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ANTECEDENTS OF E-GOVERNMENT SUCCESS: A PHENOMENOLOGICAL STUDY

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Abstract

This research aims at identifying antecedents of e-government success from stake holders' perspective by focusing mainly on government-government relations, government-citizen relations and citizens-citizen relations. Although, the various government agencies, businesses, citizens, visitors, technology solution providers and businesses that support government procurement are among major stakeholders of an e-government undertaking and understanding of their view point of e-government success is important, this research will only focus on government agencies and citizens as described earlier. The concept of stakeholder theory lends support to the basic motivation and some theoretical foundation to a priory model developed in this paper. After the development of a priory research model for the antecedents of e-government based upon literature review, primary qualitative data will be collected according to cross case synthesis and phenomenology tradition. A phenomenological, grounded theory based model will be developed and compared with the priory model. The research will be conducted in Pakistan and India.

Keywords: E-Government Success Antecedents, Critical Success Factors, Pakistan, India.

Introduction

A number of researchers and commentators regard e-government as an opportunity to make governance more efficient. Enhanced interaction between government agencies, citizens and businesses is the goal of e-government. There are a number of Information communication technologies (ICTs) that play a vital role in the development, deployment and use of e-government services. The developed countries, e.g. United States and many European countries have highly developed ICT infrastructure and yet e-government services usage is not too impressive. The developing countries such as India and Pakistan are struggling even more to develop and deploy basic infrastructure for ICTs which limits people's ability to use e-government services. The e-government projects in some newly industrialized countries such as Singapore are yielding results with varying degrees of "success". The term success is however not defined completely or comprehensively and most of the time its use is broadly. It presents a unique set of issues in which due to the lack of ICT infrastructure people cannot use e-government services efficiently and effectively that have already been made available (Tan, Pan & Lim, 2007). Prior research on e-government has mainly focused on modeling e-government structure, evaluating e-government websites or reporting of the major e-government initiatives, developing frameworks etc (Melitski, Holzer, Kim, Kim, & Rho, 2005; Palvia & Sharma, 2007). There appears to be a neglect of the stakeholders' expectation of e-government success and therefore this research will analyze these issues in more details. The lack of literature and research on the relationships between government and businesses when developing e-government solutions also necessitates the proposed research. Specifically, the following are research questions:

- What does e-government success mean to different stakeholders (government bodies and citizens)?
- What are the antecedents of e-government success from stakeholders' perspective? How and why will these antecedents be different from various stakeholders if at all? And how does e-government success impact G2C, G2B, G2G and e-democracy relationships? (Since the term "e-government" may mean differently to different stakeholder, this research will limit the use of the term to mean G2C, G2B, G2G and e-democracy).

This research is important because it will lead to the identification of significant antecedent of e-government success as viewed from stakeholders' perspective. The e-government networks and ecosystems can be developed that aim at service

orientation and collaboration. An e-governments ecosystem is defined as the rich of interconnectedness of modern life, preservation and maintenance of citizen trust, appropriate level of government involvement in citizen lives and their relation to the use of e-government (Miller, 2005). The comparison between the literature based model and the grounded theory based model will provide insights into the possible future research areas within e-government. The development of interoperable business processes focused on the stakeholders, social dialogue and public value will be of importance. E-government could become more efficient by focusing on reducing costs, increasing productivity, sharing processes, reusing data, and improving people's skills, awareness, and leadership. It will also lead to making e-government more effective in coherence, simplification, transparency, social dialogue, discourse, accountability and integration. Potential outcomes of this research include the identification of a number of antecedents that define e-government success. It will result in highlighting the importance and perspectives of various stakeholders in e-government. E-government initiatives can only be considered successful if stakeholders are using these systems and consider it supporting their requirements in dealing with other stakeholders. As described earlier, the research will also compare a literature based model with grounded theory based model after the data analysis. It will help in the identification of new research areas and therefore will be instrumental in setting up future research agenda on e-government. This research will also be able to identify and analyze barriers of setting-up, providing and maintaining e-government services in addition to the current state of e-government research in various countries included in the cross case synthesis. Based upon the findings, the research will also be able to provide basis of analysis of the impact of e-government, along with possible policy recommendations to improve, take-up and usability e-government.

