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Eliciting Citizens' Participation for Incorporating Contextual Factors in Rural e-Governance Initiatives

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Abstract

Participation in the processes related to e-Governance provides a sense of ownership to the citizens and helps enhance their cooperation in its implementation. However, little attempt has been made to elicit citizens' participation whilst designing e-Governance initiatives in the rural areas resulting in the neglect of contextual factors in e-Governance initiatives. The present study attempts to evolve suitable mechanisms for eliciting citizens' participation in rural e-Governance initiatives. Citizen Consultation Round (CCR) was conducted with the participation of 73 villagers from various Indian villages to identify the needs and expectations from Rural e-Governance initiatives (ReGI). To understand and incorporate the local concerns in ReGI, there is a need for the evolution of a series of collaborative and systematic mechanisms. Such an inclusive approach towards the design of ReGI is expected to make these initiatives more responsive to the contextual reality and hence instrumental in ushering rural development in developing economies.

Key Words

e-Governance, Rural Development, Citizens' Participation, Contextual Reality, ICTs in rural areas.

INTRODUCTION

The benefits enabled by Information Communication Technologies (ICTs) include rapid outreach and swift dissemination of accurate information that is expected to ameliorate the plight of the marginalised rural poor [Heeks, 1998, Yoffie, 1996]. ICT enabled governance helps to address two important issues. Firstly, it is expected to enhance the effectiveness of government by aiding its institutions and processes in public service delivery. This intervention of ICT in public domain managed by government is popularly referred to as 'e-Government' (Bellamy and Taylor, 1998). Some of the services to be provided under the aegis of e-Government include dissemination of public information about government schemes, information on agriculture, education,

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social/rural/employment/police services, grievance redressal mechanisms, billing services and utility payments, filing of tax returns, etc. (Mitra and Gupta, 2003). Secondly, ICTs are also expected to improve citizen participation in the governing process, broadly referred to as 'e-Governance'. E-Governance has the potential to enhance the overall scope of governance to connect disadvantaged people with societal decision-makers so that their voices may be heard in the agenda-setting process (Rogers and Shukla, 2001). E-Government and e-Governance have been found to be used interchangeably; however, the term e-Governance has a greater scope and connotation than e-Government (Relyea, 2002). The present study attempts to understand the limitations of existing e-Government initiatives from citizens' perspective in rural India and moves on to propound mechanisms for gradually morphing such initiatives to presumably ideal e-Governance solutions that are expected to be more responsive to the needs and expectations of its rural populace.

In a bid to expand the choice and freedom available to its rural citizens, various countries are making concerted efforts to utilise ICTs in the processes related to public service delivery and democratic participation. India also has specifically designed several e-Governance initiatives for its rural citizens. However, the majority of these rural e-Governance initiatives (ReGI) have not been able to address the needs and expectations of the rural citizens. This has eventually led to non-acceptance of such initiatives (Bhatnagar & Odedra, 1992; Kenniston, 2002; Malhotra, 2006). To overcome this, one of the proposed solutions is to invoke citizen-participation in the design and implementation of e-Governance initiatives (Lee, 2001). For development to be meaningful, participation of citizens is warranted. Being the closest to their reality, potential and problems, citizens could prove to be the ideal facilitators in designing solutions to address local governance issues.

Citizens' Participation in e-Governance - Review of Literature

The literature is rife with the proposition of the catalytic role of citizen participation in e-Governance processes (Lofstedt, 2007; Martin, 1997; Michel, 2005). A study by Singh indicates that of all the influencing factors related to the success of e-Governance, 'technology' plays an inconsequential role of a mere 15%, whilst 'stakeholders' participation' constitutes nearly 80% of all the factors (Singh, 2000). Damodaran et al. also caution; if the stakeholders' involvement is ignored, it would result in poor understanding of user requirements in the design and implementation of the initiatives (Damodaran et al., 2005). Rao affirms that grass-roots level consultation prior to initiating projects is essential and that top-down approaches do not work (Rao, 2004). In a similar vein, Banathy claims, "...it is the users, the people in the system who are the experts when it comes to the design of social and societal systems of all kinds" (Banathy, 1996). Evans and Yen reinforce that systems designed with bottoms-up consultation would yield 'citizen satisfaction' (Evans and Yen, 2006). Review of literature highlights the importance of participatory approach for successful design of e-Governance initiatives. However, delineation of any explicit strategies for embedding citizen-participation specifically for rural e-Governance initiatives (ReGI) is lacking.

