

# A Study of Quality of Services Offered by ICT Enabled SANGRAM Centers in Kolhapur District

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## ARTICLE DETAILS

### Article History

Published Online: 13 March 2019

### Keywords

ICT, Service Quality, e- Governance, Common Service Centers, SANGRAM Centers

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## ABSTRACT

The role of ICT is becoming the catalyst in rural development. E-Governance is the application of ICT to develop the competence and accountability of government. Common Service Center (CSC) is a major e- governance initiative. Common Service Centers has been established to provide Government certificates to citizens. SANGRAM (SanganakiyaGramin Maharashtra) Centers has been established as the Common Service Centers to provide the services such as various online certificates to the people residing in rural areas of Maharashtra. The present study is conducted in the Kolhapur District to study the citizens expectations from the ICT enabled services provided through SANGRAM Centers and the service quality perception after availing the services. The study also focuses on the key areas of service quality aspects.

## 1. Introduction

According to Michiels and Van Crowder (2001) ICTs are different electronic technologies which when combined in new ways are adaptable, versatile, empowering and fit for changing organisations and redefining social relations. 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). In recent time, the role of ICT is becoming the catalyst in rural development. ICT can be used in many ways viz. information, management and governance of development. ICT in rural area means application of information and communication technologies in rural domain for the benefit of the rural community. The progression in ICT can be used to provide relevant information and services to the rural people; it further leads to the rural development (Ghosh 2011). E-Governance is the application of ICT to develop the competence and accountability of government. E- Governance means the deployment of government resources and use of internal information by the government employees to provide the better services to the citizens in more acceptable way (Panneervel, 2005). e- Governance is used to improve the efficiency and effectiveness of public administration system by combining the Information and Communication Technology with multimedia to provide the efficient services to citizens as well as business organisations at affordable cost and in less time. Through e- Governance government can increase the transparency and capacity in its operations and offer the civic services efficiently to society. E- Governance does not mean only the computerisation of the government offices and providing information in digital format but also changing the methods of operations, processes and importantly changing the mindset of all the stakeholders.

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).

Common Service Center (CSC) is a major e- governance initiative implemented on a large scale under the National e- Governance Plan. 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 network of Common Service Centers has been established by the government of Maharashtra as an integrated Mission Mode Project under the aegis of National e- Governance Plan (NeGP). The project was funded by Government of India to provide services to citizens at the nearest and convenient locations. A network of 35,000 ITC enabled centers is established across the state in rural and urban areas under the Common Service Centers scheme to deliver government services to citizens, social and private sector (Thakre, 2012). **These Common Service Centers were started to provide different services to the citizens such as bill payment, issue of various certificates like birth certificate, nationality certificate, caste certificate etc. in a transparent way and with convenience.**

SANGRAM (Sanganakiya Gramin Maharashtra) Kendra is aimed to provide the services such as various online certificates to the people residing in rural areas of Maharashtra. SANGRAM project is implemented in rural areas under the Rural Development Department as e- Panchayat project in Kolhapur district. The project represents the Government to Client (G to C) model. In the present research study an attempt has been made to assess the quality of service provided by the SANGRAM Centers.

