

**Potential benefits of employee portals in
public administrations: implementation and
proactive behaviour towards the
organization**

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Abstract

The aim of this article is the determination of the advantages achieved through the implementation of an employee portal, both for the government and for the users of the portal. We proposed an adaptation of the Huang, Jin and Yang (2004) model, based on the organizational support theory (Eisenberger et al., 1986). This theory predicts a proactive behaviour of employees wheter they perceive a support of the organization. In this case, the trigger for that perception is the satisfaction derived by the benefits to personnel provided by an employee portal. Through an empirical study, conducted among public school teachers, we have found evidence of the perception of organizational support among public employees when the portal is deployes. However we haven't found a link between that support and a proactive behaviour towards the organization.

Resumen

El objeto de este estudio es la determinación de los beneficios que se consiguen a través de la implementación de un portal del empleado, tanto para la administración pública como para los usuarios del portal. Proponemos una adaptación del modelo de Huang, Jin y Yang (2004), basado en la teoría del soporte organizacional (Eisenberger et al., 1986). Esta teoría anticipa un comportamiento proactivo de los empleados cuando perciben un apoyo por parte de la organización. En este caso, el detonante para esa percepción es la satisfacción derivada de los beneficios al personal que proporciona un portal del empleado. A través de un estudio empírico, realizado entre profesores del sector public, hemos encontrado evidencia de la percepción del apoyo de la organización entre empleados públicos cuando el portal es implantado. No obstante no hemos encontrado una relación entre ese soporte y un comportamiento proactivo hacia la organización.

Keywords / Palabras clave: Employee portals; e-government; organizational citizenship behaviour; organizational support theory, portales del empleado; e-administración; conducta cívica en las organizaciones; teoría del soporte organizacional.

Jel Codes: O32, M52

1. Introduction

The aim of this article is the determination of the advantages achieved through the implementation of an employee portal, both for the government and for the users of the portal. We focused our study in the organizational behaviour of the employees, who react positively with the efforts of the government. We tested our hypothesis through a survey among the teachers. The conclusion of the empiric study will serve to answer the following questions:

H.1. When an employee portal is deployed, does lead it to a proactive behaviour towards the government?

H.2. Do the employees feel cared by the organization when an employee portal is deployed?

The employees are the internal clients of every organization. The deployment of an employee portal is a way to improve their satisfaction with the organization and as a consequence, improve their task performance. In the other hand, the portal deployment and maintenance has several costs. The main goal then is to demonstrate that the gains compensate the efforts.

We have focused our study in the educational sector because it is relatively generalized the use of human resources management through portal in the Spanish public administrations.

2. Review of theory

Potential benefits of employee portal's deployment only are reached when a group of minimum requirements are reunited (Gil-García, 2012; Tojib, Sugianto & Rahim, 2006). The special relationships produced between the government and its employees make necessary to take several specific factors in consideration, so we have to adapt general models.

We could say that there are two levels in the consequences of employee portal's deployment: individual and collective. In the first case, we must analyze user's acceptance or satisfaction with the portal. In the other hand, collective consequences could be operational, relational or transformational (Snell, Stueber & Lepak, 2002). The operational level represents the consequences that the system has on the efficacy and the efficiency (Lengnick-Hall and

Moritz, 2003), like the reduction of costs or the elimination of administrative fetters, for example.

The relational level verifies the synergies that could be reached by the interaction or connection of different agents. Finally, the organizations can be transformed or reorganized through the change in the management of his human resources: it's named transformational level.

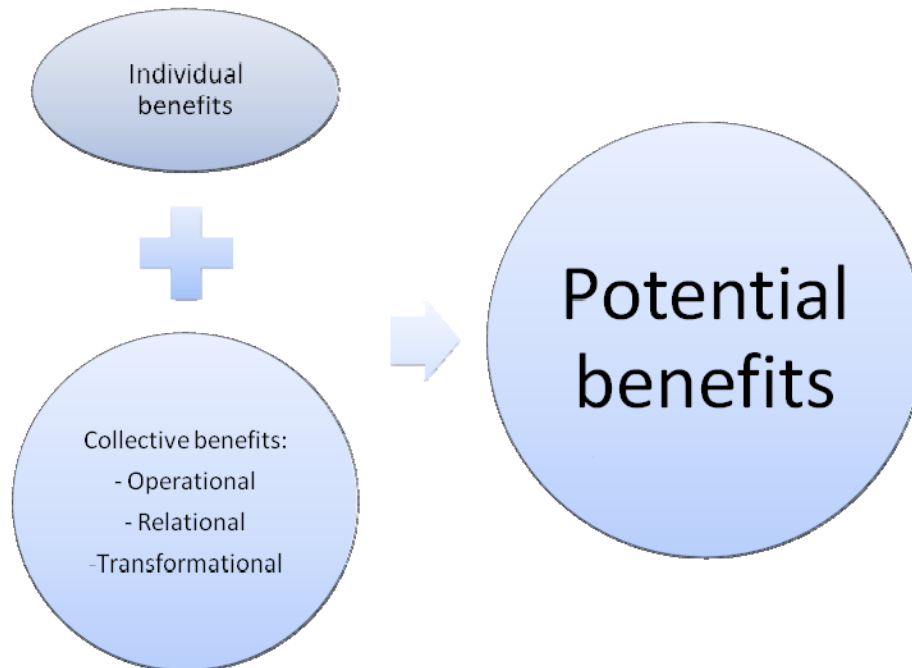


Figure 1 Potential benefits of the employee portal deployment using the criteria of individual versus collective interests.

