E-GOVERNANCE IN INDIA AND ITS BENCHMARKING

SUMMARY

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IN

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BY

RAKESH SHARMA

(Registration # SU/SBS/Ph.D. Management/05/2008)

Under the guidance of

Supervisors

Prof. AnoopSwarup
Former Vice Chancellor
Professor Emeritus

Prof Vishal Bishnoi
Former Professor & Head
School of Business Management

Declaration by the Candidate

I, hereby declare that the work presented in this thesis, entitled **E-Governance in India and Its Benchmarking**in fulfillment of the requirements for the award of Degreeof**Doctor of Philosophy** in **Management** submitted in the **School of Business Studies** at **Shobhit University**, Modipuram, Meerut is an authentic record of my own research work carried out under the supervision of Prof. AnoopSwarup and Prof. Vishal Bishnoi.

I also declare that the work embodied in the present thesis is my original work and has not been copied from any Journal/thesis/book, and has not been submitted by me for any other Degree or Diploma of any university/ institution.

Rakesh Sharma

(Research Scholar)

E-GOVERNANCE IN INDIA AND ITS BENCHMARKING

Summary

The subject ibid was well thought of as in view of the prevailing impact of Information Communication Technology (ICT) there is a requirement to use the mouse for governance in a big way. More so when the funds involved are in lakh crores plus. The magnitude of the amount involved is not as much the ease of facilities involved to help the citizen to discharge his functions meticulously without disturbing the other activity like standing in queues, paying bribes and wasting time and so on. On the other hand the Government too must be so set up that the important information is disseminated to the citizen, business, government / sub government departments and the NGOs.

Government is a machinery or institutional arrangement for exercising the sovereign power, while **governance is the process as well as the result of taking authoritative decisions for the benefit of society**. If the governance does not bring maximum benefits for maximum number of people, it results into mal-governance. In a welfare state, the aim is to be good governance; a number of ways are there to achieve that. E-Governance is the most suitable one, which can bring a paradigm change in the face of governance. E-Governance is the deployment of Information and

Communication Technology (ICT) in the delivery of public services. In this competitive economy, E-Governance is ubiquitous. But in terms of success of E-Governance projects, developed nations are far ahead then developing nations, resulting in a digital divide. Developing nations have failed to exploit the full benefits of ICT. A plethora of causes are responsible for this, like, lack of proper technology, poor funding facility, lack of political will / commitment, resistance to change etc. This thesis is an attempt to illustrate such issues, by taking the experiences / inferences from developing countries, experienced corporates, players of E-Governance, government and non government departments, blogs etc..

The thesis is in 7 chapters. The details of these are discussed subsequently.

Chapter 1. (Introduction to the Research Topic)

This chapter gives an insight into the research topic on the following two aspects:-

1.   E-Governance

2.   Benchmarking

India today has the most ambitious E-Governance plan with a billion dollar plus budget with Central Government, State Government and the District Government involved.   The information explosion, population explosion, rapid strides in hardware development, software flexibly, the open source and above all the Information Communication Technologies (ICT) have provided the realms of governance a tool that should be citizen friendly as Citizen in time to come will be addressed as Netizen and give the state of muscle to move out of the files and actively render good governance to the citizens.

Scholars call various names like the smart governance, good governance, mobile governance and digital governance but the ultimate end of this is that any form of governance should ultimately bring smile to Indian face. The governance should be seamless, no holds barred and there should be a brotherhood amongst the masses and that mass should energies the

Nation and the economy as well. Merely collecting taxes would not imply good governance it should also show meticulous utilization of the taxes.

Further the advances in the ICT and that being the USP of India it is of relevance to India that the E-Governance in India must be evaluated and the work be reviewed to find the strengths and weaknesses. The same will remove anomaly, corruption, malpractices and improve the life of citizens.

Benchmarking is done to ensure competiveness amongst the stake holders. In this thesis the benchmarking is done so as to find out which are the E-Governance best sites. A study of UN Benchmarking is also done. The thesis has also reviewed a few commercial sites.