## 2. Review of Literature

Iyer (2016) has done a study on the impact of e-governance in public utility service sector in India. The major objectives of the study were to understand the key challenges and impact of e-governance in India. From the study he concluded that for the successful implementation of e-governance it should have better adaptability, security, interactivity, comparability and flexibility. The success of e-governance is based upon the citizens willingness and effective use of the e-government system. Suja (2009) had conducted the study on application of information communication technology for rural development in Kerala. Major objective of the study was to identify the existing information and communication technology applications in Gram Panchayat of Kerala and to find out what extent the application of ICT has helped for rural development. The researcher had concluded that the state is adopting and constructing various information and communication technology initiatives. Further the researcher suggested that state needs to increase resources to meet the huge financial outlay required for the full-fledged maintenance of the on-going schemes. Bhattacharya et al (2012) had done a study on 'E-service quality model for Indian government portals: citizens' perspective'. Seven variables which define quality attributes viz. Citizen Centricity, User friendliness, Technical Sufficiency, Privacy and Security, Information value, Transparent Transaction and Information totality had been considered to measure quality of e-service of government web portals. From the study researchers had found that e-service quality has been positively affected by security/ privacy and transparent transaction. It was also found that if the online system is transparent, user friendly and offers cost reduction the citizens are willing to prefer online services. Kaur et al (2015) have focused on e-government: study of factors significantly affects the adoption and acceptance in the state of Punjab. They mainly focused on prospective demand of e-government which examined the element that affects the use of e-government services by citizens. From the analysis it was found that they accepted the hypothesis that the relationship between apparent value and the behavioural purpose to use e-government services. Nambiar (2009) had revealed in the article that the government-run citizen facilitation centers (CFC), where people are supposed to get easy access to different certificate and other affidavits easily, have failed to deliver due to crowd at the 14 CFCs one for each taluka in Pune district. People were required to visit CFC again and again as the required documents were not available due to a number of reasons like problem of staff, system failure or insufficient availability of data. It was mentioned further that to solve these problems government is going to start 527 common service centers in partnership with private company Spanco at different places in urban and rural areas.

The review points out certain trends and gaps in research. Though the study related to service quality had been done earlier, present research study focuses on the SANGRAM Project which is implemented only in rural areas of Maharashtra. 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.

### 3. Objectives of the study

- I. To assess the quality of services provided by SANGRAM Centers.
- II. To analyse the perception and the satisfaction of the rural people towards the services provided by SANGRAM Centers.

### 4. Hypotheses

- I. Satisfaction of citizens regarding e-Governance services is dependent on quality of services provided by SANGRAM Centers.
- II. There is significant difference between the citizen's service expectation and citizen's service perception regarding SANGRAM Centers.

### 5. Scope and Limitations of the Study

Present research study is confined to rural areas of Kolhapur District of Maharashtra State. The study highlights perception and satisfaction of rural citizens and benefits of e-governance for citizens. Government is implementing various e-governance projects, for the study purpose SANGRAM project which comes under the Government to Citizen Model is taken. 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.

### 6. Research Methodology

The descriptive research design is adopted for the present research work. The present study is limited to Kolhapur District. For the current research study sample respondents are selected by using multi-stage sampling technique. The rural areas of Kolhapur District of Maharashtra state are taken for the study purpose. There are 12 Tehsils in Kolhapur district; the rural areas from these tehsils are considered for the research study. Five SANGRAM Centers located in the villages from each tehsil are considered. 20 citizens from the selected SANGRAM Centers who availed the services from these centers were selected on the basis of random sampling method to study their expectations, perception, satisfaction and benefits about the services provided through e- Services. The total sample size of citizens for SANGRAM Centers is 1200.

Primary data was collected by using pre tested interview schedules. The data has been tabulated and processed on computer by using SPSS software. The tabulated data are analysed with the help of statistical tools like frequency distribution, percentages, and mean. Hypotheses are tested by using the tests like Chi-square test, T- Test and Z-test.

### 7. Analysis and Interpretation -

#### 7.1 Opinion of Citizens regarding SANGRAM Centers –

Table no. 7.1 shows the Opinion of Citizens regarding SANGRAM Centers –

**Table no. 7.1 - Opinion of Citizens regarding SANGRAM Centers –**

Sr. No.	Parameters	Opinion	No. of Respondents	Percentage of Respondents
1.	Time taken for delivery of service has reduced	Yes	1200	100
2.	The accuracy of service delivery has increased	Yes	1200	100
3.	The cost of service delivery has reduced	Yes	1198	99.8
		No	2	0.2
4.	The speed delivery of service has increased	Yes	1200	100
5.	Promptness of service delivery has increased	Yes	1200	100
6.	Reliability of service delivery has increased	Yes	1200	100
7.	E-governance has made access to service more easily	Yes	1200	100
8.	Time and effort in availing e-governance service is less	Yes	1200	100
9.	Clarity and simplicity of process and procedures is high	Yes	1200	100
10.	Design & layout of the form is simple	Yes	1198	99.8
		No	2	0.2
11.	Transparency has increased & leads to less corruption	Yes	1198	99.8
		No	2	0.2