Theoretical Foundation for Citizen Participation and Workshop Technique

Bailur insists that involving stakeholders would serve as a means to more successful ICT for Development (ICT4D) projects (Bailur, 2006). In a similar vein, Lee argues that as the communities are closest to their problems, they are the best judges not just to evaluate impacts of technology implementation, but also to design technology based solutions to address governance concerns (Lee, 2001). There is enough theoretical support for the bottoms-up perspective that insists that citizens are now rapidly emerging as producers rather than just consumers of policy (Macintosh, 2003). The literature has univocally asserted conduct of workshops for achieving collective stakeholder participation (Bayley & French, 2008; Wong et al., 2007), wherein all the constituents are expected to contribute, to listen and to react while putting forth their perspectives (Georgiadou et al, 2006). Workshops are expected to serve as collaborative techniques to draw varied citizens specifically in the processes related to the design and implementation of e-Governance initiatives. Heywood and Smith have produced a performance-based brief by conducting pre-designed strategic needs analysis workshops. These workshops facilitated internal local authority stakeholders to state their agreed strategic aspirations related to urban facilities management – 'Urban Village' Library-Community Centre for a middle-suburban council in Melbourne (Heywood and Smith, 2006). However, the authors could not find any literature citing the usage of workshop technique for invoking participation of rural citizens in the context of rural e-Governance design in developing countries.

Participation of citizens lends a sense of complete involvement and ownership in the processes related to ReGI and enhances their cooperation to the entire process of its implementation. As a result, a participatory approach was deemed to be particularly important in this study and further, workshop technique was expected to serve as an important tool. The workshop technique was used in this study and care was taken to solicit official and unofficial responses from citizens on the current state of implementation and expectations for the future of ReGI.

DESIGN OF CITIZEN CONSULTATION ROUND (CCR)

The deterministic influence of user involvement in the design of an information system is uncontested. As guided by the basic principles of Systems Analysis and Design (SAD), design theories and software engineering models, user needs elicited by user involvement form the starting point of any new project. However these conventional models are oriented more towards the stakeholder level of user involvement represented often by government bodies and professional groups, rather than the ultimate beneficiaries of such projects.

The prevailing Technology Acceptance Model (TAM) helps to neatly tie together basic parameters influencing any information system using two constructs *viz.* 'Perceived usefulness' and 'Usability/ perceived ease of use' (Davis, 1989). However, these generic parameters can successfully explain specific isolated technology-based instances related to adoption of new software or hardware only (Ajzen, 1991). E-Governance, on the other hand is multidisciplinary, with multiple dimensions related to processes, procedures and governance constructs which perhaps cannot be analysed by the normative approach of TAM. Benbasat and Barki recommend that information system researchers should move outside the confines of TAM to other socio-cultural theories that could help to relate better to humane consequences of technology such as users' adoption, learning pace etc (Benbasat and Barki, 2007). The present study attempts to account for the influence of hitherto unrepresented contextual reality of the geographical space or the social processes prevailing at the grass-roots level that have remained largely unaddressed by the usual parameters such as 'usefulness' of TAM.

Our study offers modifications in the workshop technique to include rural populace in designing a more citizen-centric rural e-Governance initiative, notwithstanding their education, caste, gender, professional and cultural diversity. This 'soft' stakeholder-oriented approach is very different from the reductionist, 'hard' approach to engineering users' requirements in the conventional SAD dictated projects, where important socio-cultural issues have often been overlooked.

The workshop was conducted at the Indian Institute of Public Administration (IIPA), New Delhi, India, on 4th October 2009 and was titled CCR, also referred to as '*Naagrik Paramarsh Daur*' in Hindi. It aimed to bring forth indigenous solutions from participating villagers in resolving the contextual issues confronting e-Governance implementation in rural areas.

