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**MAJOR RESEARCH PROJECT**

**On**

**APPLICATION OF E- GOVERNANCE FOR  
RURAL MANAGEMENT - A STUDY OF  
KOLHAPUR DISTRICT (MAHARASHTRA)**

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## **Introduction -**

E-Governance is the application of ICT to develop the competence and accountability of government. 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. 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). 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).

Maharashtra state in 1998 established Directorate of Information Technology (DIT) to promote ICT and e Governance in the state. Maharashtra is the first state to release e-Governance policy. As per the guidelines given by Indian Government, Maharashtra Government has implemented e-Governance project in the various government offices to improve the delivery of government services in transparent manner. Government has adopted Public Private Partnership Model for the implementation of these projects. Private software companies provide the ICT infrastructure and the services at the different locations to cater the citizens.

Amongst the various projects SANGRAM (Sanganakiya Gramin Maharashtra) and Maha e-Seva Kendra are aimed 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 whereas SANGRAM project is implemented in rural areas under the Rural Development Department as e- Panchayat project in Kolhapur district. Both the projects represent the Government to Client (G to C) model. Both the projects are implemented on Public Private Partnership model where ICT infrastructure was developed by Maha Online Ltd. which is a joint venture of Maharashtra government and TCS. Now Maharashtra Government has brought all e- governance services under one web portal 'Aaple Sarkar'. Therefore, Maha e-Seva Kendra and SANGRAM Kendra are renamed as Aaple Sarkar Kendra. In addition to these facilities citizens can also avail the services from

Aaple Sarkar web portal directly without using the services of the Aaple Sarkar Kendra. Though both the centers are renamed, their structure of operation remains same as earlier. At the time of major research project proposal submission, sanction, mid-term evaluation and data collection by the researcher, the Common Service Centers were termed as Maha e-Seva Kendra and SANGRAM Kendra. Therefore, for understanding purpose in the further discussions these CSCs are referred as Maha e-Seva Kendra and SANGRAM Kendra.

These two projects are 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 as well as government officials.

### **Objectives of the study –**

1. To study the application/ use of ICT in government offices in rural areas of Kolhapur with respect to the two projects Maha e-Seva Kendra and SANGRAM Kendra.
2. To assess the facilities and services provided to the rural communities.
3. To study the management of ICT enabled services and facilities offered by government organizations in rural areas.
4. To assess the service quality provided by the Common Service Centers.
5. To analyse the perception and the satisfaction of the rural people towards the services provided through e governance.
6. To study the problems and challenges in implementing e Governance in rural areas of Kolhapur.

### **Hypotheses –**

For the present study, researcher has formulated the following alternative hypotheses–

1. Use of ICT has enhanced the service quality of the common services provided by the Common Service Centers.

2. E – Governance has enabled Common Service Centers to increase transparency and leads to reduce corruption.
3. Satisfaction of citizens towards IT enabled common services is dependent on quality of services provided through Common Service Centers.
4. There is significant difference between the citizen's service expectation and citizen's service perception regarding Common Service Centers.
5. Government organizations are able to manage the ICT enabled services effectively in rural areas.

### **Research Methodology –**

The descriptive research design is adopted for the present research work. For the present research study Multi-stage sampling technique is used to select sample respondents. All 12 talukas are taken for the research study. 5 villages from each taluka have been selected randomly. SANGRAM Centers and Maha e-Seva Centers located in these villages are considered for the study. Data is collected from 2315 citizens, 116 Village Level Entrepreneurs and 51 officers. The pre-tested interview schedules, questionnaire, focused group discussions are used as the tools for collecting the relevant primary data from different categories of the respondents. The 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.

### **Summary of Findings –**

1. Common Service Centers have been started in rural areas of Kolhapur district by the government to provide government certificates to rural citizens conveniently. These CSCs are established under the Public Private Partnership model. Village Level Entrepreneurs have developed infrastructure at the CSCs as per the guidelines and works with government to provide services to citizens. e- Governance has provided self-employment opportunity to the rural youths.
2. Income certificate, Domicile certificate, Caste certificate, 7 X 12 certificates, Aadhar Card and Age, Nationality certificate, birth and death certificate, below poverty line certificate, living certificate etc. are the most issued certificates to citizens of rural

areas.