Literature Review and Analysis

Ndou (2004) and Ho (2002) explain that e-government can be regarded as a paradigm shift in the traditional bureaucratic paradigm. E-government is fueled by competitive and knowledge based economy requirements, i.e., flexibility, network organization, vertical/horizontal integration, innovative entrepreneurship, organization learning, speed up in service delivery, and a customer driven strategy. Palvia and Sharma (2007) describe a number of e-government definitions, frameworks and current status of e-government worldwide. There are number of research articles that aim at measuring the level of e-government readiness according to different frameworks or developing new frameworks and models about how e-government can be and should be developed. There are research studies that identify critical success factors but antecedents of e-government success are not clearly and comprehensively identified (Melitski et.al., 2005). The contemporary research suggests that, in modern democracies, citizens' distrust of their government may have an adverse effect on the effectiveness of that government (Council for Excellence in Government, 2004). Therefore, understanding of what leads to e-government success may be an indicator of people's trust on their governments.

Stakeholder Theory

Freeman (1984) presented the concept of stakeholder theory which describes that stakeholders have interests in what the organization does, and may or may not have the power to influence the organization to protect their interests. In this sense, stakeholders are varied and their interests may coincide on some issues and not others. While, Freeman's concept of stakeholders is organization theory oriented, it is equally relevant to the concept of stakeholders' perspective in e-government and e-commerce (Shen, Straub & Trauth, 2007; Papazafeiropoulou, Pouloudi & Currie 2001).

Research Model and Research Objectives

The literature offers a number of models and frameworks for e-government implementations and guides. Many of these frameworks are speculative in nature or based upon theories from other areas of research. Some of research studies also offer critical success factors and lessons learned from specific e-government projects. This provides a rich foundation for research in this line of research however it is difficult to find research studies that look at e-government success from stakeholders' perspective. The role of stakeholders in e-government is very important and it is not possible to develop a model of e-government success without first identifying antecedents of e-government success. This research will develop a model of e-government success based upon literature and compare it with the one developed after analysis of the qualitative data collected and analyzed using cross case synthesis. The model will be developed to show the antecedents and their causal relationships to e-government success. Following model is developed based upon the literature. The literature support and explanation of the various constructs in this model follows:

E-Government Success:

E-Government success is a subjective term and could mean different thing to different stakeholders. Even though there is some support for the definition of e-government and what it would entail, there is no conclusive set of indicators that define success from stakeholders' perspective. According to Traunmüller and Wimmer (2003)

[government] agencies, citizen and enterprises draw heavily on increased use of information, sophisticated service provision, creative and thorough redesign of existing administrative processes, and innovative forms in assisting governance. Palvia and Sharma (2007) explained the benefits of e-government in the form of increased effectiveness and efficiency among others. There are a number of researchers who define these terms loosely and therefore a greater understanding of these concepts will be gained during the qualitative data collection and analysis process. The different factors and variables mostly referred as the measures for e-government success in literature include degree of efficiency achieved, degree of effectiveness achieved, development of the number of e-communities and stakeholders' perceptions (Helbig, Gil-García & Ferro, 2005).

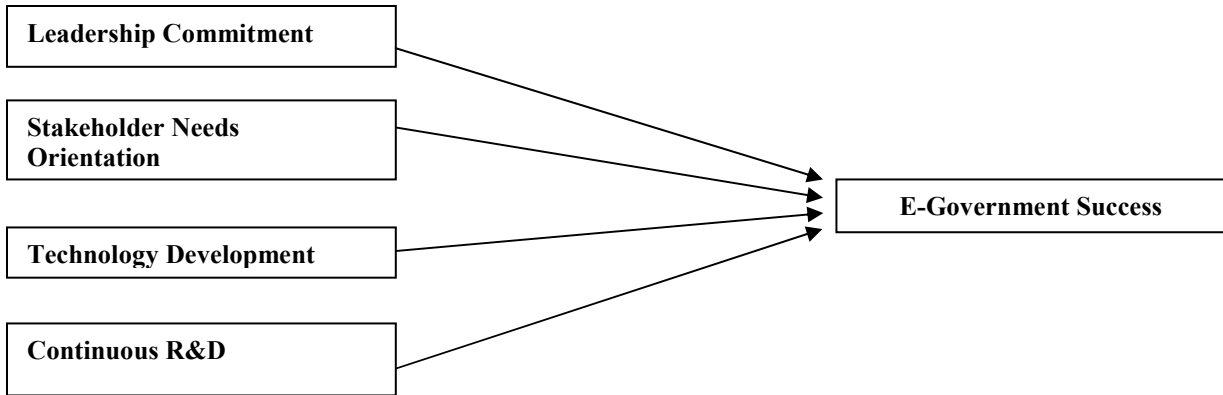


Figure 1: Antecedents of E-Government Success based upon Literature

Leadership Commitment:

