

# E-Commerce Practices in the Public Administration: A Spanish Case

Carmen de Pablos Heredero, Rey Juan Carlos University, Madrid, Spain; E-mail: carmen.depablos@urjc.es

Eva Pelechano Barahona, Rey Juan Carlos University, Madrid, Spain; E-mail: eva.pelechano@urjc.es

## ABSTRACT

The Spanish National Tax Agency (SNTA) has been a good initial example for web applications in Spain. This paper tries to describe how the Spanish National Tax Agency (SNTA) is using web technologies to improve transactions with all citizens and collaborators. Through Internet, citizens and firms can develop lots of their main operations with the SNTA by benefiting themselves of better time responses and comfort.

**Keywords:** Internet, processes, Spanish National Tax Agency (SNTA)

## INTRODUCTION

The Spanish National Tax Agency (SNTA) constitutes one of the Spanish organisations in which we can observe how, in a short period of time (since 1997), web based technologies have been successfully implemented in terms of the number of daily users of the different services via Internet.

Today, the relationship between citizens and Tax Administration can be performed through a greater number of communication channels: phone, fax, ordinary mail and Internet. Therefore, citizens and firms can choose in any moment the most appropriate way in view of the circumstance needs.

In the short period of time that the SNTA has been using web technologies, it has turned into a clear example to imitate in the rest of the public and private European and Spanish firms.

## MAIN OBJECTIVES AND REASONS FOR THE SPANISH NATIONAL TAX AGENCY TO USE INTERNET

Amongst the main reasons why the SNTA has decided to use web technologies considering the customers needs, we can stress,

1. The Public Administration feels it must have a greater presence in the Spaniards social life. In this sense, the Tax Agency Initiative is an answer to the objectives shown by the Spanish Government about the development of the information society "INFO XXI" that we have already referred to.
2. To add value. To widen the access time for the search of tax information and the rest of the offered services.
3. To get efficiencies of a proper use of information technologies, since it is legally possible.
4. The massive use of these technologies in the Spanish citizens is demanding an adaptation of firms and the Public Administration to these new infrastructures.

Table 1. Number of Internet visits (SNTA, 2005)

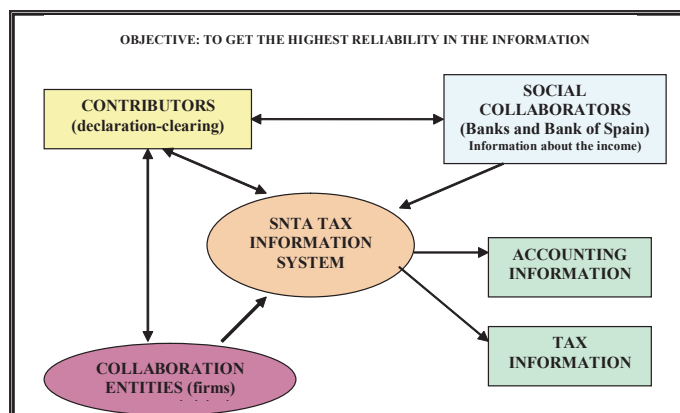
YEAR	HELP PRO-GRAMS	TAX INFORMA-TION (APPLICA-TION INFORMA)	TOTAL VISITS	VIRTUAL OF-FICE	TOTAL SNTA
2005	9.240.669	948.723	17.932.702	27.475.309	45.408.011

YEAR	HELP PRO-GRAMS	TAX INFORMATION	SELF-SERV-ICE	TOTAL VISITS	DIRECT ACCESS SELF-SERV-ICE	TOTAL SNTA
2004	8.000.063	901.148	3.374.751	9.720.442	8.601.602	18.332.044
2003	2.341.766	252.103	878.918	2.962.995	5.145.949	8.108.944
2002	951.101	355.433	649.358	2.466.962	3.310.552	5.777.514

Table 2. Number of declarations presented via Internet in the last three tax-year periods (SNTA, 2005)

