

# ICT for Governance in Combating Corruption: the Case of Public e-Procurement in Portugal

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## ABSTRACT

Literature has highlighted the potential of information and communication technology (ICT) in building new models of public governance that promote fairness and accountability, which are key requirements in the fight against corruption. In this context, it is worth mentioning the sector of public procurement, since it is one of the most sensitive concerning any corruption risk.

There have been a number of investments by governments towards the implementation of public e-procurement. Portugal is referenced by the European Commission as a good example in this regard. The question that arises is whether this would have an impact on the degree of trust between the citizens and governance, i.e. regarding perception of corruption.

This paper explores the theme "ICT governance and transparency in the fight against corruption - the case of public e-procurement in Portugal." Thus, the aim is to discuss the abovementioned issue with a view in developing future investigations.

## Categories and Subject Descriptors

D.2.10 [Design]; D.2.9 [Management]; D.4.7 [Organization and Design]; D.4.8 [Performance]

## General Terms

Management, Performance

## Keywords

Information and Communication Technology; Governance; Transparency; Corruption; Public e-Procurement

## 1. INTRODUCTION

There is consensus that information and communication technology (ICT) enhance the transparency and thus contribute to improved governance and potentially reduce corruption.

Public procurement comes about as one of the most sensitive areas in terms of corruption. Efforts are recognized either at european level or at a national level in the field of public e-procurement which is one of the main areas within the e-government. How does such ICT efforts relate to corruption?

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ICEGOV2014, October 27 - 30 2014, Guimaraes, Portugal  
Copyright 2014 ACM 978-1-60558-611-3/14/10...\$15.00  
<http://dx.doi.org/10.1145/2691195.2691265>

This exploratory paper seeks to launch the discussion and present guidelines for future research. Through literature review, the phenomenon, the problem and the issue of future research will be identified [1] [2].

In terms of text searching, this was carried out through a combination of the following keywords: governance, ICT, corruption and public e-procurement. Article selection was taken through the existence of such words in the title and / or abstract. By reading the summary, with reference to the criteria of objectivity and clarification regarding the terms, we proceeded to identify the items to be subsequently analysed in full text. We carried out the literature survey by Scopus, Google Scholar, ISI Web of Knowledge. Document search was made through the catalogue of A, b-on; RCAAAP, IEEEExplore, Colcat.

In section 2, the governance and e-government terms are clarified, addressing the impact of ICT investment in increasing transparency and accountability and hence good governance. In general terms, there are references to corruption as the misuse of public office for the purpose of private gain, creating inefficiency in the allocation of resources, undermining the legitimacy of governments and the image of public services and literature, thus, and undermining good governance [3][4][5]. These issues are addressed in section 3. Among the various areas, public procurement presents itself as one of the most sensitive in terms of corruption. This is the focus of the approach in Section 4. Within section 5, albeit at an exploratory stage, it aims at exploring the theme "ICT governance in the fight against corruption - the case of public e-procurement in Portugal".

## 2. GOVERNANCE AND E-GOVERNMENT

Governance means, in broad terms, the act of governing [6]. That is, the act of good government, which is the act that transforms knowledge into manner, ensures sustainability of power, expressing democratically legitimized political will, with the goal of maximizing social welfare [7]. Governance is therefore based on a structure, a set of rules and relationships between the various functions of society: the State/Government/Public Administration, Market/Private Sector and Civil Society, which all assume a leading role in the optimization and creation of public value [8] [9].

E-government is the area of research looking to support and improve the implementation of public and government transactions involving public policies, providing better public services, in a timely and more transparent manner for better governance. However, technology cannot be seen as an addition, i.e. an external and imposed factor, but instead as something intrinsic and inherent to its own organizations and services, in both way of thinking and acting [10][11][12][13] [14][15].

E-government combines technology, processes and people [10][12][13]. Incidentally, technologies in governments and public administrations, is more related to the government than with the technological application itself [16].

In short, the current context of the most important governance tool for the implementation of e-government is citizenship [13], promoting various forms of citizen participation in decision-making, enhanced process in this regard, transparency, accountability and in this sense, promoting more trust in government, in public services and organizations. All these aspects are seen as crucial for good public governance.