Nevertheless, the dominant criterion in order to classify the potential profits of the implantation of employee portals, distinguishes between the profits that provides to the employees and those that provides to the own organization (Gil-García, 2012; Singh, Waddell and Rahim, 2008). For Singh et al. (2008), a system B2E is created to satisfy the needs of the employees but also improves the efficiency of the organization. Srivastava (2011) poses whether the public organizations are obtaining the results that were expected in the moment they spent the investment in e-Administration, although his vision is too wide to explain the concrete case of the employee portals.

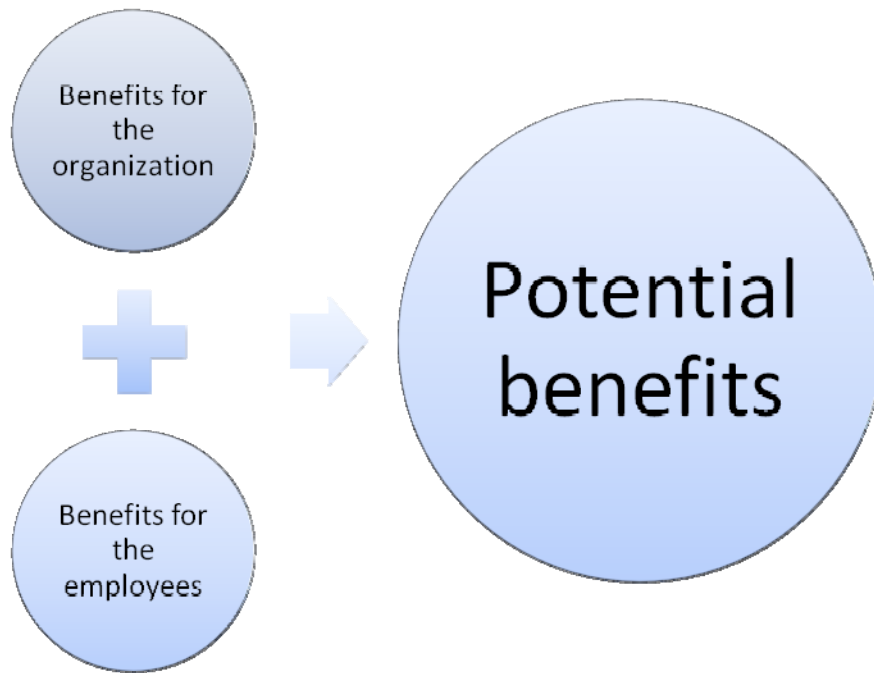


Figure 2 Potential benefits of employee portal deployment using the stakeholder's interest's criteria.

Hansen and Deimler (2013) classify the profits for the companies that implant systems B2E in three areas: the processes of business, the management of the personnel and the community services. Shelving the analysis that these authors do on the improvements in the processes of business, whose implications in the field of the Public Administrations would need of an adaptation to the special characteristic of the Public Organisms, we're especially interested in his contributions on the management of the personnel. Two of the clearest demonstrations of the processes of improvement in the management of the personnel are the ones who are produced through the employee's self service and the personalization.

Specifically, employee's self service constitutes a group of on-line services, as the self learning system provided by the portal, programs of health care and prevention of illnesses, the request of material like computers or the obtaining of benefits like discounts in shopping that can realize through the portal. The new is not the existence of these possibilities, but the fast and effective incorporation that allow the new technologies. For the employees, the interaction with an on-line system of this type results less bureaucratic and stressing than his equivalent in the usual way. The company also saves direct costs in necessary personnel to attend to the needs of his employees and indirect as, for example, the impression of documents.

The personalization of the services offered by the system, by his part, is performed by online forms in which the employees manifest his preferences about potential services and providers. Personalization guarantees thus a high initial degree of compliance with the benefits offered to the worker through the system and again a saving of costs based on the greater possibilities of planning that these instruments allow to the organization.

On the other hand, the on-line services to the community of work are a system where the employees of the organization have the possibility to obtain services and discounts in shopping of products that are not directly related with his work. The profit for the organization goes through the satisfaction of the employees. Regarding the possible costs of the use of part of the work time in the handle of particular subjects, seem to see compensated by the greater intensity of the rest of the working time and by a proactive organizational behaviour of the employees (Alston, 2006; Huang, Jin and Yang, 2004).

The proposal of Hansen and Deimler for the definition of a portal B2E is the adaptation of a model B2C, consistently with the identification of the employee with a customer: the internal customer of the organization. For this, the organization tries to reach a point of concordance between the needs of the members and its own ones.

We have avoided the enumeration of the services that these authors situate in each area by a fundamental reason: it is based in the private sector and in a system B2E with different aims and services that the related with the Public Administration. If we focus us only in studies related with the electronic Administration (Bandyopadhyay and Sattarzadeh, 2010; Baqir and Iyer, 2010; Cordella and Iannici, 2010; Rowley 2011), the profits of the implantation of this type of systems are concretized in the following elements:

- Decentralization.
- Improvements in the process of decision making.
- Provision of services of quality (Hassan, Shehab and Peppard, 2011).
- Empowerment.
- Increase of the productivity.

On this last potential benefit we're going to focus our study. The higher productivity of the employees could come from objective factors like the simplification of formalities or the ease of use of the information, but we're interested especially in the subjective aspect: the greater implication of the public employees when they perceive that the Administration realizes the effort to create a portal that provides them services of high value for them.

3. Proposed Model

Any Portal of the organization is designed to support and represent the organization before those key actors, internal or external, that interact with it (Alston, 2006). For the internal perspective is an important source of information and may contain work-related tools to help the employees be more efficient. Also substantially modified the structure of the organization because removing barriers allow employees an activity more focused in the areas of work than in the lines of command. The perception on the website of the organization influences the

overall relationship with those agents whose behaviour and opinions have influence on it. Reactions and negative beliefs about the website can ruin the external reputation of an organization. Similarly, at the internal level, perceived irrelevance of the services offered by the websites of organizations influence negatively employee attitudes with consequent negative impacts such as reduced job satisfaction, less involvement and job stress among other (Gil-Garcia, 2012).