	TAX YEAR 2005	TAX YEAR 2004	TAX YEAR 2003
INFORMATIVE AND YEARLY VAT SUMMARY DECLARA-TIONS (390 MODEL)	435.656	110.848	10.811
IRPF (PERSONAL RETENTIONS)	1.151.313	500.151	115.244
FIRMS TAX (201 MODEL)	41.000	9.328	225
SEMESTRE SMES SELF-CLEARINGS	435.051	115.314	31.231

Figure 1. Information flows in the tax agency (The Computer Tax Department, 2003)



- To break the tradition in the unilateral relationship inherited from the Tax Agency and the rest of Public Administrations. The use of web technologies allows a higher feedback between the SNTA and the Spanish contributors.

**STAGES IN THE IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE SNTA**

In the implementation of information and communication technologies in the firm, some typical stages have been traditionally distinguished (Zuboff, 1988; Davenport, 2000; Quinn, 2000), the mechanisation or automation, processing and transforming ones.

The Tax Agency, by introducing information technologies, has passed in time through all of them.

In the following figure we show all the relations that the Agency maintains with different entities.

The Tax Agency develops every year a planning of actions concerning to the use of Internet and, for that purpose, there is a work group especially constituted that allows to develop this planning and promote the needed changes.

From the first time, this Organisation has seen in Internet a great opportunity of access and has highly bet on this technology. All the information systems in the Agency have been internally developed and implemented.

**SERVICES OFFERED IN INTERNET**

The services that the Tax Agency offers to the contributors can be divided (Segarra Tormo, 2001) in two types, opened and personalised services.

The first ones are free entrance services for all the users and the second ones, are services oriented to offer personal information to each contributor. For that reason, in order to access to these second ones, an electronic identification is required.

Table 3 offers a summary of both services,

**ADVANTAGES AND DISADVANTAGES OF INTERNET IN COMPARISON TO ANOTHER CONVENTIONAL COMMUNICATION CHANNELS**

Each tax campaign, the SNTA circulates a survey to know main opinions coming from contributors and users. This is a very important tool, since it is permitting the Agency the needed feedback to improve their services via these tools.

This survey pays a special attention to the aspects collected in the following table.

Now we show the main advantages that these services are implying for the user and the people working in the Agency.

Table 3. Personalised and opened services offered by the SNTA through Internet

MOMENT IN THE SERVICE DEVELOPED	OPENED SERVICES	PERSONALISED SERVICES
BEFORE TAX DECLARATION	<ul style="list-style-type: none"> <li>Tax legislation</li> <li>Maternity deduction</li> <li>IRPF retentions</li> <li>Declarations on line</li> <li>Help programs</li> <li>Leaflets</li> <li>Informa Application</li> <li>Pre-paid consultancy</li> <li>Apply for tax data</li> <li>Apply for labels</li> </ul>	<ul style="list-style-type: none"> <li>Obtain of tax data</li> <li>Change of personal, familiar and address data</li> <li>VIES (European Union Taxes, VAT)</li> </ul>
DURING TAX DECLARATION		<ul style="list-style-type: none"> <li>Presentation of a declaration</li> <li>Payment: achievement of NRC</li> <li>Apply for devolutions</li> <li>Certification of declaration presentation</li> </ul>
AFTER TAX DECLARATION	<ul style="list-style-type: none"> <li>Checking the state of all declarations</li> </ul>	<ul style="list-style-type: none"> <li>To obtain the detailed information about the state of the declaration</li> </ul>
OTHERS	<ul style="list-style-type: none"> <li>Web Call services</li> </ul>	<ul style="list-style-type: none"> <li>Certificate of declaration presentation</li> <li>Fulfilment certificate</li> <li>Resources and complaints</li> <li>On line auctions</li> </ul>

Table 4. Main aspects to consider in the Internet survey (2005)