This chapter bears the following heads:

1.1   **E-Governanceernace**

1.2   **Benchmarking**

Chapter 2. (E-Governance Literature Review)

This chapter discusses the E-Governance and Benchmarking literature. It is covered through inferences from :

1. Authors and their literature.

2. Journals / Research Papers.

3. Governement / Non Government stakeholders.

4. Government / Non Government Agencies.

5. Blogs.

The most discussed author is **Heek** who has done the most useful work on promoting various aspects of E-Governance. He laid the roadmap for various aspects. Some of them are :

1. Data Systems Infrastructure

2. Legal Infrastructure

3. Institutional Infrastructure

4. Technological Infrastructure

5. Leadership and Strategic Issues

   The following are also some of the notary authors:-

1. Rose Mary J. and Angus Hemlton. They have focused upon data protection and its security.

2. Roumeen Islam

3.   Mohammad ShakilAkther

4.   Saxena, K.B.C.

5.   F. Corradini,

6.   Danish Dada

7.   William Dutton

8.   D. N. Gupta

9.   Jeet Kian Bedi, Parminder Singh and Sandeep Srivastava

10.   Kamelsh N. Agarwala and Murli D. Tiwari

Department of IT, Ministry of Human Resource & Development, National Institute of Smart Governance, Indian Institute of Technology and a few IIMsE-Governance activities have also been studied. In addition to this, Industry giants like, Infosys, TCS also have their E-Governance cells. They have also been used in the valuable inputs.

The singular aspect of this research is the E-Governance scene in the RashtrapatiBhawan at New Delhi.

Journals like E-Governance are very rare but the E-GOV, a fortnightly e-journal, has been extensively studied for the research. Various conferences and seminar proceedings have been looked at referred to. The reviews of various officials like IT Secretary have been incorporated.

Last but not the least Research has taken a new dimension through **Blogs** that have many interesting aspects to provide. Online magazines too have added to the Research and few relevant information has been incorporated here.

Chapter 3 :Research and Research Methodology

This chapter is devoted to Research and Research Methodology. It probes into the rationale and significance of the E-Governance and Benchmarking. This is a pioneer and innovative research topic. The aim of this research was to study the ICT usage in Governance and to Benchmark a few sites.

For the research quantitative analysis and qualitative analysis were done to find out important aspect of E-Governance and the usage by various sections of society including Urban and the Rural. The quantitative analysis gave the insight into the various domains used frequently by the Indians.

Data collection was done through the offices of RashtrapatiBhawan, DIT, DST, GAD, Ministry of Law, E-Governance Magazine and E-health Magazine. In addition, the scholar's personal experience with the TCS also played an important role in the research. The data collection was also done through a questionnaire automated through the site **http://www.quiksurvey.com**.

E-Governance software based on SAP is not discussed as a part of software analysis in any of the Research Papers, forget the literature.

The strongest limitation is that E-Governance is considered to be a part of Management related topic whereas there is hardly any

discussion on the Hardware, Software,Skinware, Filmware,Frimware and of late suggests the amalgamation of Cloud Computing. These topics have been incorporated in the Research as a limited input.

The ultimate benefactor of the research will be the common Indian citizen.The implementation of E-Governance across the nation will see the transformation of Indian Citizen to Indian Netizen**.**

It has the following heads:

1. Rationale and Significance of Research.
2. Significance of Benchmarking.
3. Aims and Objectives of the study.
4. Scope of research.
5. Methodology.
6. Research Tools,
7. Limitations.

Chapter 4. (E-Governance)

The chapter 4 has the following sub-chapters:-

1. **Meaning of E-Governance.**

    Here the E-Governance principle is explained. E-Governance is also called SMART governance which means Simple, Moral, Accountable, Responsible and Transparent Governance. The citizen, providers and Government are clubbed together with the help of technology to call it as the service triangle. **E-Governance is therefore the use of the ICT to provide services and information on a Real Time basis to its Citizens.**

2. **The Service Triangle and The Citizen Chip**

    The Citizen Chip is envisaged to be a tool with the citizen ware its needs are fulfilled through a device that is readily available 24x7 just like the Unique Identity (UID) .The Citizen Chip envisaged here is ICT embedded UID.

3. **The Importance of E-Governance**

    With technology ruling the roost the inevitability of E-Governance cannot be denied. The E-Governance will save time, labour, cost and provide a dedicated and smart service to the citizens of

the India.The citizen can aspect the following as and when the E-Governance is implemented:-

a. Corruption will be minimized as there will be no middle agency.

b. Long queues will be avoided and citizen will be not harassed.

c. Red tapism / Corruptionwill be minimized.

d. Pollution will be avoided.

e. Green Technology will be augured.