Investigation of employee related aspects is as important for the management of service quality as the investigation about customers in service sectors for the following reasons (Lai, 2006):

- Employees are internal customers and therefore the main people able to assess the quality. Internal measure of quality is fundamental due to the relation between internal and external service quality..
- The vision of the employees about the services is developed through a continuous experience while customers' is occasional.
- The study about internal services could act as an early alert of potential problems.
- Competitiveness is focused at the present time in abilities and knowledge of personnel so it's necessary to hold key employees for the competitiveness of the organization (King et al. 2008).
- Electronic environment is an aggregate of technology, applications and processes. Relations between employees and technology, employees and organization, and employees and customers, make the critical relationships in this kind of environment (Parasuraman, 2000; Parasuraman y Grewal, 2000; Zeithaml at al. 2002; Colby y Parasuraman, 2003). It is therefore necessary to understand and manage employee perceptions about the quality of services.

In the words of Alston (2006), technology is a tool used by the organization to communicate its policies, to assist in managing their members, to represent the organization and to provide support for everyday tasks. In this line there is theoretical foundation on the fact that Internet technology brings two tangible consequences for employees: e-training (Kendler, 2000) and e-benefits (Mitchell, 2000).

Huang, Jin and Yang (2004) conclude that the preferences of the employees of the organization are an essential part in the success of a B2E system. Although, as these authors point out, the benefits provided by the organization employees do not have a direct positive effect on the performance of these, we can find theoretical foundations of an indirect effect through a better attitude or proactive behaviour towards the organization (OCB or organizational Citizenship Behaviour). This behaviour is directly influenced by the benefits that a B2E system brings and the consequent satisfaction. Determined by the same satisfaction, employees

perceive support provided by their organization or Perceived Organizational Support -POS- (Moorman et al, 1998, Lambert, 2000, Huang, Jin and Yang, 2004). Moreover, this process results in improved group performance (Podsakoff et al, 1994 and 2000). In short it is an adaptation of the -Organizational Support -OST- proposed by Eisenberger et al. (1986).

3.1. ORGANIZATIONAL SUPPORT THEORY –OST-

It was proposed by Eisenberger et al. (1986). Its formulation points that, in the organization's point of view, an enhanced performance of employees comes from their perceived organizational support (POS). POS leads the employees towards a proactive behaviour in their work (organizational citizenship behaviour -OCB-).

These two variables –POS and OCB- explain the virtuous cycle that begins when organization values the work of the personnel and is also concerned for their welfare. This attitude of the organization provides direct benefits to the employees, both tangible (reward systems, improvements in material benefits...) and intangible (better self-esteem, perception about the respect of the organization for the employees...). As a consequence, employees are morally obliged to correspond with a reciprocal behaviour that will allow achieving the organizational goals. Moreover, personnel feel more important when they see their efforts well recognized.

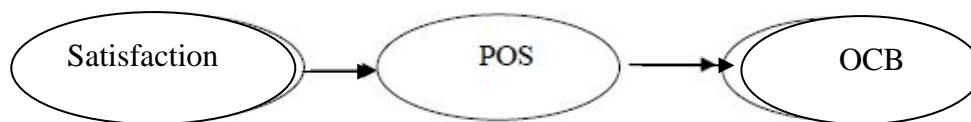


Figure 0. Organizational Support Theory with satisfaction as an antecedent of POS. Source: own elaboration.

3.1.1. POS

In a technological context, as we study, Levinson (1965) outlined in the early theoretical development on the subject that technology is perceived as an agent of the organization and the actions of the representative agents of the organization including the technology are perceived by employees as actions of the organization itself. That is why the creation of a portal that supports employees should be understood as a support to personnel and if it is perceived in this sense, meets the requirements for applying the Theory of Organizational Support.

POS, is explained by the studies of organizational behaviour (Eisenberger et al., 1986; Eisenberger, Fasolo and LaMastro., 1990; George et al, 1993) as the belief of employees in the will of the organization to reward their efforts, to assess their contribution and to feel involved in

their welfare. Two facets comprise the definition of this variable: organizational concern for the welfare of employees and recognition of their labor contribution.

There is a positive correlation between the support that employees perceive that the organization provides and the perception of better working conditions; is much higher when it seems that the latter are the result of an effort by the organization rather than due to external constraints such laws or collective negotiations (Eisenberger et al., 1997). Therefore, organizations should not infer that a good treatment of its employees necessarily result in a positive perception of organizational support; this will only happen if the improvement of working conditions has been a volunteer behaviour of the organization. Symmetrically, if external conditions are negative, reduced labor benefits will not be seen by employees as lack of support of the organization, such as a reduction in benefits paid due to the economic downturn.

3.1.2. OCB

OCB is defined as all actions that can be performed by employees for the benefit of the organization and do not constitute an obligation. Organ (1988) sets out a number of activities such as courtesy, altruism, sportsmanship, civic action, awareness, etc., as components of OCB. As is evident, for the organization are wide the advantages of this type of behaviour (Walz and Niehoff, 2000). The correlation with job satisfaction is also demonstrated empirically (Organ and Ryan, 1995). Lambert (2000) argues, therefore, that a system of benefits based on B2E can improve performance in the organization, based on the theory of social exchange: employees feel obliged to reciprocal behaviour by the benefits they get from their belonging to the organization.

