Chapter 12

Understanding Methodology Aspects for Measuring Multi-Dimensional E-Government: Pointers for Research and Practice

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ABSTRACT

Because of its multi-dimensionality, measuring the degree of development of e-Government has not been easy regardless of the context in which the measurement is done. This chapter intends to bring out the inherent entities with regards to measuring any aspects of e-Government. The chapter presents a synoptic overview of the different methodological approaches that have been utilised in both developed and less developed countries with regard to measuring e-Government. Generally, e-Government research has been met with methodological inconsistencies and weakness both in scope and usefulness in understanding the full gamut of e-Government. Further, it is not difficult to observe that most studies excessively utilise qualitative methods with higher degrees of Case Studies and non-empirical research. The need for empirical research cannot be overemphasised because such research has the potential to generate original theories and frameworks and/or models that are going to be key reference points with regards to implementation.

RESEARCH AND PRACTICE FOCUS

In recognizing the fact that research informs practice, it is importance to ensure that correct and methodologically sound research is done. If wrong conclusions emanate from research, it is logically coherent to assume that even e-Government practice will be flawed. Therefore, with a view of reducing on the percentage of e-Government projects that fail, this research probes the methodological ramifications utilised by different e-Government researchers and practitioners to investigate the proliferation and integration of e-Government into the different socio-economic strata (McCurdy & Cleary, 1984). E-Government research and practice has mostly been devoted
to understanding the likelihood of technology adoption at the individual level. The thinking has been that individual acceptance and usage of technology points to success of e-Government implementation. What has been lacking are a set of serious enquiry with regards to other facets of e-Government implementation such as organisational and managerial attributes of e-Government implementation. With this lack of research on e-Government enquiry, the general practice of e-Government research has correspondingly resulted into many projects failing. It is worth mentioning that the correlation between research and practice in e-Government implementation is pronounced. Therefore, it can be posited that the start point in successful e-Government research is defining appropriate methodology.

Appropriate e-Government research should show the heterogeneity in its methodological approaches given the multi-dimensional nature of e-Government. This means that a different methodology appropriately fitting the given aspect of e-Government should be employed at any given time. It is also appropriate to investigate e-Government phenomenon from multiple vantage points by utilizing more than two methodological approaches to investigate a given phenomenon of e-Government.

In order to appreciate which methodology to use to understand the different aspects of e-Government so that appropriate interventions are employed on the supply side (implementation side), there is need to understand the inherent attributes of what are called ‘the four pillars of e-Government implementation’. These four pillars are as follows:

1. Need for requisite Information and Communication Technology (ICT) infrastructure;
2. Leadership to manage e-Government implementation at the various stages of its development projectile;
3. Organisational and individual readiness paradigms; and

The basic questions guiding the choice of methodologies in answering the four questions above may be the following:

1. Since ICTs are a main enabler for e-Government, careful enquiry needs to be done before any interventions are put in place. For example, the following are some of the questions that may need to be asked to ensure that context-aware e-Government interventions are put in place:
   a. Which technologies are best suited to implement specific e-Government solutions in a given area? (context-aware e-Government solutions – deployment of technologies that suit the local contextual characteristics)
   b. What type of technologies are largely being accessible by the majority of the citizenry and business entities (do they access Internet using conventional means i.e. using immobile personal computers at Internet cafes or access Internet on mobile platforms (e.g. on mobile phones) ubiquitously)?
   c. What are the local culture perceptions with regards to accessing government information and services online?
   d. What is the anticipated lifecycle of a given technology considering the current short lifecycles of technology adoption?
   e. How to design e-Government technology infrastructure so that a common, open middleware that allows technology gender neutrality?