4. Expected Reforms ThroughE-Governance

In this subhead it is shown that through E-Governance one can expect that corruption will be totally eradicated. Through E-Governance the long queues, the waiting period and accidents will be minimized. It will also lead to automation, informatisation and transformation of the entire system. There are efficiency and effective gains involved by incorporating E-Governance in the citizen charter. **A time will come when Government and the Ruling Party / Alliance will be judged on the delivery aspect of E-Governance.**

5. Emerging E-Governance models

The E-Governance models are discussed in this sub head. There are a total of 8 models and the same have been discussed in brief.

6. Challenges to E-Governance

The Challenges to E-Governance are implicit as people are reluctant to change. Perhaps one should understand that with the INFLOSION (Information Explosion) the hardware, software, skinware,filmware and the firmware will also envisage change and or scalability etc. The same is given in the thesis. The challenge is not only hardware and software but the problem is the skinware that is reluctant to be in the rat race as the old habits die hard but then we need to progress and therefore the challenge has to be taken with a bit of salt.

7. Change Management Related Issues

Here the change management issues are discussed and remedial actions are enumerated. The research did feel that the old people are averse to acquiring ICT skills compared to the younger generation.

8. Chronology :E-Governance

This gives the timeline of emerging E-Governancescene in India.

9 Definitions of E-Governance

Here definitions of E-Governance are discussed. The audit definition is also incorporated.

10. E-Governance defined by the Audit authorities

11. Citizen Benefits – Suggested Model

Chapter 5. (E-Governance Initiatives in India)

In this chapter the various domains of E-Governance are discussed. The various portals are:

1. E-health: The E-health will take care of health reforms in India and will also have remote E-health maintenance.

2. E-education: E-education through distance mode and online mode is getting quite popular and is also saving precious financial resource.

3. E-help: This is like the E-seva wherein citizen can query for any help that he/she may require either online or through mobile.

4. E-democracy: In days to come citizens will be able to exercise there franchise through registered mobile or online ID.

5. E-feedback: This is self explanatory.

6. E-administration.

7. E-police.

8. E-taxation.

9. E-court.

10. E-tendering.

11. E-biz.

12. E-Senior Citizen.

Strategies of E-Governance in India

In this sub-chapter there has been deliberation on the following aspects:-

1. Technical Infrastructure all over India.

2. Enhance Institutional capacity.

3. Centre/State relationship.

4. Established standards.

National E-Governance Plan (NeGP).

The National E-Governance Plan came into being on May 18, 2006. The strategy was adopted for the following reasons:

1. Centralized initiative, Decentralized Implementation.

2. Identified services to be targeted.

3. Prioritize Services (Mission), Identify measurable service goals (Outcomes).

4. Identify, Appoint & Empower Mission Leaders.

5. Create mechanism for effective Private Sector participation.

6. Put in place a common Infrastructure, Policies, Standards and Framework.

7. Service delivery through Common Service Centres.

8. Think Big, Start Small and Scale Fast.

9. All services supported by 3 infrastructure pillars to facilitate web-enabled Anytime, Anywhere access.

10. Connectivity: State wise Area Networks (SWANs)/ NICNET

11. National Data Bank/State Data Centres (SDCs)

12. Common Service Centres (CSCs) primary mode of delivery.

The chapter also gives various E-Governance portals for various usageslike, birth certificate, death certificate, driving licence, income tax etc.

Summing up is done by discussing a few hot E-Governance projects:

1. Project BHOOMI.

2. Project GYANDOOT.

3. Project SMART.

4. Project SARI.

5. Project SAMPARK.

6. Project CARD.

7. Project AKSHYA.

8. Project CLC.

9. Project DISK

10. Project DELHI SLUM.

11. Project E-SEVA.

12. Project GRAM SAMPARK.

13.Project HEAD START.

14.Project LOKMITRA

15.Project MAHITI SHAKTI etc.

The extract of progress report by Dr. Chandrashekhar is mentioned giving the details of the strength and weaknesses.

The Chapter ends with the high note on E-Governance portal at the President Secretariat, RashtrapatiBhawan {RB}, New Delhi. RB E-Governance Portal has been built with the i-Grandee's Virtual e-GOV software components and its dynamic workflow engine. It has been designed using the special MVC architecture in a J2EE platform environment and portable across any platform. The Virtual e-GOV components have been tested and performance validated.

Again, Former President Prof. A.P.J. Kalam had highlighted the importance of E-Governance through his own house.

Chapter 6 (Benchmarking Surveys and Inferences).

