Decentralization and E-Government Services: Case Based Study in Gujarat[1]

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ABSTRACT

Provision of e-Government services is a critical agenda before governments around the world. In India, NeGP is in place to implement service oriented infrastructure at all levels of the government system through public-private-partnerships and entrepreneurship driven service models. However, it is important to appreciate the issue of decentralization in the process of e-Government solutions. In the context of decentralization, local authorities face increased responsibilities, limited resources, and at times, limited human resource capacity. In this paper, we discuss issues related to decentralization and e-government services through a conceptual model. We also present a case and apply the proposed model to understand its applicability
.
Keywords: Decentralization, ICT, E-Government, Electronic Service Delivery, Citizens Empowerment

1. Introduction

The advent of Information and Communication Technologies (ICT) has made it possible for the government to transform itself into e-government. E-government is the modernization of processes and functions of the government using ICT to serve its constituents in an improved manner. ICT enabled government or e-Government can help the government systems become more efficient (by reducing the transaction and the co-ordination cost) and also become more transparent and accountable to the public. The perspective of the study is located under New Public Management (NPM) (Drechsler 2005). This NPM advocates the implementation of modern principles of management and the principles of the private sector in the public sector. Many e-government efforts in India strive to improve efficiency, transparency, accountability and effectiveness of the government. (Bhatnagar 2004). There is a continuous effort in improving government processes, provisioning right ambience through deployment of ICT infrastructure at all levels of administrative structure. National e-Governance Plan (NeGP) provides a holistic approach to provide a road map at national level. The investment in such an exercise is expected to be to the tune of Rs. 3,00,000 millions (MIT 2006). In this paper we therefore, posit that decentralization is one of the critical out put for any e-government system.

The paper is organized into the following sections. In section two, importance of decentralization in government systems is discussed. In section three, rationale behind e-Government services and its present status in India are discussed. It is deliberated that e-Government architecture should be decentralized. In

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section four, a conceptual model is presented to understand the link between decentralization and e-government. It also discusses the methodology for the process of study. In the fifth section, project "Mahiti Shakthi" implemented in Gujarat is examined with decentralization at its focus and for this a methodology is arrived at. In the sixth and the final section, the conclusions and pointers for further research are discussed.

2. Governance and Decentralization

"Governance" of a nation is defined as the manner in which power is exercised in the management of a country (World Bank 1994). In a liberal democracy, implicit in the reference to 'power' is the concept of accountability. The powers should be exercised in such a way that it is accountable to all the citizens and their needs. This cannot be ensured if the powers of governance are highly centralized and works to the advantage of a select few. So, decentralization becomes a necessary part of the governance of a country if the government of a country is to be based on the principles of equity and justice. Moreover, the agreement that decentralization is a development panacea is accepted across the political spectrum (Bardhan 1996, Manor 1999). The aspirations of these local identities can be met only if they have a political voice. They can get this political voice through decentralization of power.

In the current globalization phase, governance framework aims at 'Good governance'. The government of India gives a definition of 'Good governance' as having certain universally accepted features like exercise of legitimate political power, formulation and implementation of policies and programs that are equitable, transparent, non-discriminatory, socially sensitive, participatory and above all accountable to the people at large (GOI 2002). People centred services implicitly expect government support. Good governance integrates government system seamlessly (Satyanarayana 2004) to meet these expectations. In Indian context people demand localised services and policy is framed through the 73rd and the 74th constitutional amendments to bring about decentralization of power to the local self governments (Mishra 2004a). It is increasingly felt the ICT enabled government processes would bring in the desired result in managing decentralization (Prabhu 2004, Bhatnagar 2004). 'Good governance' which is a part of the current governance framework involves the de-centering of the state (Chandhoke 2003). It is essential that government systems which are subsets of governance systems need to adapt to this new environment of a decentralized governance structure. This adaptation process calls for process re-engineering at all levels of the government systems wherein the structures at the national, state, district and the local levels determine their responsibilities towards the delivery systems. Therefore, e-Government systems need to be studied with decentralization as one of its outcomes.

