

ICT Revolution in Customer Service: The Case of Kerala's Experimentation with ICT

Ahammedul Kabeer AP*

Assistant Professor, Department of Development Studies, Central University of South Bihar, SH-7, Gaya- Panchanpur Road Karhara, Fatehpur, Bihar 824236, India

DOI: [10.36347/sjahss.2019.v07i08.002](https://doi.org/10.36347/sjahss.2019.v07i08.002)

| Received: 28.06.2019 | Accepted: 15.08.2019 | Published: 20.08.2019

*Corresponding author: Ahammedul Kabeer AP

Abstract

Original Research Article

A flagship urban e-governance programme of the Government of Kerala functioning since 2000 has contributed in providing various public services more transparently and efficiently. Through a decade long existence, the project has opened up new possibilities as well as challenges for using IT for citizen service. This paper analyses the history, evolution, contribution and challenges faced by the project in delivering its services. The study has specifically identified the positive and negative impact that the project has made on its stakeholders. Despite the positive chord attached to the project, the project has not been successful in adding additional services to the citizens even after having a decade of experience. Only one department is added after its successful working for about 12 years. Similarly, FRIENDS has not been able to provide the information services on public services. In addition, the operational area of FRIENDS still confine to the district headquarters. Of recently, the withdrawal of service officers deputed by the parent departments has made the operation of the project more difficult. It demands proper policy on the part of the government for the sustainability of projects like FRIENDS.

Keywords: Information Technology, Cost of service, NeGP, e-Governance.

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INTRODUCTION

With the advent of Information Communication Technologies (ICT), governance has entered into a new sphere of globalization. Previously online and offline governance were treated as two different spheres but with the emergence of ICT, this distinction has been blurred. There is a common assumption of e-government as the automation of government services, yet, there is much more to e-government. A working definition of e-government is that it is: *"the use of information technology to support government operations, engage citizens, and provide government services"* [1]. The creation of this new cyber regime must incorporate good e-governance to deliver effectively and efficiently to citizens. The Government of India has formulated the National e-Governance Plan (NeGP) to expedite deployment of Information Technology in governance with a vision to improve delivery of government services to citizens, business and other stakeholders. It has been recognized that a quantum jump in the quality of services is possible only by adoption and implementation of the principles of e-Governance. While initially the political and managerial focus was on developing e-services within each public institution, with limited

consideration being given to cross-organizational coherence, the focus today has clearly shifted towards coordinated services offering one-stop shops to citizens and businesses [2]. In this context, this study has been carried out to examine the impact of an urban e-governance project of a South Indian State on good governance.

Indian Experimentation with e-Governance

India was one of the earliest to respond to the possibilities of using ICTs in development administration in the developing world. It may be noted that the Indian State began to design and execute rural development programmes with a relatively visible ICT content in the 1970s, while international attention on the potential of harnessing ICTs for developmental activities is a much new phenomenon. The early experiments are examples of attempts to use ICTs for improvising development planning, a key area of State action in the pre-liberalisation era. The Dharampur Sub-District Infrastructure Planning for Development 1977 is one such early example of an attempt to use computer applications for cost optimization and decision-making. The Karwar Rural Development Information System 1984 was yet another initiative formulated with a focus

on reducing delay and curbing corruption through a monitoring programme based on computer applications [3].

'Electronic governance' became a key phrase in the Indian State's efforts to provide a facelift to its administrative machinery in late 1990s. It is now geared for 'good governance' as part of the structural adjustment strategies dictated by the World Bank and other international agencies. Since the institution of the Ministry of Information Technology, the central government has shown substantial interest in using IT for various objectives. The surging numbers of what is identified as e-governance projects since 1999 indicate that most of the State governments and Union Territories in India claim to have accepted the need for undertaking e-governance initiatives.

Kerala: A hot spot in e-governance initiatives

In Kerala, since Government is very much a part of common man's life, Information Technology has been a natural choice for the Government. In the State, the introduction of ICT in Government-citizen interaction has been more gradual rather than making a sudden impact on the G2C landscape. States' first IT policy announced in 1998 delineates reaching ICT to the common man as one of the four focus areas. The state though subsequently gave thrust on promoting IT industry base, its primary focus on citizen services was still the underlying thread in ICT interventions [4].

The State of Kerala has remarkable progress on all indicators of social development. Kerala has a much thought out and much discussed policy for the ICT enabling also. Kerala is among the front-runners in implementing e-governance in India. Introduction of e-governance and the use of computers in the government of Kerala may be traced back to the 1950s [5]. Kerala was the first State government in the country to come out with IT policies aimed at co-coordinating and accelerating the pace of IT and e-governance projects. In 1998, the policies were focused mainly on creation of IT infrastructure in data communication and IT education. In 2001, policies were broader and covered industries like Information Technology Enabled Services (ITES) and provided for liberalization of labour laws. The IT Policy (2006-07) envisages making each citizen of Kerala a creative participant and contributor of the Knowledge Society through the use of ICT. The IT Policy 2012 has also underlined the commitment of the Government in spearheading e-governance in all walks of life. The initiation of the NeGP has given more vigour to the adoption of IT in every acts of government-citizen interaction.

