, unfortunately the weaker sections of the society can not participate in the economic development of the country because of lack of access to banking and financial services. The non participation of some sections of the society in the economic growth is one of the biggest threat to the economic development particularly in developing countries. The banking and financial sector has undergone a surprising transformation in the last two decades.The major developments in banking technology include automated teller machines (ATM), credit/debit cards, mobile banking, online money transaction, internet banking, etc. But it needs to be noted that only certain sections of the society have access to these technologies. Various studies indicate that a large portion of the society not only from India but also from all over the world do not have an access to basic banking and financial services. This is opposite of financial inclusion and is termed financial exclusion.

Review of literature:

Sharma and Kukreja (2013) studied the relevance of financial inclusion for developing nations. They highlighted the basic features of financial inclusion, and its need for social

ii. Increase in client base

iii. Greater honour

d) **Benefits to the technology providers:**

i. Wider market

ii. Increase in business

iii. Contribution in the development of the society

e) **Benefits to the regulators:**

i. Help in protection of consumers

ii. Protection of interest of all the stakeholders

f) **Benefits to the society:**

i. Reduction in the distribution cost of subsidies and other security payments

ii. Help in reducing the leakages

g) **Benefits to the economy:**

i. Increase in the capital formation by bringing more savings in the in the conventional financial channels

ii. Balanced economic growth

Initiatives taken by Government and RBI in strengthening financial inclusion in India:

Government and Reserve bank of India play an important role in promoting financial inclusion for economic growth. Government and RBI has taken various steps in this regard. These are discussed below:

A. Initiatives taken by Government:

Government of India is the central actor in financial inclusion initiative. Government of India has designed several schemes with financial inclusion objective at the center. These are explained below:

a. Pradhan Mantri Jan Dhan Yojna:

On August 15, 2014, Honorable Prime Minister Shri Narendra Modi announced Pradhan Mantri Jan Dhan Yojana (PMJDY) as a national mission for financial inclusion of weaker section of the society for providing banking, insurance and

Swarnajayanti Gram Swarojgar Yojana was launched in December 1999. It was a centrally sponsored scheme that followed the mechanism of forming SHGs of rural poor households. SGSY was formed by restructuring and combining Integrated Rural Development Program (IRDP) and other allied skills generation programs, namely Training for Rural Youth for Self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWRCA), Ganga Kalyan Yojana (GKY) and Million Wells Scheme (MWS).

h. National Rural Livelihood Mission (NRLM) :

National Rural Livelihood Mission was launched in June 2010 by the Ministry of Rural Development. With the help of international institutions like the World Bank, this scheme combined hand holding, training and capacity building,and credit linkage.

i. Aadhaar Unique Identification Authority in India (UIDAI):

Aadhaar Unique Identification Authority in India was an initiative for providing an individual identification number to every citizen of India which will serve as a proof of identity and address, anywhere in India and enable people to have access to services such as banking, mobile phone connections and other government and non-government schemes.

B. Initiatives taken by RBI:

Various programs and schemes are designed by RBI for pushing financial inclusion in India. These include the following:

a. Opening of No-Frills accounts:

In November 2005, RBI introduced a new concept of banking known as 'no-frills' account with nil or very low minimum balance in order to make such accounts accessible to vast sections of the society.

b. Relaxation of KYC Norms:

The KYC norms were very strict which inhibited linkage of common people with the Banking System. Hence in August 2005 in order to simplify the procedures, Know Your Customer (KYC) requirements for opening bank accounts were relaxed for small accounts. KYC guidelines were simplified to facilitate easy opening of accounts especially for small customers. Small accounts can now be opened without any

g. Simplified Branch Authorization:

In December 2009, domestic scheduled commercial banks were permitted to freely open branches in Tier 3 to Tier 6 centres with population of less than 50,000 under general permission, to address the issue of uneven spread of bank branches. Branch Authorisation was been relaxed to the extent that banks do not require prior permission to open branches even in tier I centres with population less than 1 lakh.

h. Opening of branches in unbanked rural centres:

Banks have been mandated to open at least 25 per cent of their new branches in unbanked rural centres for increasing the number of branches in rural ares. Banks were advised to open small intermediary brick and mortar structures between the base branch and the unbanked villages.

i. Financial Literacy:

Financial Literacy plays an important role promoting financial inclusion. Hence efforts were taken to educate school and college students, women, rural and urban poor, pensioners and senior citizens, about general banking concepts helping them in taking informed financial decisions. Nearly 800 financial literacy centrés were set up by banks. Financial Literacy Centres organize outdoor literacy camps for a period of three months and delivered in three phases. In these camps, along with creating awareness, accounts are also opened.

j.Roadmap for providing Banking Services in unbanked villages with population more than 2000:

A phase-wise approach was adopted to provide banking services in all unbanked villages in the country. In the first phase, nearly 74000 villages with population more than 2000 were provided with a banking outlet, and in the second phase, the remaining unbanked villages with population less than 2000, numbering around 4,90,000, were identified and allocated to banks, for opening of banking outlets by Match 2016.

k. Financial Inclusion Plan of Banks:

Banks were encouraged to follow a planned and phased approach to financial inclusion with the involvement of the highest level management personnel by preparing Financial Inclusion Plans (FIPs). The first phase of FIPs was implemented during the period 2010-2013. FIPs were used by RBI to compare actual achievements

Issn: 2278-4721, Vol. 2, Issue 6 (March 2013), Pp 15-20.

2. Sonu Garg, Dr. Parul Agarwal, Financial Inclusion in India – a Review of Initiatives and Achievements, IOSR Journal of Business and Management, e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 6. Ver. I (Jun. 2014), Pp 52-61.
3. Abheek Barua, Rajat Kathuria, Neha Malik, The Status of Financial Inclusion, Regulation, and Education in India, ADBI Working Paper Series, No. 568, April 2016.
4. Dr. A. Tamilarasu, Role of banking sectors on financial inclusion development in India - An analysis, Galaxy International Interdisciplinary Research Journal ISSN 2347-6915 GIIRJ, Vol.2 (2), February (2014) 39.
5. Peter J. Morgan, Victor Pontines, Financial Stability and Financial Inclusion, ADBI Working Paper Series, No. 488, July 2014.
6. Cyn-Young Park, Rogelio V. Mercado, Jr. Financial inclusion, poverty, and income inequality in developing Asia. ADB economics working paper series, No. 426, January 2015.
7. Shabna Mol TP, Financial inclusion: concepts and overview in Indian context, Abhinav International Monthly Refereed Journal of Research in Management & Technology, Volume 3, Issue 6 (June, 2014) Online ISSN-2320-0073.
8. Raihanath, Dr. K.B. Pavithran, Role of commercial banks in the Financial Inclusion programme, Journal of Business Management & Social Sciences Research (JBM&SSR) ISSN No: 2319-5614 Volume 3, No.5, May 2014.
9. Dr. Vivek Singla, Financial Inclusion: Financial services for everyone, International Journal of Reviews, Surveys and Research, International Manuscript ID : ISSN2319461 8-V2I2M6-052013.
10. Lalit Kumar S.Vaswani, Analysis of financial inclusion opportunities and challenges for India, ASM's International E-Journal on Ongoing Research in Management and IT, E-ISSN-2320-0065.