2.1 Government Systems

Governance systems are argued to be supersets of government structure of the state. It is therefore, imperative to study government systems of the state in order to appreciate governance at a macro level. Government systems are formalized and these systems manage processes as per set rules and regulations and maintain expected coordination mechanism under a legal framework. Government systems are mostly orchestrated to deliver the process output through established interfaces with the society and citizens at large. Governance systems on the other hand are continuators and goal driven. Governance systems demand outcomes instead of outputs and it largely interfaces the society through policies (Mishra and Hiremath 2006). These policies are then transformed to process driven government systems (Riley 2003). Governance systems are gaining importance due to conscious application of ICT in the government systems. Governance is also aimed at changing the role of government, increasing importance on creating, sharing and use of information, improve quality in collaborative work and above all facilitate more inclusive participation of citizens in political process etc.

Good governance is mostly characterized by providing information to citizens, aiding entrepreneurship and

supporting social and economic enterprises, maintaining transparency in governance system, aiding decision support systems for village institutions as well government administrators. Electronic service delivery is actively being considered as one of the alternatives of "good governance". ICT is advocated to be very useful tool in support good governance. E-governance and e-governments are manifestations of these systems with a view to ease various governance and government processes to support development. Since 70 percent of the total population is most vulnerable in the rural development process, it is critical for any governance system in India to cater to their needs through better and relevant government systems. The main concern for rural citizens is to earn a sustainable livelihood and everything else becomes rather secondary to them (Mishra and Hiremath 2006).

There are many successful ICT initiatives in India oriented towards rural development with a focus to address specific issues of rural citizens. These initiatives are mostly mooted by the government administration, non-governmental organizations (NGOs) and some are even in private sectors. National e-Governance plan (NeGP) recognizes the vitality of some critical, but successful ICT initiatives and advocates for its inclusion as mission-mode projects for scaling up. The objective is to provide a portfolio of services to the citizens integrated with e-government backbone to not only set up a good e-governance system but also to establish a support structure for sustainable livelihood opportunities. In this scenario, it is very important to consider the livelihood perspectives of rural citizens and encourage the ICT applications to aid the process to be sustainable. These processes can be owned and managed by the citizens themselves. This ownership will perhaps ultimately lead to a demand for up-scaling the systems.

3. E-Government in Indian Context

There have been constant endeavour to embrace ICT enabled e-government systems in India. There is plethora of pilot projects initiated over past few years through various models (Bhatnagar 2004). It has been the priority of the government of India to identify projects with a potential to scale up and put them on mission-mode. In the context of rural development paradigm, e-governance schemes have also much to offer through 100,000 citizen services centres (MIT 2006). In this context it is rather rightly timed to assess the efforts made so far and promote for scaling up. Skoch e-governance report card (Kochhar and Dhanjal 2005) and EAF framework (currently ver 2.0) (Rao et al. 2005) are some of the attempts in this direction. It provides an assessment framework to gauge the suitability through a participatory mode and with inputs from citizens. It also notes that e-governance projects are transforming itself from "top-down" approach to decentralization of services at local level. National e-readiness assessment exercise is initiated in India in line with global assessment attempts to understand the state-level performance as well as impacts (Skoch 2005).
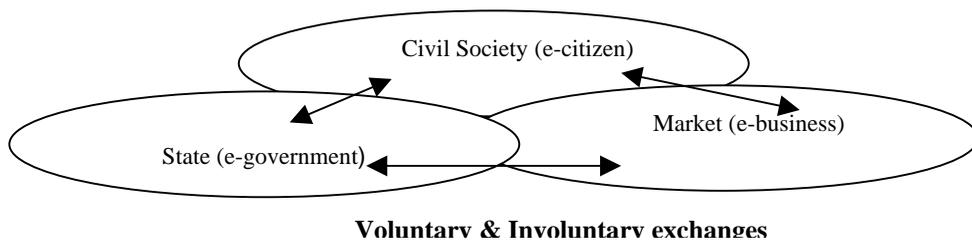

Voluntary & Involuntary exchanges

Figure 1: Spheres of Governance (Fang 2002).

