E-Governance in Devlopment of Rural Economy

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Abstract
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 & harassment while availing these services, however the level of harassment & corruption is different for different services. There is no doubt that E-Governance has increased Transperancy & Efficency. As a result services are being delivered very efficiently through Information Technology to far away & distinct places also which is proving as tool of social & economic change in lives of rural people.

Keywords
E-Governance, E-Government, M-Governance, E-Readiness, SWAN, NIC,ICT

I.Introduction

Today Governements are using tools of Information & Communication Technologies to provide various services efficiently. Small towns & rural areas due to long distances were left behind for availing such services, ICT make it possible for reach to far away places.This creates transperancy & 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 & economic development. Various Government services can be easily provided to remote places at very low cost through computer & internet. Today this can be done in easier way by using local language software. Present Governements are also awaring the people to avail these services. In modern world it seems impossible to improve the social & 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 & strengthens the democracy.

II. Literature Review

E-Governance provides timely information to citizens & provides economic capabilities through modern ways (Singh, 2004, Malhotra et al., 2006) [12, 15]. ICT helps in improving rural life by providing social, business & educational benefits (Share, 1993; Madden et al., 1997) [11, 14]. Electronic service centres are very helpful in providing various facilities to remote villages (Singh, 2000) [16]. As per research by Wilson in 2000 [17]. 'E-Governance can be used very efficiently in improving education, governance, enviorment estimation, health, citizen rights, economic development'. As per Annamalai and Rao, 2003 [1]. 'E-Governance can be used to minimize the transactional cost of agricultural products. Most of the E-Govermance projects are successfully running because these act as a link between the people & Government (Kaushik and Singh, 2004). [10] On the reciprocal way this is also true that most of the e-governance projects are just a copy of western countries (Jauhari, 2004) [7] & in case of India where education level & standard is low, no one guarantee the rural development (Bhatnagar and Schware, 2000) [2]. To maximize the benefits of e-governance social structure of rural areas must be efficiently attached with exsisiting governance model (Kanungo, 2004; Pande, 2003) [9, 13]. It will more beneficial to understand the local empowerment & 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 Adjoining districts of India. Intially it was forcing on computerization & automation, but extended towards networking & 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 bulls, Information regarding different Market Rates... etc. As per data collected by The Economic Times ' India is spending very huge amount on Information Technology which includes Centre & State Governement's expanses of Hardware, Software, Telecom Instruments & Telecom services. However in India E-governance is in Initial Stage, But Today Every State has an Information Technology Agenda.

III. E-Governance Intiatives in Punjab

Punjab is a Agribulture based state & most of the population lived in villages, therefore by provding ease of use of the government services can help in improving their economic & 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:

A. 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 & Video. This is link between various government Units. This is helping in establishment of good governance & helpful to provide the various services at low cost. This is establishing State, District, Division Lvel 3-Tier structure.

B. State Data Centre

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

C. Common Service Centers

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

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

E. 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.

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

G. 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.

H. Web Services
These informations/ services are being provided through websites :

(1) Every District has its NIC Website containing all information about district.
(2) Official Website of Punjab Governement
(3) Official E-Mail Server
(4) Interactive Passport Services
(5) Natioanal Informatic Centre..etc.

It seems clearly that Punjab Govt. has done appreciable work in development of e-governance. People are definitely getting benefits from these services. This study is based on survey for evaluation of impact related to various services available for rural people.

IV. Objectives of study
- To know the satisfaction level of common citizens from different services
- To know the Annual Usage of services.
- To know the priority of people regarding improvement of services.
- To know the impact of egovernance upon social & economic development of rural people

V. Hypothesis
H1: Rural & Semi urban people have same satisfaction level
H2: Rural & Semi Urban People use same services in same frequency
H3: Rural & Semi Urban People have same priority of improvement in services
H4: Rural & Semi Urban people have same impact of e-intiatives on socio economic development

VI. Data Collection & Research Methodology
There are total 22 disricts including 2 recently new formed districts in Punjab. The Punjab has 3 regions i.e Majha, Malwa, Doaba. To give presentation to each region 2 disricts from majha (Amritsar, Gurdaspur) & Doaba (Jalandhar, Nawashahar) each & 3 disricts(Bathinda, Muktsar, Patiala) from malwa region due to larger area. Two Blocks from each district & 5 villages from each block. 980 Questionaires distributed among these areas & 790 Questionaires received back as response. Only 4% of People are tax payers whenever 79% respondents are above BPL(Below Poverty Line). 17% respondents are below BPL. To make the study more effective 22% women also included in the study. Classification of respondents is given below:

Table 1: Classification of Respondents on the basis of Economy, Sex, Region

Economy Level	Rural		Semi-Urban		Total
	Female	Male	Female	Male	
Below BPL	24	61	24	25	134
Above BPL But Not Tax Payer	46	323	77	179	(17.00)
Tax Payer	02	15	03	11	625
					(79.08)
					31 (3.92)

Note: Digits in brackets show percentage

VII. Data Analysis & Findings
E-Governance successful ratio attached with knowledge level & usage of Computer, Internet by common citizen. Therefore Table 2 is showing such factors, But Unfortunately 60% people are not aware of such information technology techniques, only 23% people are fully aware about usage of such techniques.

