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ON THE ROLE OF E-GOVERNANCE IN ECONOMIC DEVELOPMENT (AN IMPACT STUDY OF RURAL AND SEMI-URBAN PUNJAB)

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Abstract: Punjab government has invested ample amount of funds in delivery of citizen services through information technology networks. More than a dozen odd initiatives of the state government are afoot claiming to change the lives of its citizens. So far, the real impact of such e-governance initiatives has not been evaluated through an organized study. Present study endeavours to analyse the level/degree of user satisfaction in respect to select services of the state government. This study is based on the impact of e-governance on economy of rural people through t-test anlysis of sample size of 790 repondents from rural Punjab. The evaluation of e-governance conducted through this study. This study reveals that people has to face corruption and harassment while availing these services, however the level of harassment and corruption is different for different services. There is no doubt that E-Governance has increased Transperancy and Efficency. As a result services are being delivered very efficiently through Information Technology to far away and distinct places also which is proving as tool of social and economic change in lives of rural people.

Keywords: e-governance, e-readiness, SWAN, NIC, ICT

I. INTRODUCTION

Governements are using information and communication technologies to provide various services efficiently. Small towns and rural areas have been lagging behind in availing such

services. ICT can help create transperancy and minimize the cost of availing the services. E-Governance minimizes the time, corruption while availing the services. As a result this helps in improving the social and economic development. Various government services can be easily provided to remote places at very low cost through computer and internet. Today, this can be done in easier way by using local language software. Presently, governements are also awaring the people to avail these services. In modern world it seems impossible to improve the social and economic life of rural people without implementing such e-governance programmes. E-Governance not only helps in good governance, but also improves the participation of common citizen in governance and strengthens the democracy.

II. LITERATURE REVIEW

E-Governance provides timely information to citizens and provides economic capabilities through modern ways (Singh, 2004; Malhotra et al., 2006). ICTs helpsin improving rural life by providing social, business and educational benefits (Share, 1993; Madden et al., 1997). Electronic service centres are very helpful in providing various facilities to remote villages (Singh, 2000). According to Wilson (2000) “e-Governance can be used very efficiently in improving education, governance, enviorment estimation, health, citizen rights, economic development.” Annamalai and Rao (2003) have stated that “e-Governance can be used to minimize the transactional cost of agricultural products.” Most of the E-Govermance projects are successfully running, for these act as a link between the people and Government (Kaushik and Singh, 2004). On the reciprocal way this is also true that most of the e-governance projects are just a copy of western countries (Jauhari, 2004) and in case of India where education level and standard is low, no one guarantee the rural development (Bhatnagar and Schware, 2000). To maximize the benefits of e-governance social structure of rural areas must be efficiently attached with exsisiting governance model (Kanungo, 2004; Pande, 2003). It will more beneficial to understand the local empowerment and use it betterment of people (Heeks, 2002).

E-Governance started in India in eighth decade of twentieth century but expanded in nineth decade when NIC started connecting district headquarters. Intially it was focusing on computerization and automation, but extended towards networking and establishing a system. At micro level E-Governance means implemention of automated information technology,

increasing the reach towards various government services, redressal of public complaints, providing ease of daily services like payment of utility bills, information regarding different market rates, etc.

III. E-GOVERNANCE INTIATIVES IN PUNJAB

Punjab is an agribulture based state and most of the population lived in villages, therefore by provding ease of use of the government services can help in improving their economic and social life. As per Dataquest-IDC DI e-Governance Satisfaction Study: Punjab ranked 16th on the basis of satisfaction level , However ranked 5th on the basis of e-readiness. Punjab Governement is implementing e-governance in a speedy manner. The main E-governance Programmes of Punjab State are as follows:

State Wide Area Network (SWAN): This project is launched to establish the basic structure of E-Governance Services. This Project is responsible for providing communication link of data, Audio and Video. This is link between various government units and helps in establishment of good governance and to provide the various services at low cost.

State Data Centre: This is helpful in providing various level e-governance services i.e. G2G (Government to Government), G2B (Government to Business), G2C (Government of Citizen). State Data Center and District Data Centres are establishing at Chandigarh and every district headquarters.