In this paper we posit that governance would be led by a formal relationship among civil-society, government system with a view to enable the citizens to interact with the market for their own development (Fang, 2002) as presented in Figure 1. In the current context of governance, citizen centric services are

being given priority. Amendments of PRI Act enable local institutions to take decisions. This situation demands a collaborative effort among government, civil society and market. Role of public-private-partnerships and provisioning a suitable space for the civil society to raise local demands on government systems are essential ingredients of current governance system. As explained in Figure 1, strong interactions among these stakeholders would benefit the citizens. This relationship is essentially a complex phenomenon and role of ICT in establishing is increasingly being felt to be important.

The following arguments can be given for proving that the e-Government architecture should be decentralized Firstly, the decentralization process may very well be an imperative caused by the introduction of ICTs in the government as a part of e-government, because information overload due to ICTs demands a decentralized governance structure (Kakabadse et al. 2003). Secondly, in the current context of Liberalization, Privatization and Globalization, there is a need for governments to adapt to an e-business model which necessitates a flatter government structure. So e-government architecture in government needs to be decentralized (Gupta et al. 2004). Thirdly, a centralized approach for e-government is difficult to implement because it leaves very little room for innovation, self-starters and creativity making it hard for buy-in from different departments (Bhatnagar 2004). So, there is a need for decentralization within the e-government architecture.

Regarding the current studies on different e-government projects in India, if we analyze objectives of 86 papers on e-government projects, we get the following table.

Table 1: Literature Survey on Decentralization (Gupta et al 2004, MIT 2006)

SN	Objectives	No. of Projects
1	Efficiency & Productivity	51
2	Transparency	28
3	Decentralization	13
4	Providing Information	12
5	Providing Single Window (Integrated Services)	11
6	Better Revenue & Cost Effectiveness	9
7	Accountability	7
8	Monitoring & Control	7
9	Streamlining Administration	5

It is found that most studies concentrated on Efficiency, Productivity, Transparency, Equity & the Services offered. Decentralization at some level is the focus of only 17 out of the 86 papers. These papers dwell upon local self governments (LSG), vertical integration, data centralization & intelligence/decision making. No paper amongst these set of papers tries to analyze any e-government project from the perspective of the different kinds of decentralization. Projects do not explicitly define the role of decentralization that is needed for a good governance system in India.

4. A Conceptual Model of Decentralization
Decentralization in the governance literature is a nebulous terminology which needs to be more rigorously conceptualized in terms of its structural components. Based on a review of the existing literature, decentralization is understood as a combination of its different kinds, viz, De-concentration, Delegation and Devolution. This is presented in Table 2.

De-concentration is primarily aimed to transfer operational autonomy to lower levels within the government system. Delegation of power is characterized by a principal-agent relationship within or outside the government system involving agencies like private and non-governmental organisation. In this

case de-concentration does not take place. Agencies are given power to discharge certain responsibilities with accountability. Devolution involves transfer of substantial powers to local bodies, corporate and alike through government acts and rules such as (PRI act). This involves government and other agencies to formulate with policy, collaborative planning and implementation through these empowered bodies. Based on the parameters defined in Table 2, the kind of power transferred and the nature of accountability, the different kinds of decentralization can be defined in a mutually exclusive manner. Based on the discussion above we emphasise that "Decentralization" is a function of "De-concentration", "Delegation" and "Devolution" as stated below.

Table 2: Kinds of Decentralization
(Adamolekun 1991, Bird & Rodriguez 1999, Conyers 1984, Guess 2005, John & Chathukulam 2003, Public Administration & Development 1990, Rondinelli 1983, Segal 1997, Shin & Ha 1998, Smoke 2003)

Kinds	Power Transferor	Power Transferee	Kind of Powers	Accountability
De-Concentration	Government	Government	Process, Implementation	Accountability lies with agency/transferee
Delegation	Government	Government, NGO & Private agencies	Strategic, Process & Implementation	Accountability lies with agency/transferee
Devolution	Government	Entities with corporate Status	Strategic	Accountability lies with agency/transferee. These bodies are accountable to citizen as well as government

Decentralization = f (Devolution, Delegation, De-concentration)