3. Common Service Centers are located in the nearby villages which have made it possible for citizens to get the certificates in less time and it has made services accessible. Use of ICT has enabled to minimize the errors in the form filling and the online issue of the certificate to the citizens which leads to the increase in accuracy. The cost of service delivery has reduced. Because of the use of ICT in service delivery process, there is an increased speed of service delivery. Because of cost reduction, accuracy and speed has increased which leads to increased reliability of the services provided by the Common Service Centers.
4. From the study it is revealed that perception of citizens regarding service quality of the services provided through Common Service Centers is positive. It is also observed that citizens are satisfied with the services provided through Common Service Centers.
5. From the discussion with VLEs it is found that there are the issues related to the technical support. If there are any problems in hardware or software, it takes time to solve the problem as these Common Service Centers are located in rural areas, reaching to some of the villages' takes time. Moreover there is only one District Coordinator who takes care of all the technical problems. And as the services are ICT enabled if there is any technical problem, VLEs cannot provide the services to rural citizens.
6. Study revealed that 55.9% respondents from Maha e- Seva Kendra stated that there is no increase in transparency and no reduction in corruption because these respondents have paid more money for getting the required documents in time. Whereas respondents from SANGRAM Kendra agreed that there is increase in transparency and reduction in corruption.
7. Study shows that citizens can get the services in less number of visits in SANGRAM Kendra than Maha e-Seva Kendra because the certificates issued by SANGRAM Kendra are issued by Gram Sevaks who are present in the Gram Panchayat to verify the documents. Whereas in case of Maha e-Seva Kendra the certificates are issued by Tehsildar therefore tehsil office clerk and tehsildar verifies the documents which requires more time due to more work load. Further it also shows that the cost of visit

to SANGRAM Kendra is low than Maha e- Seva Kendra because SANGRAM Kendras are located in the Gram Panchayat offices of the villages. Maha e- Seva Kendras are not available in the remote areas so citizens residing in these areas need to travel to the nearby villages where Maha e- Seva Kendra is located. Time required at SANGRAM Kendra is less than the time required at Maha e- Seva Kendra because there is more rush in Maha e- Seva Kendra than in SANGRAM Kendra.

8. Findings related to Hypotheses –

Hypotheses No.	Hypotheses	Maha e- Seva Kendra	SANGRAM Kendra
1.	Use of ICT has enhanced the service quality of the common services provided by the CSCs.	Accepted	Accepted
2.	E – Governance has enabled CSCs to increase transparency and leads to reduce corruption.	Rejected	Accepted
3.	Satisfaction of citizens towards IT enabled common services is dependent on quality of services provided through CSCs.	Accepted	Accepted
4.	There is significant difference between the citizen's service expectation and citizen's service perception regarding CSCs.	Accepted	Rejected
5.a.	ICT enabled services in rural areas are effectively managed at organizational level.	Accepted	Accepted
5.b.	Service processes are effectively managed with the help of ICT enabled services in rural areas	Rejected	Accepted
5.c.	Training helps to provide ICT enabled services effectively in rural areas.	Accepted	Accepted
5.d.	Infrastructure is developed to provide ICT enabled services effectively in rural areas.	Rejected	Rejected

## **Suggestions –**

### **1. Awareness Programme for Citizens -**

From the study it is found that there is overcrowding at certain Maha e- Seva Kendra. The reasons are that population in the particular village is more and citizens are unaware about the other Maha e- SevaKendras, many rural citizens prefer to avail the services from Maha e- Seva Kendra located at Tehsil office. So to reduce this overcrowding, there is a need to create the awareness regarding the e- governance services provided by the government through Maha e- Seva Kendra. List of Maha e- Seva Kendra located at different villages should be displayed at the Tehsil office and gram panchayat office. Gram Panchayat can conduct the awareness programmes at villages. Awareness programme can also be organised during the Gram Sabha where citizens can interact with the Gram Sevaks. Short films can also be developed and shown at the Gram Sabha.

### **2. Display Posters at CSCs -**

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.

### **3. Integration of Civic Services -**

All the civic services are not available under one roof because the issuing authorities are different for the different government certificates. There is a need to create an integrated service system to provide all civic services under one roof. Though the certificates are issued by the different department viz. Revenue Department and Rural Development Department, there should be integration of all the services following under Government to Citizen Mode. System can be developed in the way where the

rural citizens can get all the services at Gram Panchayat i.e. at Maha e- Seva Kendra and SANGRAM Kendra. In this integrated system at VLEs operating Maha e- Seva Kendra and SANGRAM Kendra can fill the forms of all the types of government certificates and necessary documents can be uploaded on the web portal for verification and it can be submitted online to the respective department from where the certificate needs to be issued. Respective departments can verify the documents and can issue the digitally signed certificates online. Further once a particular certificate is issued to a citizen and citizen applies for the another certificate for which the previous certificate is the supportive document, in such cases the provision should be made where the VLEs can attach the documents directly from the web portal by using barcode or Aadhar number which will reduce the documentation and paper work.

