

Use of G2C information services under the e-Governance initiatives in NE India: A pilot survey

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G2C (Government to Citizen) information services under the e-Governance initiatives have become a major area of research across the world as the initiative is meant for enhancing the participation of the general public in governance. Giving focus on North East India, the present study has been carried out to analyse the usability of the services by the citizens. A pilot survey of 54 stakeholders (citizens) who have different backgrounds in Manipur was carried out. The findings of the survey bring to light, facts on the awareness and usability of G2C information service under the e-Governance initiatives in the state. The paper also aims to assess the usability of the services under the initiatives. It was found that most of the citizens surveyed are not familiar with the services and their accessibility to the same is poor.

Key words: G2C Information Service, e-Governance, Manipur, Accessibility

Introduction

e-Governance is clearly emerging as a tool for greater accountability and transparency, better service delivery and for linking the government and citizens. In today's world, where people's livelihoods are threatened by rising food, and energy prices, climate change and the instability of the financial markets, access to information becomes a lifeline to the government and citizens, rich and poor, of all beliefs and of all ages and gender. E-Governance is how government works, shares information, and delivers services to external and internal clients. It harnesses information and communication technology (ICT) to transform relationships with citizens and businesses, and between arms of the government. Benefits of the same can include reduced corruption, increased transparency, greater convenience, higher revenues, and lower costs. Use of ICT in e-Governance can serve a variety of different ends including better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, and more efficient government management. G2C information service is one of the important services provided under such initiatives. The aim of e-Governance is to employ ICTs for:

- a) empowering citizens with greater access to Government services; and
- b) facilitating their involvement and contribution in the Government functioning and decision-making process, thus leading to improved citizen-government interaction.

G2C (Government to Citizen) information service

The Information Technology Department of the states are responsible for implementing the National e-Governance Plan (NeGP) of the Government of India. Its objective is to take the administration to the door steps of the people in order to ensure that Government services are efficient, transparent and reliable while at the same time ensuring that the life of citizens is made easier. Three major backbone infrastructure requirements for delivery of G2C information services under the e-Governance projects are:

- a) State Wide Area Network (SWAN/NICNET) that will provide connectivity up to the block level. It is also envisaged that SWANs will have base station to enable wireless connectivity beyond block levels;
- b) National Data Bank/ State Data Centres (SDC); and
- c) Common Services Centres (CSC).

Governments all over the world have realized that the advancements in ICT can successfully be utilized in the process of provision of better information services to citizens in various sectors such as – agriculture, education, government administration, power, health and family welfare services, transportation, water, security, taxation, municipal services, etc. Different implementing agencies for the same have also formulated standard infrastructure required for successful implementation of the programme.

Literature review

In this ICT-driven knowledge society, though many nations have undertaken e-Governance initiatives, it is still evolving in India. Studies on G2C information service under the e-Governance initiatives are also quite limited. However, a number of such studies in different aspects of the initiative other than G2C information service are found to be carried out in the recent past.

Gefen et al¹ studied the adoption of online government services employing data collected from the undergraduate students of three universities. Findings of this study suggest that trust, social influence, and ease-of-use of website impact perceived usefulness of the interface, which, combined with social influence, predict the intended use of e-Governance information services. Gupta² presents the results of the case studies that were undertaken internationally. The study included issues and challenges concerning e-Governance with relevant case studies which have been successfully carried out. The application of 'Citizen Service Centres' promotes empowerment and accessibility of ICTs for local people. Analysis of successful programmes regarding e-Governance in India has also been made giving the elements of capacity building and organisation co-operation. According to Pankaj³, e-Governance represents the synthesis of the information technology and function of governance. It is further a synthesis of computers and communication. e-Governance is the use of ICT to promote more efficient and cost-effective governance, facilitate working of government services, allow greater public access to information, and make government more accountable to the citizens. Riley⁴ explores the theory of information and the degree to which new methodologies may be designed for governments in order to better share information with the public for

the common good. Ndou⁵ in a research study assessed the impact of e-Governance (independent variable) on reducing corruption (dependent variable). The study using a structured questionnaire reported the results of a survey of 800 respondents from Ethiopia and Fiji and supports the hypothesis that e-Governance initiatives are positively related to improving relations between governments and citizens and cutting corruption. It suggested that e-Governance initiatives can make important contributions to improve overall relationships between the governments and citizens.