We also posit that decentralization can be best explained by the weightages assigned to these three kinds of decentralization defined above. In Figure 2 we present the weightages. It is also conceptualised that devolution is the most potent form of decentralization followed by delegation and de-concentration.
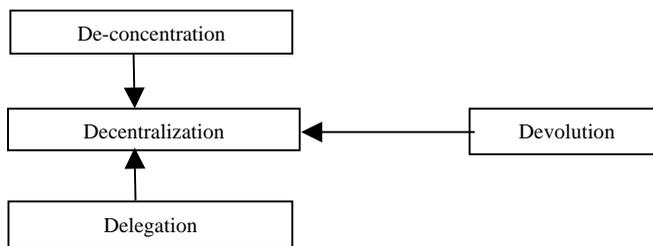

Figure 2: Weightages for the Different Kinds of Decentralization
(Conyers 1984, Rondinelli 1983, Bird & Rodriguez 1999, Smoke 2003, Shin & Ha 1998, Conyers 1984, Public Administration & Development 1990, Adamolekun 1991, Segal 1997, John& Chathukulam 2003, Guess 2005, Mishra 2004b, GITR 2002)

The function therefore, could be presented as "Decentralization = x*De-concentration + y*Delegation + z*Devolution + ε). Factors influencing contribution to decentralization are denoted as "x", "y" and "z" for de-concentration, delegation and devolution respectively. It is conceptualised that each kind of decentralization contributes equally to the process of governance (GITR 2002). However, contributing factors will be computed after application quantitative methods and examining fitness of the model.

We posit further that decentralization is a process through which each level in hierarchy of administration participates with certain power transferred. In this conceptualization process we consider projects at state level only. Levels in state-centric governance are state itself alongwith districts, block, village and households. Extent of decentralization is quantified through a scoring system as explained in Table 3 below. We have adopted a scoring system for understanding the "extent of decentralisation" having range from 1 through 4. We posit that a score of "1" would indicate the extent of decentralisation to be the "lowest" whereas a score of "4" would suggest the extent of decentralisation as the "highest". For example the extent would at its highest level if decentralisation takes place from the state level to the household. However, this effect might be at its lowest if the decentralisation happens between a village institution to the household in a village.

Table 3: Scoring System

From	To	Score
State	District	1
	Block/Taluka	2
	Village Institutions	3
	Household	4
District	Block/Taluka	1
	Village Institutions	2
	Household	3
Block/Taluka	Village Institutions	1
	Household	2
Village Institutions	Household	1

Note: "0" indicates "absence" of decentralisation process in the existing governance system

5. Mahiti-Shakti: A Case Study

The case taken up for this study is Mahiti Shakthi. And under this the National Old Age Pension Scheme (NOAPS) and Ration cards are taken as these are the only service delivery components of this project. The reason for this case to be taken up for this study is that Gujarat is at an advanced stage vis-à-vis e-government projects relative to the rest of India (Skoch 2005) and this case can be analyzed through the conceptual model arrived at to verify the decentralization happening as it incorporates all the relevant kinds of decentralization.

Based on the ideas and inputs from Collectorate of Panchmahals, Concept Center for Electronic Governance (CCEG) of the Indian Institute of Management, Ahmedabad (IIM-A) in October 2000 developed a 'proof of concept' portal for enabling Citizen to Government (C-G) and Government to Citizen (G-C) transactions using Information Technology as a medium. The 'Proof of Concept' model of this project was launched on 4th October, 2001 across 14 Mahiti Shakti Kendras (MSKs). 80 MSK have been set up so far. The initial "proof of concept" software which was developed by CCEG, Ahmedabad is now developed on a professional basis by an Internet Solutions Provider, Adit Microsys Pvt. Ltd., identified by GIL (Gujarat Informatics Limited), the nodal IT implementation agency of the Government of Gujarat. UNDP and NABARD helped in capacity building and exposure visits for the MSK operators.