### 3. CORRUPTION

In general terms, the various approaches in literature refer to the view that corruption is the misuse of public office for the purpose of private gain [4][5][3]. This issue, regardless of its causes, is accompanied by a wide range of negative consequences at various levels. Among other effects, corruption creates inefficient allocation of resources, undermines the legitimacy of governments and the image of public services, distorts the functioning of governments and societies, making the state less efficient and more costly [3].

The fight against corruption is therefore a priority in many countries, leading governments to take measures accordingly. Promotion of good governance is thus a key strategy in combating corruption [3][17][18]. In this sense, Attila [19] conducted a study that shows that better public institutions are associated with lower levels of corruption.

For Ackerman [3], the fight against corruption should be based primarily on structural reforms, where the most sensitive or corruption areas with higher use mechanisms to reduce to a minimum the occurrence of corrupt conduct, including decreasing the possibility of the employees taking advantage of personal benefits. Thus, the fight against corruption must begin by identifying of the most sensitive areas [3][20] and then developing the appropriate mechanisms.

The sector of public procurement is one of the most sensitive areas in terms of corruption [3][21]. It is through public procurement that the state does most of its costs by contracting with private companies. Corruption in this area causes inefficiency and high spending by the government. Thus, measures that promote transparency of the procurement of goods and services are essential to combat corruption [3].

As Shim and Eom [22] mentioned, ICT reinforce transparency and are an effective way of reducing corruption. They conclude that ICT has a significant influence on the reduction of corruption in a country. Furthermore, they show that both e-government and internet penetration are more important in explaining differences in levels of corruption among countries than the quality of the bureaucracy and the maintenance of order, traditionally considered key players in the fight against corruption.

### 4. PUBLIC E-PROCUREMENT

The EURODAD presents public procurement as an instrument of public policy that, within a legal context, aims to achieve social justice [23][24]. Bof and Previtali [25] suggest several reasons for considering the public procurement as a strategic activity of governments, namely: (i) the relevant economic impact; (ii) affects the competitiveness of the country; (iii) affects the welfare of citizens; (iv) all government units and public services need to acquire goods and services to pursue their objectives.

Public e-procurement presents itself as one of the most important initiatives of e-Government. Public e-procurement at governance level causes increased competition, allows power-making processes and decisions to be less unbiased and thus combating corruption; concerning administration, it reduces paperwork, allowing for savings in both time and money [13] [26].

According to the European Commission [27], public e-procurement means, in general, the replacement of pre-contractual procedures on paper by communication and processing based on ICT in all phases of the contract-making process.

There are several benefits in adopting ICT procurement practices, including: (i) a simple and efficient way of purchase, allowing for a reduction of transaction costs; (ii) identifying and negotiating with suppliers in a more efficient manner; (iii) automation of workflows that will subsequently be extended to the entire supply chain and across the organization, enabling information sharing and integration; (iv) order processing, monitoring and control of procurement activities; and (v) a change in the way an organization conducts pre-contract processes. Ronchi et al [28] speak of: (i) strategic benefits (related to comparative effectiveness); (ii) transactional benefits (concerned with the efficiency and effectiveness of transactional activities); and (iii) informational benefits (as well as decision support and timely communication). Talero [29], adds: (i) increasing the transparency of public relations agencies with the market (G2B). Kassim and Hassin [26] state, in turn, (i) value creation, (ii) increasing transparency, (iii) improvement in the flow of information, (iv) support for decision making, (v) the creation of open markets, so that all vendors can compete by leveraging the aggregate power of governments to achieve dynamic pricing of goods and services, improving the efficiency of the buying cycle, or (vi) the benefits in adopting e-procurement systems.

Although the benefits associated with public e-procurement are highlighted, the simple adoption of the technology component does not automatically mean that organizations reap the benefits highlighted [27].

Portugal is referenced in the Green Paper on Public Procurement Electronics as a good example in this respect [27]. It is therefore expected that the level of transparency has increased. The “Portal dos Contratos Públicos” and the “Observatório das Compras Públicas” are seen as most relevant instruments towards transparency, providing, at the same time, the emergence of citizen movements that through social networks.

