Service quality perception: A study of common service centers operating in rural areas

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Abstract
Maharashtra Government has implemented e-Governance project in the various government offices to improve the delivery of government services in transparent manner. Amongst the various projects Maha e-Seva Kendra project has been started to provide the services such as various online certificates to the people residing in Maharashtra. Maha e-Seva project is implemented in urban as well as in rural areas under the Revenue Department as a Mission Mode Project of National e-Governance Plan to provide the government services more efficiently to the citizens. So there is a need to assess the efficiency of the implemented project in terms of citizen's satisfaction and service quality. The present research study is conducted in the rural parts of Kolhapur district. Perception of citizens regarding service quality of Common Service Centers operating in rural areas is assessed by using SERVQUAL Model. The study deals with the facilities and services provided by the Common Service Centers.

Keywords: Service quality, SERVQUAL, Maha e- Seva Kendra, Common service centers, e-Governance.

Introduction
Information and Communication Technology (ICT) is an emerging technology which helps to connect information technology instruments like personal computers with communication technology like telephone and the telecommunication networks. The computer, laptop and mobile having internet connectivity provides the best example (Ghosh, 2011). ICT can help social sectors like education, health, rural development and other areas to cater and distribute the goods and services to distant consumers. Hence, it is important to maximize use of ICT technologies and applications for successful transformation of government delivery system with minimized speed (Panneervel, 2005). E-Governance means use of information technologies viz. internet, wide area network and mobile which have the capacity to convert relations with businesses and citizens. These technologies can be used at different levels to provide the information and different services to the citizens in better way.

Initially in India e-Governance activity started with providing information services by the various government departments to the public through websites. Information about department, facilities and services provided was offered to the citizens through these websites. Gradually government expanded the scope of e-Governance by providing varied services such as access to government documents, utility bills payment, tax related transactions, lodging complaints, booking or reservation for public services, etc. This has resulted in organizational transformation, increased efficiency in service delivery, and transparency. In a country like India where 70 percent population lives in rural areas, it becomes necessary to develop a strategy to align e-governance to the needs of rural citizens and develop models of delivery that can be cost effective in rural areas (Pani, Mishra, 2009). Use of Information and Communication Technology (ICT) in rural areas empower rural people with the information resources, services and also enables government as well as business organization to provide the services to rural people efficiently and effectively.

In India the Government of India established National Informatics Centre (NIC) as an apex institution at national level for catalyzing and coordinating all e-government activities and projects in government body at the central, state and district level. Similarly state governments have established their Information Technology Departments which are basically coordinating all the activities of e-governance projects within the state (Prabhu, 2015). Common Service Center (CSC) is a major e- governance initiative implemented on a large scale under the National Common Minimum Programme. Through CSCs e-governance is implemented in various areas like health, education, entertainment, telemedicine as well as other private services to provide various public services to the citizens. The public services provided through these CSCs include application forms, various government certificates and payment of utility bills like telephone, electricity and water bills, mobile television recharge (National e-Governance Plan). The Common Service Centres are not only service delivery locations in rural India but also these are considered as a Change Agent which will encourage rural entrepreneurship. It will also develops rural competencies and livelihoods, facilitate community contribution and result cooperative action for social change with the help of a bottom-up model that focuses on the rural people (Saaransh, 2011).

Amongst the various projects Maha e-Seva Kendra project is aimed to provide the services such as various online certificates to the people residing in Maharashtra. The project is implemented under National e-Governance Plan to provide the government services more efficiently to the citizens. So there is a need to assess the efficiency of these implemented projects in terms of citizen's satisfaction, the benefits of these projects to the citizens.