Given the basic premise that Government should adopt ICT for citizen services, a quick glance at the proven models of service delivery using ICTs in Kerala shall reveal a promising scenario. Major achievements of Kerala in the e-governance front

during the past years include India's first fully computerised Panchayath, India's first fully computerised Collectorate, FRIENDS initiative to serve 35 lakh families, first largest deployment of wireless network in the World, significant development in local language computing, Akshaya's total e-literacy programme, first Citizen's Call Centre in the country, first complete e-literate district in the country etc. The State government has also initiated the 'Information Kerala Mission' project for the deployment of technology at the grassroots level as a model for participatory governance through effective use of IT.

Institutions/Agencies in e-Governance in Kerala

The major agencies/institutions involved in various e-governance activities in the state are:(i) Kerala State IT Mission (KSITM), (ii) Centre for Development of Imaging Technology (C-DIT), (iii)Centre for Development of Advanced Computing (C-DAC), (iv)National Informatics Centre (NIC) Kerala Unit, (v) Information Kerala Mission (IKM), (vi) Indian Institute of Information Technology and Management-Kerala (IITMK), (vii) Kerala State electronics Development corporation (KELTRON), (viii) IT @ School, (ix) Centre for Advanced Training in Free and Open Source Software (CATFOSS), and (x) Model Finishing School.

Objectives of the Present Study

This study is carried out to examine the working of FRIENDS (Fast, Reliable, Instant, Effective Network for Disbursement of Service) implemented by the Information Technology Mission of Government of Kerala. The basic objective of the study is to examine the beneficiary perception about the programme and also to see how far the project has been successful in reducing the time and cost of availing public services.

METHODOLOGY

The study is based on both primary and secondary data. Primary data on the functioning of FRIENDS have been collected from the beneficiaries of the FRIENDS Project functioning in two districts. A sample of 100 beneficiaries each has been selected randomly from Thiruvananthapuram and Kozhikode Districts respectively. These two geographical areas represent the South and North divisions of the state. Using a structured interview schedule, information have been collected and presented in the report. The field survey was conducted during September-December 2017. Secondary data have also been supplemented to make the study realistic in nature.

THE CONCEPTUAL MODEL OF 'FRIENDS'

'FRIENDS' is based on the concept of using ICT for better citizen Government interface. It started off as a pilot project in June 2000 with a 'collect and remit' and 'receive and forward' principle. A year later, all 14 districts had one center each. Though the

idea of FRIENDS had its origin from the e-Seva project of Andhra Pradesh, there are some differences between the two. While the original inspiration for FRIENDS came from e-Seva, FRIENDS represents an attempt to promote single-point front-end service delivery without any real backend computerization. Nor does FRIENDS charge departments for effecting transactions on their behalf with the exception of the publicly-owned telecom company, BSNL. Unlike e-Seva, whose counters are staffed by employees hired by private partners, FRIENDS counters are staffed by employees appointed by parent departments. Centers, however, are not networked to each other or to individual departments. Unlike e-Seva, FRIENDS has not allowed

its centers to be used for delivery of private services; nor has FRIENDS turned to advertising to generate revenue. In spite of the fact that FRIENDS is clearly more “basic” than e-Seva, an opinion survey commissioned by the World Bank in 2001 indicates that FRIENDS has struck a positive chord with Kerala’s citizen [6].

The Table-1 summarizes the kind of services available with FRIENDS. The number of services is limited to these participating Government departments and in most cases there is some clause for effecting payments such as jurisdiction limits, bills without fine, etc...

Table-1: Services of Participating Departments

Sl. No	Participating Departments	Services	Requirements
1	Bharat Sanchar Nigam Limited (BSNL)	Telephone bill payment	Telephone bill
2	Kerala State Electricity Board (KSEB)	Electricity bill payments (low tension and spot billing) of various electrical divisions.	Electricity bill invoice provided by KSEB (only without fine)
3	Kerala Water Authority (KWA)	Spot bill	Bill invoice
		General water bills (domestic and non domestic) 5% discount for advance payment of at least one year.	Bill invoice, consumer card provided by KWA
4	Kerala University/ MG University/ Calicut university	University examination fees	Application form
5	Civil Supplies Department	Fees for civil rationing office related applications (license, permit, ration card etc...)	Application form
6	Motor Vehicles Department	1. Motor vehicle tax-105 types. 2. Fee for licenses from motor vehicles department-20 types. 3. Fees for permits from motor vehicle department- 142 type 4. One- time vehicle tax 5. Registration fee for motor vehicles	RC book, insurance papers, application forms
7	Revenue Department	Building tax Basic tax Revenue recovery interest.	Application forms
8	Electrical Inspectorate	Inspection Fee Licensing Fee Other Remittance	Application forms

