Chapter 2

Research Design and Methodology

2.1 Research Approach

The thesis shall commence with a general literature review process focused on key concepts from the following areas: e-Governance and use of information and communication technology (ICT); technology management in e-Governance and diffusion; change management; the state education-technology interface; and of course, some running e-Governance model of other countries and in India.

Starting from definition of ICT [2] the relevant concepts of this technology studied to prove objectives of our thesis. Showing where and how ICT technology takes place to design a cost effective e-Governance system. [1] Used methods for research are literature review, online research and case study analysis.

The initial findings will help to set and refine the study’s aims, scope and the research questions. A more focused literature search will be carried out after studying the e-Governance models as applied in India and other Western countries. [7] The e-Governance experiences form end users and trainers will be scrutinized in order to identify possible. In parallel, an exploratory case study of the other many e-Governance and ICT project done by the researchers to analyze the extent to which the barriers and solutions drawn from literature apply in e-Governance domain. A related aim of this study is to development a working, socio-technical e-Governance framework, with ICT technology, which might be used to guide the implementation of future e-Governance initiatives in a country or state. The essence of this study will be
a proposed e-Governance framework and other solutions to offer this with ICT model.[3]

Essentially, the literature review and review of secondary data led to the development of a hypothesis design will be employed to refine, elaborate upon and expand our findings and results.

This study follows what Creswell [8] defines as “sequential procedures, in which the researcher seeks to elaborate on or expand the findings of one method with another method”. The same source also clarifies that “the study may begin with a quantitative method in which theories or concepts are tested, to be followed by a qualitative method involving detailed exploration of a few cases or individuals”. This is exactly the general approach of the study. This research commenced by defining theoretical concepts and aims through a general proposed model of e-Governance.

2.2 Case Study

According to Myers and Avison [9], case studies are a common method for data collection in the field of information systems. Gall et al. [10] define the purpose of case studies as follows: “researchers generally do case studies for one of three purposes: to produce detailed descriptions of the phenomenon, to develop possible explanations of it, or to evaluate the phenomenon”. The study aimed to describe the current and future plans and achievements in the Uttarakhand e-Governance projects. It also endeavored to define, examine and explain societal and state-specific barriers to e-Governance adoption in Uttarakhand. Finally, it aimed to evaluate advanced nations’ and other Indian states experiences in e-Governance to provide lessons for the Uttarakhand.

Uttarakhand case study is the core element of the research. The ultimate focus was placed on studying and addressing barriers to frame a strategy for e-Governance take-up. Part of the case study involved gathering information from different segments of Uttarakhand society to help describe the present and future plans and achievements in the same context. Finally, questions were distributed to various citizens of Uttarakhand society who represent the most likely targeted users for e-
Governance. The following sub-sections describe the pivotal steps undertaken during this phase.

2.3 Research Planning

1. Preparation of theoretical research model after study the secondary data collection and reading, to find out research gap and further defining the target user group including government and private colleges, user, administrators etc.
2. Study of various G2C and other e-Governance management systems in India and other countries, to find out various design issues, limitation and future modifications using ICT.
3. Quantitative and Qualitative analysis of collected research papers, articles, web sites, case studies.
4. Designing the new framework for e-Governance in ICT environment based upon findings.
5. Testing the result in a small, computer prototype environment and acceptance testing by the users.
6. Research recommendations and future work.

2.4 Methods used for Data Collection

We used various online sources like Google scholar, IEEE explorer, to collect materials for our thesis work. Apart from those online sources, we also used various University libraries including IIT Roorkee, IIT Delhi, to collect the research papers and articles for our theoretical study. Additionally we also used to search for the research articles that are mentioned in references of our previous findings. This strategy helped us to gather more knowledge on our research work to seek findings on research question to define and design the research model.
References


