

**IMPACT FACTORS IN ASSIMILATION AND
OPERATIONALIZATION OF THE CONCEPT OF E-GOVERNMENT**

Florentina NEAMȚU

Bacău, România

Bogdan NICHIFOR

„Vasile Alecsandri” University din Bacău

Abstract

Governments around the world are making significant efforts towards assimilation and operationalization of e-governance. These efforts are not only focused on the digitization process itself, but also on a broader reorganization process of public services and participation processes based on new information technologies. This paper presents in a synthetic manner, contributory factors and barriers in the process of assimilation and operationalization of e-governance platforms in the practice of public entities.

Keywords: e-governance, new information technologies, e-governance platforms

1. Introduction

According to the existing theory, the term ICT is defined primarily through new Internet technologies and their specific applications. But, this concept also includes network technology, databases and electronic flows system which promotes independence and flexibility in time and space. Further, the time and space features have the ability to significantly improve working processes and audience participation or even to completely redesigne them. Thus, e-government refers not only to the provision of public services (e-government), but also to aspects of democracy, because it makes possible the manifestation of new forms of active participation of stakeholders.

2. The maturity of public services

The implementation and upgrading of e-government follow certain routes, maturity levels, stages or phases. Each Government which uses e-government aims at different goals and objectives, the development of these platforms having some unique levels of service maturity. In fact, each of these involves the operationalization of a single model (Holden, Norris and Fletcher 2003), different levels of technological sophistication, various orientations to stakeholders, different types of interaction, specific security requirements and particular redesign processes (Dorner 2009). These levels describe, in fact, a sequential approach to development and progress of online services.

Taking as a starting point the coordinates of conceptual framework of e-government development, many theories have attempted to define the maturity level of online services, such as:

- a service model that is developed by a Government, successively increasing its interactivity and offers it for use of stakeholders while modernizing technological complexity and functional characteristics (Shareef, Kumar, Kumar and Dwivedi 2001);
- the levels of sophistication of e-government in terms of technology, approach aimed at improving the integration of data and applications, as well as extensibility and flexibility;
- a service model whose fundamental objective is to obtain the citizens' satisfaction (Lee and all 2008);
- a model for the renewal of the role of the Government aimed at fundamentally redesigning the services system to generate satisfaction at the level of constituencies - citizens, businesses, public administration (Zhang, Guo, Chen and Chau 2009).

According to these theories it becomes clear that the literature is divided: on the one hand, there are scholars who argue that the maturity of e-government platforms involves only the technological changes and, on the other hand, the authors claiming that the purpose of this process is the stakeholder's satisfaction.

Despite these differences, most researchers (Al-Shehry, Rogerson, Fairweather, Prior, 2006; Chen, Thurmaier, 2005. Kumar et al, 2007) have pointed out that e-government maturity involves more than integrating the new technologies because this process is influenced by many factors, such as: organizational, human, economic, social and cultural, etc.

This perspective provides a solid theoretical basis in the analysis of the structure of e-government because besides the fact that it reflects the nature of government and its responsibility to society (Carter, L., Bélanger, F., 2004), it offers relevant information about factors or barriers in the operationalization of online services in its various stages of development.

3. Accelerating factors and barriers to e-government

Besides the influence of technological factors (integration of new technologies in the efforts to rethink and redesign government), whose influence is widely accepted, in the literature and practice of developed countries there is a debate related to the impact of non-administrative factors in the assimilation and operationalization of e-governance. It is about a wide range of factors, from the politico-administrative and infrastructure to the demographic, social, economic, cultural factors and so

on, whose impact is crucial, both in terms of encouraging potential and that of braking ability of e-government.

The politico-administrative system, seen as a whole (macro level), is one of the most important factors in the process of assimilation and operationalization of the concept of e-government. Political stability and experience in administrative reforms are crucial in the development of e-government platforms. In this sense, the practice in developed countries has shown that the entire procedure of implementation and development of online services is an easy one in those states who have previously completed organizational changes in public structures and in those which enjoy a stable political environment.

Decisive in the process of assimilation and operationalization of e-governance are the values, attitudes and rationality of the population in relation to the political-administrative system. In fact, administrative action models based on openness to stakeholders have the ability to stimulate or brake feed-back, shaping the attitudes and behaviour of the population. There are many situations in which there is a risk that online services may not be accepted by the population; there may be certain deficiencies in law enforcement, poor outward orientation or underdevelopment of the levers of interaction and communication with stakeholders. For example, when integrating in the online system services like the payment of fines, if the platform does not allow real interaction with stakeholders, there is a high risk of rejection of this service is high. Moreover, in the present instance, citizens can motivate online service rejection by the desire to negotiate with government officials or to defend their position.

