

PERCEPTION OF CITIZENS ON ADOPTION OF ICT FOR SERVICE DELIVERY DURING POST COVID-19 SCENARIO: A CASE OF KUMBALAM GRAMA PANCHAYAT IN KERALA

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Abstract

The Information and Communication Technology (ICT) is applied to the process of government functioning in order to bring about efficient, speedy and improved delivery of various services of Governments in India. The State of Kerala has always been a role model for all other states in the use of ICT. Grama Panchayats being the grass root level of local self-governments in India, ICT initiatives in Panchayats are gaining impetus in the COVID-19 scenario. Various application software implemented in Grama panchayats of Kerala are developed and maintained by Information Kerala Mission (IKM). The present study aims to assess the perception of citizens on online service delivery offered by the grama panchayats. The primary data for this study is obtained from the citizens of Kumbalam Grama Panchayat of Ernakulam district in Kerala. The usage of ICT has been increased as more people being accustomed to online services during post COVID-19 scenario. Challenges in the optimum utilization of ICT are also traced during the study.

Keywords: Information and Communication Technology, Online Services, Grama Panchayat and Information Kerala Mission.

1. Introduction

Information and Communication Technologies (ICTs) are now promptly changing the way citizens interact with one another, as well as with private businesses and government services. The Grama Panchayats are the grass root level of rural governance arena. Citizens generally visit a panchayat office to complete a government transaction, such as getting a birth or death certificate, applying for ownership certificates, or paying taxes etc. The same encounter can now take place in an online service centre near the citizen, or even at an unattended way through internet owing to ICT. The government is using World Wide Web and mobile phone based applications and other ICT tools to implement these technologies so as to improve public access to delivery of government information and services and other agencies. Improving government services with effectiveness, efficiency, service quality etc. is the need of the hour in this pandemic period. The effective utilization of ICT thus aims to improve the governance of Grama Panchayats by increasing the efficiency, transparency, accountability of operations and effecting speedy delivery of services to the citizens.

1.1. Role of Information Kerala Mission

The Information Kerala Mission (IKM), an autonomous body is established under the Kerala government's local self-government department, to improve local self-governance through ICT applications. It aims for the computerization and networking of Kerala's local self-government institutions and also to develop necessary application software. IKM envisages a phased transformation of the existing systems to electronic systems and has developed application software that suits this purpose through which the online delivery of various services offered by the grama panchayat is fulfilled.

1.2. Online Services offered by Grama Panchayats

Grama panchayats offer various services through online mode. Citizens can avail online services mentioned in Table 1.1

Table 1.2.1 Online Services Offered by Grama Panchayats in Kerala		
Certificates	e-Payment	e-Filing
Birth Certificate	Property Tax	Marriage Registration
Death Certificate	Building Permit	Name Inclusion(Birth)
Marriage Certificate	IFTE & OS License	Building Permit
Ownership Certificate		D&O License
		IBPMS - Building plan submission

Source: <http://lsgkerala.gov.in/en/e-governance>

2. Literature Review

The ICT revolution has opened up new possibilities for governance. ICT attempts to increase citizen participation in public affairs. It can be characterised as "allowing citizens to choose when and where they get government information and services". The success of service delivery through online mode is said to be entirely based on citizens' willingness to adopt the new system (Iyer, 2016). Any technology that will be accepted by citizens should focus on the service's performance expectations, effort expectations, social influence, and facilitating conditions (Shafi, 2009). There are a few grey issues that affect the adoption of ICT applications to facilitate sustainable e-government. Information security breaches, IT policy implementation, and investments in ICT services are all manifestations of the grey area of e-governance (Sony, 2017). The usage of ICT is influenced by a number of variables. At this juncture it is essential to assess the perception of citizens on online service delivery offered by the grama panchayats.

3. Objectives

The study has been undertaken to assess the perception of citizens on service delivery offered by the grama panchayats through online mode. More specifically,

- To identify the demographic features of citizens with respect to usage of online services offered by grama panchayats
- To assess the level of perception and satisfaction of the citizens on online services offered by the grama panchayats.

4. Analysis, Results and Discussion

4.1. Methodology

The study is primarily a descriptive one. It covers the citizens of Kumbalam Grama Panchayat in Ernakulam District. Stratified sampling method is used to collect data from the population. Further, data for the study is obtained with the use of structured questionnaire from 100 citizens of Kumbalam Grama Panchayat. SPSS software is used for statistical analysis. Chi square and one-way ANOVA are used to test the hypotheses.