Primarily, the project envisions a portal providing a single window to all relevant information & services. In respect of transactions of citizens with government as many as 200 forms have been made available along with checklist giving details of documents to be attached with the form at the time of submission. All the forms and checklists have been made available at the district level offices as a print-out at a prescribed fee. Details of the office to which each of these application forms are to be submitted are also indicated along with the time prescribed for the disposal of the application. Information pertaining to ongoing schemes like those under the DRDA (District Rural Development Agency) and DPB (District Planning

Board), TASP (Tribal Area Sub Plan) are available through the portal. Parameters pertaining to each of these schemes giving details like the name of the scheme, names of beneficiaries sanctioned in the last financial year, details of work undertaken, name of agency implementing the scheme and current status etc. have also been made available. The web-enabled version of the Gujarat Geographic Information System (GGIS) developed by RESECO giving details of the resource availability in terms of 95 parameters of every village of the district is available on a query- based system.

The Grievance Redressal Forum provides a forum for citizens to voice their specific complaints. Electronic form submission for applications such as NOAPS (National Old Age Pension Scheme), Water related grievances and the Ration card application. The applicant fills the form at the kiosk. The processing is carried out by the staff and the final reply is sent to the applicant by e-mail and post. We are currently working towards the use of these centers for the payment of utilities (GEB bills) which would be tried out on a pilot basis shortly. "Lok-Upyogi Mahiti" is a very important feature which provides useful information for citizens based on the experience, case studies and documentation of NGOs and other Agencies. Access to the electoral roll for anybody requiring the information for a useful purpose. In addition to all the features mentioned above, the citizens will also have access to various web- sites including the GR book application of GIL.

For sustainability of this project, a trust at the district level has been set up under the chairpersonship of Collector Panchmahals. To have a sense of involvement and to ensure sustainability, it has been decided to charge an empanelment fee of Rs.8000/- from each Mahitishakti Kendra (kiosk). In return for the one time empanelment fee of Rs.8000/- that the kiosks pay, they are given a set of services. The District Information Officer of National Informatics Center for overall monitoring who is also the web master for the web site. A data entry operator puts together forms and checklists (essentially a one time operation with updating changes as and when they occur and are reported by the concerned office). The operator also chips in whenever required to word process any data for the portal. The line departments have the responsibility of updating the information every quarter. The newsletter is 'data entered' by the data entry operator. The Deputy Director Information does the collection and compilation of data for the same from local specialist committees, which are already identified and formed with the voluntary help of leading citizens and professionals of Godhra. There are 80 Mahitishakti Kendra operational and 19000 transactions with citizens during the first 6 months of its operation. More than 60% of NOAPS applications received in electronic form in Godhra taluka Successful MSK earns about Rs. 4300 p.m. carrying out about 250 transactions.

In Table 3 we present the status of the power transfers due to the implementation of the Mahiti-shakti project. Our study indicated that the power transfers from the State level in Gujarat to the lower levels (like the District, Block/Taluka etc.) does not happen through this project because this effort is at the district level. This may happen during scale up exercise. Contrary to our expectations, there are no power transfers from the District level to the Block/Taluka level. The cause may be due to less effort made to bring in required changes in the process. However, the project envisaged empowerment of Mahiti Shakthi Kendras (MSK) through which government services would be channeled. This has provided an entrepreneurship based decentralisation through delegation only and therefore, a corresponding score of 2 would apply for scoring the extent of decentralisation. Apart from this score, no other visible decentralisation could be assessed through our scoring system. In Table 3 therefore, all the remaining attributes of decentralisation process display a score of "0". This scoring pattern indicates that there is scope to further improve upon the processes to deliver desired services efficiently. Due to these limitations, the overall score of the project works out to be 0.66. This is arrived at through the equation proposed for scaling the extent of decentralisation. The error component ε is not taken into consideration in this paper. This would be addressed through primary survey and examination of "fitness" of the scoring model explained in Figure 2.