(Source: Field Data)

Table no. 7.1 shows that 100% citizens agreed that time taken for delivery of service has reduced. Accuracy, speed, promptness, and reliability has increased, easy access to service, time and effort in availing e-governance service is less, clarity and simplicity of process and procedures is high. 99.8% respondents agreed that the cost of service delivery has reduced, design & layout of the form is simple, transparency has increased & leads to less corruption. All the respondents have positive opinions about SANGRAM Centers as the citizens can directly avail the services from their village Gram Panchayats where they are required to pay the fees prescribed by the government which is uniform to all and less. Moreover the fees required to be paid and the time required for each

certificate is displayed on the board at Gram Panchayat which has increased the reliability and transparency of services and leads to less corruption. ICT has enabled to minimize the errors in the form filling and the issue of the certificate to the citizens which leads to the increase in accuracy.

### **7.2 Citizen's Perception regarding Quality of Service provided through SANGRAM Centers–**

Table no. 7.2 shows the citizen's perception regarding quality of service provided by SANGRAM Kendra. Perception regarding quality of services is measured by the service quality dimensions viz. Reliability, Assurance, Tangibility, Empathy and Responsiveness.

**Table No. 7.2 -Citizen's Perception regarding Quality of Service provided through SANGRAM Centers –**

Service Quality Dimensions	Perceptions	Mean Value
<b>Reliability</b>	The SANGRAM Center performs the service right the first time and provides prompt information to citizens.	4.1275
	The SANGRAM Center provides convenient service charges.	4.3167
	When you have a problem the SANGRAM Center shows a sincere interest in solving it.	4.7358
<b>Average Reliability</b>		<b>4.3933</b>
<b>Assurance</b>	VLE in the SANGRAM Center perform the services accurately.	4.1783
	VLE in the SANGRAM Center courteous towards citizens.	4.7117
	VLE in the SANGRAM Center make citizen feel comfortable in the center.	4.7183
	VLE in the SANGRAM Center understands specific need and provides information accordingly.	4.4758
<b>Average Assurance</b>		<b>4.5210</b>
<b>Tangibility</b>	SANGRAM Center has modern equipments.	4.1133
	Physical features in the SANGRAM Center are visually appealing.	4.5367
	VLE has professional appearance and clear communication.	4.8417
	Application forms for availing services are simple to fill.	4.8792
<b>Average Tangibility</b>		<b>4.5927</b>
<b>Empathy</b>	VLE in the SANGRAM Center cared about me.	4.0442
	Individualized attention is provided to me	4.3942

	SANGRAM Center has working hours convenient.	4.7192
<b>Average Empathy</b>		<b>4.3858</b>
<b>Responsiveness</b>	VLE in the SANGRAM Center tell you exactly when the services will be performed.	4.1100
	VLE in the SANGRAM Center always help to solve the problems of the customers.	4.5975
	Citizens can give feedback regarding the SANGRAM Center.	4.7075
	SANGRAM Center educates people regarding benefits of e-facilities.	4.7750
<b>Average Responsiveness</b>		<b>4.5475</b>

(Source: Field data)

Table no. 7.2 shows the perception of citizens regarding the service quality of the services provided by SANGRAM Center. Average mean value of Reliability, Assurance, Tangibility, Empathy, and Responsiveness is 4.3933, 4.5210, 4.5927, 4.3858, and 4.5475 respectively. Mean value of all service quality dimensions are more than 4 which shows that citizens have positive perception regarding the quality of service provided through SANGRAM Centers.

The hypothesis is tested by using Chi Square Test and Likelihood Ratio. 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.

**7.3 Hypotheses Testing –**

**Hypothesis 1 - Satisfaction of citizens towards IT enabled common services is dependent on quality of services provided through SANGRAM Kendra**

Table no. 7.3 shows the association between quality of service and citizen satisfaction with the services provided by SANGRAM Kendra.