In the specialty literature the influences exercised by the politico-administrative system over the development of e-governance are highlighted by various authors. In this sense, it can be mentioned an article proposed in 2005 by Vassilakis, Lepouras, Fraser Haston and Georgiadis. These authors mention a number of politico-administrative factors that have the potential to facilitate the offer of online services or to slow this process; it is about the existence of a coherent legal framework favorable to work for the adoption of laws, regulations and appropriate directives.

The existence of a legal framework is essential for the success of e-government, exerting a direct impact on the assimilation of online services in government organizations (Gasco 2005).

The literature in the field (Ozturk, Swiss, 2008; Shih, Kraemer and Dedrick 2007) mentions instances where administrative factors constitute real barriers to assimilation and operationalization of e-government platforms, namely: lack of adequate business models, unjustified costs of e-government, complex policies, lack of monitoring methods, lack of qualified personnel, lack of cooperation, the existence of a highly

bureaucratic system based on strict hierarchy; traditional organizational culture, size of governments etc.

Elements of infrastructure and connectivity represent another significant factor that influences the development process of e-government. They have the ability to generate high levels of inequality between states. The reduced rate of penetration of Internet and low level access of the population to computers are factors that hinder the process of assimilation and operationalization of e-governance in the developing states.

Moreover, there are cases that reveal the existence of inequalities even within a state. For example, in Africa, according to research studies conducted in recent years (Nakafeero 2005), young people, especially men, use the Internet more often, so the result is a one-sided concentration which favours further systematic exclusion from online services of women and of those from lower social classes.

The gap between the countries of the world, through the rate of assimilation and use of new information and communication technologies can be also explained by means of cultural elements such as power distance (Erumban, The Jong 2006) and uncertainty avoidance (Straub, Loch and Hill 2001). Cultural elements specific to each state directly influence both the level of accessibility (Carter and Weerakkody 2008) and population IT skills (Mao and Palva 2006). In other words, there are a number of technological barriers that are associated with the user. It is the cultural elements that may adversely affect attitude towards online services, namely: lack of information, lack of confidence regarding privacy, language differences and multiculturalism, maintenance costs, technological competence and not least the lack of accessibility. This list can be extended, according to Gilbert, Balestrini and Littleboy with other potential predictors of use of e-government, namely: trust barriers, financial security, quality of information, and the benefits in terms of time and savings of the adoption of e-government platforms (Gilbert, Balestrini and Littleboy 2004).

The low availability of new information and communication technologies and the high standards of infrastructure required by them and which are absolutely necessary to implement, the development and use of online services can constitute real barriers in operationalization of e-government platforms.

Along the same lines, mention can be made of the article by Shih, Kraemer and Dedrick (2007) identifying potential technological barriers in the way of operational platforms of e-government. According to these authors, closed economy, excessive size of government and lower levels of education are factors that may explain the low level of IT investment in developing countries.

The influence of tertiary education in the adoption of new information and communication technologies and in widely disseminating online services is sustained by many authors (Kiiski and Pohjola 2002; Boyer-Wright and Kottemann 2009). According to them, education has the ability to ensure cognitive consistency and build skills needed for large-scale use of new information and communication technologies.

Relevant in making the e-government platforms operational are social and demographic factors, at least in terms of the acceptance and usability of online services. Age, gender, education, income distribution, linguistic diversity and the percentage of population living in rural areas are key factors in shaping behaviour.

Percentage of population living in rural areas is particularly relevant in the proposed analytical approach because highlights barriers for the development of e-government platforms; the poverty, the level of illiteracy and lack or poor development of infrastructure in rural areas explains the inadequate development of platforms of e-Government for developing states. If we refer to the case of Romania, where approximately 46% of the population is located in rural areas, the development of e-government becomes explicable.

This inequality between urban and rural areas in terms of application of online services is sometimes present even in the case of developed countries. Although their infrastructure for access to new technology is developed in rural areas, compared to developing states, the reason for the low use of online services is the fact that the inhabitants of these areas require additional training to overcome access problems (Sorj and Guedes 2005).