Table 2: Awareness about usage of Computer & Internet

Awareness Level	Rural		Urban		Total
	Women	Men	Women	men	
Nothing	50	219	64	142	475
					(60.12)
Full awareness	12	99	21	48	
					180
Awareness of					(22.78)
Computer but not	10	72	18	37	
Internet					
					137
					(17.10)

Note: Values in Brackets are percentage

Electronic Devices are needed for providing e-services. Table 3 show 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 3: Availability of Information & Entertainment devices

Devices	Rural		Urban		Total
	Womwn	Men	Womwn	Men	
NO T.V	11	28	10	21	70
T.V in Neighbourhood	11	28	10	21	70
TV with Cable	2	23	11	11	47
TV without Cable	48	311	147	68	574
Fixed Phone Line	26	211	41	85	363
Mobile Phone	18	260	50	175	503

Table 4: Prefrence of medium of communication

Medium	Rural		Urban		Total
	Women	Men	Womwn	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.

1. Rural & Agricultural Development
2. Civil Hospitals for Health Services & Social Services
3. Education Services
4. District Administration & Police Servics
5. Basic Facilities like water/Sanitation/Electricity ...etc.
6. Transport, Taxtation & Excise
7. Banking & Loan Facilities
8. Other Services

In view of these services impact of these services asked on Liqert Scale & response based on priority services classified in a table as given below:

Table 5: Impact of E-governance Services in Punjab

t-Values calculated among respondents of rural and semi urban areas (experience of services offered by Punjab Government Offices/Departments/enterprises)									
	Annual Usage			Corruption/Inability			Preference to Improve		
E-Governance Services offered by Government Department/Office	**Majha**	**Malwa**	**Doaba**	**Majha**	**Malwa**	**Doaba**	**Majaha**	**Malwa**	**Doaba**
DC/SDM/Tehsildar	36.52	30.34	19.88	1.36	35	9.2	12.3	15.02	21.74
Sub Tehsil/BDO	42.10	28.32	20.22	2.11	32	9.2	13.2	12.02	22.02
Civil Surgeon/CMO	30.50	21.4	9.18	7.7	22	9.18	3.72	22	15.8
Hospital/Dispensaries/PHC	1.02	21.8	9.4	0.9	40.6	7.74	-	18.8	36.8
Education from Govt. Schools/Colleges	6.88	9.44	20.7	51.8	71.44	35.64	18.56	51.8	26.2
Muncipal Committee/Panchayat	3.77	36.67	47.40	-	-	27	-	-	-
Urban Development	5.44	10.32	67.8	49.86	100.2	46.77	13.6	61.6	28.2
Police Station	1.14	-	16.2	-	-	3.8	-	-	-
Industrial Departments	50.78	73.9	36.2	93	68.2	42.8	10.12	68.4	19.14
Building & Road	11.44	65.4	21.92	12	20.2	-	4	-	-
Jila prishad/DRDA	34.4	65.4	51.10	51	69	46.2	38.4	99.2	48.2
Sales Tax/Income Tax	38.34	43.52	59.6	38.16	68.12	24	-	68.12	-
District Social Security	24.34	20.4	19.2	3.54	20.4	15.6	11.2	25.8	11.8
District Transport	5.8	21.8	10.8	11	32.8	1.14	-	19.2	-
Public Health	18.6	36.8	5.2	4.6	97.2	5.2	-	-	-
Food & Civil Supply	-	-	-	-	-	-	-	-	-
Punjab State Electricity Bill	0	20.2	48	5.2	7.6	.64	14.4	48	8.04
Agricultural Department/PAU Ext. Centre	25.2	48	7.46	12.6	-	-	-	-	-
Markeet Committee	8.08	42.2	3.36	22	54.6	13.8	28.8	57.94	32.6
Registrar Co-operative Socities	45	13.54	46	42	2.28	32	19.6	-	-
Banks	53.2	42	37.4	58	33.6	19	29.8	51.4	19
Employment Exchange	26.2	34.8	24.6	17.4	30.6	11.4	-	-	-
Consumer Court	17.2	19.74	41.94	12	13.4	23.4	18	4.86	23.4
Public Grievence	.54	3.2	14	24.8	10.4	29	9.6	14.84	38.4
Right to Information act	15	8.4	7.2	3.6	.76	19.4	-	13.8	1.36

Table 6: Effects of E-Governance

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

Note: Values in brackets shows percemtage

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 & internet therefore respondents has choosen the free computer education at school level as best way to impart computer & internet training. At last but not least it is clear that people has benefited from e-services, but govt. must implememnt awareness compaign with launching of every service so that beneficials may increase.

VIII. Conclusion & Findings

Literature Review of E-governance shows the direct relation of rural development with e-intiatives. Therfore Punjab govt. performed well in terms of e-governance & 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 & 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 will be for 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 & found corruption induldged maximum, therefore people prioritized these services for improvement.

Education & Utility Bill Payment services are also frequently used, but corruption & 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 & administrative structure which may work as per basics of e-governance & keep auditing of their work at regular intervals.

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