Leadership commitment is an antecedent for the success of any project and the literature from various fields such as leadership, project management, business and public administration etc broadly supports this construct. For e-government to succeed, it is important to have socio-political leadership ready for ensuring process reengineering that would be needed to have e-government processes in place. The leadership commitment is not simply needed for the funding of these projects but also the enabling legislations that allow its use in order for the stakeholders to be able to use e-government. Caldwell (2007) has described principles of e-government success and has regarded the development of e-democracy and e-communities as a mean of developing leadership among citizens. Ke and Wei (2004) have also reported the importance of leadership commitment for e-government success in Singapore. The various factors that can be included under this construct are consensus building, vision development, strategic planning, process reengineering to accommodate e-government process and technologies, enabling legislations to support the evolution from traditional to e-government paradigm, and setting up promotion and incentives for (Caldow, 2007; Cook, 2000)

Stakeholder Needs Orientation:

Stakeholder orientation is an important aspect of the success of any organizational project (Freeman, 1984; Papazafeiropoulou, Pouloudi & Currie, 2005). For e-government success which is the main focus of this research, it becomes even more important. The literature provides rich background for the identification of e-government stakeholders (Shen, Straub, & Trauth, 2007). The various factors to be considered in this category include cooperation among stakeholders, development of chain processes for various e-government services and security and privacy (Tan, Pan, & Lim, 2007). Some of these stakeholders include government officials, employees, various governmental bodies and agencies including national identity management and law enforcement among others, businesses (those who need to use e-government services to run their businesses for customers and also those who provide services to government i.e., government procurement), citizens, visitors from other countries and technology developers. Even though the current research is limited the government agencies and citizen's perspectives only but may report the identification of other stakeholders.

Technology Development:

There is sufficient support for this aspect of e-government success. It is logical to consider that e-government services will not be able to survive without being developed and enhanced constantly. There are various

sources of literature that emphasize this concept and the need to develop open architecture, open standard for intergovernmental communications (Dittrich, Ekelin, Elovaara, Eriksen & Hansson, 2003; Strejceka & Theil, 2002). The literature considers the use and development open source software as an important enabler for the success of e-government. There are however many questions that can be raised here and the research will attempt to understand stakeholders' perspective on the issues related to the development of technology and provision of necessary tools and devices that allow stakeholders to access and avail e-government services. The various aspects to that are considered part of this construct include integration of e-government applications and services, reusing of applications and data, automation of governmental processes, increasing e-government accessibility by focusing on the readiness factors such as provision of basic computing services, communication systems for stakeholders, identity and authentication and open standards for e-government services, applications and architecture (Benamou, Busson, & Keravel, 2004).

Continuous Research and Development:

Traditionally, government systems are expected to be bureaucratic in nature. E-government on the other hand provides flexible way of developing processing without overwhelming the stakeholders. For example, process reengineering that involves different treatment of the requests may still use the same interfaces and thus seamlessly provide better services and quality to the stakeholders. This construct requires a continuous focus on human capital development by educating, training and retraining, Selection and development of technologies and processes (Knudsen, 2006).

This model is a starting point for this research. The researcher will develop a new model of e-government success based upon the cross case synthesis and a comparison between the literature based model and the final research model will be an important contribution.

Research Methodology

Type of Study

A cross case synthesis method will be used as a qualitative inquiry approach or tradition for this research in Pakistan and India. Husserl (1936) had defined phenomenology as a philosophical method that takes intuitive experience of phenomena as its starting point and tries to extract the essential features of experiences and the essence of what we experience. This term in modern science, is used to describe a body of knowledge which relates several different empirical observations of phenomena to each other, in a way which is consistent with fundamental theory, but is not directly derived from theory. Yin (2002) describes cross case synthesis as a technique that is applied to studies with multiple cases and where cases are compared and patterns are identified on different features, variables, events, etc.

In the light of discussion above, e-government can be studied as a phenomenon with the use of cross case syntheses to preserve unique socio-cultural features of e-government use and implementation for individual country analysis. In the study, it will be important to understand the perspectives of government-citizen, government-business and government-government relationship that define success in this scenario. A literature based model will be developed prior to starting the data collection from e-government stakeholders. During the data analysis phase, the researcher will try to identify antecedents of this phenomenon and develop patterns that led to the success of e-government project in developing nations. A grounded model will be developed and compared with the literature based model to identify areas that have not been addressed in the prior research. This will help in setting up and identifying future research agenda on this issue.