In the literature on this issue, OCB is a latent construct manifested through five dimensions (Organ, 1988; Podsakoff et al, 1990):

- Altruism: voluntary behaviour of an employee who decides to help a person to perform any task with relevance to the organization.
- Awareness: that occurs when an employee goes beyond what is strictly required obedience, compliance and attention to work and other similar aspects.
- Sportsmanship: within this context refers to the absence of complaints by staff and their ability to withstand working conditions less than ideal.
- Courtesy: that occurs when an individual tries to prevent possible conflicts with other work-related employees before they happen.
- Civic Virtue: behaviour of an employee indicating their participation, involvement and concern within the scope of the company.

3.1.3. SATISFACCIÓN → POS

Different studies (Aquino and Griffeth, 1999; Eisenberger et al., 1997; Shore and Tetrick, 1991) have demonstrated the positive correlation between job satisfaction and organizational support.

3.1.4. POS → OCB

A high POS provides an important commitment of members to the organization, improvements in work performance, employees more involved, frequent positive behavior, high loyalty to the firm and infrequent disaffected behaviour (Rhoades and Eisenberger, 2002).

Alston (2006) also ponders the effects that dissatisfaction with the technology that provides the organizational behaviour of employees. The malfunction of the systems produces frustration and results in a lower level of perceived organizational support for the already well-known identification of technology with the whole organization.

3.2. THEORETICAL MODEL.

There are two ways for connecting employees' satisfaction with their behaviour towards the organization: the first one is through the link between satisfaction, perceived organizational support and employees' behaviour (Moorman et al., 1998); the second one is through the strong relation that Lambert (2000) finds between satisfaction and positive behaviour of personnel.

The model has to take into account six variables: convenience, delivery, interface, security, price and accuracy. Those determinants of satisfaction find their empirical background in a well known study about final user satisfaction in computer-based systems (Doll and Torkzadeh, 1988).

It is significant that when users interact with technology systems that support the organization, such as benefit on purchases through B2E and these benefits extend to several interrelated organizations, employees fail to perceive a relationship between these actions and the support given them the organization. In other words, the implementation of a system of benefits in shopping becomes an element that does not affect a special motivation for employees if these benefits are perceived as common in the sector. Alston (2006) extends the model to portal users who perform tasks directly related to the interests of the institution, finding

a direct relationship between the use of technology and user behaviour through institutional support perceived (similar to the organizational support).

The cultural differences between countries and the own culture of organizations are significant determinants in the behaviour of employees (Turnipseed and Murkison, 2000). Olivas-Lujan et al. (2007) argue that cultural factors can cause reluctance to adopt some contributions of technology to the management of human resources. Sometimes this problem is solved by creating an organizational culture favourable to technological changes (Alter, 2010).

3.2.1. SATISFACTION.

As has highlighted the literature on the subject, satisfaction is the most common indicator for measuring the success of an information system (Seddon and Yip, 1992; Delone and McLean, 1992; Seddon and Kiew, 2007; Saha, 2008).

Within the context of a system based on information technology, the end user satisfaction, understood as a positive overall assessment of the system based on user experiences, is one of the main indicators of success (DeLone and McLean, 2004; Rai et al., 2002). Sánchez and Iniesta (2009) speak of the aesthetic and entertainment variables as components of hedonistic value in the context of service delivery. In their model they behave like antecedents of satisfaction and loyalty of end user. For authors, affective or emotional elements greatly influence the value perceived by users, surpassing the utilitarian conception or merely extrinsic of the value.

Of the many theories explaining the end user satisfaction, is used the one developed by Doll and Torkzadeh (1988), which has the advantage of having developed and validated a 12-item instrument measuring 5 basic elements of an end-user satisfaction with technology: content, accuracy, format, ease of use and timeliness. Satisfaction is thus a factor of second order. Huang, Jin and Yang suit for their purposes the model proposed by Doll and Torkzadeh incorporating the relationship between satisfaction, OCB and POS. Thus, they developed a model in which the end user satisfaction is a construct whose determinants are ease of use, convenience, assortment, delivery, information, interface, accuracy, price and security. The variables used are contrasted, and Ilias et al. (2009) find empirical support for a significant effect on final user satisfaction of the variables usability, content and accuracy –reliability-. However, those authors omit in their model the study of content, format and timeliness.

3.2.2. ANTECEDENTS OF SATISFACTION.

Following the line described, the antecedents influencing user satisfaction as our model are seven. Let us define them briefly in the following sections.

3.2.2.1. CONVENIENCE

The ability to perform a set of administrative procedures that have traditionally required the physical presence of employees in public administration offices, whose opening times often coincide with working hours of stakeholders often has generated complaints from these ones. With the use of new technologies, one of the main advantages is the ability to perform these operations in all times and places, as pointed out by several studies (Huang et al, 2004a and 2004b).

3.2.2.2. ASSORTMENT.

There is some controversy about whether the amount of services offered to employees does not increase or satisfaction thereof. Hansen and Deimler (2013) in their model of implementing a system B2E call for a limited number of initial services that constitute a strong core on which underpin the success of the system. A previous study on educational e-Administration in Andalusia (Pérez, 2005) identified the priorities of the group of Andalusian teachers on the services demanded in the employee portal. The results showed the following list, sorted from highest to lowest demand:

1. Information on career advancement and Information on grants and subsidies.
3. Legal advice.
4. Information on teacher training; centres and templates; school calendar and holidays; and possibilities of e-Proceedings.
8. Legal texts on teaching function.
9. Publication of educational research work.
10. Content for ICT centres
11. Information on mobility.
12. Information on remuneration.
13. Information about trade unions.
14. Promotions from companies for the collective.

3.2.2.3. DELIVERY

As expected, to achieve the user's satisfaction in an information system like this, services should be provided with reliability and without delays. On the contrary there will be dissatisfaction and anxiety (Huang et al, 2004b).