In another study, Larson⁶ while giving a progress report of information services under e-Governance initiatives has confirmed that making government services more accessible and accountable through the use of information technology was the dominant theme of the Federal Library and Information Centre Committee's (FLICC) 2004 update. Studies conducted by Johnson *et al*⁷ have shown that Community Information Centres (CICs)/Common Service Centres (CSCs) provided range of e-Governance services including internet lesson and facilities, e-mail, word processing, training on software applications to customers, specialized information on current news, government information, business transaction, distance education, applications for agriculture and rural livelihood.

Ibohal and Sophiarani⁸ in their study describe briefly about the G2C information services under the governance initiatives in Manipur, and throws light on many issues towards the overall development of the system. The study also reveals that to make G2C more effective and successful, it is essential on the part of the government to take up certain steps taking the advantage of ICT (Information Communication and Technology) application in government functioning to bring in SMART governance implying simple, moral, accountable, responsive and transparent governance.

Singla and Aggarwal⁹ describe the significant projects implemented in India. Suggestions for developing effective e-Governance projects, with a discussion of the most significant benefits of implementing such projects are also provided. Taruna *et al*¹⁰ have examined the current status of Australian local government electronic service delivery and explored the appropriateness of current e-business maturity models for evaluating the progress that local governments are making towards

electronic service delivery. Their research involved an evaluation of local government websites and a detailed case study of one local council. The results indicated that apart from Web based information provision, little progress has been made in the transition to electronic service delivery in most areas of local government. In another study, Naga and Jeevan¹¹ have shown the impact of ICTs on information flow and access, and conceptualised the universal accessibility through Common Services Centres with the formulation of the National e-Governance Plan with a vision of providing concerted Government services at the doorstep of the citizens at an affordable cost.

Nandita and Shefali¹² in a study had revealed that the eight North Eastern states of India have traditionally been less developed due to geographic remoteness and difficult hilly terrain. The Government of India in 2002 set up 487 Community Information Centres (CICs) at the block level. The CICs, besides offering basic services like internet browsing, e-mailing and training in computer fundamentals, also provide citizen centric or G2C services. Prem Kumar *et al*¹³ have revealed the issues and problems associated with the proposed basic G2C frame work which includes the elements of planning, social audit, professional audit, audits on facilities, performance audit and funding. Discussing the initiatives of government information which forms a part of the historical and cultural heritage and serves as a means of accountability for current use of ICT, Sophiarani¹⁴ has also revealed that the same facilitates efficient and speedy process to make G2C information service accessible to public.

Objectives of the study

- To ascertain the computer literacy rate, ICT skills possessed, and awareness of the G2C information services amongst the users;
- To assess the accessibility and use as well as frequency of access to the services;
- To ascertain the use of different services and schemes, information services and channels, internet, search engines, etc; and
- To know the mode of interaction with the department/agency by the citizens.

Methodology

The present study is a part of an in depth use analysis being done on the G2C information services

covering entire North East India using a semi-structured questionnaire. To administer the questionnaire, a pre-test of the tool has been done by conducting the pilot survey for a period of one month. As such, in this pilot survey, a total of 70 questionnaires have been distributed to all the cross sections of the users like students, agriculturists, government servants, housewives, businessmen, private organisations, NGOs, the self employed etc, in a stratified random sampling mode. Out of 70 questionnaires, 59 filled in questionnaires were returned. However, 5 such returned questionnaires were found incomplete and therefore not included for analysis thereby making only 54 responses (77.14 %). The data was collected during 15th August to 15th September 2011.