#### **4. Mobile Services –**

SANGRAM Kendras 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. 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.

#### **5. Organisation of camps in colleges –**

Camps can be organised during May to August in the colleges located in rural areas. Government certificates like Nationality and Domicile certificate, Income certificate, non-creamy layer certificate, caste certificate etc. are required for education purpose. Information related to different services and certificates can be provided to the college students and during the camps VLEs can provide the online services to students which will reduce the crowding at the Maha e- Seva Kendras and also offers transparency, and convenience to students.



## **6. Encourage citizens to use Aaple Sarkar web portal -**

Government has launched Aaple Sarkar Web Portal through which citizens can avail the online services on themselves. There is no need to visit any CSCs. From the study it is found that rural citizens are not aware about this web portal and the services provided through this web portal. It is need to aware the rural citizens regarding the Aaple Sarkar Web Portal and to motivate citizens to use Aaple Sarkar Web Portal. It is also required to increase digital literacy in rural areas. Digital literacy can be increased by organising the programmes at Gram Panchayat to make citizens aware about Aaple Sarkar Web Portal and demonstrating the use of the web portal, uploading documents, making online payments etc. To initiate, such programme can be organised in the schools and colleges as the students can adopt the use of ICT immediately and they can use the web portal for getting the certificates online for their future education.

## **7. Appointment of Gram Sevak and VLEs –**

At present Gram Sevaks are not appointed at each Gram Panchayat therefore one Gram Sevak has to provide the services to 3- 4 Gram Panchayats. Gram Sevak has to travel to different villages therefore he cannot remain present in the Gram Panchayat to provide the services which make delays in the service delivery. So Gram Sevak should be appointed at each Gram Panchayat to serve the rural citizens in a better way. VLEs are appointed at SANGRAM Kendra on contract basis. It is observed during the study that once these VLEs get the better job they leave the present job. This creates a problem in operating SANGRAM Kendra like appointing new VLE and training the new VLE. To avoid this situation remuneration of VLEs should be increased or they should be paid on commission basis for each service which will satisfy their financial needs and will motivate them to serve better. Further it is observed that at Maha e- Seva Kendra, VLEs charge more fees than prescribed from citizens because they are not able to recover the cost of operation. So it is required to increase their commission which will make them viable to operate Maha e-Seva Kendra and once they obtain a financial feasibility they will not charge more fees from citizens.

## **8. Train VLEs regarding hardware and software maintenance -**

During the study it was found that there is delay in repair and maintenance service provided by Maha Online in the remote villages if there is any problem with software or hardware. Training regarding the hardware repair and maintenance should be provided to VLEs so that they can maintain the hardware in good condition and repair the hardware in case of routine problems. In case of software maintenance, training should be given about the downloading of software updates. If there are any problems related to software that can be solved either by personal visits or by solving through online mode.

## **9. Technical Assistance –**

In major problems technical assistance should be provided. At present there is only one district coordinator for Maha e- Seva Kendra and SANGRAM Kendra each who provides technical assistance regarding hardware and software. It is time consuming to reach at the different villages to provide technical assistance therefore MahaOnline can enter into an annual contract with the technical experts at each tehsil who can provide technical assistance to these CSCs. Online technical services can also be provided to VLEs through remote access.

## **10. Non interrupted Electricity –**

In rural areas there are more power breaks which create a problem in providing online services. At some CSCs battery backup facility is available to get rid of the problem. This facility is not available at all CSCs. As these services are provided online, power supply is prerequisite for it to increase the efficiency of the e- governance. There is a need to develop a continuous electricity supply in rural areas. VLEs of Maha e- SevaKendras and Gram Panchayats should be encouraged to use unconventional energy source like solar energy for continuous power supply. At Gram Panchayats wind energy projects can also be implemented which will make Gram Panchayats energy self-sufficient.