1.	Technologies that the users utilise for their relationship with the Agency via Internet
2.	Places where one can access
3.	Level of complexity when developing some actions from the SNTA web pages, <ul style="list-style-type: none"> <li>• To get the PADRE program</li> <li>• To apply for the certification</li> <li>• The installation of the certification</li> <li>• The performance of the declaration</li> <li>• Preparation of the declaration to send it via Internet</li> <li>• The tax payment, in case the declaration has turned into positive</li> <li>• The transmission of the declaration</li> <li>• The reception of the conformity by the SNTA</li> </ul>
4.	Level of satisfaction with the system of rent declaration presentation via Internet
5.	The main reasons for the satisfaction
6.	Evaluation of the SNTA services. Opinions about the most useful considered ones
7.	Services that should be included in the surveyed opinion

**WHERE DOES THE SPANISH NATIONAL TAX AGENCY GO TO?**

The Tax Agency intends to improve and widen the services that offer today to reach more tax-payers. This way, the Agency promotes an auction system via Internet. It allows any person that wants to take part in an auction to do it without a previous translation to the place where it is being held. Any offer can also be presented

via the web whenever the user is interested in a good or service. And besides, it allows the constitution of the needed deposits to participate in the procedures of disposal by means of the adhered collaboration entities, and be able to get “on line” devolution, in case the holder is not the bidder.

The closest future objectives that the SNTA has thought about are: in the first place that the contributor can value and evaluate if the administration is properly working. It is tried to promote a more multilateral relationship between the Administration and the contributor. The customer should take part each day more in an interactive conversation with the Administration.

In the second place, an “electronic address” is pretended to be created. It would identify the customer with one unique electronic address. It would make feasible the sending of the electronic certifications that are demanded. So far, any person that applies for an electronic certification can automatically get it. With this electronic address, the sending of messages can be improved, and one of the main Internet advantages would be achieved.

This way the relationship between the SNTA and the citizen can be also standardised. The sent data will have a greater security; message confidentiality and the Tax Agency signature will be achieved.

When dealing with new improvements and the achievement of some challenges, the Agency is finding as main problem that the legislation must be changed in some aspects. Therefore, sooner the creation of an electronic address will be approved. It will improve the sending of notifications.

And third and lastly, it is tried to have a direct access from the SNTA to other web pages in the Public Administration, as for example the Social Security or the Only Window System for firms. This service is born with the main objective of making easier to the society the access to the needed information. The information can be related to any aspect that has to do with the relationship between the Spanish Administration and the citizens, from any place and at any moment.

**CONCLUSION**

The Spanish National Tax Agency has promoted the use of web technologies amongst citizens by putting in practice some government initiatives on the development of the information society in Spain, INFO XXI.

The Tax Agency, by offering services in Internet, enables all citizens a better relationship. The number of communication channels provided can be widened and the user will be able to choose the one that best fits his/her needs each moment.

Through this communication channel, a great variety of services are offered: the application for tax data, the solution to any doubt or question related with any tax or problems in the confection of the declaration, the downloading of the help

Table 5. Advantages and disadvantages of the SNTA web page

ADVANTAGES		DISADVANTAGES	
CITIZEN	AGENCY	CITIZEN	AGENCY
To widen customer's attention timetable (24 hours)	The offering of alternative communication channels	Changes in the society culture: adaptation to new technologies	To update infrastructure and web page
To avoid movements in the Agency	Self-service: it is the citizen who performs all the process of information searching and elaboration and sending of documents	The need of infrastructure adaptation	Lack of habits in the customers
To access from any place	To improve the process of document elaboration	To apply for electronic identification certificates	
To get a faster return in the information sent by Internet	A decrease in the long run costs by intermediaries decrease	Bottleneck problems and lack of network in some places	
Feedback: the Agency values all kind of suggestions or claims coming from citizens in order to improve their services		Change of responsibility to the customer: it is the citizen who performs the whole process	

Source: Own elaboration from the information coming from the Agency and the one published in their own web page (2004)

## 1086 2007 IRMA International Conference

programs, the information about customs, auctions on line, queries on the state of the declarations, presentation on the declarations and so on.

The Tax Agency is very interested in the inter-activity with the citizen and that it is the reason why it develops periodical surveys with the main aim of obtaining information about the contributor's opinion. The results that the Tax Agency reaches in these studies are of great help for the improvement of the services that it offers. They show a great acceptance and a high degree of user's satisfaction (comfort, fastness and better time responses are positive stressed).