Literature Review

Gupta (2008) carried out a research on e- Governance in Jaipur District. The study was aimed to assess how e-governance has helped citizens in accessing services and whether the delivery system has adequate capacity to deliver services efficiently? The study was conducted in Chaksu block of Jaipur District. From the citizen's perspectives it was found that majority citizens were dissatisfied regarding the services offered by government offices. Majority citizens felt that the general behaviour of officials towards them was hostile. From the observations made in the research the author had mentioned that organizational culture in government offices was not conducive for the functionaries to produce their optimal output in their delivery of services. SERVQUAL model was used to find the service gap. It was found that due to lack of proper assessment of citizen's requirement there is a gap between management perception of citizens' expectations and translations of perceptions into service quality specifications because of lack of focus on building delivery system based on quality parameters. Kumbhar (2012) has conducted a critical study on implication of e-governance services for effective communication with special reference to citizen in Pune city. The main aim of the study were to study the awareness about e-governance services implemented by Pune Municipal Corporation and to examine the impact of e-governance services availed by citizens also do comparative study of the cost availing PMC services through e-governance vs. municipal services. He has concluded that civic services through e-governance services in concept implementation and construction Pune city, at primary stage it makes successful transformation from the traditional system to e-governance system. Consciousness of e-governance totally depends on the age, education, occupation, and internet literacy. Choudhury et al (2015) did a study on e-Governance and Rural Development: an Assessment of CSCS in Tripura. The research was aimed to assess the consciousness level of rural citizens regarding e-governance and to recognize the inconvenience of rural citizens in availing e-services. The study indicated that less than 50% respondents were aware about the e- governance services and they were aware about only few services. They are facing a language problem and the interrupted electricity supply while accessing the e- governance services. Laxmi et al (2015) they have conducted a study on assessing the adoption of e-governance services in rural areas of Bathinda district of Punjab. The major objectives of their study were to find out reason for low involvement of rural citizens in e-governance project. They have concluded that the government should primarily focus on improving service quality of e-governance system considering the citizen related factors and their requirement. Further there is a need to develop the sustainable development in rural areas to enhance the rural livelihood by reducing corruption. Netheti et al (2015) have conducted the study on analysis of e-governance services for effective communication to citizens in Odisha state. The major findings of the study were awareness of citizens about e-governance services is very high in urban areas and very low in rural areas. The services provided in the e-governance system are user friendly. Finally the cost of availing e-governance services is comparatively less to the manual services. Upadhay et al (2016) have carried out a perceptual study of behavioural implication of usage of information and communication technology for sustainable e-governance in rural India. They noticed that there are different key parameters for experimentation of behavioural implications of ICT for supportable e-governance system in rural sectors of India. They mentioned in their research that there were some minor key issues and challenges like citizens maintain to deal with state and central government independently in traditional manner and spend efforts, resources and time in obtaining the routine of e-governance job executed.

After examining the various studies on e- governance, research gap is found. The present study assesses the quality of service provided by the Common Service Centers i.e. Maha e- Seva Kendra. Also the review highlighted that very few studies had been conducted in Maharashtra State which are mainly concentrates on the urban areas. Further no study is conducted for Kolhapur district.

Objectives of the Study

1. To assess the facilities and services provided to the rural communities.
2. To assess the perception of the citizens regarding service quality provided by the Common Service Centers.
3. To analyse the satisfaction of the rural people towards the services provided through e- governance.

Hypotheses

1. Satisfaction of citizens towards IT enabled common services is dependent on quality of services provided through Common Service Centers.
2. There is significant difference between the citizen's service expectation and citizen's service perception regarding Common Service Centers.

Scope and Limitations of the Study

Present research study is focused on the Kolhapur District of Maharashtra State. All 12 tehsils of Kolhapur District are considered for the study. As the study is related to rural management, rural areas of these tehsils are taken for the study. From each tehsil for the data collection 5 villages are selected. The data is collected from rural citizens residing in these villages. The issues covered are services and facilities provided to rural society through the CSCs, perception and satisfaction of rural users, and benefits of e- governance for citizens. The study is conducted at micro level in Kolhapur District where the data is collected only from rural areas. Collection of the data from the rural areas was a challenging task because of the transportation problems. Also it was difficult to locate the sample respondents. However an attempt has been made to collect the data as per the sample design.

The data is collected during the period of October 2016 to February 2018.

Research Methodology

The descriptive research design is adopted for the present research work. It gives a detailed profile of citizens using e-governance services, their services quality expectations and perceptions. 5 villages from each taluka are selected randomly. Maha e-Seva Centers located in these villages are considered for the study of services and facilities provided through e-Governance project. 20 citizens from the selected Common Service Centers who availed the services of these centers are selected on the basis of random sampling method from the list provided by the center operators to study their expectations, perception, satisfaction and benefits about the services provided through e-Services. The 1115 completely filled questionnaires were considered for the analysis.

Analysis and Interpretation

Facilities and Services Provided at Common Service Centers

Government has established Maha e-Seva Kendra to provide the government certificates viz. income certificate, nationality and domicile certificate, birth and death certificate, 7X12 certificate, caste certificate, non-creamy layer certificate etc. Apart from the government services, other services like electricity bill payments, mobile/ DTH/Data card recharge facility, payment facility of life insurance premium, filling of online exam application form, online application for PAN Card, Ration Card, etc. are provided to the citizens.

The number of Maha e-Seva Kendra for each tehsil depends on the population of that particular tehsil. Aim of this project is to provide all civic services to the citizens efficiently, in transparent manner at minimum cost through Common Service Centers. There are 155 centers functioning in Kolhapur district. This project is partnered with Maha Online Ltd. Maha Online Ltd. appoints Village Level Entrepreneurs to provide the online services. VLEs are required to invest initially to provide necessary arrangement for setting up of office, computer and internet connectivity. Maha Online Ltd. provides the training to these VLEs. The VLE provides the government services through 'Maha e-Seva Kendra' to the citizens. VLEs of Maha e- Seva Kendra fill the required online form and collect the documents from the citizens. Citizens make necessary payment at e-service center. These documents are sent to Tehasildar office for verification. After assessment of documents VLEs can generate online certificate at their respective centers.