3.2.2.4. INFORMATION

In this model, the variable information is referred to the data associated to the services that the system provides to users through the portal. Turban and Gehrke (2000), point that information quality is a key factor for the attraction of the potential users of a website, while lack of information quality discourages the intention of use. Some factors affecting this variable are quantity of information, reliability, and the efficiency and quickness of the system used to share the data (Alba et al., 1997; Fram y Grady, 1997).

3.2.2.5. ACCURACY.

In a broad sense, the accuracy is assimilated in our case to reliability. Kull (2005) states that the reliability of the contents of a website positively affects the risk perception of consumers improves their decision making process and enhances satisfaction and intentions to purchase online.

3.2.2.6. INTERFACE

In the literature on the subject is usually referred to usability to define this indicator. This is the set of formal aspects of the portal that contribute to greater ease of use, which give a better visual appearance, which provide consistency to the portal and improve the browsing experience. Some aspects of this variable are ease of use (Smith, 2010), the quality of information, the system response speed and the accessibility (DeLone and McLean, 1992; Seddon, 1997; Chuan-Chuan and Lu, 2000).

As we have shown, one of the main issues of this variable is its partial identity with the ease of use. Ease of use has been widely studied in technology acceptance model –TAM-, developed by Davis (1989)

3.2.2.7. SECURITY

Interacting with an employee portal requires lower flows of personal or confidential information, since much of that information is held by the organization itself (Huang et al., 2004b). However, the reluctance to use electronic means for the feeling of loss of control over the information generates uncertainties against which the developers of an employee portal have to fight.

At this point, a fundamental variable is the knowledge of what is called user satisfaction with the information system -User Information Satisfaction or UIS, which is the meeting between user requirements and resources provided by the system (Ives et al. 1983). Applications that are reliable, whit predictable behaviour and ultimately satisfying end-user needs allow employees immediately feel rewarded (Lai, 2006).

3.3. MODIFICATIONS ON THE MODEL FOR ITS APPLICATION TO PUBLIC SECTOR.

Since the model presented by the quoted authors is based in labor relations inside the private field, his translation to the public sector and his consistent transformation in a model of relations G2E requires several considerations:

- Although it is possible that in some cases the services of the Public Administration to his employees could require the partial payment of a tax, is not usual that this happens. Thus, this variable, considered by Huang, Jin and Yang like an antecedent of the satisfaction, has to be discarded for our study.
- The controversy on the utilization of models based in the relations in the private sector for studies related with the public sector has been surpassed in the scientific literature on this subject. Saha (2008) claims that the benefits achieved for the private sector by the use of technology are assimilable to the obtained by the public sector. In the same sense manifest Carter and Belanger (2004, 2005) and Chang et al. (2005), among others. The main difference lies in the different legal guarantees and processes that the Administration needs to follow (Warkentin et al. ,2002), but it does not affect in any case to the assimilation of the private models to the public field (Saha, 2008).
- Huang, Jin and Yang discard through the conclusions of his study as irrelevant the factors information and product assortment, in our case and because of the different reality to study, we have decided to keep them in the model, changing the denomination product assortment by services.

As a consequence we propose the following model:

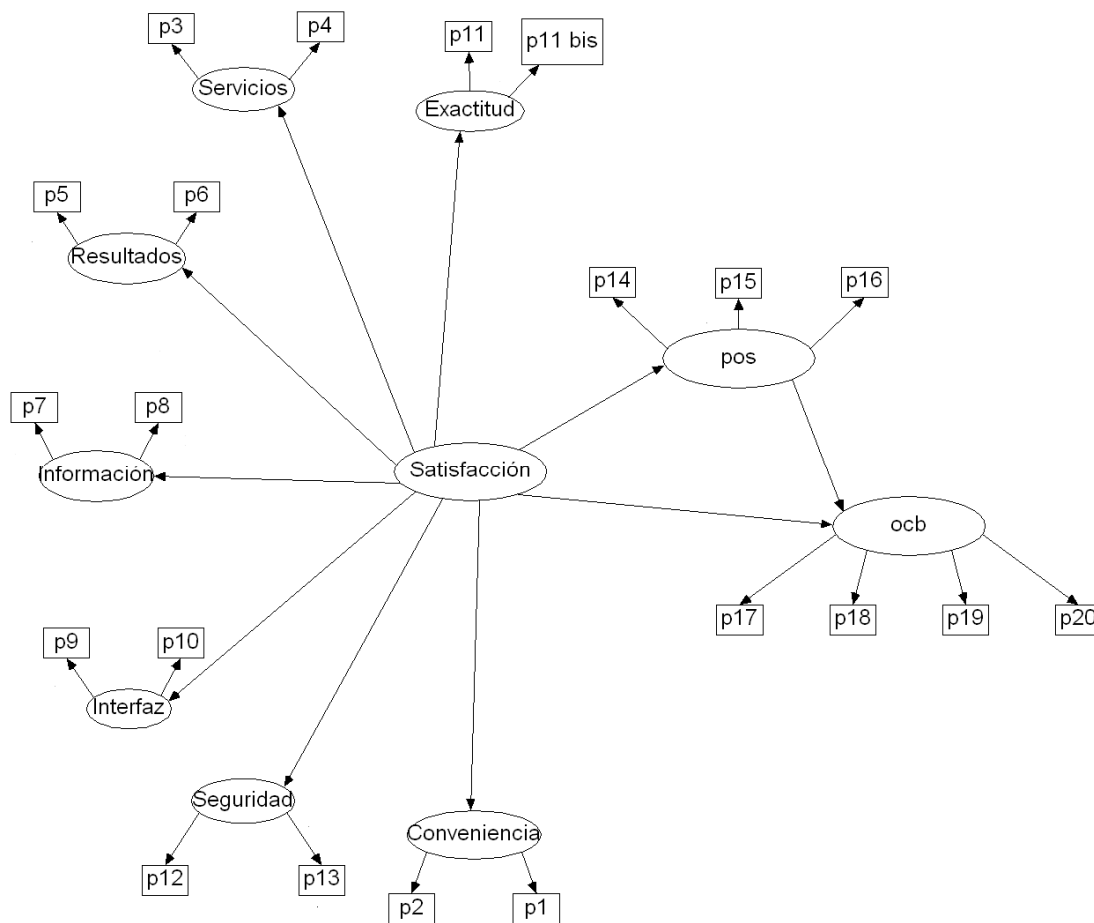


Figure 4. Proposed model, adapted to the study of e-Government. Source: own elaboration.