While analysing the sample characteristics, it was found that majority of the users (40.10%) possess PG degree in different subjects followed by Graduates (25%), Under graduates (22%) and others (13%). Regarding gender of the users, 52% are male while 48% are female. Most of the respondents know Manipuri, Hindi and English.

Analysis

Computer literacy

If an individual wants to access the services available under the e-Governance programme then he or she has to be familiar with the handling of computers and internet browsing, otherwise the need for taking assistance from the trained or skilled persons arises. The persons covered in the pilot survey have been asked whether they were computer literate. Table 1 shows that majority of them (51.85%) are found to be computer literate. Computer literacy rate amongst housewives, persons engaged in private organisations, self employees, others and agriculturists are relatively low. It is quite obvious,

Table 1—Computer literacy rate of the users

Category	Yes	No	Total
Student	5	1	6
Agriculturist	0	3	3
Government servant	10	2	12
Housewife	2	6	8
Businessman	3	3	6
Private organisation employees	2	4	6
NGO employees	4	3	7
Self employed	1	2	3
Others	1	2	3
Total	28 (51.85%)	26 (48.15%)	54(100%)

that there is a need to chalk out systematic and well planned training programmes for them in this area. Government servants, student community and NGOs are found to be the groups whose literacy rate is high in this regard.

Skills possessed by the users

The different skills on various ICT related aspects as possessed by the different user groups have also been assessed. These skills are required for the users to access the government generated information. Table 2 gives the overall scenario on the skills possessed.

It is found that the majority of the respondents did not have the required computer skills. The different implementing agencies of the e-Governance programmes should take this into account to enhance the people's participation.

Use of the e-Governance services

In order to assess the use of the e-Governance services, the present study has taken into consideration two aspects of ranking on their preferences and usages. How far the users give preferences on various services and their usage pattern on them has been focussed here. Their responses show certain important issues in this regard. It is found that among the different services

Table 2—Skills possessed by the users

Skills	Yes	No
Computer handling	24 (44.44 %)	30 (55.55 %)
E-mailing	15 (27.77 %)	39 (72.27 %)
Internet surfing	17 (31.48%)	37 (68.51 %)
Using software	5 (9.25 %)	49 (90.74 %)
Voice mailing	3 (5.55 %)	51 (94.44 %)
Skype	4 (7.40 %)	50 (92.59 %)
Down-loading of web-resources	20 (37.03 %)	34 (62.96 %)
Browsing CD-ROM/ Pen drive/etc	19 (35.18 %)	35 (64.81 %)
Video conferencing	3 (5.55%)	51 (94.44 %)
Any other	NA	NA

under the e-Governance Programme, G2C is found to be the most preferred service and its usage rank is also relatively high. Education is also a thrust area of e-Governance programmes and G2E is also found to be one of the preferred services next to G2C. Services concerning G2B and C2G have different ranking orders in respect of preference and usage of the same (Table-3).

Access to schemes/services

Users under survey are found to access various services and schemes of e-Governance initiatives. Table 4 provides details on how the users access different schemes and other services of the government. Majority of the users under the study are found to access such services and schemes with high expectations. Education (26.46%) followed by general information (19.62%), utility payment 18.51%) and so on are found to be the most prominent usage areas. General administration and public grievances, legal (98.89%), agriculture (97.83%), police/security (97.40%), finance (95.19%) and so on are found to be the less preferred areas.

Usefulness of e-Governance initiatives

More than half of the users under study (59.26%) responded that the e-Governance initiatives of the state are useful while 20.37 % expressed the same as useful to some extent. As Table 5 shows, though small in number, 16.67% respondents feel that the initiative is very useful. No one amongst the persons covered in the study responded stating e-Governance as "Not useful". On the other hand, the usefulness of the initiative is found to be different amongst different age groups.

Internet connectivity

It was found that most of the users (32%) are using internet data card followed by 25% users connecting to internet with broadband. Nineteen percent of the users make use of cell phones and 8% are connecting internet through wi-fi connectivity. Sixteen percent of the respondents did not respond.

