Assessing the Adoption of E-governance Services in Rural Areas of Bathinda District-Punjab

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Abstract- *This paper analyzes the impact of ICT projects in reaching out to the population in the state of Punjab. The sample size of 170 respondents is selected from Bathinda district in Punjab. Factors like performance expectancy, effort expectancy, social influence, facilitating conditional and behaviors intention of use impact of ICT are observed to find out reasons of low participation of rural population in e-governance services. The findings will be used for e-governance framework. There is no doubt, transparency and efficiency is improved in available services of e - governance. This research paper is drawing attention towards barriers in implementations of e-governance in Bathinda district of Punjab. The result shows that rural people are very far away from services of e-governance /ICT.*

Keywords: E-governance, ICT, Services.

1. INTRODUCTION

 The development in the field of e-governance/Information and Communication Technologies (ICT) has helped a lot to the government and people. The people have been able to use the services provided by the e-governments with ease. The government has been able to administer the services meant for the people efficiently after implementing e-governance. Computerizations services such as Suwidha Kendra, Saanjh Kendras, Fard Kendras and Gram Suwidha Kendras are managing information for planning and monitoring. Therefore, with the introduction of e-governance the efficiency and effectiveness of governance the efficiency and effectiveness of government services are improved in huge scale through the country. The ICT projects have been implemented with fanfare and running successfully.

2. LITERATURE REVIEW

The population in rural area is very large. Such area would require a large amount of money for providing ICT facilities for development (Bhatnagar, 2000)[1]. There is vital need to recognize the role of local knowledge in sustainable development (Garai and Shadrach,2006)[2]. The advent of new ICTs has been brought a lot of changes and economic growth of country (Nityesh, 2006)[3]. The e-government projects are designed for providing government services and information to rural public (Gorla, 2008) [4]. The technological development and governments are understanding, what citizens need usually determine the design of public online services (Zafiropoulos, Karavasilis and Vrana, 2012) [5].

3. OBJECTIVES OF THIS STUDY

1. To find out the factors responsible for low participation of rural people in Bathinda district (Punjab) in e-governance projects.

2. To find out local development priorities and perspectives, strategies for integration of e-governance services with public administration systems at Bathinda district level

4. RESEARCH FRAMEWORK

We observe various factors responsible for low participation of rural people in e-governance projects in Bathinda district. Questionnaires are the main tools for primary data collection. Additionally, this questionnaire was translated into Punjabi language since most people in Bathinda district more comfortable in Punjabi rather than the English language. A semi-structured questionnaire was used to collect data from 170 respondents using quota-sampling technique [6], with following details.

Table-1: Bathinda Demographic Profile

Age Group	Number	Percentage
18-30	103	60.59
31-45	50	29.41
46-50	17	10
Gender type	Number	Percentage
Male	114	67.05
Female	56	32.95
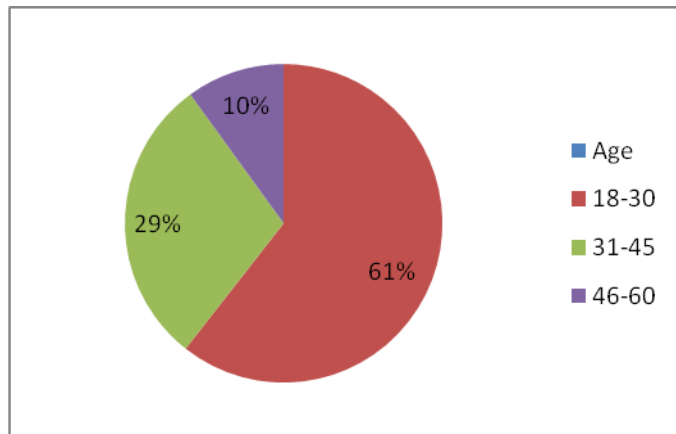
Figure -1: Age group in district Bathinda
Figure 1 shows maximum age group under 18-30.
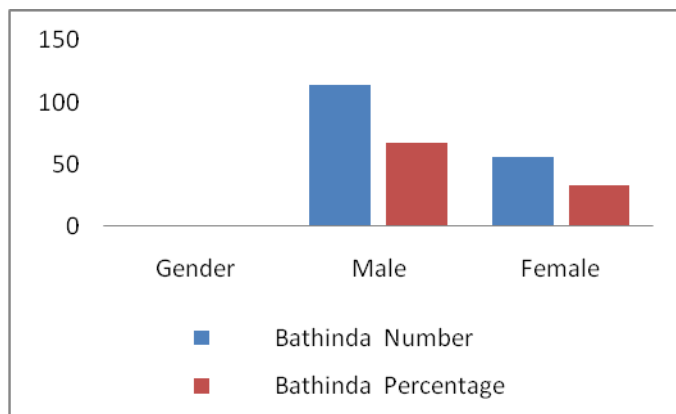
Figure -2: Gender in district Bathinda
 Figure 2 shows maximum male comparison than female.