4. Methodology

We use the AMOS program for the implementation of a structural equation model. As reflected in the literature on the use of structural equation models, the sample size in a model that has a maximum simplicity should exceed 100 surveys in all cases (Kline, 2005). In any case it is difficult to pinpoint an optimal sample size to ensure the power of the statistical test as influencing parameters such as model complexity. Our sample comprised 950 surveys taken from professionals of education in Spain through an electronic questionnaire, a high size that matches the requirements for a reliable analysis of the model. The survey was conducted among teachers of various autonomous communities, with a preponderance of respondents in Galicia and Andalusia.

Following the recommendation of Lomax and Schumacker (2012), we have structured our questionnaire about numerical scales, in this case of values between 1 and 5, where 1 represents the total disagreement by a respondent with the proposition raised in the questionnaire and 5 represents a position of total agreement.

The questionnaire items were adapted from Huang et al. (2004), which in turn were based on previous questionnaires sufficiently tested.

Satisfaction variable, as we have expressed is a second-order factor which is determined by seven factors of first order. The questions we have made are the same as Huang, Jin and Yang validated in its questionnaire. We have respected the limitation to two items by dimension the authors advocate for simplicity and understanding of the questionnaire, although, as Gelderman (1998) indicates, the use of only two indicators influencing lower values of alpha Cronbach test and therefore less statistical reliability of each subscale.

Statement of the question.	Question number and tag.	Dimensión of Satisfaction related
The Employee Portal makes me save time at work.	Question 1 –P1-	Convenience
It is highly desirable that operations in the Employee Portal can be performed at any time.	Question 2 –P2-	Convenience
The Employee Portal provides an adequate range of services.	Question 3 –P3-	Services
The services offered by the Employee Portal meet my needs.	Question 4 –P4-	Services
The response time of the services offered by the organization in the Employee Portal is not long.	Question 5 –P5-	Results
The results of the processes performed by the Employee Portal are very suitable.	Question 6 –P6-	Results
The Portal provides enough information about services.	Question 7 –P7-	Information
The information on services offered by the Portal is appropriate.	Question 8 –P8-	Information
The design of web pages in the Employee Portal is excellent.	Question 9 –P9-	Interface
The design of web pages in the Employee Portal can pushing me in my work.	Question 10 –P10-	Interface
The Employee Portal stores and processes the	Question 11 –P11-	Accuracy

information accurately		
I am satisfied with the accuracy of the Employee Portal.	Question 11 bis –P11 bis-	Accuracy
I feel safe when I interact with the Employee Portal.	Question 12 –P12-	Security
It is safer to perform operations on the Employee Portal than browse the Internet.	Question 13 –P13-	Security

Table 1. Total questionnaire proposed and relation of the questionnaire with the studied variables.

For the POS Variable framed in the Theory of Organizational Support, should be noted that Eisenberger et al. (1986) propose a reduced questionnaire, which is what we have adapted. In any case, any reduced version of the extended questionnaire must represent the two facets of the definition of POS: assessment of the contribution of employees and concern for the welfare of them.

Statement of the question.	Question number and tag.	Dimensión of POS related
The Administration makes every effort to satisfy the needs of the employees of the organization.	Question 14 (P14)	Concern about the welfare of employees.
The Administration appreciates the contribution made by each employee.	Question 15 (P15)	Valuation of employee contributions
The Administration is proud of the contributions of their employees.	Question 16 (P16)	Valuation of employee contributions

Table 2. Statement of questions related to POS.

Moreover, the set of items that a questionnaire that seeks to study the varying dimensions of OCB could be based on the survey validated by the work of Podsakoff et al. (1990).

Statement of the question.	Question number and tag.	Dimensión of OCB related
I'll do anything to improve the image of the organization even if not required to do so.	Question 17 (P17)	Civic virtue
I will not lose time complaining of the organization if I am not satisfied.	Question 18 (P18)	Sportmanship

I will help my teammates although the organization does not ask me.	Question 19 (P19)	Altruism
I will follow the rules of the organization as possible.	Question 20 (P20)	Consciousness

Table 3. Final questionnaire related to OCB variable.

There may be some controversy in the fact that the questionnaires have been designed for employees to self-assess their own behaviour towards the organization. It is argued that using this method overestimates the value of the OCB variable (Organ and Ryan, 1995). However there are strong reasons to use this alternative:

- Much of this behaviour is beyond the perception of superiors and colleagues.
- Anonymity contributes greatly to encourage employees to completing this type of questionnaires.

4.1. RELIABILITY OF MODEL ANALYSIS.

Methods of maximum likelihood estimation and various fit indices were used as Incremental-Fit-Index (χ^2), Goodness-of-Fit-Index (GFI), Adjusted Goodness-of-Fit-Index (AGFI), Root Mean Square Error of Approximation (RMSEA), Tucker-Lewis coefficient (TLI), Comparative-Fit-Index (GFI) and Incremental-Fit-Index (IFI), recommended by Marsh, Balla y Hau (1996).

The GFI test is used to determine whether the model should be accepted or rejected, although its use should not be isolated, but together with other tests such as chi-square test or RMS test. In our case, being our model of an adaptation of a model already tested previously, an appropriate measure of GFI index corresponds to higher-than the original model levels.