The gap between urban and rural areas in terms of access to online services has been sustained since 1977 by Michael Lipton. According to his theory, called "urban orientation", the factor favouring the widening gap between metropolitan and rural areas is the political system. The idea was taken up later (1987), and Elsenhans mentioned "corrupt politicians prefer to spend scarce resources on urban infrastructure and prestige items, instead of providing basic services to the rural population" (Elsenhans, H., 1987). Elsenhans also claims that at the state level, the maturity of e-government platforms is achieved only when online services are available and accessible in the poorest groups of the population.

To support his theory, Elsenhans proposes a structure of online services for the poor, known as "pro-poor services". According to this, the starting point in the development of e-government platforms consists of a coherent approach to segmentation of the poor, to identify all target groups likely to use these services. The approach is imperative if we consider that the information needs and expectations regarding public services are

different in the urban population compared to the poor rural areas. For example, poor farmers need services and different information compared to disadvantaged urban population. Subsequently, the approach proposed by Elsenhans involves the development of services for these target groups to improve the responsiveness of governments to the problems specific to each group of stakeholders.

The economic development is also a relevant factor in the operationalization of e-governance structures. Incorporating new technologies of communication and information within activities of the public entities require significant investment. In this context, at the level of those countries in which GDP per capita is very low, such investments are often subject to delays or to an insufficient development. Obviously, there are situations where the development of e-government platforms is supported by external funding sources, such as donations or EU funds.

Low level of economic development impact is felt in terms of access to online services of the population. The population of developing states in which income per capita is very low, cannot afford Internet access. This reality is compounded often by a failure in the liberalization of the telecommunications market (Osiakwan 2004), which involves access costs much higher than in industrialized countries. The existence of external service providers and economic liberalization in general, are essential prerequisites for the development of e-government, at least in terms of its operationalization.

The analysis proposed in this section cannot miss the influence of the socio-cultural factors on assimilation and operationalization of the concept of e-government. According to its supporters (Ma, Chung, and Thorson 2005), the theory of the influence of socio-cultural factors on the development of e-government involves consideration of a range of elements, namely: motivations for the implementation of e-government platforms, the amending power, positions and roles following implementation of the new system, resistance to change etc..

A study by Carter and Weerakkody in 2008 over the e-government systems in the UK and USA, revealed that cultural factors are essential to the adoption of online services. According to these authors “there are many situations where e-government programs are not sustainable in terms of political and institutional aspects due to human, management and cultural factors”.

In the same direction, developing state practice showed that, motivated by their own cultural values and practices, many government leaders use e-government platforms to accelerate the decentralization of public administration and / or to increase the government's ability to oversee key activities. In fact the long-lasting system of values is the one

that dictates both the motivations for implementing e-government platforms and their role in society - interior oriented such as the aforementioned (decentralization and control) or outside orientation (the active involvement of stakeholders in the democratic process).

The same idea of the decisive influence exercised by the value system on the development of online services is stated by Boyer-Wright and Kottemann (2009) who consider that “unlike economic prosperity, which is an important factor in the development of e-government platforms, but not limited to, the culture of a country is essential engine that can propagate or prevent it from achieving global competitiveness in ICT.”

At the same time, the literature offers a toolkit to quantify the potential of development of e-government platforms under the impact of cultural factors. Thus, following a study conducted over ten years, known in the literature under the name of Globe House (2004), it has been proposed to examine culture in two dimensions: one analysis from the perspective of the value system and one through the cultural practices. Thus, nine cultural dimensions have been identified: power distance, uncertainty avoidance, future orientation, institutional collectivism, collectivism at group level, humanity orientation, performance orientation, gender equality, aggressive attitude (House, R. J, Hanges, P.J, Javidan, M., Dorfman, P.W, Gupta, V., 2004), each of nine dimension being measured in terms of values and cultural practices.

If cultural values are characterized by resistance to change and they do not provide a foundation for economic development based on secondary values, cultural practices can become forecast factors for phenomena such as the variation in terms of availability of the assimilation and operationalization of e-governance.

Conclusions

In conclusion, the culture of a state, seen globally, can facilitate or hinder the adoption of e-government and required IT infrastructure, as well as the political, social and economic progress which are meant to facilitate e-governance. Therefore, both the cultural characteristics of providers of e-government, in this case public administration, and value system of users (citizens, businesses, other governments) are likely to influence the extent to which online services are running and accepted in society.

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