This chapter is aimed at those involved in planning, in undertaking, in using or in evaluating – the benchmarking or measurement of E-Governance. It draws on models of e-government and experience of benchmarking to answer four questions: why benchmark E-Governance? what to benchmark? how to benchmark? how to report? It provides a series of recommendations based on good practices or innovative practices, backed up by a set of conceptual frameworks and statistical findings. There is a particular sensitivity to benchmarking E-Governance in the "majority world": the developing countries that are home to 80% of the world's population but, as yet, just 20% of e-government users. E-Governance benchmarking means undertaking a review of comparative performance of E-Governancebetween nations or states. E-Governance benchmarking studies have two purposes: internal and external. The internal purpose is the benefit achieved for the individual or organisation undertaking the benchmarking study. The external purpose is the benefit achieved for users of the study. Little or nothing is made explicit about internal purpose in benchmarking studies. It could be synonymous with the external purpose but equally it could relate to a desire to raise the profile or perceived expertise and legitimacy of the individual or organisation in E-Government, or it

could relate to a desire to attract funds or win additional E-Government business. Where a benchmarking report has a sales and marketing function, this could be in tension with development goals. At the very least, it makes sense to ensure that study implementers are themselves clear about their internal purpose even if this is not publicised.

The following models of E-Governanceare discussed in this Chapter and its Indian usage is given as example :

1.   Broadcasting/Wider-Dissemination Model

2.   Critical Flow Model

3.   Comparative Analysis Model

4.   Mobilisation and Lobbying Model

5.   Interactive-Service Model

The chapter gives, at the onset, the ranking of Asia in the world. Then the ranking of India amongst thecountries followed by the ranking of states and the sites .

There are questionnaires that give the usage of various sites by the citizen and then the remarks based on the study and the survey.

The subchapters are as apropos:

1. Importance of benchmarking E-Governance

2. Benchmarking Models and Indian Usage

3. Top E-Governance countries and UN Rankings

4. An old E-Governance Study of India

5. Surveys by the Research Scholar

6. Survey outcome and rankings of various sites.

The outcomes are reflected graphically as well as numerically in the appropriate scale / unit.

A few rankings of magazines, government bodies, and or departments have been incorporated for the benefit of future scholars.

Chapter 7. (Outcome of the Research)

In the after math of the research a few important points are discussed.

E-Governance Challenges visualized for India

For politicians and policy makers E-Governance is a central action in achieving two important goals: reducing the cost of government, and delivering quality services to customers (businesses and citizens). The study has encouraged / suggested the following:

1. Reform the legislative and regulatory frameworks to maximise accessibility of services through relevant ICT channels.

2. Provide sustainable investment and business models for agencies that are tasked with building E-Governance services.

3 Set a new vision of government that combines the characteristics: lighter, simpler swifter, available, trusted. Those actions deliver the E-Governance environment – in essence the producer dimension. To maximise the consumption dimension (the uptake, use and impact of E-Governance services) requires more than just the availability of infrastructure and services, no matter how well the services are designed. What helps to really maximize consumption is a healthy and trusted relationship with citizens:

4.   Be transparent with citizens.

Note on Legal Aspects of E-Governance

The research gives the Legal Aspects of E-Governance and discusses the Cyber Act of India as well as Right to Information Act, 2005. However the topic of **CYBERBULLYING** is completely amiss in the context of Indian Scene.

Cloud Computing–An important tool for abetting E-Governance

The most important and neglected aspect is the technical part of E-Governance i.e. Cloud Computing. This chapter discusses the concept of cloud computing for the purpose of E-Governance. Cloud computing is an umbrella term used to refer to Internet based development and services. The cloud is a metaphor for the Internet. A number of characteristics define cloud data, applications services and infrastructure:

- Remotely hosted: Services or data are hosted on someone else's infrastructure.

- Ubiquitous: Services or data are available from anywhere.

- Commodified: The result is a utility computing model similar to traditional that of traditional utilities, like gas and electricity.

It may be noted that if the Government has to act in the best interest of the citizens then the Cloud Computing with the following domains will play a crucial role for the benfit of the citizens They are :

1. **Platform as a Service (PaaS).**

2. **Desktop as a Service (DaaS)**

3. **Software as a Service (SaaS)**

Stop Press

The research has given the latest changes in E-Governance specially with the Modi's Digital India movement that has made market buzz with E-Governance projects like the Smart Cities. Also the news snippets carry the latest news across India. Last but not the least the Research Scholar expects that **E-Governance will culminate into RoboGovernance** and the same is visualized by the Technocrats who expect that by 2026 people can order food through Internet and receive it through Robots instead of the Pizza Delivery Boys.