5. DATA ANALYSIS AND FINDINGS

Quantitative data are analyzed statistically using SPSS [8] software package to summarize the relations among the variables assessed by this study. The general purpose of this analysis is to uncover meaningful relations among the measured variables and to represent important aspects of the phenomenon under consideration. Cronbach's coefficient alpha value was assessed to observe the internal research consistency of measuring [9], [10]. The four points of reliability are recommended excellent (0.90 and above), high (0.70 - 0.90), high moderate (0.50 – 0.70), and low (0.50 and below) [9].The reliability values detailed in [10] study should be equal to or above (0.70) for an affirmative study. The reliability for each construct is demonstrated in Table 2.High Cronbach's value for all constructs involves that they are internally consistent and measure the same content of the construct.

Table 2: Reliability of Measurements evaluate

Constructs	Sample size	Cronbach's Alpha (α)	Type
Performance expectancy	170	0.798	High Reliability
Effort Expectancy	170	0.828	Excellent Reliability
Social influence	170	0.736	High Reliability
Facilitating Conditions	170	0.736	High Reliability
Behavioral intention to Use	170	0.704	High Reliability

The above mentioned table 2 illustrates Cronbach's coefficient alpha values that are estimated to test the internal consistency of the measure. Cronbach's results varied between (0.704) for the Behavioral Intention to adopt e-government and (0.828) for the Effort Expectancy constructs. Social Influence reveals a reliability of (0.712) and Facilitating Conditions possessed a reliability of (0.736). The remaining construct, namely Performance Expectancy had a Cronbach's score of (0.798). The findings prove that all the alpha values indicates the study's

instrument is reliable and the higher the Cronbach's (α) value of construct, the higher the reliability is of measuring the same construct [7]. Following are the main findings of our study detail.

5.1 Performance Expectancy

These are important to measure the degree to which individuals believe that using a system will help them to improve their job performance. There are various parameters to measure the performance expectancy for the good quality administration and governance and these were included after pretesting of the questionnaire. The 61.72 percent of the respondents favor corruption free services. The population expects (57 percent) people centric services in a responsive manner and 55 percent favor maintaining rules of law and applying the same rules to all, no VIP culture and freebie schemes. People expect good governance in responsive manner. The 51 percent of respondents emphasize on improvement in services like access to land records, registration and transfer of property, copies of other records, property tax and revenue related cases etc through computerized ICT/use of e-governance.

5.2 Effort Expectancy

The degree of ease related with the use of the system; effort expectancy is made up of; perceived ease of use, complexity and actual ease of use. The 72.42 percent of citizens have trust in online services. The result shows that the trust worthy e-governance services are the most important factor for citizens; which is followed by timely service delivery, transparency and 24x7 availability of e-governance services. There is mixed response from the respondents favoring services like downloading application forms and submitting application forms online and make fee payment through credit card/debit card. A very few respondents (those who are illiterate and aged) are in favor of manual systems. The maximum number of respondents and service providing staff is in favor necessary computer education (for free or at a nominal fee) for creating awareness of using computerized government services/e-governance services in the effective manner.

5.3 Social Influence

Social influence is the degree to which people react against

the influence of the system be it positive or negative. The maximum number of respondents get irritation from unreasonable delay, multiple visits even for small services as well as non responsiveness of government staff to the needs of urgency of citizens and lack of information/guidance for the correct procedures, form, rules etc are the most common reasons or difficulties that are being faced while getting the citizen services from various government departments. The results also prove the fact that respondents agree that the system need overhauling as the problems are not identified and defined correctly in department(s) or service(s). There is need to upgrade the technology with time and apply strict rules to keep privacy of citizen information/transactions.

5.4 Facilitating Conditions

The degree to which an individual believes that an organization and technical infrastructure exist to support the system is facilitating conditions. These are involved of three roots: perceived behavioral control, facilitating conditions and compatibility. The maximum population is in favor of getting computerized citizens services in District office for nominal fee. The same number of respondents is in favor of online payment/online bank transfers through internet or by cash at the service counter. The respondents are comfortable if the services are improved within a period of one year for implementing efforts for effective e-governance services.