Common Service Centers: These centers will minimize the technological difference in between rural and urban. This is a district level institution and aims to provide every government deparment's services at one place. These centers are especially designed for rural areas.

Suvidha: This intiative is providing 150 services related to local and State Governement departments. This intiative is working efficiently in every district of state. Its main objective is to provide services transperantly and efficiently.

PRISM: This intiative is providing services related to Land (Purchase, Sale, Mortgauge…etc.) with computerized automatic manner. PLRS (Punjab Land Records Society) is responsible for this service.

Vahan and Sarathi: Vahan is for registration of vehicles, Taxtation of Vehicles while Sarthi is for issuing learning and Full Fledge Driving Licences.

Agmarket: This service provides information regarding rates of all agriculture related markets. This intiative has motive to establish a national level information network of agriculture products.
Web Services: These informations/services are being provided through websites: A) Every District has its NIC Website containing all information about district B) Official Website of Punjab Governement. C) Official E-Mail Server. D) Interactive Passport Services. E) Natioanal Informatic Centre etc.

IV. OBJECTIVES AND HYPOTHESES

In order to undertake the present study, the following research objectives have been by the investigators:

1. To gauge the satisfaction level of common citizens in respect to various e-governance related services.
2. To know the usage parterns of different strata of users in respect to various e-governance services.
3. To know the people's opinion with regards to improvement of e-governance services.
4. To workout the impact of egovernance upon social and economic development of rural people

Further, following research hypotheses have bee formulated:

H1: There is no significant difference in satisfaction level between rural and semi-urban people in respect to e-governance services of Punjab.
H2: There is no significant difference in usage patterns between rural and semi-urban people in respect to e-governance services of Punjab.
H3: There is no significant difference in opinions of rural and semi-urban people in respect to improvements in the e-governance services of Punjab.
H4: There is no significant difference in impact of e-governance services on economic conditions of rural and semi-urban people of Punjab.

V. SAMPLE DESIGN

There are total twenty two districts and three regions in the Punjab, namely, Majha, Malwa, Doaba. To give representation to all the three regions, two disricts each from Majha (Amritsar,

Gurdaspur) and Doaba (Jalandhar, Nawashahar) and three disricts (Bathinda, Muktsar, and Patiala) from Malwa region have been selected in the sample. Further, five villages from two blocks have been selected from each of the above mentioned seven districts. 980 questionaires distributed among these areas and 790 Questionaires received back as response. Only 4% of People are tax payers whenever 79% respondents are above poverty line. 17% respondents are below poverty line. To make the study represetive of differet strata of society, 22% women also included in the study. Brealup of the respondents is given below in Tabale 1:

Table 1: Classification of respondents on the basis of economy and gender etc.

Economy Level	Rural		Semi-Urban		Total
	Female	Male	Female	Male	
Below poverty line	24	61	24	25	134 (17pc)
Above poverty line-non tax payer	46	323	77	179	625 (79pc)
Above poverty line- tax payer	02	15	03	11	31 (04pc)

VI. RESULTS AND DISCUSSION

E-Governance success ratio attached with knowledge level and usage of computer and the Internet by common citizen. Table 3 shows that around 60% people are not aware of such information technology techniques. Only 23% people are fully aware about usage of such techniques.

Table 3: Awareness level of computer and the Internet

Awareness Level	Rural		Urban		Total
	Women	Men	Women	Men	
1. Not aware	50	219	64	142	475 (60pc)
2. Fully aware	12	99	21	48	180 (23pc)
3. Aware of computer but not the Internet	10	72	18	37	137 (17pc)

Electronic Devices are needed for providing e-services. Table 4 below shows that the situation regarding availability of communication devices is comparatively satisfactory. It means most of

the people have mobile/Landline phones. This shows that there is bright future in e-services. It will be more effective to provide the e-services in mother tongue. 684 respondents out of 790 total respondents preferred e-services in mother tongue. The Governement should do possible efforts regarding this factor.