In the study, it will be important to understand the perspectives of government-citizen and government-government relationship that define the success in this scenario. The researcher will try to identify antecedents of this phenomenon and develop patterns that lead to the perception of success of this government project in two developing nations. The research will be conducted in Pakistan and India. Since the case study methodology in general allows for direct data collection and in-depth analysis, this research promises to not only provide insights into these issues but also support future research in technology use for public service in developing countries. The data collected from various government bodies will very valuable for analysis. The citizens of Pakistan and India will also be able to provide valuable insights into the problems they faced previously with the traditional government services. It may also lead to the discovery of further problems created by the use of technology for public service. It is important to note that the identification of appropriate areas of e-government services is important where people actually and sufficiently use these services where the service may be considered successful by some stakeholders. The various national and international television channels have provided a great deal of coverage to different e-government issues in the past. Therefore, the transcripts for such televised shows and reports on this topic will be very helpful and will be used to assess the impacts of e-government services in Pakistan and India.

Following is the list of possible interviewees from where qualitative data will be collected:

- Officials from the National Database and Registrations Authority in Pakistan and their counter parts equivalent in India
- Officials from Pakistan Board of Revenue and equivalent Government body in India
- Ministry of interior in both countries
- Law and Order officials in the IT branches of Police and Justice
- Several citizens with varying backgrounds based upon access and use of technology

Data Collection

The researcher will develop rapport and trust with the research participants (interviewees) so that they are able to share their experiences, issues, problems and successes comfortably. The participants will be introduced to the study and participants would be guaranteed confidentiality of their views and identity. They would be asked to read the informed consent statement and a verbal confirmation will be made about their understanding of the consent. In the case of questions about the consent statement, they will be answered accordingly. The consent statement would specifically state that their identity will not be revealed in the study and that they will be provided with the transcript of their interview for review. They will be explained that they have the right to withdraw their data from the study before their approval of the interview transcript if the need arises. This interview protocol will serve as a guide for the interview. Although the researcher can deviate from the interview protocol to capture the required data, it will be important to stay within the boundaries of the research and in a controlled environment.

The observations of the facilities where public services are rendered to public will be conducted or where people might be able to use services offered by e-government initiatives such as government access sections of some libraries in large metropolitan areas. This observation will be recorded in the observation log for analysis purposes. These observations will be used to derive a pattern of how the people use e-government services and compare these scenarios obtained from public during stakeholders' interviews. The observations will also be conducted at various businesses' premises that use available e-government services. Additionally, airport immigration counters' observations will be an important resource because of their richness in the use of e-government services for border control of citizens as well as visitors if permission can be obtained to do this. Multiple observations will be conducted at different times to ensure recording of various situations. The focus groups may be organized during meetings to gather more meaningful data regarding the exploration of antecedents of e-government success. The group interviews may also be conducted. The difference between a groups interview and a focus group is that group interview do not aim at developing a consensus as opposed to focus groups in the identification of problems, benefits etc. The researcher will collect and record observations by writing notes based upon the criteria agreed upon in regards to the research questions. These sessions will be digitally recorded as well.

Data Analysis

The documents available from various public service offices on the traditional business process in various areas of government services will be used to compare how the processes have been reengineered in certain cases to allow for e-government to play its role. As identified earlier, the data collection will consist of interviews, observations, and examining documents. The interviews will be conducted for government officials, business owners and managers dealing with e-government services such as licensing or government procurement, law enforcement agencies, ministry of planning and border control agencies in Pakistan and India. The citizens will also be interviewed to gain insights into their experiences. Follow up interviews will be arranged and conducted with participant to meet member check requirement (Cresswell, 2003). Interviews will be recorded and transcribed for analysis. Following steps will server as a guideline for the analysis of qualitative data:

1. **Organizing and managing data:** Interviews need to be transcribed before analysis so that the researcher can become familiar with the data.
2. **Reading and memoing the data:** After transcribing, the researcher reads through the interviews and observations and identifies key elements or codes in the data.
3. **Describing the data:** The researcher describes the case and its context providing a view of the aspects in the case.
4. **Classifying, defining categories and patterns within the data:** Now the researcher defines categories based upon the codes and the description of the data. Patterns are developed that help explain the case.
5. **Interpreting the data:** The researcher attributes meaning to the identified patterns and relates them with the case studied. Thus the researcher makes naturalistic generalizations of the case where readers can learn from and apply to it to a similar setting or situation.
6. **Representing or visualizing the data:** The final step is to design a visual model that explains the case.