Trends in Collection and Transactions of FRIENDS

Table-2 is a testimony of the peoples’ faith in e-governance programmes like FRIENDS. From a mere Rs.568 lakhs in 2000-01, collection through FRIENDS has risen to Rs.28,904 lakhs by March 2015. Similarly,

the number of transactions increased from 1.24 lakhs to 4.98 lakhs during the period of study. Increased citizen acceptance over the years, as can be evinced from the increase in the number of transactions over the years is a milestone in the functioning of FRIENDS.

Table-2: Collection through "FRIENDS"

Year	Amount collected (in lakhs)	No of Transactions
2000-01	568	123709
2001-02	1305	1026919
2002-03	10619	2023811
2003-04	16000	2632137
2004-05	20210	3400182
2005-06	22170	3866948
2006-07	22747	4028287
2007-08	22289	3475795
2008-09	22601	3516571
2009-10	23006	3689870
2010-11	23500	3983887
2011-12	24800	4325654
2012-13	25300	4520322
2013-14	26789	4789034
2014-15	28904	4980345
2015-16	29456	5281456
2016-17	27256	5123655

Source: www.friendscentre.net

Awards and Recognitions

FRIENDS’ project centers have succeeded in fulfilling the objectives for which it was set up. It has been widely recognized as the best e-Governance project at the national level. The project bagged 2006 CTO forum’s e-Governance excellence award. It has also been adjudged by the PC Quest, as one of the 10 best IT implementations of the country for the year 2006. The FRIENDS Janasevanakendram, Thiruvananthapuram has been awarded ISO 9001:2000 certification for its citizen friendly services and quality standards.

Why do people prefer FRIENDS Counter over Departmental Counters?

To the question of whether the respondents prefer FRIENDS counter over the Departmental outlets for utility payments, almost all of them prefer to pay at the FRIENDS. Gender-wise, women particularly prefer

to be at FRIENDS for their public utility payments. In this context, we have made an attempt to understand what prompted the people blindly choosing the FRIENDS facilities. Our analysis of similar e-governance applications elsewhere in the country guided us in factoring out some of the probable reasons behind it. Then the respondents were asked to indicate the order of preference to the given attributes. The relative importance of each of these attributes has been analysed using weighted ranking method. The maximum number of reasons given by a single respondent does not exceed six. Accordingly, weighted scores were calculated for each of the six responses by giving a weightage of 6 points to the most prominent one, and 5,4,..... and 1 points respectively to the succeeding ones in that order. The weighted scores calculated for each of the six factors were added up for all the respondents and the factors were ranked on the basis of the total weighted scores for each item.

Table-3: Reasons for using FRIENDS for payment of utility bills

Weight	6	5	4	3	2	1	Weighted Score	Rank
Rank	1	2	3	4	5	6		
Save cost and time	45	80	43	19	10	5	924	I
Queue system	63	45	41	32	8	10	889	II
Speedy and Efficient	55	33	44	24	23	21	810	III
Friendly atmosphere	14	23	41	55	20	46	614	IV
Proximity to residence	19	8	17	34	62	60	508	V
No corruption	4	11	14	36	77	58	455	VI

Source: Survey data

The information provided in the table indicates that the prominent factors for utilising the FRIENDS counter for paying public utility bills over the Departmental counters are: its low cost and time savvy mechanism, the queue system and its speedy and efficient functioning. It hence attests the fact that the

objectives of the e-governance system are very much prevalent in the FRIENDS functioning.

Total Trips to be conducted to avail service

When the respondents were enquired about the details of the trips to be performed to avail services in the FRIENDS and Departmental counters, it is found

that more number of trips is required to pay the bills in Departmental counters than in the FRIENDS counter. We have also conducted an independent t-test to examine whether there is any significant difference in the number of trips to be performed in availing services in FRIENDS and Departmental counters. The result shows significant difference as the t-value is 6.27 and p-value is 0.000.

Table-4: Trips to be made for paying utility bills

Outlets	Mean trips	SD	t-value
FRIENDS	1.0	0.0	6.27*
Department	1.21	0.46	(0.000)

Note: Figure in bracket is p-values; * Significant at 1% level

Source: Survey data

Cost of Availing Service

Data have been collected from the respondents about the cost incurred for availing service in both the FRIENDS and Departmental counters and an independent t-test was applied to see whether there exists any significant difference in the cost of availing services from both the agencies. The results confirm significant difference (t =10.58, p=0.000) and hence conclude that the cost of availing service through e-governance system are lower than the traditional method.