Despite the positive experience of this project in the Spanish National Tax Agency, there are still some barriers in the procedures that put in touch the Tax Agency with other Institutions. It will imply changes in the short term procedures that will allow benefiting from the possibilities that today web-based technologies are offering to government, firms and citizens.

### ACKNOWLEDGMENTS

We want to thank to Mr. Segarra, General Manager of Computing Area in the Spanish National Tax Agency, his collaboration in the writing and correction of the present work and the interest he has shown in it.

### REFERENCES

- Davenport, T. H. (2000) *Mission Critical: Realising the Promise of Enterprise Systems*, Harvard Business School Press, Boston.
- Quinn, J. B. (2000) Services and Technology: Revolutionising Economics, Business and Education in *The Internet and the University 2000 Forum* (Eds, Devlin, M., Larson, R. and Meyerson, J.) Forum for the Future of Higher Education and EDUCAUSE, Boulder CO.
- Segarra Tormo, S. (2001) Las nuevas tecnologías en la Administración Tributaria Española. Descripción, análisis y dinamización, *Economía Industrial*, 338, 105-118.
- Zuboff, S. (1988) *In the Age of the Smart Machine: The Future of Work and Power*, Heimann, Oxford, UK.
- Web page from the SNTA (AEAT): [www.aeat.es](http://www.aeat.es)
- Web page from the National Fabric for the Spanish Coins (FNMT): [www.fnmt.es](http://www.fnmt.es)
- Web page from the Ministry of Science and Technology on the Information Society: [www.sociedadinformación.es](http://www.sociedadinformación.es)

0 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/proceeding-paper/commerce-practices-public-administration/33258](http://www.igi-global.com/proceeding-paper/commerce-practices-public-administration/33258)

## Related Content

---

### Database Replication and Clustering for High Availability

Wenbing Zhao (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 1748-1755). [www.irma-international.org/chapter/database-replication-and-clustering-for-high-availability/112580](http://www.irma-international.org/chapter/database-replication-and-clustering-for-high-availability/112580)

### Nominalizations in Requirements Engineering Natural Language Models

Claudia S. Litvak, Graciela Dora Susana Hadadand Jorge Horacio Doorn (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 5127-5135). [www.irma-international.org/chapter/nominalizations-in-requirements-engineering-natural-language-models/184216](http://www.irma-international.org/chapter/nominalizations-in-requirements-engineering-natural-language-models/184216)

### A Systemic Framework for Facilitating Better Client-Developer Collaboration in Complex Projects

Jeanette Wendy Wing, Doncho Petkovand Theo N. Andrew (2020). *International Journal of Information Technologies and Systems Approach* (pp. 46-60). [www.irma-international.org/article/a-systemic-framework-for-facilitating-better-client-developer-collaboration-in-complex-projects/240764](http://www.irma-international.org/article/a-systemic-framework-for-facilitating-better-client-developer-collaboration-in-complex-projects/240764)

### Cognitive Process Elements of People Decision-Making

Thais Spiegel (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 2076-2084). [www.irma-international.org/chapter/cognitive-process-elements-of-people-decision-making/183921](http://www.irma-international.org/chapter/cognitive-process-elements-of-people-decision-making/183921)

### The Influence of Satellite Microwave Remote Sensing on Atmospheric Parameter Inversion in Extra-Large Open Pit Mines Based on Convolutional Neural Net

Jianhua Zhang (2025). *International Journal of Information Technologies and Systems Approach* (pp. 1-19). [www.irma-international.org/article/the-influence-of-satellite-microwave-remote-sensing-on-atmospheric-parameter-inversion-in-extra-large-open-pit-mines-based-on-convolutional-neural-net/391335](http://www.irma-international.org/article/the-influence-of-satellite-microwave-remote-sensing-on-atmospheric-parameter-inversion-in-extra-large-open-pit-mines-based-on-convolutional-neural-net/391335)