The researchers will consider any cases of negative analysis or outlier patterns that do not fit the categories in the study. This will help establish trustworthiness of the study. Qualitative research involves the use of qualitative data, such as interviews, documents, and participant observation data, to understand and explain social phenomena (Myers, 1997). This exploratory manner of research might uncover aspect of social implications not considered in the past research on the topic done else where. Findings of the research will not only be of importance to various practitioner agencies in the countries involved in research but also for other south East Asian countries that share cultural background with the people from Pakistani origins such as India and Bangladesh (representing almost 1/5th of international population) to name a few. From global perspective, findings will be important to understand similar phenomena in other emerging economies and developing countries. From researcher's perspective, this study will play a vital role in establishing a base line for future studies on this topic.

Research Subjectivities

Since the researcher belongs to a developing country and has experienced e-government services in Pakistan, his previous background in the analysis of regulatory policies of government of Pakistan enables him to gain access and explore competing/alternate explanations/interpretations of the antecedents given by stakeholders better at least in one of the countries included for the research. The experience the use of e-government services will allow the researcher to gain improved understanding of research participants' (stakeholders') perspectives. The researcher expects to have openness from various stakeholders including government bodies, businesses and citizens. Since the language barrier is minimal (Urdu and Hindi differ in script but the spoken language is mainly the same and both Pakistan and India use English as official language for most of the official communication), accuracy of data collection for the case study will be ensured. The researchers will ensure that both objective (quantitative) and subjective (qualitative) data collection, analysis and interpretation are done to set the highest standards of quality research.

Trustworthiness

Trustworthiness is an important aspect to consider in maintaining credibility of the study and avoiding validity threats. Triangulation of data sources such as including documents, observations, and interviews adds to the trustworthiness of the study. Triangulation ensures that the emerging data patterns for interpretation are derived to multiple sources. This study will utilize the three data sources to ensure triangulation. The member checks is a feedback provided by the participants regarding the data collected and the conclusions of the study (Cresswell, 2003). As mentioned earlier, interview transcripts will be shared with the research participants to ensure member check. The interview transcripts, data patterns, and interpretation will be provided to others participants as well for their feedback to make the study open and honest. The researchers will incorporate any discrepancies and perspectives that were not considered before. The peer debriefing is another form of feedback solicited from outsiders in the study who either have or do not have knowledge of the case/context under investigation. The researcher will identify peer debriefers for the study. They will include: presentations of the findings to the stakeholders including government officials, report for other research participants and stakeholders.

Results and Discussion

The use and deployment of technology solutions into every aspect of life are changing how people live, how they work, how companies do business - and how governments serve their people. The requirement for more transparency, efficiency and effectiveness make e-government more desirable in developing countries where cultures are sometimes plagued with social issues. Many developing nations have already made huge investments into the development e-government systems and applications. Yet, the notion of e-government success seems to require more attention. The lack of stakeholder's perspectives in the contemporary research on e-government is one the main motives behind this research. The concepts given by the stakeholders theory are also important motivators of this research. This research will identify antecedents of e-government success from government agencies and citizen's perspective. The research is based upon qualitative data collection and analysis. An a priori model has been developed based upon literature that models antecedents of e-government success. However, the most important contribution of the research would be the development of a grounded theory and its comparison to existing literature on this subject.

Limitations of the Study and Key Assumptions

This research proposal as it stands as of now provides basic structure for the research. The researcher acknowledges that mainly due to the time limitations and in an effort to collect some basic facts about the proposed case study, exhaustive literature review could not be performed. Literature from areas such as e-government, technology adoption, innovation, sociology and political science will be important in further exploration of the topic. Further review and efforts to ground the research topic in theory is very important and will be the next step for this research.

Conclusions

The contemporary research on e-government has ignored the consideration of e-government success from stakeholders' perspective. Even though this research study will not look at the antecedents of e-government success, it will pave a way for future research in this direction. The understanding of these antecedents will help in the development of better e-government systems. For future research, it will be important to conduct the study with more stakeholders and identify antecedents of e-government success from their perspectives as well. A unifying framework of e-government success can be further developed which might encompass various perspectives. Additionally, the positivist approach for the validation of stakeholders' perspective can be used to validate the findings of the grounded theory based phenomenological cross case synthesis.

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