Table-5: Cost of service at FRIENDS vs. Departments (in Rs.)

Outlets	Mean	SD	t-value
FRIENDS	13.65	6.99	10.58*
Department	25.60	14.33	(0.000)

Note: Figure in bracket is p-values; * Significant at 1% level

Source: Survey data

Service time in FRIENDS and Departments

We have also tested whether there is any significant difference between the two systems in terms of service time. The result shows significant difference between the two systems (t =14.66, p=0.000). Hence to

conclude that the service time required at the FRIENDS counters are less than the departmental counters.

Table-6: Service time in FRIENDS vs. Departments (in Minutes)

Outlets	Mean time	SD	t-value
FRIENDS	15.23	5.72	14.66*
Department	30.39	13.45	(0.000)

Note: Figure in bracket is p-values; * Significant at 1% level

Source: Survey data

Overall Perception about the Project

The beneficiaries of FRIENDS were asked to indicate their opinion about the three major factors they consider the most important attributes of the e-governance application. The important probable attributes of e-governance systems have been presented before them and they were asked to rank them. The factors ranked 1,2,3,... etc., were given weightage 3,2,1,...respectively. The total rank score for each factor was, thus, obtained by multiplying the frequency with which the factor was ranked (first, second and third) with the respective weightage and finally adding them up. The information is given in Table-7.

From the table, it is seen that convenient working time is the first foremost attribute of the e-governance system they considered important. FRIENDS working time stretches from 9.0 a.m to 7.0 p.m and work even on holidays. Location of the FRIENDS counter is considered as the second attribute of the system. The FRIENDS counters are working in district headquarters easily connected with all transport system. The third attribute of the system as per the users point of view is the scientific queuing and display systems in practice at FRIENDS. It helps avoid standing on long queue under the hot sun or rain to avail a public service. Similarly, the low cost and time for availing public service is the ultimate objective of any e-governance programmes. In the FRIENDS project also the beneficiaries do experience the low cost and time features for accessing public service.

Table-7: User's perception on the various attributes of FRIENDS

Sl. No	Attributes	1	2	3	Total score	Rank
1	Convenient Working hours of FRIENDS	69	27	27	328	I
2	Suitable Location of the FRIENDS	36	16	16	184	II
3	Queuing system at FRIENDS	15	59	59	160	III
4	Low cost in availing service	39	13	13	156	IV
5	Less time and effort in availing service	15	30	27	132	V
6	Excellent Service area facility	4	28	28	88	VI
7	Courtesy and knowledge of staff	14	6	6	66	VII
8	Commendable Speed and efficiency of	6	6	6	28	VIII
9	Low level of corruption	0	4	14	22	IX
10	Procedures are clear and simple	2	2	2	16	X
11	Higher level of security of data	0	2	2	6	XI
12	Highly accountable officers	0	0	0	4	XII

Source: Survey Data

CONCLUDING OBSERVATIONS

FRIENDS is a successful model of achieving 'front-end computerised service delivery to citizens' without waiting for the completion of back-end computerization. This is a simple front-end delivery model. It could be easily replicated in any geographical location. It is recommended that this model of citizen service delivery using ICT may be tried out and implemented in the states which have prioritised on establishing innovative service delivery modules. From the discussion, it is clear that e-governance initiatives like FRIENDS have been found successful in ensuring good governance. Studies of Krishnan [7] and Madon and Kiran [6], to mention a few, have brought into limelight the efficacy of FRIENDS in delivering public sector services at low cost in terms of time and money. However, the project is to be strengthened in several ways. In terms of addition of more services, there seems to be stagnation. Similarly, FRIENDS has not been able to provide the information services. In addition, the operational area of FRIENDS still confine to the district headquarters.

The reluctance of the parent departments to spare staff to man FRIENDS counter is a real challenge of the project. A latest visit to a few Project Offices of the FRIENDS revealed that the parent departments are withdrawing their staff from the FRIENDS project, leaving the perceived benefits of e-Governance in question. The economic sustainability of the project is in peril as the beneficiary departments are unwilling to pay any service charges to FRIENDS and it continues to rely on an on-budget subsidy from government for operating costs. Departments argue, correctly, that they are already subsidizing FRIENDS by paying employee salaries. Finally, the absence of significant backend

computerization or business process re-engineering in departments has made it difficult to expand the menu of government-offered services from bill and fee payments to more sophisticated transactions, such as certificates. Being an urban e-governance project, it has to be enriched as the urban population is bulging in our country. In the era of information commutation and technology revolution, citizen should be the focus of governance. The citizen centric good governance is the need of the day. In this context, projects like FRIENDS have a visible role in fostering better citizen-government patronage.

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