Conclusion:

The research will be a milestone in the domain of E-Governance and the Benchmark here will further motivate the competitors in the PSU/SGU/Pvt. Enterprises and various Government Bodies.

Citizen-centric governments are bound to deliver cost-effective, personalised and relevant e-servicesthat simultaneously enhance democratic dialogue. From my study of over 50 months on this topic I have tried to assess the ways in which organizations are changing to deliver E-Governanceservices, and found that a simple focus on the organisation was not sufficient – it is the way in which the organisation mediates a critical relationship between government and citizen that matters.

I also found that it is not enough just to implement organisational change. Change in itselfwill not guarantee delivering services that deliver public value. One can make progress inE-Governance through modernisation and the effective use of ICT. One can also work onprocesses that improve the trust of citizens in government. To make real progress ontransforming government services one should aim to positively transform the relationshipbetween government and citizens.

Efficiency is mediated via citizen use and public value into effectiveness. Efficiency is theoperation of the governance process in a way that continues to demonstrate cost benefits; more for the same, the same for less. Effectiveness comes from the use of efficient processes to construct service portfolios that deliver individual and public value. Managing the transformation of efficiency into effectiveness involves flexible

organizational behaviour and relationship management with citizens. Consequently, the true measurement of the benefits of public service modernisation cannot necessarily be found just in the traditional bottom-line financial approach.

In my research I was guided by a network of international / national experts in various E-Governance organization. I stimulated debates amongst the users, carried out desk research on cases and the literature, benefited from the rich collection of E-Governance good practicesin RashtrapatiBhawan, Railways etc.

Last but not the least my experience as TCS Project Manager for the E-Governance too played dividends and by technical background in Computer Science and Engineering also helped in amalgamating ICT with E-Governance.

Citizens are not passive in the construction of efficient E-Governanceservices. There areimportant considerations both for individual citizens, and for the important intermediaryorganisations which represent and help citizens, and groups of citizens, to be included inE-Governance service consumption. My research has identified a critical participative and trusting relationship where I also found highly utilised services.

As a citizen one should know what is happening rather then blame the Government. The citizen should:

1. Understand the relationships between right to receive services from government and obligations when using them.

2. Understand the important relationship that exists between the use of personalinformation, and delivering the right services.

After all, it is our money, contributed through taxes, that is re-invested in our services,and one should no more waste that money than one would do ones own.

I may be overenthusiastic but the fact remains that in a short span of time we shall witness the following:

1. **The transformation of the CITIZEN to NETIZEN.**

2. **The E-Governance based on Desktop as well as on Mobiles.**

3. **The transformation from E-GOVERNANCE to ROBOGOVERNANCE or HUMANOIDS**.

4. **SAP based E-GOVERNANCE modules**

SUPERVISORS :

A special mention merits the my **GURUS** alias the **SUPERVISORS** in playing pivotal role in this maiden thesis on E-Governance. A multivisionary **Professor AnoopSwarup**, **Former VC of Shobhit University, painstakingly gave me the pragmatic tips on the research whereas Professor Vishal Bishnoi, HoD in the Business School with his heavy academic inputs helped me with connecting with the various groups and or offices related to ICT**.

CONFERENCES AND ADDRESSES

In addition to several International and National Papers in Management and Computer Science Engineering mention is made of the following two points meriting Management.

1. **The scholar has been a key note addressee in the Punjab CM, Sardar Prakash Singh Badal's College of Education and Management where my addresses have been confined to E-Governance and Higher Education.**

2. **The scholar had also been a key note speaker at the IIT Delhi Conference on higher education and Management chaired by Delhi University VC – Professor Dinesh Singh (recipient of Padmashri on 26 January 2014.**

3. **The scholar has been involved in the paper presentation on E-Retailing or Virtailing (Virtual Retailing) through E-Governance.**

4. **The scholar has published 2 technical international papers with impact factor of 2.3 in the Springer Link on technical aspect and security on cloud computing.**

<u>Supervisors</u>

Prof. AnoopSwarup   **Prof Vishal Bishnoi**
Former Vice Chancellor   **Former Professor & Head**
Professor de Emeritus   **School of Business Management**

<u>Research Scholar:</u>

RAKESH SHARMA

(**The scholar would like to do a post doctoral government aided Research on E-Governance in Ladakh Region for temperatures varying from $+ 20^0$ C to $– 60^0$ C or even less**)