5.5 Behavioral Intention to Use

The behavioral intention of the public towards e-government services has parameters like how much percent of the respondents support the governmental efforts and due to this how much empowered the citizen becomes with the ease of information availability. The respondents are in favor of these efforts and agree that this would bring in the radical change in the way government functions and would bring in real benefits to the citizens.

6. BARRIERS FOR LOW PARTICIPATION IN ADOPTION OF E-GOVERNANCE SERVICES

6.1 Infrastructure

The success of ICT and e-governance projects lies in the availability of infrastructure by the government for public accessibility. The cost of computing tools and fees for

internet access are still high for the most rural population. In addition to this there are digital divide between the information haves and information have-nots. Any individual living below poverty line does not afford a computer to harness the benefits of e-government and other online services. Sometimes there is lack of awareness among the people is an important factor.

6.2 Funding

Funding is the major barrier in implementing ICT and e-governance projects. The projects that are the part of the e-governance sustainable need huge investment. The state of Punjab has been going through financial crisis since last ten years. This is a major factor for low participation of people in e-governance.

6.3 Literacy

6.3.1 Majority of the people in Punjab is not literate and thus they do not have proper knowledge about the usage of ICT tools. So, low level of ICT literacy is a major hurdle for e-government adoption and acceptance the people. The e-government applications are written or published online in English language only and not user-friendly. This is also one of the major reasons for the negligible acceptance and adoption of e-government projects.

6.3.2 Approximately 70% population in Punjab is living in rural areas; they are economically poor, socially backward and illiterate. Even the segment of public that is educated, lack of basic knowledge of computer and internet operating skills.

6.4 Language

The most important factor for the population is of language and there is dominance of English language on the internet. It is reported that most of the population in Punjab speak Punjabi language.

7. CONCLUSIONS

The present study emphasizes on to find out the parameters for measurement of satisfaction of people using e-governance services in Bathinda district. So that there is increased in adoption of e-governance services among rural population in district. Governments should focus on improving services of e-governance based on citizen centric factors (funding, infrastructure, low literacy

level, IT literacy, and local language) for sustainable development. They should be aware of what are the major expectations of the citizens (corruption free services, trustworthily services freebies or nominal fee).

REFERENCES

[1] S. Bhatnagar, "Enhancing telecom access in rural India: some options India Telecom Conference", Asia-Pacific Research Center, Stanford University, November 2000.

[2] A. Garai, and B. Shadrach, "Processes and Appropriation of ICT in Human Development in Rural India: Bridging the Research and Practice Gaps" , In Taking ICT To Every Village, by Atanu Garai and B.Shadrach, 1-35. New Delhi: One world South Asia, 2006 (accessed in February,2006.   from http://www.drous./org/grous/oneworldsA/docs/TICITEI V_pdf.pdf).

[3] B. Nityesh, " A critical evaluation of Indian government's strategies to bridge digital divide" The Annals of Dunarea DeJos University of Galati Fascicle-I-2006,Economics and Applied Informatics, Year XII, ISSN 1584-40409.

[4] N. Gorla, "Hurdles in rural e-government lessons for developing countries Electronic Government", An International Journal, Vol. 5,No.1,2008.

[5] K. Zafiropoulos, I. Karavasilis, and V. Vrana, "Assessing the Adoption of e-Government Services by Teacher in Greece", Future Internet 2012, 4, 528-544; doi: 10.3390/fi4020528 ISSN 1999-5903.

[6] CR. Kothari, "Research Methodology Method and Technique", 2nded (2004). New Age New Delhi: International Publishers.

[7] Y. Dwivedi, A. Papazaferiropoulou and H. Gharavi, "Socio-Economic Determinants of Adoption of the government Gateway Initiative in the UK", Electronic Government, (3:4), 2006, pp.404-419.

[8] A. Gaur and S. Gaur, "Statistical Methods for Practice and Research: A Guide to Data Analysis", 2006. Using SPSS.

[9] P.R. Hinton, C. Brownlow, I. MucMurvay and B.Cozens, SPSS, "Explained ,East Sussex England: Routledge Inc" , 2004.

[10] D.W. Straub, M.C. Boudreau and D. Gefen, "Validation Guidelines for IS Positivist Research, CAIS(forth coming) 2004.