

Can E-Government Serve as a Tool for Public Authorities to Manage Public Resources More Efficiently?

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ABSTRACT

Innovations in the field of telecommunications and technological development in information processing affect the provision of public services. One of the main priorities of governments is to achieve greater efficiency in the provision of public services and e-government is one of several measures implemented. Our study aims to determine how e-government and efficiency affects the provision of public services in general, and also by functions. We apply a different model to calculate efficiency of the provision of public services and by function. Our empirical analysis, which included correlation and multiple linear regressions, was applied in 2012-2014 for a single cross-section of 35 economies. The results show a significant relationship between e-government and efficiency. Furthermore, we obtain a significant relation between Online Services, Telecommunication Infrastructure and Human Capital with efficiency in the provision of public services.

KEYWORDS

E-Government, Human Capital, International Benchmarking, Online Services, Public Expenditure Efficiency, Telecommunication Infrastructure

1. INTRODUCTION

The economic and financial crisis of the last few years has profoundly affected the organization and management of public administrations. The decline in financial resources, along with other problems such as excessive bureaucracy, overregulation, corruption, dishonesty in public contracts and the lack of these, plus the demands of the citizens for quality public services, have led to several countries' implementing a new model of organization and control of their public administrations: "Network-Administration" Welp et al. (2007), using new technologies, such as the Internet. This model seeks to renew and update the previous management model, mainly through accounting, which was incorporated by public administrations of several OCEDE countries in the 1980s: "The New Public Management" (NPM), as well as the model applied by the Clinton Administration - National Performance Review

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(1993) - based on performance and the satisfaction of the needs of citizens, who are considered as their customers Gore (1993).

The implementation of new information technologies ICT and the development of e-government in the public administration management helps reduce costs, and makes proceedings more flexible and links the different administrations with the aim of increasing the efficiency and quality of public services, in addition to improving the relationship between the public authorities, the private sector and citizens (Dunleavy and Margetts, 2000; Prins, 2001; Fountain, 2001; Hinnant and Moon, 2001; Chadwick and May, 2003; Borrás, 2004; Chiang and Liao, 2009; Verdegem and Verleye, 2009).

According to a study carried out by Chadwick and May (2003), most countries have focused their efforts on developing the application e-government in the area of the management and on the simplification of administrative procedures, the so-called “Managerial Model”, since its implementation is simple, it adapts to the existing organization in public administrations (Fountain, 2005; Dreschler, 2005; Olsen, 2006) and results are quickly observed, leaving other important aspects pending, such as the opinion of the citizens, the “Consultative Model” and the active participation of citizens in the management of public services “Participatory Model” (Dunleavy and Margetts, 2000; Fountain, 2001; Chadwick & May, 2003).

Many studies seek to determine the impact of the implementation of e-government in the public administrations and have focused on whether the application of this system increases the efficiency in the management of public services. Several authors (La Porte et al., 2002; Demchak, 2000; Dunleavy et al., 2003; Chaddwick and May, 2003; Thompson and Garbacz, 2007; Sung, 2007; Chiang and Liao, 2009; Ala-Mutka et al., 2009; Huijboom et al., 2009) have determined that it increases productivity through standardization and digitization in the development of public activities, which reduce costs and improve the delivery of public services and, therefore, should increase their efficiency. Other authors have attempted to determine how the new technology is managed and used by citizens, especially consultants, in their relations with public administrations, Accenture (2004), Urgell et al. (2005), Fountain (2005), and Aibar et al. (2006). However, yet other authors, such as Welp et al. (2007), have tried to determine the affects the application of new technologies of information has for both the management of the public administrations and the relations with citizens in the provision of public services.

The objective of our study is to analyze the influence in the efficiency in the provision of public services of certain variables when applying e-government in the management of public administration like Online Services (OLS), Telecommunication Infrastructure (TI), and Human Capital (HC).

In addition, we analyze how the GDP pc control variable, influences the efficiency of public services, since more developed Governments should have “being more efficient” among their priorities, and they can apply and maintain the technology needed to implement e-government.

The remainder of this paper is organized as follows. First, the methodology is presented and we present the estimation models. We then offer an explanation of the sample, data and variables. The data analysis results are then given and interpreted. Finally, we draw the conclusions.

2. METHODOLOGY

In order to test the association between the impact of the principal variables composing e-Government and Public Expenditure Efficiency, both for the general government and for its functions, the statistical analysis included correlation and multiple linear regressions.

Linear regressions analysed the relative impact of the most important dimensions of e-Government [namely: scope and quality of Online Services (OSI), development status of Telecommunication Infrastructure (TI), and inherent Human Capital (HC)] on Public Expenditure Efficiency, both for the general government and for its functions. Finally, state of development [Gross Domestic Product per capita (GDP pc)] and the impact of information and communication technology on access to basic services (ITCaccess) have were included as control variables.