Table 3—Preference and usage ranking of e-Governance services

Services	Preference ranking						Usage ranking					
	1	2	3	4	5	N.R	1	2	3	4	5	N.R
G2C (Government to Citizen)	20	15	9	0	0	10	25	20	2	0	0	7
G2B (Government to Business)	4	2	5	15	3	25	6	7	5	3	0	33
G2G (Government to Government)	6	2	15	5	0	26	8	8	4	1	0	33
G2E (Government to Education)	15	25	4	1	0	9	15	17	1	0	0	21
C2G (Citizen to Government)	9	10	10	6	0	19	4	9	5	0	0	36

Table 4—Responses to the access of schemes/services

Type of information need	Nature of information	Yes	No
Health and hygiene	Child Care	-	54
	Doctor/ Consultant	16	38
	Hospitals	15	39
	Nutrition	-	54
	Health schemes	5	49
	Immunization	-	54
	Family welfare	3	51
	Epidemics	-	54
	Rehabilitation of Drug Addicts and Abuse	-	54
	Health Insurance and Mediclaim policies	9	45
	Total	48 (8.88%)	492 (91.11%)
Education	Career/Employment opportunity	20	30
	Admission	30	24
	Digital Library	7	47
	E-learning	-	54
	Examination result	43	11
	Distance education	-	54
	Others	-	54
	Total	100 (26.46%)	274(72.48%)
Telecommunication	Online billing and recharging	25	29
	Telephone directory	-	54
	Toll free dial	6	48
	Others	-	54
	Total	31 (14.35%)	185 (85.64%)
Agriculture	Agricultural market information	2	52
	Seeds	2	52
	Weather	2	52
	Chemical and fertilizers	1	53
	Usage of pesticides and insecticides	-	54
	Others	-	54
	Total	7(2.16%)	317 (97.83%)
Public grievances	Lodging complaints on various government activities	-	54
	Others	-	54
	Total	0	108 (100%)
Business	Payment of taxes and filing of returns	-	54
	Registration	15	39
	Internet marketing	20	34
	Others	-	54
	Total	35 (16.20%)	181 (83.79%)
General Administration	Appointments	-	54
	Rents	-	54
	Salaries	-	54
	Others	-	54
	Total	0	216 (100%)
Libraries	Access e-journal/ Books	15	39
	Collection	-	54
	Resource sharing	2	52
	Others	-	54
	Total	17 (7.87%)	199 (92.12%)

Contd.

Table 4—Responses to the access of schemes/services (Contd.)			
Type of information need	Nature of information	Yes	No
Police Security	Capturing Crime Records	2	52
	FIR Lodging	5	49
	Stolen Vehicles	-	54
	Tracking	-	54
	Others	-	54
	Total	6 (2.22%)	263 (97.40%)
Rural/Urban development	Civic amenities like lighting and garbage removal	-	54
	Birth and death registration	20	34
	Housing	3	51
	Sewerage	5	49
	Drinking water	-	54
	Total	28 (8.64%)	296 (91.36%)
Utility payment /Billing	Telephone bill	40	14
	Water bill	-	54
	Electric bill	-	54
	Others	-	54
	Total	40 (18.51%)	176 (81.49%)
Finance	Treasury pension/Pay roll transaction	6	48
	Obtaining of way bills	-	54
	E-registration of Dealers and Societies	-	54
	Bank Loans	7	47
	Others	-	54
	Total	13(4.81%)	257 (95.19%)
Government Policies	Government programme	12	42
	Initiatives	3	51
	Public Grievances	-	54
	Civil Right and Duties	-	54
	others	-	54
	Total	15 (5.56%)	255 (94.44%)
Legal Aspects	Video and digital signature image	2	52
	Fundamental rights	-	54
	Crime records	-	54
	Policies and legislation	-	54
	Others	-	54
	Total	2(0.74%)	267 (98.89%)
General Information	Internet Banking	16	38
	Property Tax	5	49
	Air & Railway reservation	25	29
	Visa and Passports	7	47
	Others	-	54
	Total	53 (19.62%)	217 (80.37%)
Transport	Registration Certificate tracking system	-	54
	Online vehicle registration	-	54
	Issue of Smart card driving licence	15	39
	Others	-	54
	Total	15 (6.94%)	201 (93.06%)
Revenue	Benchmark valuation data	-	54
	Land records	10	44
	Land ownership	-	54
	Others	-	54
	Total	10 (4.62%)	206 (95.38%)
Any Other	NA	NA	NA