4.1.1. CRONBACH'S ALPHA TEST

The reliability and validity of the measurement instrument have been evaluated using validation criteria as the calculation of Cronbach's alpha to measure internal consistency. The value obtained, 0.81, is higher than commonly (0.7 or 0.8) required values.

Cronbach's Alpha	0,816988628
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4.1.2. GOODNESS OF FIT INDEXES, BASED ON THE CONTRAST BETWEEN PREDICTED AND OBSERVED COVARIANCE.

Chi square:

The index has a value of 0.061 in our case, above the recommended limits. Also, the Chi index squared relative result of dividing the chi-square value between the degrees of freedom of the model endorses the good fit of the model and its value of 1,474 is among the recommended interval required values, less than 2 and greater than 1 (Ulman, 2006).

CMIN

NPAR	CMIN	DF	P	CMIN/DF
65	275,675	187	,061	1,474

Other indices (GFI, AGFI, RMR, PGFI).

Despite the controversy over the use of these indices to measure the goodness of fit of the model, we want to mention that the values shown in our case exceed the required standards: both GFI and the AGFI index rate exceeds the value of 0.9 PGFI value is greater than the established convention in 0.6 and RMR index is well below the recommended maximum of 0.04.

RMR, GFI

RMR	GFI	AGFI	PGFI
,011	,945	,932	,765

Hoelter's N.

It is the test used to check if the sample size is adequate. By convention is assumed that an acceptable value is one that exceeds 200; In contrast, values below 75 indicate an inadequate sample size. In our model, the minimum value is exceeded both a confidence level of 0.5 and 0.1.

HOELTER	HOELTER
.05	.01
758	809

4.1.3. GOODNESS OF FIT INDEXES BASED ON COMPARING OF THE MODEL WITH THE NULL MODEL OR AN ALTERNATIVE MODEL.

The comparative fit index (CFI, IFI, NFI, RFI, and TLI).

A CFI close to 1 indicates a good fit, with values greater than the minimum required 0.9. The model reaches a value of 0.971.

IFI index has lower sensitivity to the sample size and therefore is preferred by some authors. As in the previous case, the value is above 0.9 in the proposed model.

Regarding the NFI index, a value greater than 0.8 is reached, which in the opinion of most authors is sufficient. This index, however, does not reflect the parsimony of the model, so it is preferable to use the TLI index (Ulman, 2006). In this case, the proposed model reaches a value of 0.967 well above the minimum outlined in previous studies (Lomax and Schumacker, 2012)

With respect to RFI index, the value should approach the limit of 1, being the value of 0.904 perfectly comparable to that obtained in previous works.

NFI	RFI	IFI	TLI	CFI
Delta1	rho1	Delta2	rho2	
,915	,904	,971	,967	,971

4.1.4. TESTS OF GOODNESS OF FIT WHICH PENALIZE LACK OF PARSIMONY OF THE MODEL (PRATIO, PNFI, PCFI, AND RMSEA)

As shown, PNFI ratio value exceeds the minimum value of 0.8.

PRATIO	PNFI	PCFI
,890	,815	,864

A separate analysis should study the RMSEA test. In this case the cut-off values suggest that the test result should not exceed 0.5 or 0.6 according to different authors (Lomax and Schumacker, 2012; Hu and Bentler, 1999). Despite its popularity as an index of goodness of fit for the absence or easing of some of the assumptions made by other methods, it should be noted that tends to overestimate the goodness of fit in based on small samples (Fan, Thompson and Wang, 1999). Our model, which has a higher sample size yields an exceptionally good result in this test. Pclose value must exceed 0.05.

RMSEA	LO 90	HI 90	PCLOSE
,022	,016	,028	1,000

5. Results and conclusions

We have demonstrated through a variety of indexes that there is a good model fit.

Throughout the study we obtained the following results, shown in the diagram that follows.

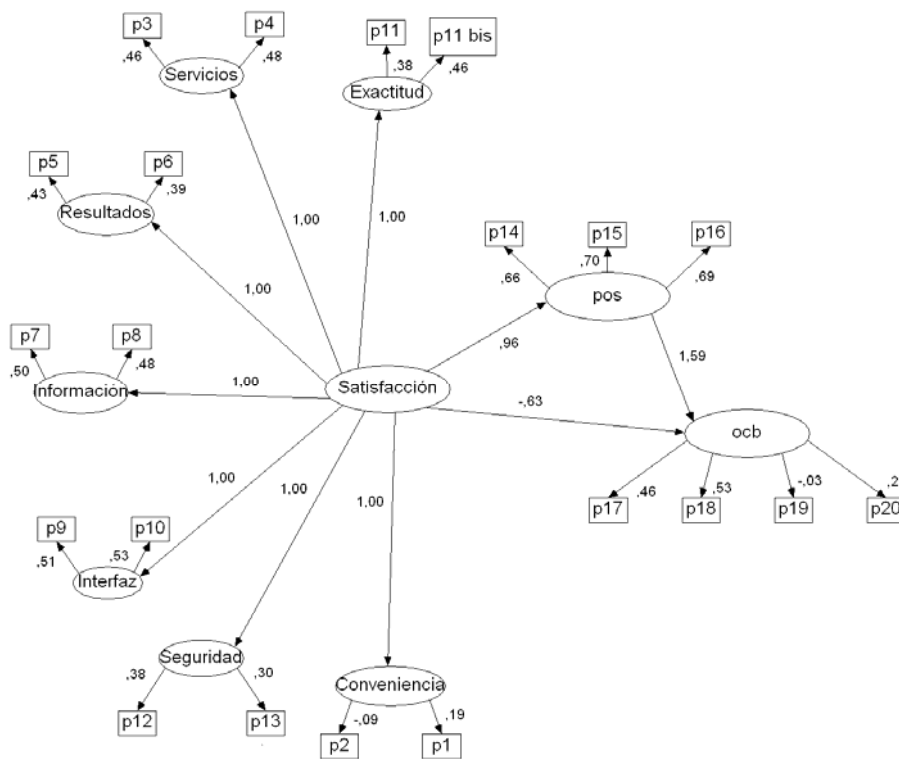


Figure 6. Results of the proposed model. Relations between variables. Source: own elaboration.