Citizen's Opinion regarding IT Enabled Services

Table 1 shows the citizen's opinion regarding various aspects of IT enabled services viz. time required, cost involved, access to services, impact on transparency and corruption.

A table 1 that the time required for the delivery of services has reduced. The cost of service delivery has reduced because the citizens can directly avail the services from designated Maha e-Seva Kendra where they are required to pay the fees prescribed by the government which is uniform to all and low. It also shows that e- governance services are accessible to them as the Maha e- Seva Kendra are located in their village or near to the village so there is no need to visit to Tehsil office for getting government certificates.55.9% citizens mentioned that neither transparency is increased nor corruption is reduced after the implementation of the e- governance because they have paid more money for getting the required documents in time. 44.1% respondents agreed that because of e- governance transparency is increased and corruption is reduced as they have paid the requisite fees for getting the certificates.

Citizen's Perception regarding Service Quality

Table 2 shows the citizen's perception regarding service quality provided by Maha e- Seva Kendra. Perception regarding service quality is measured by the service quality dimensions viz. Reliability, Assurance, Tangibility, Empathy and Responsiveness.

Table 1: Citizen's opinion regarding IT enabled services

Parameters	Responses	f	%
Time required for delivery of service	Required time has reduced	1095	98.2
	Required time has not reduced	20	1.8
	Total	1115	100.0
Cost of service delivery	Cost has reduced	946	84.8
	Cost has not reduced	169	15.2
	Total	1115	100.0
Access to E-governance service	Easy Access	1074	96.3
	No easy Access	41	3.7
	Total	1115	100.0
Transparency and corruption	Increased transparency and reduced corruption	492	44.1
	Neither Increased transparency nor reduced corruption	623	55.9
	Total	1115	100

Table 2: Citizen's perception regarding service quality

Service Quality Dimensions	Perceptions	Mean Value
Reliability	The Maha e-sevakendra performs the service right the first time and provides prompt information to citizens.	4.7453
	The Maha e-sevakendra provides convenient service charges.	4.0045
	When you have a problem the Maha e-sevakendra shows a sincere interest in solving it.	4.4072
Average Reliability		**4.3856**
Assurance	VLE in the Maha e-sevakendra perform the services accurately.	4.5013
	VLE in the Maha e-sevakendra courteous towards citizens.	4.2852
	VLE in the Maha e-sevakendra make citizen feel comfortable in the centre.	4.3247
	VLE in the Maha e-sevakendra understands specific need and provides information accordingly.	4.3973
Average Assurance		**4.3771**
Tangibility	Maha e-sevakendra has modern equipments.	4.5390
	Physical features in the Maha e-sevakendra are visually appealing.	4.3256
	VLE has professional appearance and clear communication.	4.4242
	Application forms for availing services are simple to fill.	4.4081
Average Tangibility		**4.4242**
Empathy	VLE in the Maha e-sevakendra cared about me.	4.7381
	Individualized attention is provided to me	4.0726
	Maha e-sevakendra has working hours convenient.	4.4888
Average Empathy		**4.4331**
Responsiveness	VLE in the Maha e-sevakendra tell you exactly when the services will be performed.	4.4332
	VLE in the Maha e-sevakendra always help to solve the problems of the customers.	4.2215
	Citizens can give feedback regarding the Maha e-sevakendra.	4.3812
	Maha e-sevakendra educates people regarding benefits of e-facilities.	4.3552
Average Responsiveness		**4.3477**

(Source: Field data)

Table 2 shows the perception of citizens regarding the service quality of the services provided by Maha e- Seva Kendra. Average mean value of Reliability, Assurance, Tangibility, Empathy, and Responsiveness is 4.3856, 4.3771, 4.4242, 4.4331, and 4.3477 respectively. Mean value of all service quality dimensions are more than 4 which shows that citizens have positive perception regarding the service quality of the services provided through Maha e- Seva Kendra.

Hypotheses Testing

For the present study 2 hypotheses are formulated. Hypotheses are tested by using techniques like Chi Square test, and Paired Sample T Test.

Hypothesis 1: Satisfaction of citizens towards IT enabled common services is dependent on quality of services provided through Maha e- Seva Kendra

The hypothesis is tested by using Chi Square Test and Likelihood Ratio. Service quality perception is measured with the help of service quality dimension viz. Reliability, Assurance, Tangibility, Empathy and Responsiveness. Data is collected from citizens by using five point likert scale. It is measured with 18 statements. The mean value of each service quality dimension is further transformed as aggregate mean value in SPSS by using Compute variable. New variable is further recoded into different variable as service quality with high (3), neutral (2) and low (3) degree.

