



Study on the Impact of ICT for Rural E-Governance in Satna District of Madhya Pradesh

¹Ankita Gupta, ²S.S. Gautam

¹Research Scholar, M.G.C.G.V., Chitrakoot, Satna, M.P., India

²Associate Professor (Dept of Phy Science), M.G.C.G.V., Chitrakoot, Satna, M.P., India

¹ankitagupta23sep@rediffmail.com, ²ssgcgv@rediffmail.com

Abstract-- The information and communication technology revolutionized the government and the people of the country into the electronic era which can helped them to providing and using the services with ease. The manifestation of ICT has make available imply for better and faster communication. On the other hand at the time of policy implementation by the use of ICT government also faces some problems. This paper does an analytical Study on the collected data and finding the Impact of ICT for rural e-governance in Satna District of Madhya Pradesh.

Keywords- ICT, E-governance

I. INTRODUCTION

E-governance is the very complex but important concept. With the help of Information and Communication Technologies (ICT), traditional governance modernized itself into electronic governance (E-governance), and by the use of ICT it provide the interaction between government and citizens (G-C), government and businesses (G-B), and government to government (G-G). In all these modes government applied different policies and rules for completing the task related to the field. E-governance/ ICT have helped a lot to the common people and government. After implementing ICT the government has been capable to govern the services intended for the people powerfully. It provides better service and transparency to the users. Due to presence of these

technologies (e-governance/Computerizations services) in present generation people are getting services of various department facilities from the single-window centres' efficiently. Governments and public sector organizations around the world are facing to reform their public administration organizations and deliver more efficient and cost effective services, as well as better information and knowledge to their stakeholders (Dwivedi and Bharti, 2010).

II. IMPACT of ICT for RURAL E-GOVERNANCE

The emergence of Information and Communications Technology has provided means for faster and better communication, efficient storage, retrieval and processing of data and exchange and utilization of information to its users, be they individuals, groups, businesses, organizations or governments. For improving governance, the government of India identifies that some good e-Initiatives like e-Governances make available an excellent opportunity. It looks as an activator for introducing various administrative transformations. We observe various ICT based issues for low participation of rural people in e-governance schemes in Satna district. Questionnaires are the main tools for primary data collection from the various sectors of Government schemes. ICT participate a key responsibility in e-governance, and consequently it turn into essential that ICT reaches rural masses. This will lead to good governance which in turn will lead to better administration, better interaction, less corruption and more transparency in the government [9]. The experience in e-Governance/ ICT initiatives has exhibited significant success in improving accessibility, reducing corruption, cutting down costs, extending help and increased access to un-served groups.

III. MATERIALS and METHODS

A survey conducted for the review of the technologies, the rural ICT projects and issue associated with the impact of ICT for rural e-governance services in the Satna district, Madhya Pradesh state. There are total around 120 respondents were selected each problems from Satna district in Madhya Pradesh. Collected data was evaluated and analyzed to find the results. The data was processed using Microsoft Excel and Statistical Package for Social Sciences (SPSS). The analysis were done based on reliability test for impact of various ICT based issues (resource related issues, computer illiteracy, awareness of technologies, Challenges of Language in Rural Influence, Resistance to change, Lack of trained person, availability of equipments, and technology difficulties) for problem facing by Governments sectors in e-governance services/ schemes for implementation.

Reliability Testing: Cronbach's coefficient alpha value was assessed to examine the internal research consistency of measuring (Hinton et al., 2004; Field, 2005; Straub et al., 2004). It varies between zero and one. The closer alpha is to one, the greater the internal consistency of the items in the questionnaire. Hinton et al., (2004) suggest four points of reliability, excellent (0.90 and above), high (0.70 - 0.90), high moderate (0.50 – 0.70), and low (0.50 and below). The reliability values reported in Straub et al. (2004) study should be equal to or above (0.70) for a confirmatory study.

IV. RESULT and DISCUSSION

The data presented in Table I indicated that the frequency percentage of survey data of impact of various ICT based problem by government in e-governance services/ schemes for implementation. It is clear that, the frequency of respondents of different schemes, maximum per cent of various schemes are found, 65.00 per cent had resource related use in agriculture, 64.17 per cent had resources related issue in Health care scheme, 70.83 per cent had computer illiteracy in higher education, 76.67 per cent Challenges of Language in Rural Influence and 62.50 per cent had Challenges of Language in Rural Influence in Women child development scheme.