4.2. Demographic Profile of Citizens

The results reveal that 35 percent of male respondents and 16 percent female respondents have never been availed services through online. 12 percent of citizens have been using ICT for services from grama panchayat prior to COVID-19 pandemic period. In fact 37 percent of the citizens started using ICT application during the COVID-19 period and of the opinion that ICT application is helpful for speedy and effective delivery of services of panchayats. However 51 percent of the citizens are still not availing online

services in spite of COVID-19 situation (Table 4.2). Indeed, the amazing fact is that 15 percent of graduate respondents never availed services through online. Null hypothesis states that there is no association between demographic variables and Usage of online services. P value is less than 0.05 for all cases and hence it is rejected. So there is association between these variables.

Table 4.1 Demographic Profile of Citizens (User Group)

Demographics	Online User before COVID-19 (%)	Online User after COVID-19 (%)	Never an Online User (%)	Chi-Square
Gender				
Male	3	34	35	df = 2 chi square = 20.69 p value = <0.001**
Female	9	3	16	
Education				
Primary	Nil	Nil	27	df = 8 chi square = 85.77 p value = <0.001**
Secondary	Nil	19	Nil	
Senior Secondary	Nil	8	3	
Graduate or Similar	4	7	15	
Post Graduate and Above	8	3	6	
Employment				
Private Employee	5	5	6	df = 8 chi square = 32.165 p value = <0.001**
Government Employee	3	7	9	
Self Employed	4	3	Nil	
Not Employed	Nil	3	11	

Source: Primary Data

Table 4.2 Citizens' User Group Profile

Groups	Percentage
Online User before COVID-19 (%)	12
Online User after COVID-19 (%)	37
Never an Online User	51

Source: Primary Data

4.3. Perception of Citizens on Service Delivery by Grama Panchayat through Online

To analyse the perception of citizens on service delivery by grama panchayat using online, the null hypothesis is stated as:

There is no significant difference among user group with respect to factors of perception on service delivery through online

Table 4.3 ANOVA for significant difference among User Group with respect to Perception on Service Delivery through Online

Perception on Service Delivery through Online	User Group of Online Services			F Value	P Value
	Online User before COVID-19	Online User after COVID-19	Never an Online User		
Citizens' Expectations	20.33 ^b (4.12)	20.32 ^b (1.63)	16 ^a (4.41)	18.110	< 0.001**
Infrastructure	18 (1.81)	19.49 (2.87)	18.16 (3.04)	2.646	0.076
Beneficial Group	17.58 (3.40)	17.70 (1.97)	16.57 (3.86)	1.469	0.235
Overall Perception	55.92 ^b (4.54)	57.51 ^b (3.47)	50.73 ^a (4.84)	27.679	< 0.001**

Note :

1. The value within bracket refers to SD
2. ** denotes significant at 1% level
3. Different alphabet among Usage of Online Services denotes significant at 5% level using Duncan Multiple Range Test (DMRT)

Since P value is less than 0.01 (Table 4.2), null hypothesis is rejected at 1% level with regard to perception on citizens' expectation and overall perception. Hence there is significance difference among user group of online services before COVID-19, after COVID-19 and never an online user with regard to the perception on citizens' expectation and overall perception. Based on Duncan Multiple Range Test (DMRT), the user group of online services before COVID-19 and after COVID-19 is significantly differ with the user group of never an online user at 5% level of significance but there is no significant difference between the users of online services before COVID-19 and after COVID-19 with respect to citizens' expectation and overall perception.

There is no significant difference among user group of online services before COVID-19, after COVID-19 and never an online user with regard to the perception on infrastructure and beneficial group, since P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to perception on infrastructure and beneficial group.

The results indicate that there is no difference of opinion with respect to expectations between citizens who use online services before and after COVID-19 pandemic in terms of quality, transparency, trustworthy, speed and low cost of various services of Panchayats. This shows the acceptance of usage of ICT tools by the people for service delivery. But those who never use online services have different expectations. If proper awareness is given to those category using various initiatives the rest of the citizens who are not used to ICT tools can also join the progressive prospects of local governments. All the respondents have same perception on infrastructure of panchayats and beneficial group of online service delivery.

5. Conclusion

The state of Kerala has always been a role model for all other states in the implementation of ICT. In fact, proper awareness and training among citizens are essential to ensure the effectiveness of ICT initiatives in grama panchayats of Kerala. Further, the digital divide also pose challenges to effective utilization of ICT in delivering online services which is to be addressed in future research studies.

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