Table 3: Scoring System for Mahiti-Shakti

From	To	Score on Kind of Decentralization			Remarks
		De-concentration	Delegation	Devolution	
State	District	0	0	0	This is a District Level Endeavour
	Block/Taluka	0	0	0	
	Village Institutions	0	0	0	
	Household	0	0	0	
District	Block/Taluka	0	0	0	No change in Process
	Village Institutions	0	2	0	MSK is empowered
	Household	0	0	0	No Empowerment
Block/Taluka	Village Institutions	0	0	0	No Change in Process
	Household	0	0	0	
Village Institutions	Household	0	0	0	No Change in Process

Decentralization $= 1/3*$ De-concentration $+ 1/3*$Delegation $+ 1/3*$Devolution $+ \varepsilon$

$$= (1/3 * 0) + (1/3 * 2) + (1/3 * 0) + \varepsilon$$

$$= 0.66 + \varepsilon$$

6. Concluding Remarks

In section 5 we presented the result of our findings on Mahiti-shakti project. It is evident that though the project is aimed at providing services to the citizens, it is mainly a Collector sponsored one. Study revealed that there is not much change in the process as was originally envisaged to reduce time and cost of transactions for citizens. Decentralization has happened only at the Mahiti-Shakti Kendras where internet based information is available. The decentralization value "0.66" indicates that there is no trace of de-concentration and devolution in the process. Only delegation of some powers is available at MSKs. In order to make this project successful, one needs to provide the right structure and ambience to introduce the other two kinds of decentralization. We are in the nascent stage of our research and have taken Mahiti-Shakti as a pilot study. We plan to test our conceptualised model for its fitness and applicability across all e-government endeavors. This study will provide the required insight to the planners, implementers and bureaucracy to appreciate e-government efforts made in the country and select projects for scale-up.

References

1. Adamolekun, Ladipo. (1991), Promoting African decentralization; Summary, *Public Administration & Development* (1986-1998). Chichester: May/Jun, 1991. Vol. 11, Iss. 3; pg. 285, 7 pgs
2. Bardhan, P. (1996), Decentralized Development, *Indian Economic Review* XXXI(2): 139-156
3. Bhatnagar, Subhash (2004), *E-Government – From Vision to Implementation*, SAGE Publications, New Delhi
4. Bird, Richard. & Rodriguez, Edgard R. (1999), *Public Administration & Development*, Chichester, Aug 1999.Vol.19, Iss. 3; pg. 299
5. Chandhoke, Neera. (2003), Governance and the pluralization of the State: Implications for Democratic Citizenship, *Economic and Political Weekly*, 38 (28), July 12
6. Conyers, Diana. (1984), De-centralization and Development – a review of the literature, *Public Administration & Development* (pre-1986); Apr-Jun 1984; 4, 2; pg. 187
7. Drechsler, Wolfgang (2005), The Rise and Demise of the New Public Management, *Post-Autistic Economics Review*, issue 33, 14 September 2005, article 2, from http://www.paecon.net/PAEReview/ issue33/Drechsler33.htm (1 of 11) 11/27/2006 11:53:29 AM
8. Fang, Zhiyuan. (2002), E-Government in Digital Era: Concept, Practice, and Development, *International Journal of 'The Computer, The Internet and Management'*, Vol. 10, No.2, 2002, p 1-22, downloaded from

http://egov.alentejodigital.pt/Page13015/Outras/article1.pdf

9. GITR (2002), *The Global Information Technology Repor - Readiness for the Networked World*, World Economic Forum, Oxford University Press, New York

10. GOI (2002), *Tenth Five Year Plan (2002-2007): Dimensions and Strategies, Vol. I.* New Delhi: Planning Commission.

11. Guess*T*, George M. (2005), Comparative Decentralization Lessons from Pakistan, Indonesia, and the Philippines, *Public Administration Review*. Washington: Mar/Apr 2005.Vol.65, Iss. 2; pg. 217, 14 pgs

12. Gupta, M P, Kumar, Prabhat and Bhattacharya, Jaijit. (2004), *Government Online – Opportunities and challenges*, Tata McGraw-Hill Publishing Company Limited, New Delhi, pp 53, cited 'Concept Paper on Strategy' by Manish Singla, http://www.geocities.com/ manish_singla/onjob.html

13. John, M. S. & Chathukulam, Jos., (2003) Measuring decentralisation: the case of Kerala (India), *Public Administration & Development*, Chichester: Oct 2003.Vol.23, Iss. 4; pg. 347

14. Kakabadse, Andrew., Kakabadse, Nada K. and Kouzmin, Alexander (2003), Reinventing the Democratic Governance Project through Information Technology? - A Growing Agenda for Debate, *Public Administration Review*, January/February 2003, Vol 63, No.1, cited Korac-Boisvert and Kouzmin 1995

15. Kochhar, Sameer. and Dhanjal, Gurucharan. (2005), Skoch e-governance Report Card 2005: From Governance to E-Governance, New Delhi: Skoch Consultancy Services Pvt. Ltd., October.