A. Reliability of ICT based survey data for rural e-governance

The instrument validation processes that have been used in this study include content validity, construct validity and reliability. In order to have a reliable survey instrument and thus confidence in the research findings, the researcher employed content validity (questionnaires) as a pre-data collection validity, and a construct validity and reliability for post-data collection validity. These validity techniques are recommended standards in IS research (Straub *et al.*, 2004). The reliability for each construct is tested in the table II showed that Cronbach's coefficient alpha values that were estimated to test the internal consistency of the measure. Cronbach's results varied for different departments.

B. Reliability of ICT based survey data for Agriculture Department

It lies between (0.943) for the resource related issues for ICT on e-government and (0.953) for the level of Computer Illiteracy. Limited Citizens Awareness a reliability of (0.911) and Challenges of language possessed a reliability of (0.874) for resistance to change a reliability of (0.903) and (0.871) for lack of trained person and (0.887) for shortage of equipment. The remaining construct, namely Level of Difficulty on implementing Technology had a Cronbach's score of (0.915) and for Gender had score of (0.917).

C. Reliability of ICT based survey data for Healthcare department

It lies between (0.945) for the Resource Related Issues for ICT on e-government and (0.879) for the Level of Computer Illiteracy. Limited Citizens Awareness a reliability of (0.818) and Challenges of language possessed a reliability of (0.872) for Resistance to Change a reliability of (0.861) and (0.894) for Lack of Trained Person and (0.865) for Shortage of Equipment The remaining construct, namely Level of Difficulty on implementing Technology had a Cronbach's score of (0.924) and for Gender had score of (0.885).

D. Reliability of ICT based survey data for Higher Education Department

It lies between (0.961) for the Resource Related Issues for ICT on e-government and (0.872) for the Level of Computer Illiteracy. Limited Citizens Awareness a reliability of (0.870) and Challenges of language possessed a reliability of (0.786) for Resistance to Change a reliability of (0.843) and (0.844) for Lack of Trained Person and (0.821) for Shortage of Equipment The remaining construct, namely Level of Difficulty on implementing Technology had a Cronbach's score of (0.851) and for Gender had score of (0.937).

E. Reliability of ICT based survey data for Rural Development Department

It lies between (0.909) for the Resource Related Issues for ICT on e-government and (0.897) for the Level of Computer Illiteracy. Limited Citizens Awareness a reliability of (0.858) and Challenges of language possessed a reliability of (0.875) for Resistance to Change a reliability of (0.909) and (0.813) for Lack of Trained Person and (0.935) for Shortage of Equipment The remaining construct, namely Level of Difficulty on implementing Technology had a Cronbach's score of (0.934) and for Gender had score of (0.917).

F. Reliability of ICT based survey data for Women & Child Development Department

It lies between (0.945) for the Resource Related Issues for ICT on e-government and (0.853) for the Level of Computer Illiteracy. Limited Citizens Awareness a reliability of (0.893) and Challenges of language possessed a reliability of (0.874) for Resistance to Change a reliability of (0.948) and (0.875) for Lack of Trained Person and (0.915) for Shortage of Equipment The remaining construct, namely Level of Difficulty on implementing Technology had a Cronbach's score of (0.879) and for Gender had score of (0.871).

TABLE I: FREQUENCY of ICT BASED PROBLEMS

ICT based Problems		Schemes of Government Sectors				
		Agriculture	Health care	Higher Education	Rural Development	Women Child Development
Resource Related Issue	Internet	65.00	64.17	60.83	74.17	66.67
	Electricity	60.83	61.67	57.50	60.83	51.67
	Infrastructure	57.50	55.00	52.50	69.17	65.83
	Supplementary Resources	55.83	56.67	61.67	59.17	48.33
Computer Illiteracy	Basic	50.00	52.50	70.00	55.00	55.83
	Intermediate	52.50	63.33	67.50	57.50	65.00
	Advanced	45.83	70.83	70.83	70.00	70.00
Limited citizens' Awareness	Slightly Aware	58.33	67.50	74.17	65.83	64.17
	Moderately Aware	54.17	64.17	70.00	52.50	54.17
	Extremely Aware	48.33	70.00	60.83	50.83	66.67
Challenges of Language in Rural Influence	Content Availability	51.67	57.50	68.33	64.17	54.17
	Language Proficiency	62.50	69.17	74.17	76.67	62.50