### 5. DISCUSSION

In Portugal, the implementation of the “Código dos Contratos Públicos” has led to a clear option for dematerialisation of processes in the making of contracts through, inter alia, the obligation of adopting electronic public procurement platforms.

In 2010, the Green Paper of the European Union [27] blamed poor adherence with electronic media in general, since the average was no more than 5% of total procurement. The same report points out that Portugal was an exception to this, having been touted as an example to follow. In 2012, the European Commission [30] mentioned Portugal once again as a success.

In fact, in 2010, the year that saw procurement in our country at 6.3% of GDP, the Index of Public Procurement in Portugal (ICPEP) was 75% and the Manchester ALC Index was 91%. In 2011, ICPEP was 62% and the Manchester ALC Index was 92%. In 2011, ICPEP was 77% and the latter stood at 89% [31][32][33].

**Table 1 – Public procurement in Portugal**

Public Procurement in Portugal			
	2010	2011	2012
Number of procedures	79.739	122.763	142.403
Total amount (EUR million)	10.958	4.765	6.300
Public Procurement Index	75%	62%	77%
Manchester Index	91%	92%	89%
Public Procurement in GDP	6,3%	2,8%	2,1%
Number of procedures	79.739	122.763	142.403

The data presented suggest that, in recent years, there has been an increased transparency in this area. The key issue is now to analyse the perception of corruption. For this analysis, we use data from the Corruption Perception Index (CPI) of Transparency International<sup>1</sup> (TI) and the data provided from EU by the Special Eurobarometer reports. The period of analysis is between 2005 and 2013, years for which data from the Euro barometer is in fact available.

As seen in Table 2, in Portugal, the perception of corruption, given by CPI, is quite high, not having recorded significant changes, except for the year 2009 which recorded the worst result over the given period.

According data from EU, when asked whether they believe that corruption is a major problem in their country, over 90% of the Portuguese have said yes, with a tendency of a worsening situation [34][35][36][37][38]. Note that, in 2013, this result showed an improvement. However, it is not possible here to determine the causes of this variation, since the question posed to respondents had changed compared to previous years.

**Table 2 - Perception of corruption**

	TI	EU		
	CPI	Corruption is a major problem in Portugal <sup>2</sup>	Corruption among officials awarding public tenders	
			Portugal	EU average
2005	6,5	91%	41%	50%
2007	6,5	95%	39%	43%
2009	5,8	93%	49%	52%
2011	6,1	97%	39%	47%
2013	6,2	90%	41%	45%

Given the data, in general terms, in Portugal the perception of corruption is high and the vast majority of the population believes that corruption is a major problem. However, the perception of corruption in awarding procurement staff does not seem to follow the trend of the general perception of corruption. Firstly, this indicator in Portugal has always stood below the EU average.

<sup>1</sup> <http://cpi.transparency.org/cpi2013/>

<sup>2</sup> The percentage refers to the affirmative answers

This result appears consistent with data on public procurement in Portugal compared with other Member States. Secondly, between 2007 and 2011, the changes that occur are quite significant. Finally, when comparing 2005 with 2013, we find that the perception of corruption in awarding public procurement officials saw no change.

Between 2005 and 2013 saw the largest efforts in terms of e-procurement. There are several indications in Portugal in this sense. However, it appears that investment in ICT, although the potential contribute to increased transparency and good governance, does not translate, in an exploratory way, to an effective reduction in the perception of corruption. Thus, the question is how are e-procurement related to corruption.

The development of studies assessing the impact of public policies in the area of e-government is important, with special guidance to the control of corruption, particularly in the public procurement sector, once ICT is using for governance and public interest. The debate started in this paper helps to consolidate our strategy for future research.

## 6. ACKNOWLEDGMENTS

This work is funded by FEDER funds through the Operational Program for Competitiveness Factors - COMPETE and National Funds through FCT - Foundation for Science and Technology under the Project: FCOMP-01-0124-FEDER-022674 and PEst-OE/CJP/UI0758/2013-14.

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