Research Questions for CCR

Some of the leading questions that formed the premise of group discussions during CCR included:

- What are the issues and challenges of local governance in their respective region/village?
- What are the local solutions and indigenous mechanisms available with villagers for resolving these issues and challenges?
- Have the existing ICT/e-Governance initiatives been accepted by the villagers?
- What could be the contributing factors that would increase the usage of e-Governance and Information Technology in addressing these issues and challenges?
- Is regional appropriateness of any rural ICT/e-Governance initiative an important factor for the acceptance of technology than its technological suitability?
- While designing rural ICT/e-Governance initiatives, does the participation of villagers (logically classified in five groups) help increase the Perceived Usefulness of Technology in the rural context?
- Are intervention and support of citizen representatives' or local self-governing institutions critical for Access and Acceptance of Technology implemented in the villages?

Pre-Workshop Preparation for CCR

To retain homogeneity in language, villagers mainly from Hindi speaking states of India were invited through their citizen representatives, Non-Governmental Organisations (NGOs), *panchayat* functionaries, respective departments of rural development/*panchayati raj* and other local contacts operating in the areas. Letters of invitation with a brief concept note on the proposed workshop were sent to them with a request to fill in and return the registration form.

Sample Design for CCR

Since the review of literature on workshop technique indicated that usually there could be inadequate representation of desired groups in a workshop (Heberlein, 1976), attention was given to invite adequate number

of participants for CCR. 73 villagers participated in the workshop, including 44 village-heads and 6 heads of NGOs and people's movements. These villagers were drawn from rural areas in the states of Madhya Pradesh, Rajasthan, Bihar, Orissa, Chattisgarh, Haryana, Punjab and Uttar Pradesh.

Conduct of CCR

The participants were categorised into five groups viz. *Naari* (women), *Yuva* (youth between 15 to 25 years), *Karigars* (artisans), *Kisans* (farmers and farm labourers) and *Adivasis* (tribal community). Five panels were setup for these categories, with 13-15 villagers of the designated category in each of the panels along with two experts in the same category. Since these participants were from different cultural and social backgrounds, trained facilitators proficient in regional languages such as Punjabi, Telegu and Oriya as well as national language Hindi were assigned from the Institute. Extensive input of 15 domain experts (2 domain experts per group and 5 domain experts in joint panel session) and 12 facilitators (2 facilitators per group including joint panel) were sought to bridge the communication gap, and to explain complex phenomenon of rural e-Governance initiatives using metaphors, analogies, charts, videos, case studies and presentation tools.

The CCR workshop started with screening of documentaries on ICT initiatives, rural development and related themes. This was followed by presentations from experts including small video clippings on relevant issues to bring the participants to a common wavelength and help generate ideas for further discussion on related themes. After this initial warming up exercise session, opportunity was created for brainstorming session amongst the citizens. Thereafter, day long panel-wise discussions were conducted to address the issues related to local governance and the villagers' attitudes towards ICT initiatives. Individual panel-wise discussions culminated in a joint-panel session at the end of the day, also moderated by the panel experts. Issues were also captured using a pre-designed questionnaire, referred to as Citizens' Response Measurement Instrument – CRMI (the detailed analysis of CRMI data is beyond the scope of the present paper).

FINDINGS FROM CCR

CCR served as an excellent opportunity for eliciting participation of rural populace in formal settings of the Indian Institute of Public Administration, New Delhi, wherein their dormant governance concerns and expectations had been adequately elicited through sharing of experiences on a common platform. This daylong discussion of CCR brought to fore the perspective of the five groups (Women, Youth, Farmers/Farm-workers, Tribals and Artisans), with respect to the major local governance concerns besetting their lives and more specifically with regard to e-Governance implementation in their respective villages. The implicit local knowledge that had originated from the participating villagers was captured by CCR facilitators, moderated by CCR experts and transformed into explicit information by the first author of this study. This process led to a clear formulation of contextual concerns of rural reality that have considerable influence in successful uptake of ReGI in the villages. Understanding of these contextual concerns finally served as an important input to evolve a citizen-centric approach into the design of rural e-Government initiatives (details of the citizen-centric approach arrived at is outside the scope of this paper). The issues that were raised in the five individual panels and the joint panel are summarized below.