Table 5—Usefulness of e-Governance initiatives

Age	Very Useful	Useful	Somewhat useful	No comments	Not useful	Total
16-25	2	7	0	0	0	9
26-35	3	7	4 (28.57%)	0	0	14
36-45	4	7	3 (20%)	1	0	15
46-59	0	6	4 (40%)	0	0	10
Senior Citizen	0	5	0	1	0	6
Total	9 (16.67%)	32(59.26%)	11 (20.37 %)	2 (3.70 %)	0	54(100%)

Table 6—Mode of delivery of services

Age	Fully satisfied	Partially satisfied	Not satisfied at all	Total
16-25		5	4	9
26-35		8	7	14
36-45	1	7	7	15
46-59		8	2	10
60-above		2	4	6
Total	1	30(56%)	24(44%)	54(100%)

Mode of delivery of services

Table 6 below shows the level of satisfaction of the different modes of delivery of services under the initiatives.

It is seen that 55.55% of the users are partially satisfied with the mode of delivery services, while 44.44% of them are not satisfied at all with the same. Only 1 respondent was fully satisfied with the mode of delivery of government to citizen services. While taking further opinion, majority of them (80%) reported the need for improving the prevailing mode of delivery of services. The following are few suggestions given by them in this context:

- Availability of the system to all the rural areas;
- Conducting awareness campaigns to gain better knowledge about G2C Services; and
- Government should make more investment for good infrastructure for better services.
- About 70% agree and think that the available services under the e-Governance programme have controlled corruption and red-tapism.

Findings of the study

- As one of the states of NE India, Manipur has also joined the e-Governance initiative. However, awareness programme on the usability and accessibility to the system needs to be taken up.

- Though more than half of the users are computer literate, majority of them do not possess skills to use the services and facilities of the system.
- The awareness level of G2C information service among different age groups is relatively low.
- G2C is found to be most preferred and used service among other services. Education, general information, utility payment, etc. are the most used services/schemes of users.
- The usefulness of the e-Governance initiative is realised among the users of different age groups, even though their level of satisfaction on the mode of delivery of service is not so high.

Suggestions

As the findings show; the users under study experienced with certain challenges, issues and problems. Keeping these in view, they have also suggested some points to improve the system in which they are associated with. The following suggestions, as outcome of the study can be made in this regard:

- The government agencies can conduct awareness programmes of G2C under the e-Governance initiatives in the state.
- It is essential to develop sufficient Information Technology Infrastructure across the state, so as to enable access to government information from any corner of the state.
- It is also required to provide high standard of services, instant access to information, efficient transaction and support, whenever and wherever users feel need for it.
- A detailed study would be certainly helpful to understand the situation more clearly by covering maximum number of users.

Conclusion

As a major area of study, the G2C information services under the e-Governance initiatives is expected to enhance the active participation of the general public in governance. The present pilot study that focussed on 54 stakeholders (citizens) having different backgrounds of Manipur in North East India while analysing the usability of the services by them has thrown us light on the awareness and usability of G2C information service under the e-Governance initiatives in the state. The findings and suggestions as sidelined above are, in fact, the result of the initiative so far taken up in the state as far as the provision of G2C service is concerned. The study thus calls for the need for conducting an in depth study. This will give a new light on the way how G2C information service is being delivered to the citizens of the region where the level of awareness on the availability of the services is increasing day by day.

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