Dumping the AMOS data yields the following results regarding the structural coefficients, which in AMOS are detailed as regression weights. Those are used to measure the relative importance of the independent variables. If the critical ratio –CR- exceeds the value of 1.96 the relation between the variables involved in the calculation is significant to a confidence level of 0.05.

Regression Weights

			Estimates	Standard deviation	Critical Ratio	P
POS	<--	Satisfaction	1,988	,193	10,310	***
Services	<--	Satisfaction	1,252	,138	9,070	***
Results	<--	Satisfaction	1,184	,135	8,781	***
Information	<--	Satisfaction	1,381	,146	9,462	***
Interface	<--	Satisfaction	1,430	,150	9,524	***
Security	<--	Satisfaction	,782	,110	7,108	***
Accuracy	<--	Satisfaction	1,000			
Ocb	<--	Pos	1,000			
Ocb	<--	Satisfaction	-,814	,140	-5,824	***
Convenience	<--	Satisfaction	,462	,092	5,047	***
p9	<--	Interface	1,000			
p10	<--	Interface	1,048	,087	11,990	***
p5	<--	Results	1,000			
p6	<--	Results	,849	,096	8,886	***
p3	<--	Services	1,000			
p4	<--	Services	1,093	,103	10,580	***
p1	<--	Convenience	1,000			
p2	<--	Convenience	-,442	,197	-2,245	,02 5
p7	<--	Information	1,000			
p8	<--	Information	,971	,087	11,200	***
p13	<--	Security	1,000			
p12	<--	Security	1,394	,196	7,126	***
p14	<--	Pos	1,000			
p15	<--	Pos	1,112	,062	17,931	***
p16	<--	Pos	1,056	,059	17,839	***
p17	<--	Ocb	1,000			
p18	<--	Ocb	1,244	,114	10,881	***
p19	<--	Ocb	-,066	,069	-,952	,34 1
p20	<--	Ocb	,552	,079	6,987	***
p11 bis	<--	Accuracy	1,255	,139	9,055	***
p11	<--	Accuracy	1,000			

The standardized estimates table allows to observe the relative contribution of each predictor variable on the variable that affects.

Standardized stimations table.

			Estimación
pos	<---	Satisfaction	,964
Services	<---	Satisfaction	1,000
Results	<---	Satisfaction	1,000
Information	<---	Satisfaction	1,000
Interface	<---	Satisfaction	1,000
Security	<---	Satisfaction	1,000
Accuracy	<---	Satisfaction	1,000
Ocb	<---	Pos	1,590
Ocb	<---	Satisfaction	-,627
Convenience	<---	Satisfaction	1,000
p9	<---	Interface	,509
p10	<---	Interface	,528
p5	<---	Results	,429
p6	<---	Results	,389
p3	<---	Services	,458
p4	<---	Services	,484
p1	<---	Convenience	,194
p2	<---	Convenience	-,086
p7	<---	Information	,502
p8	<---	Information	,483
p13	<---	Security	,303
p12	<---	Security	,384
p14	<---	Pos	,657
p15	<---	Pos	,696
p16	<---	Pos	,691
p17	<---	Ocb	,461
p18	<---	Ocb	,526
p19	<---	Ocb	-,034
p20	<---	Ocb	,279
p11 bis	<---	Accuracy	,456
p11	<---	Accuracy	,382

Tabla 0.1 Standardized estimations.

The only relations that do not get support in the proposed model are those established among question 2 and its associated variable (convenience) and between question 19 and the OCB variable. However the suspicion that the results show just throw on the measuring instrument, the ratification of starting assumptions that we set at the beginning of our work allows us to evaluate the two hypotheses in this part of the study:

H.1. When an employee portal is implanted; this results in a proactive behaviour towards the organization.

H.2. Employees feel supported by the organization when an employee portal is implanted.

In view of the data, hypothesis 1 cannot be determined with certainty. As we can see, a strong negative relationship between satisfaction and OCB variable, which measures the willingness to act proactively to the organization occurs. Although there is a positive relation between satisfaction and organizational support perceived by users -variable POS and hypotheses 2- and as we know this perception leads to better behaviour toward the organization, this indirect effect does not dispel the doubts that have generated significant negative relationship found between satisfaction and the willingness of users to help the organization.

In conclusion, we have to refute hypothesis 1 and accept hypothesis 2 in our study. It's not possible to justify the potential benefits for the educative public administration in Spain when implemented an employee portal, but there is empirical evidence of a proactive behaviour of employees encouraged by the support perceived.

The controversy about POS and OCB relation has been studied in multiple scientific studies. Eisenberger et al. (1997); Wayne et al. (1997), Lambert (2000) y Lu, Xu, Lin y Zhang (2010), suggest that users only perceive a real support of organization when the benefits provided by the system are individualized and based on the performance of the own employee, instead of being general and subjective. The expected goals won't be reached when benefits are also provided in similar and near organizations. In the Spanish educative public administrations the homogeneity there is a high homogeneity of services and the access is universal for the employees.

In conclusion, whether satisfaction doesn't provide an immediate effect on the positive attitude of employees in workplace, we can observe a strong impact on the perceived organizational support. This effect leads to a positive behaviour and is also positive for the internal reputation of the public administration involved.

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