Governance Concerns of the Villagers

A common issue affirmed by all the groups was the non-availability of information about the targeted beneficiaries of the rural development schemes announced by the government from time to time. Poor delivery of public services related to health, sanitation, transport, drinking water were also some of the prime governance concerns in the villages. Apart from these core concerns, panel-specific concerns were:

- *Women Panel:* The women respondents complained that even though primary education facility has improved in certain instances, there was no provision of higher education exclusively for girls. They also complained of being marginalized in all aspects of life including decision making at home and at the level of local administration. Lack of lady doctors in government health clinics prevented many women from availing government facilities and compelled them to opt for the costlier private institutions.
- *Youth Panel:* Young respondents complained about the non-availability of specific information and infrastructure for undertaking any professional degree or diploma courses in the villages thus depriving them from pursuing better livelihood options in the villages. They also raised concerns about the lack of employment opportunities or any capacity building initiatives for starting small-scale enterprises in their villages. The web-portals designed specifically for rural populace lay emphasis on providing employment prospects in private and multinational companies, but lacked information on job opportunities for artisans, farmers, labourers etc.

- *Artisans' Panel:* Local artisans complained about the total lack of professional growth opportunities and non-availability of resources (e.g. information on raw material, new technology, tools and manpower, specific government subsidies and schemes to support their entrepreneurial skills in the region) related to primary occupations in their villages. They also expressed a need for formal capacity building initiatives for traditional knowledge and skills related to their profession.
- *Farmers/Farm Labourers Panel:* Farmers/farm labourers had expected better channels to sell their end-products or agricultural produce and expressed their need for multi-level pricing of products at various levels such as local market rates, wholesale rates, retail rates and global competitive rates. Their concern was that the prevailing ICT/e-Governance initiatives are of no great benefit to them. Content related to their occupation, for example, latest technologies in farming, information on new pesticides and recent studies on agriculture, weather forecasts, etc. would be more beneficial.
- *Tribal Panel:* This panel was the most aggrieved one, who alleged exploitation by the middlemen in the selling of their wares, the same concern being shared by artisans and farmers. Inefficiency and corruption of panchayat functionaries and other government departments, and lengthy bureaucratic processes of public service delivery remained the concern of majority of the tribal citizens. The process of industrialization had done them more harm than good as the industrialists took away their land in return for a promise of jobs. However, since they were neither trained nor educated to handle factory-jobs, they were rendered jobless and landless in the process.

A detailed report on discussions by each panel had been presented to the joint panel for further discussions with all the participants, experts and joint panel moderators. The joint panel comprised of a senior government official, an independent e-Governance consultant, an economist working closely with grass-roots functionaries, a professor in public administration and a political scientist working for marginalized rural communities.

All the issues that emerged from the various panel discussions indicated poor governance concerns fueled by the apathy of the local functionaries. Though majority of these concerns have no direct influence on existing e-Government initiatives, surmounting these challenges could assure a more conducive rural eco-system for implementing citizen-centric e-Governance initiatives.

Concerns on the Implementation of ReGI

Women participants asserted that ReGI have nothing particular to offer to rural women-folk, not even basic factors such as congenial environment, easily accessible locations or comfortable 'safe' timings. Rural youth complained that it is the lack of information about local employment opportunities in the region that seems to be the main demotivating factor for them. Artisans and farmers maintained that the non-availability of relevant content related to occupational literacy to augment their traditional skills and knowledge hampered successful uptake of such initiatives. Respondents from the tribal community specifically begrudged their computer illiteracy as a stumbling block to fully avail the services rendered by ReGI.

By and large the CCR participants, especially in the joint-panel discussions, revealed that not much has been forthcoming for the common-man from any of the e-Government/ICT based initiatives implemented under the flagship of National e-Governance Plan (NeGP), despite the claims made to the contrary by the respective departments and ministries. They re-emphasized that the needs of the common-man including quality education, efficient medical and health services and employment opportunities are not catered to through the existing ReGIs. It was also emphasized that all ICT based initiatives still cater to the affluent sections of the rural society such as traders or land-owning farmers, and that no support is forthcoming from the local institutions including NGOs to empower the villagers. It was clear that there is widespread discontentment among the respondents regarding several governance issues, which they felt had not been addressed by the local structures or ReGI implementation.