Table no. 3shows the association between service quality and citizen satisfaction with the services provided by Maha e-Seva Kendra.

Table 3: Association between service quality and citizen satisfaction with the services provided by Maha e-Seva Kendra

Satisfaction with the services provided by the Maha e-SevaKendra	Service Quality			Total
	Low	Neutral	High	
Yes	0	31	1015	1046
	0.0%	2.8%	91.0%	93.8%
No	9	32	28	69
	0.8%	2.9%	2.5%	6.2%
Total	9	63	1043	1115
	0.8%	5.7%	93.5%	100.0%

(Source: Compiled by researcher)

Table 4: Chi-square tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	374.406	2	0.000
Likelihood Ratio	172.474	2	0.000
Linear-by-Linear Association	374.058	1	0.000
N of Valid Cases	1115		

(Source: Compiled by researcher)

Chi Square Test

$\chi^2 = 374.406$

At 5% level of significance the critical value is $\chi 2$ 0.05 (2) = 5.991

$\chi 2 > 5.991$

$\chi 2$ value is significant as the p value, 0.000 is less than 0.05.

Likelihood Ratio

Likelihood ratio is 172.474 which is greater than 1. Significance of test is 0.000 which is less than 0.05.

Therefore the hypothesis 'Satisfaction of citizens towards IT enabled common services is dependent on quality of services provided through Maha e- Seva Kendra' is accepted.

Hypothesis 2: There is significant difference between the citizen's service expectation and citizen's service perception regarding Maha e-Seva Kendra.

The hypothesis is tested by using Paired Sample T Test. The data is collected from citizens using five point Likert scale. Service expectations and service perception are measured with 18 items scale each and transformed into total service expectations and service perception. Further total service expectations and service perception are transformed into different variables as service expectations and service perception with low (1), neutral (2) and high (3) degree.

Table 5 shows that mean value of service perception and service expectation are 2.9433 and 2.9110 respectively which is a high mean score with low standard deviation in opinion of respondents. Mean value of service perception is more than mean value of service expectation which shows that service quality provided through Maha e- Seva Kendra exceeds the expectations of citizens.

Table 5: Paired samples statistics

Service Quality	Mean	N	Std. Deviation	Std. Error Mean
Service perception	2.9433	1115	0.23515	0.00705
Service Expectations	2.9110	1115	0.30916	0.00927

(Source: Compiled by researcher)

Table 6: Paired samples correlations

Service Quality	N	Correlation	Sig.
Service quality perception and Service quality Expectations	1115	0.673	0.000

(Source: Compiled by researcher)

Table 6 shows that there is no correlation between service expectation and service perception.

Table 7: Paired samples test

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Service quality perception - Service quality Expectations	0.03237	0.23012	0.00690	0.01883	0.04591	4.691	1114	0.000

(Source: Compiled by researcher

Table 7 shows that the t score is 4.691 with p value 0.000 which is less than 0.05, t test is significant. Therefore the hypothesis that 'There is significant difference between the citizen's service expectation and citizen's service perception regarding Maha e-Seva Kendra' is accepted.

Discussion and Managerial Implications

Maha e-Seva Kendra are started in rural areas of Kolhapur district by the government to provide government certificates to rural citizens conveniently. These Maha e-Seva Kendras are established under the Public Private Partnership model. Village Level Entrepreneurs (VLEs) are appointed to provide the services. Maha e-Seva Kendra are located in the villages or nearby villages which has made it possible to get the certificates in less time and it has made services accessible. From the study it is found that neither transparency is increased nor corruption is reduced after the implementation of the e-governance because citizens have paid more money for getting the required documents in time. During the study it is observed that VLEs charge more fees to citizens because providing the services at government prescribed fees is not affordable for them. Further to get the certificates at earliest VLEs charge more fees to citizens.

It should be made mandatory to all Maha e-Seva Kendras and SANGRAM Kendras to display posters having the information related to the different certificates issued at CSCs, documents required for issuing a particular certificate, cost and time required to receive the services in the CSCs. This will inform the rural citizens about the services and will provide the convenience. This will reduce the work burden of the VLEs and will also increase the speed of service delivery. Once the citizens becomes aware about the cost involved in getting the services, VLEs cannot charge extra fees to the citizens which will help to reduce corruption, enhance the transparency and trustworthiness. Audit of CSCs should be done at regular intervals to assess their efficiency. Audit should be done considering various aspects like number of government certificates issued, tome taken for service delivery, accuracy, maintenance of hardware and software, number of pending cases, citizen feedback etc. Audit will ensure the consistency in service delivery process at all CSCs. It will also throw light on the performances of the CSCs and government keep control on the CSCs.

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