ICT based Problems		Schemes of Government Sectors				
		Agriculture	Health care	Higher Education	Rural Development	Women Child Development
Resistance To Change	Strongly Oppose	55.00	63.33	68.33	68.33	50.00
	Somewhat Oppose	51.67	73.33	65.00	56.67	64.17
	Neutral	47.50	54.17	75.00	64.17	57.50
Lack Of Trained Persons	Untrained	56.67	48.33	65.83	73.33	68.33
	Partially Trained	60.00	64.17	76.67	70.00	56.67
	Trained	59.17	65.83	73.33	65.83	61.67
Shortage Of Equipments	Printer	50.00	65.00	68.33	61.67	65.00
	Projector	58.33	67.50	74.17	60.00	55.00
	Scanner	62.50	49.17	62.50	56.67	48.33
Level of Difficulty	Difficult	51.67	56.67	72.50	60.00	60.83
	Neutral	53.33	63.33	61.67	57.50	48.33
	Easy	54.17	70.00	70.83	44.17	60.00
Gender	Male	45.83	54.17	44.17	50.83	49.17
	Female	45.00	43.33	46.67	45.83	43.33

Table II: RELIABILITY of MRASUREMENTS for DIFFERENT ICT BASED SCHEMES and THEIR PROBLEMS

Constructs	Sample Size	Cronbach's Alpha(α) of Schemes				
		AG	HC	HE	RD	WCD
Resource Related Issues	120	0.943**	0.945**	0.961**	0.909**	0.945**
Level of Computer Illiteracy	120	0.953**	0.879*	0.872*	0.897*	0.853*
Limited Citizens Awareness	120	0.911**	0.818*	0.870*	0.858*	0.893*
Challenges of language	120	0.874*	0.872*	0.786*	0.875*	0.874*
Resistance to Change	120	0.903**	0.861*	0.843*	0.909*	0.948**
Lack of Trained Person	120	0.871*	0.894*	0.844*	0.813*	0.875*
Shortage of Equipment	120	0.887*	0.865*	0.821*	0.935**	0.915**
Level of Difficulty on implementing Technology	120	0.915**	0.924**	0.851*	0.934**	0.879*
Gender	120	0.917**	0.885*	0.937**	0.917**	0.871*

Note: ** Excellent, * High reliable, **AG**-Agriculture, **HC**-Healthcare, **HE**-Higher Education, **RD**-Rural Development, **WCD**- Women & Child Development

V. CONCLUSION

ICT enhanced the services of government but also has some difficulties. This paper done the analysis on collected data and shows the percentage of problems faced by government for implementing the policies on different departments. The findings show 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 (Dwivedi et al., 2006).

REFERENCES

- [1] Dwivedi Sanjay Kumar, Bharti Ajay Kumar, 2005."E-Governance in India – problems and Acceptability" *Journal of Theoretical and Applied Information Technology*.
- [2] Dwivedi, Y., Papazafeiropoulou, A., and Gharavi, H.2006. "Socio-Economic Determinants of Adoption of the Government Gateway Initiative in the UK", *Electronic Government*, (3:4), 2006, pp. 404-419.
- [3] Field, A.P. 2005, *Discovering Statistics Using SPSS* (2nd Edition). London: Sage.
- [4] Hinton, P. R., Brownlow, C., McMurvay, I., and Cozens, B. 2004. *SPSS explained*, East Sussex, England: Routledge Inc. *International Journal of Computer Trends and Technology*, Vol.4, Issue.3.
- [5] Mittal Pardeep, Kaur Amandeep 2013. E-Governance - A challenge for India: *International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)* Volume 2, Issue 3, March 2013 1196-1199.

- [6] Padmapriya, A. 2013. "E-Governance, A move towards paperless Administration in India",
- [7] Resham Dhillon, Dr Vijay Laxmi 2015. "An Analytical Study on the Role of ICT in e-Governance", *International Journal of Computer Science And Technology (IJCSIT)*, Vol. 6, Issue 3, July - Sept 2015 ISSN: 0976-8491 (Online) | ISSN: 2229-4333 (Print)
- [8] Sanjay Kumar Dwivedi, Ajay Kumar Bharti 2010. "E-Governance In India – Problems And Acceptability", *Journal of Theoretical and Applied Information Technology*, pp37-43.
- [9] Srivastava Nidhi, 2015. "E-Governance in Rural India", *International Journal of Computer Science and Information Technologies (IJCSIT)*, Vol. 6 (1), 741-744.
- [10] Straub, D.W. et al "Validation Guidelines for IS Positivist Research", CAIS (forth coming) 2004.