### **11. Internet Connectivity and Speed –**

At some of the CSCs broadband internet connection is available. But at many CSCs internet dongle or smart phones are used for internet connectivity which does not offer the fast speed internet and creates a problem in online form filling, documents uploading, downloading certificates etc. Therefore for high speed internet there is a need to develop optical fibre network in rural areas which will increase the internet speed and thus improve efficiency of service delivery by reducing the time required for online transactions.

### **12. Increase server capacity –**

Now for all civic services a single web portal is used all over Maharashtra. There is a need to increase the server capacity at the District office and Tehsil office to avoid the problems.

### **13. Increase speed of document handling at Tehsil office -**

It is observed in case of Maha e- Seva Kendra; the supportive documents are verified at Tehsil office which requires a time of 4 to 10 days. There is a need to develop a mechanism to increase the speed of document handling at Tehsil office. Training should be provided to the employees working at Tehsil office regarding the e-governance and its benefits. They should be motivated to increase the speed of document handling to increase the efficiency. Further the District Collector Office can give the awards to the Tehsil for their best performance in service delivery.

### **14. Audit of CSCs –**

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, time 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. Best performers can be awarded and can work as the benchmark for others.

## Model for implementation of e- Governance –



## Conclusion –

Implementation of e- governance in India faces a major challenge of digital divide. Digital divide means the lack of availability and access of ICT facilities viz. internet connectivity and computers to rural and poor people. Use of ICT by government offices in rural areas lead to the improving the lives of the rural people. The major thrust of the study is to assess the use of ICT by the government offices to provide citizen centric services to the citizens in rural areas. The descriptive research design is used for the research study. Citizen centric two projects viz. Maha e- Seva Kendra and SANGRAM Kendra are taken for the study. The data is collected from the rural areas of the Kolhapur district from the three types of the respondents' viz. rural citizens, CSCs operators and government officials. Maha e-Seva project is implemented in under the Revenue Department whereas SANGRAM project is implemented under the Rural Development

Department as e- Panchayat project in Kolhapur district to provide various government certificates to the rural citizens. Under the revenue department Income certificate, Domicile certificate, Caste certificate, 7 X 12 certificates, Aadhar Card and Age, Nationality certificate etc. are issued through Maha e- Seva Kendra to the citizens of rural areas. Under Rural Development Department SANGRAM Kendra provide the government certificates viz. birth and death certificate, domicile certificate, below poverty line certificate, living certificate etc. to rural citizens. Maha e- SevaKendras are operated by independent VLEs who develop the required infrastructure and operate the CSCs whereas SANGRAM Kendras are operated at Gram Panchayat by VLEs where the infrastructure is developed by Gram Panchayat.

From the study it is found that for both the projects citizens have opined that time taken for delivery of service has reduced, accuracy, speed, promptness, and reliability has increased, easy access to service, time & effort in availing e-governance service is less, clarity and simplicity of process and procedures is high, cost has reduced, design & layout of the form is simple, transparency has increased & leads to less corruption. This shows that service delivery process has improved because of the ICT implementation. The study shows that use of ICT has enhanced the service quality of the common services provided by the both Maha e- Seva Kendra and SANGRAM Kendra. It also shows that because of the high service quality rural citizens are satisfied towards IT enabled common services provided through CSCs.

The study reveals that e- governance has provided self-employment opportunity to the rural youths.VLEs provide the other services like electricity bill payment, mobile recharge, various exam application forms filling through online mode etc. which adds to their income and also benefits to the rural citizens. A study of service process showed that average time required for receiving the certificate from Maha e- Seva Kendra is 4 to 10 daysand SANGRAM Kendra is 1 to 5 days. It is less than the stipulated time prescribed by the government which shows that services are delivered to rural citizens efficiently. The study reveals that there are the problems regarding infrastructure development like electricity shut downs, poor internet connectivity, and software related problems which need to be solved to further strengthen the service delivery process. As all civic services are made available through single web portal, it is required to increase

the server capacity at district and tehsil level. At the same time there is a need to aware the citizens regarding the online availability of the government services.

From the study it can be concluded that e- governance has been effectively implemented in the rural areas of Kolhapur which has improved the lives of the rural people by providing the government services conveniently. Further it is required to make the citizens digitally literate so that they can access the online services easily. It has also helped to the rural youth by giving the employment opportunity. Though through CSCs government is able to create the employment opportunity, there is need to increase the commission or payment of the VLEs which will help them to operate CSC viably.