16. Manor, J. (1999), The Political Economy of Democratic Decentralization, The World Bank, Washington D.C.

17. Mishra, Debiprasad (2004a), Decentralization and Local Governance, Workshop on Decentralization and Local Governance, Silver Jubilee Symposium on Governance in Development, Dec, 2004, IRMA

18. Mishra, Harekrishna and Hiremath, B. N. (2006), ICT initiatives for sustainable livelihood security: A demand driven rural e-governance framework for scale-up, Working Paper 198, Institute of Rural Management, Anand, (IRMA), October

19. Mishra, Kajri (2004b), Varieties of Decentralization: Sorting Conceptual Confusion and Tangled Discourses, Workshop on Decentralization and Local Governance, Silver Jubilee Symposium on Governance in Development, Dec, 2004, IRMA

20. Mishra, Satyan. & Gachhayat, Nitin. (2004), Rural Business Through ICT: Profitability And Role of Governance, IRMA Silver Jubilee Symposium on "Governance in Development-Issues, Challenges and Strategies, December 14th-19th, 2004, Workshop on "Governance in Rural Electricity and Information and Communication Technology"

21. MIT (2006), Ministry of Information Technology, Govt of India, from http://www.mit.gov.in accessed on 9/12/2006 at 1:13:55 AM

22. Prabhu, C.S.R (2004), *E-Governance – Concepts and Case Studies*, Prentice Hall of India Private Limited, New Delhi

23. Public Administration & Development (1990), Professional Developments Decentralization Policies And Socio-Economic Development In Sub-Saharan Africa: Summary Of Discussions At Two Roundtables, *Public Administration & Development* (1986-1998), Chichester: Oct-Dec 1990.Vol.10, Iss. 4; pg. 467, 3 pgs

24. Rao, TP Rama., Rao, Venkata V., Bhatnagar, Subhash. and Satyanarayana, J. (2005), E-Governance Assessment Framework, EAF Ver-2.0. New Delhi: Department of IT, Ministry of Communication and Information Technology, Government of India, May

25. Riley, Thomas B. (2003), E-governance Vs E-government, *I4D*, November 1(4), New Delhi

26. Rondinelli, Dennis A., Implementing decentralization programmes in Asia: a comparative analysis, *Public Administration & Development (pre-1986);* Jul-Sep 1983; 3, 3; ABI/INFORM Global pg. 181

27. Satyanarayana, J. (2004), *e-GOVERNMENT, The Science of the Possible*, Prentice Hall of India Pvt Limited, New Delhi, 2004

28. Segal, Lydia., The pitfalls of political decentralization and proposals for reform: The case of New York City public schools, *Public Administration Review*., Washington: Mar/Apr 1997.Vol.57, Iss. 2; pg. 141, 9 pgs

29. Shin, Roy W. & Ha, Yeon-Seob. (1998), In search of decentralization and de-concentration: Local autonomy and fiscal reform in Korea, *Journal of Public Budgeting, Accounting & Financial Management*. Boca Raton: Summer, 1998.Vol.10, Iss. 2; pg. 192, 27 pgs

30. Skoch (2005), *skoch e-Governance report card by Skoch consultancy services pvt limited*, New Delhi

31. Smoke, Paul. (2003), Decentralisation In Africa: Goals, Dimensions, Myths And Challenges, USA, *Public Administration and Development*, Public Admin. Dev. 23, 7–16 (2003), Published online in Wiley InterScience, (www.interscience.wiley.com) DOI: 10.1002/pad.255

32. World Bank (1994). *Governance The World Bank's Experience.,* The World Bank, Washington, D.C

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