The cultural and social issues varied from region to region and impacted differently on the needs and expectations of the citizens, thereby exerting dissimilar influences on its regional e-Government implementation as well. The authors refer to such local issues as 'Contextual Factors' comprising of regional variations connoted by its geographical/demographic indicators, infrastructure, governance needs and available local resources reflecting regional diversity.

Inclusion of Contextual Factors in the Design Processes of ReGI

Findings from the CCR confirm that many of the unanticipated ICT failures in the rural areas emerge when prevailing contextual realities are disregarded while planning for ICT based initiatives for governance. It has also been established in the literature that the usage intention of citizens for e-Governance initiative differ contextually and could include various parameters such as demographics, cultural norms etc. (Carter &

Weerakkody, 2008). One of the most interesting lessons from CCR has been a first-hand insight into the nature and extent of contextual influences on ReGI implementation. Interactions with the participating villagers confirm the following as some of the contextual factors influencing rural ICT/e-Governance implementation:

- (a) Status of village governance provided by the local administrative bodies;
- (b) Facilitation provided by local self-help groups and civil bodies;
- (c) Villagers' profile (age, gender, education, income and occupation);
- (d) Villagers' access to physical and supporting infrastructure and
- (e) Socio-cultural factors reflecting societal affiliation, position, preferences, learning, trust and risk-seeking abilities of the villagers.

Citizen Participation to Elicit Local Concerns and Contextual Factors

As indicated in the preceding sections, CCR highlighted the need for evolving a more citizen-centric ICT based framework that could help address aforementioned contextual issues prevailing in the villages of a country as diverse as India. ICT initiatives based on such a framework must be able to accept input from the prevailing knowledge systems of the villages, rather than unilaterally offering techno-centric solutions that might not be contextually relevant. This, in return, calls for new strategies and mechanisms that are responsive to rural citizens and which treat them as active constituents.

The active participation of villagers in CCR clearly indicated that villagers are quite vocal, lucid and expressive, especially when empowered with relevant information through ice-breaking sessions and facilitated by experts. Indeed, when provided with an opportunity and platform like CCR, they proved to be naturally capable of projecting governance issues of the region to the authorities concerned. The villagers also expressed their willingness to become part of the ICT implementation processes, if consulted. Overcoming their limited awareness of IT, they articulated their generic governance needs and also specific needs for IT awareness, training and more responsive e-Governance applications.

The main insight from CCR is that most of the regional governance issues could be resolved through the use of IT, provided these initiatives are responsive to local contextual factors. It is a pre-requisite to have a detailed understanding of these issues in the requirement analysis stage of ReGI before any such initiative is designed. The concerned authorities must ensure citizen-participation (with adequate preparedness) so that the ICT based systems integrate well within the rural society, both vertically and horizontally.

CONCLUSION

Discussions with CCR participants and experts bring out an important lesson. For the prevailing initiatives to evolve as citizen-centric rural e-Governance initiatives, they must be responsive to the needs and expectations of the rural communities, defined by the contextual factors of the rural reality. Such consideration for contextual factors would help capture the behavioural aspect of users' needs as well as the local reality better than mere consideration of technical parameters such as 'perceived usefulness' of TAM. This lesson is also more closely aligned to the human development philosophy that strongly advocates inclusion of the 'capability' indicator (Sen, 1985). Sen had always insisted that the governance of governments should be measured against the concrete capabilities of their citizens. These capabilities are defined by the adequate provision of legal, social and political entitlements which are best echoed in the contextual factors of the rural reality (Sen, 1985).

It could be said that the CCR workshop methodology helped validate the proposition of citizens' participation for reconciling contextual reality with e-Governance initiatives. In the process of conducting CCR, beliefs for a new process for designing a more citizen-centric e-Governance framework had to be co-produced, suppositions were to be verified and prejudices of all the stakeholders had to be mitigated. Indeed, this workshop technique served as an appropriate tool for capturing the current state of rural e-Governance initiatives as well as identifying a departure point for the journey to create a more citizen-centric, contextually rich rural e-Governance framework by connecting to the rural citizens in a proactive manner.

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