Table 4: Availability of information and entertainment gadgets

Electronic Gadget	Rural		Urban		Total
	Women	Men	Women	Men	
No TV access	11	28	10	21	70
TV in neighbourhood	11	28	10	21	70
Cable TV	2	23	11	11	47
TV without cable	48	311`	147	68	574
Fixed phone	26	211	41	85	363
Mobile phone	18	260	50	175	503

Table 5: Prefrence of medium of communication

Medium	Rural		Urban		Total
	Women	Men	Women	Men	
Punjabi	**54**	**349**	**91**	**190**	**684**
English	**4**	**2**	**-**	**6**	**12**
Hindi	**-**	**-**	**-**	**-**	**-**
With help of Operator	**14**	**19**	**10**	**31**	**74**
With Pictures	**-**	-	-	-	-

Punjab Govt. is providing following e-services through e-governance among remote areas. a) Rural and Agricultural Development; b) Civil Hospitals for Health Services and Social Services; c) Education Services; d) District Administration and Police Servics; e) Basic Facilities like water/Sanitation/Electricity; f) Transport, Taxtation and Excise; g) Banking and Loan Facilities; h) Other Services. In view of these services impact of these services asked on Liqert Scale and response based on priority services classified in a table as given below:

Table 6: Effects of e-Governance

Aspect of e-governance	No	So some extent	Yes
Ease of use improved	-	10 (1.30pc)	780 (98.70pc)
Less distance traveled	-	6 (0.75pc)	784 (99.25pc)
Working Hours increased	6 (0.75pc)	3(0.39pc)	781 (98.86pc)
Simplicity in procedures	7 (0.94pc)	36 (4.50pc)	747 (94.56pc)
Option for medium of instructions	790 (100pc)	-	-
Online services	482 (61.00pc)	14 (1.73pc)	294(37.27pc)
Single window system for all departments	-	-	790(100pc)
Less corruption	76(9.63pc)	-	714 (90.37pc)
Cost of services reduced	66 (8.36pc)	-	724 (91.64pc)
Awareness about services	198 (25.08pc)	-	592 (74.92pc)
Maximum people benefited	646 (81.77pc)	-	144 (18.23pc)
Well trained staff	77 (9.75pc)	-	713 (90.25pc)
Reliable and timely service	228 (28.87pc)	-	562 (71.13pc)
Correction in mistakes	85(10.76pc)	-	705 (89.24pc)
Govt. Pressure for good services	413(52.27pc)	-	377(47.73pc)
Well Maintenance of record	204 (25.82pc)	-	586 (74.18pc)
Overall Satisfaction	128 (16.20pc)	-	662 (83.80pc)

In view of that most of the services are part of e-governement than e-governance; in questionnaire there are questions for respondents to know their views about how to improve the e-services. This is clear from the above said discussion that to effectively implement the e-governance people must aware of computer and internet therefore respondents has choosen the free computer education at school level as best way to impart computer and internet training. At last but not least it is clear

that people have benefited from e-services, but govt. must implememnt awareness compaign with launching of every service so that beneficials may increase.

VII. CONCLUSION AND SUGGESTIONS

Punjab govt. performed well in terms of e-governance and Punjab state ranked 5 on the behalf of e-readiness. There are more than 100 services provided through e-governance. There is a necessity that common citizen must aware of computer and internet for effective implemention of e-governance, but as per study only 40% people are computer literate.However people have communication facilities like mobile/ landline phone in maximum number, therefore M-Governance may be more helpful for such purpose.

E-Governance could be effectively implemented if medium of instructions in Punjabi. This will also helpful in the same way during implemention of e-governance. Police, agricultureal, electricity, public distribution services are used frequently and found corruption induldged maximum, therefore people prioritized these services for improvement. Education and utility bill payment services are also frequently used, but corruption and inability level is lowest i.e near zero. E-Governance has improved delivery of services in terms of transperancy/ efficiency. Consumption of Time, Corruption, and Distance traveled for availing service decreased. Multiple services are now available at single place.

There is no doubt that government is eager to provide services through e-governance but some deficiencies remained in the system during implemention due to which public has to face harassment i.e rough behavour of employees, multiple visits for a small work, corruption ..etc. Common Citizen has key role e-governance; ICT will ensure participation of common citizen in policy making process from remote areas also. Therefore for effective impelemention of e-governance there is a great need of such political and administrative structure which may work as per basics of e-governance and keep auditing of their work at regular intervals.

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