

# Employee Portals based on Knowledge Management in Public Education: An Empirical Study about Implementation Barriers in Spain

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## ABSTRACT

*The e-government development in Spain still lacks in the employee perspective. This background is clearly visible in the educative public sector where the authors can find several online services to employees but can't find a complete employee portal. The implementation of such systems is an opportunity to embed knowledge management, as it's the core process in education, but it would imply a deep organizational change. Thus, it is crucial to determine the barriers that could potentially prevent their implementation. The study aims to establish the barriers that influence the intention of use of those employee portals. The researchers used structural equation modeling to conduct an empirical study based on a hybrid TAM-TPB model. The results have found evidence on the majority of the proposed hypothesis. The authors conclude the study with a set of recommendations for the developers that could help in avoiding the effects of such barriers.*

*Keywords:*

*Education, Employee Portals, Implementation Barriers, Knowledge Management, TAM, TPB*

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## INTRODUCTION

The employee dimension of e-government is often undeveloped both in the scientific literature and management practice (Weerakoddy et al, 2015). Of course, several aspects of public service are included among the online services provided by e-government, but at least in the educational sector in Spain, it lacks service integration and feedback. This background leads to a poor de-

DOI: 10.4018/IJWP.2015040101

velopment of e-government in the relation with employees. A manifestation of such problem in Spain is the poor provision of employee portals (Pérez, 2013).

In this vein, the deployment of employee portals would provide benefits not only for the personnel that receive the services included in the system but also for the government in quantitative form, like cost reduction, and qualitative ones, like organizational proactive behavior of employees, among others (Sugianto, 2015). Moreover, portals are an opportunity to improve personnel performance through the introduction of knowledge management tools (Mishra, Henriksen, Boltz & Richardson, 2016).

In public education, the portal offers the employee support for an organizational culture based on knowledge management and the acquisition and improvement of teaching skills. In this paper the researchers analyze the barriers for implementing this kind of system.

The main goal is the study of the pre-implementation phase of employee portals in educational government frameworks. The authors will start with the study of theoretical foundations that allow proposing a model and testing it empirically. The results will deduct the flaws inherent in the design and implementation of innovation: the resistance to change of potential users, the difficult transformation of work processes in a technological environment and poor management of change by the Administration, that are the elements that can determine the failure or success of portal deployment.

## THEORETICAL FOUNDATIONS

A classic definition of employee portal conceptualized it as a single point of access to all services that an organization provides to its employees (Polgar, Bram & Polgar, 2006). Other studies focused on the characteristics of those services, defining those portals as web-based interfaces to access personalized information, resources, applications, and e-commerce options with which employees can access a range of internal and external sources through a network connection in a password-protected setting (Sugianto & Tojib, 2006). Whether the researchers unify those points of view, could conclude that an employee portal is a secure single point of access to all internal and external services and information provided online by the administration to its personnel.

Knowledge management is a key factor for any organization (He, Quiao & Wei, 2009; Farzin, Kahreh, Hesani & Khalouei, 2014). Specifically, education sector is conceptualized as a knowledge industry (Mishra, Henriksen, Boltz & Richardson, 2016). Knowledge management through governments' educational employee portals focuses on the acquisition and improvement of teacher skills (Pérez, 2013) and the creation and maintenance of an educational repository (Vélez-Rivera, Rodríguez-Martínez, Díaz, Núñez-Molina & Rivera-Vega, 2010). The integration of knowledge and e-learning has been modeled previously in the scientific literature (Maier & Schmidt, 2007; Judrups, 2015). Although criticism about the overemphasis on IT of most of knowledge management efforts in all kind of organizations (Ale, Toledo, Chiotti & Galli, 2014) the technology seems to be necessary for its implementation (Harris, 2006). An employee portal is a good way to improve the skills of teachers (Draganidis & Mentzas, 2010; Alsabawy, Cater-Steel & Soar, 2013). In this line, the uses of technologies that can create collaborative networks generate a training environment based on sharing experiences and an open space for criticism and reflection on own and others' practices (Chen, 2014).

The behavior of employees towards the implementation of employee portals is the subject of very few studies, based both on public and private sectors (Rahim, 2007; Angelopoulos, Kitsios, Kofakis & Papadopoulos, 2010). The scientific literature considered valid for studies on public sector works on B2E in the private sector, which should make small adjustments (Barzilai-Nahon

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