DEVELOPING A CONCEPTUAL FRAMEWORK FOR IMPLEMENTING E-GOV PROJECT [DEVELOPING COUNTRIES]

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ABSTRACT

Successful implementation of e-government services requires identifying all the main factors and elements that contribute directly towards providing the electronic services, as well as a clear vision of their benefits. This paper aims to develop a conceptual framework for e-government implementation in developing countries and give a comprehensive picture of the main factors of the e-government project, clarifying the main elements of each factor.

KEYWORDS

E-government, Technology Factor, Organizational Factor, Environmental Factor, Developing Countries

1. INTRODUCTION

Many developing countries such as India and Trinidad are not aware of the importance of e-government in improved data gathering and record, as well as increased interaction between the government and its citizen (Donnell, Boyle, and Timonen, 2003; Manoharan and McQuiston, 2018). Successful implementation of e-government project requires identifying the important factors such as Technology Factors, Organization Factors, and Environmental Factors (Pudjianto and Hangjung, 2009).

This paper aims to develop a conceptual framework for an e-government project and give a comprehensive picture of the main factors that affect its implementation in developing countries.

2. WHAT IS E-GOVERNMENT

E-government has become a key element in the organization of administrative structure that provides communication channels between the government institutions and contributes to improving electronic services to the public (Dada, 2006; Ziemba, Zelazny, and Papaj, 2013). Alshehri and Drew (2010) defined the e-government as a way of providing service through the web-based portal and empowering the beneficiaries to access their information anywhere at any time. Moreover, Drigas and Koukianakis (2009) noted that the e-government is a channel to increase the transparency and the interaction with citizens.

3. E-GOVERNMENT ADOPTION FRAMEWORK

This section identifies the conceptual framework and the main factors that influences the implementation of e-government. The framework addresses the shortcoming of existing models by identifying factors that affect e-government project implementation in developing countries.

3.1 Environmental Factors

The environmental factors can impact the successful adoption of an e-government project in the developing country. The environmental factor refer to suitable environments in which an organization can apply

e-services. The environmental factors in developing countries that can affect the adoption of e-government project include economic environment, political environment, legal environment, and the digital divide.

The economic factor in the e-government project is considered as the engine to support and develop the e-government and e-projects such as e-commerce as well as e-business (Mistry and Jalal, 2012). Addressing the political legal issue is a very important stage in an e-government project implementation. In order to implement an e-government project, a comprehensive assessment of local laws must be made, and then implement the project according as per the legal framework that will meet the needs of all beneficiaries (Alrawabdeh, 2014). The digital divide is the difference between those who use the technology smoothly and those who have difficulty in using digital technology. The reason of this gap may be fear of using digital technology, low educational level, poverty or age (Dada, 2006).

3.2 Organization Factors

The organizational factors include organizational culture, organization size, human resources, change management, and top management support. The proponents of an e-government project emphasized the importance of organizational issues and described it as the main unit for introduction of e-government initiatives (Alshehri and Drew, 2010; Omari, 2013).

There is an inverse relationship between organizational culture and use of information technology that could have an essential and effective impact on e-government performance (Dasgupta and Gupta, 2010). During the adoption of an e-government project, it will be necessary to change the mentality of the top managers and employees, as well as beneficiaries of e-government services. The organization size in the adoption of e-government project has an effect on efficiency and development performance.

The organization size has been considered as a major variable in the process of adopting e-government services (Rehman, Fatima, and Imran, 2009; Vahtera, 2008). Human resource is one of the main factors in the e-government project. Adoption of e-government is an effort to restructure the existing system and build a structure that contains a transparent, accountable, efficient, and the effective system.

3.3 Technology Factors

Information and communication technology infrastructure is the main factor of the e-government project, and one of the challenges faced by the e-government. ICT infrastructure is the main factor for reducing the digital divide between rural and urban areas. ICT infrastructure includes the main components of the technology factor such as software, hardware, telecommunication, internet, and database management systems (Alghamdi, Goodwin, and Rampersad, 2014; Nkohkwo and Islam, 2013).

ICT tools refer to components required to implement an e-Government project. The components include hardware, software, web servers, application servers, PCs, printers, scanners, routers, switches, firewalls, data, and application development tools.

The successful adoption of the e-government depends on the security and privacy of information. Security and Privacy contribute significantly to increasing the trust between the e-government's departments and the beneficiaries (AbuAli and Almarabeh, 2010). In the e-government services, the security and privacy section is considered as a critical factor in ensuring information and data privacy and protection (Alshehri and Drew, 2010).

4. PRIORITY IN THE IMPLEMENTATION STAGES

The main goal of developing a conceptual framework of an e-government project is to clarify the key factors and critical elements needed in developing a countries environment to implement an e-government project successfully. The conceptual framework includes all the factors and elements that are required for better understanding and identification of the barriers, challenges, and benefits influencing the implementation of the e-government project in developing countries.

Table 1, Figure 1 and Figure 2 illustrates the steps and priority for implementation of an e-government project in developing countries.

Table 1. Stages for E-government Implementation

STAGES	REFERENCES
1. Readiness to Change	Heeks, 2003; Ndou, 2004; Wimmer, Codagnone, and Janssen, 2008; Geri 2009; Pudjianto and Hangjung, 2009; Rabaiah and Vandijck, 2009; Wang, Lee, and Lim, 2009.
2. Supporting the Process of Change	
3. Provide Roadmap to Move to E-government	
4. The Involvement of the Private Sector in the Process of Change	
5. Resistance to Change	
6. Gain the Beneficiaries Trust	
7. Evaluate Performance and Improvement

Figure 1. Priority of Stages for E- government Implementation

Figure 2. Stages for E-government Implementation

5. CONCLUSION, IMPLICATIONS, AND SCOPE FOR FUTURE STUDY

The paper provides a clear vision for implementation of an e-government project in developing countries. The paper clarifies the conceptual framework for adopting the e-government project including all the main factors (technology, organization, environment) of the e-government project. The factors are complementary to each other, each of which has a key role in the success of an e-government project.

The requirements of adopting an e-government project were explained and all factors that affect implementation of the project were assessed. Moreover, the paper has identified the priorities that can influence the implementation of an e-government project. The research work can have implications in government policies developed for e-government implement in developing countries.

The research work contributes to the knowledge regarding factors affecting implementation of an e-government project in developing countries. Further research study can be carried out to find out cost of implementing the project in different countries.

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