**Table No. 7.3 – Association between Quality of Service and Citizen Satisfaction with the services provided by SANGRAM Kendra –**

Satisfaction with the services provided by the SANGRAM Kendra	Service Quality			Total
	Low	Neutral	High	
Yes	0	5	1189	1194
	0.0%	0.4%	99.1%	99.5%
No	6	0	0	6
	0.5%	0.0%	0.0%	0.5%
Total	6	5	1189	1200
	0.5%	0.4%	99.1%	100.0%

(Source: Compiled by researcher)

Table no. 7.4 shows the Chi-Square test.

**Table No. 7.4 Chi-Square Tests**

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1200.000	2	0.000
Likelihood Ratio	75.550	2	0.000
Linear-by-Linear Association	991.418	1	0.000
N of Valid Cases	1200		

(Source: Compiled by researcher)

*Chi Square Test –*

$$\chi^2 = 1200$$

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 75.550 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 SANGRAM Kendra' is accepted.**

**Hypothesis 2 - There is significant difference between the citizen's service expectation and citizen's service perception regarding SANGRAM 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 no. 7.5 shows the paired sample statistics.

**Table No. 7.5 - Paired Sample Statistics -**

Service Quality	Mean	N	Std. Deviation	Std. Error Mean
Service Quality Perception	2.9942	1200	0.08655	0.00250
Service quality expectation	2.9933	1200	0.09119	0.00264

(Source: Compiled by researcher)

Table no. 7.5 shows that mean value of service perception and service expectation are 2.99942 and 2.9933 respectively which is a high mean score with low standard deviation in opinion of respondents. Mean value of service perception is slightly more than mean value of service expectation which

shows that service quality provided through SANGRAM Kendra exceeds the expectations of citizens.

Table no. 7.6 shows Paired Sample Correlations.

**Table No. 7.6 Paired Samples Correlations -**

Service Quality	N	Correlation	Sig.
Service Quality Perception & Service quality expectation	1200	0.737	0.000

(Source: Compiled by researcher)

Table no. 7.6 shows that there is no correlation between service expectation and service perception.

Table no. 7.7 shows Paired Sample Test.

**Table No. 7.7 - Paired Samples Test -**

Service Quality Perception - Service quality expectation	Paired Differences					T	Df	Sig.(2tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
	0.00084	0.06465	0.00187	-0.00283	0.0045			

(Source: Compiled by researcher)

Table no. 7.7 shows that the t score is 0.447 with p value 0.655 which is more than 0.05. Therefore the hypothesis that 'There is significant difference between the citizen's service expectation and citizen's service perception regarding SANGRAM Kendra' is rejected.

**8. Conclusion**

From the study it can be concluded that citizens agreed that time taken for delivery of service has reduced, accuracy, speed, promptness, and reliability has increased, easy access to service, time and effort in availing e-governance service is less, clarity and simplicity of process and procedures is high, cost has reduced, design and layout of the form is simple, transparency has increased and leads to less corruption. Present study shows that perception of citizens regarding service quality of the services provided through SANGRAM Kendra is positive. It is also observed that majority (99.5%) citizens are satisfied with the services provided through SANGRAM Centers. Citizen's service expectation and citizen's service perception regarding SANGRAM Centers is similar therefore citizens are satisfied with services provided through SANGRAM Centers. SANGRAM Centers are located at Gram

Panchayat. In villages where Gram Panchayat is not in function, citizens have to travel to other villages to get the services. In such villages Mobile Services can be made available per week or fortnightly depending upon the demand. Village Level Entrepreneurs (VLEs) can be appointed for such villages where Gram Panchayat is not in function. VLE can visit to the villages in the remote areas along with the laptop and smart phone or internet dongle once in a week. Citizens can avail the online services through these VLEs. Along with these services VLE can provide other services like giving the information regarding various government schemes, weather forecast, electricity bill payment, mobile recharge etc. This will provide the services to the rural citizens residing in the small villages and in the remote areas and improves the lives of the rural citizens.

**Acknowledgement -**

The research article is a part of the Major Research Project conducted by the author which is funded by University Grants Commission, New Delhi. The author is grateful to authorities of University Grants Commission for providing financial assistance for the project. The author is thankful to the authorities of Shivaji University, Kolhapur for their support.

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