A Multivariate Statistical Assessment of the Level of Use of Information Systems in the Public Sector Services in Greece in Order to Oppose Bureaucracy

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ABSTRACT

Public sector bureaucracy is undoubtedly one of the major unfavorable factors that contradict the smooth economic development of Greece. Using information systems in management is indeed promoting decisively the improvement of the organization, the communication, the service processing time and generally speaking the modernization of the Public Administration; leading to the fact that the level of proficiency of the employees in IS use is vital to the ever going fight against bureaucracy. This paper is about the study of the competence of the non IT specialists of the Greek public sector employees, who however use computers in their daily work, in subjects regarding the safe and sound use of Information Systems applications. The authors also studied the correspondence of the employees capabilities with variables like the experience, adequate knowledge of a second language, age and years of service; their interest in participating in IS training seminars is also recorded. The authors were based in data gathered with a structured questionnaire and the data analysis was conducted with multivariate analysis, correspondence analysis and hierarchical classification.

Keywords: Classification, Correspondence Analysis, Greek Public Sector, Information System’s Security, Public Sector

INTRODUCTION

Greece is currently struggling with the implications of an economic crisis; the present government of the country has declared a number of countermeasures to reverse the effects of this crisis and one of them is to integrate ICT (Information and Communication Technologies) to as many sectors of the Public Services as possible; battling corruption in the public sector is another declared reason for adopting ICT. In order to promote IS (Information Systems) in Greece, a special Operational Program for IS (OPIS, www.ktpae.gr, 2011) has been formed.
within the scope of the 3rd CSF (Community Support Framework, www.info3kps.gr, 2011). Towards the goal of achieving a fully functioning e-government environment, one of the first successful initiatives is the TAXIS system; a taxation IS used from 2001 and providing a wide range of services both to the public employees and to the general public (Terpsiadou & Economides, 2009). However, recent studies (Ballard and Riba 2010) point out that Greece is still lacking when compared to other EU countries as regards the area of e-administration; according to the UN’s 2010 e-Government Readiness Index, Greece is only 41st with a value of 0.5708 (www2.unpan.org, 2011).

It is those new technological developments like the Web 2 that offer the framework for implementing a successful e-government strategy; one definition of Web 2 being “the philosophy of mutually maximizing collective intelligence and added values for each participant by formalized and dynamic information sharing and creation” (Hoegg et al., 2006); while other terms similar to e-government like e-democracy and e-governance have well entered the agenda exploiting the web 2 technologies. Researchers have already produced e-Government Frameworks that fully incorporate Web 2 technologies taking into account the specific needs and requirements of Greek Governmental Agencies (Drodgaris et al., 2010).

Typically the integration of ICT change dramatically the business processes in the organization in which they are implemented. Governance levels are reduced and work becomes independent of the geographical distribution of the task group members; private companies were quick to implement such systems successfully, but what about the public sector, especially in Greece? If specialized IS like Decision Support Systems or Expert Systems are under development this is a process that involves the end users and has considerable risks (Byrd, 1993). They also require high technical skills by the end users, thus the question: are Greek public employees ready for such changes? What is more, are adjacent but important issues such as the legislative framework updated for this?

It is the view of the authors – employed in the Greek Public Sector as well – that public employees in Greece are not used to work with IS systems and lack training, motivation and incentives; in many cases they are simple not required to do so. It is not clear whether those same employees are even willing to adopt ICT. Put simply, it is not at all sure they will accept these changes unless being force too by the administration. Past experiences by the authors of this paper are not very positive; there have been some cases that brand new IS have simple been put aside and left unused; the investment being a failure. The general public though is certainly ready for such changes; especially the younger generations. As broadband internet connections have increased dramatically over the last years (www.observatory.gr, 2011) public participation is expected to increase. Studies about the e-government services targeting SMEs in Greece have already being published (Tzoumis et al., 2009).

The main aim of this paper is to access the level the awareness of new technologies by the average public servant, his/her willingness to acquire new expertise and experiences and mainly to integrate the new technologies in his/her everyday work. Actually, this is a one way street; the volume and complication of tasks in the average modern working environment is such that imposes ICT; resistance is however sometimes notable. In this paper we were not interested in the technical aspects of IS security as in other previous studies (Loukis & Spinelis, 2001), but on the way the average public servant/user perceives and implements security. We assessed questions regarding ICT literacy and some more specific ones like knowledge of corporate information security procedures, response to possible intrusion alerts and response to emergency shutdown procedures.
Bridging the Gap from the General to the Specific by Linking Knowledge Management to Business Processes
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