

## **E-PROCUREMENT AS THE ICT INNOVATION IN THE PUBLIC SERVICES MANAGEMENT: CASE OF SLOVAKIA**

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**ABSTRACT.** Information and communications technology (ICT) has enabled the creation of tools to organize, transmit, store and act on information in digital form in new ways (Atkinson - McKay, 2007). Combined with the reforms of government and public administration in the spirit of New Public Management, many innovations are driven by ICT in the public sector. In this paper we focus on several ICT driven innovations from the perspective of e-procurement in the conditions in Slovakia. E-procurement carries out a number of stages of the procurement process, including search, sourcing, negotiation, ordering, receipt and post-purchase review. Thus it contributes to a more transparent and competitive environment in which government has to operate. We confront these theoretical presumptions in the analysis of selected cases of e-procurement use in Slovakia.

### **INTRODUCTION**

Since the emergence of the New Public Management (NPM) paradigm, growing attention has been paid to public sector innovation, both as a political priority and as a fully-fledged field of study. A vast and well-established literature exists in respect to the determinants and the adoption of social innovation in the public

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sector (Mayntz, 2003; Mulgan & Albury, 2003; Murray et al., 2010; Osborne & Brown, 2005; Voorberg, Tummers & Bekkers, 2014). Our focus is on innovations driven by ICT and how they are characterized by social content. ICT driven innovations can spread change thanks to their capacity for processing large volumes of data and enabling communication across temporal, functional and geographical boundaries (Bekkers & Homburg, 2005).

ICT plays an increasing role in innovation processes in public sector and ICT driven innovations seem to depend on the general ICT infrastructure in a specific policy sector and/or in a particular country (Bekkers & Homburg, 2007; Korteland & Bekkers, 2008). ICT experienced a significant development in the 1990's in both developed and developing countries. One of the most significant innovations driven by ICT in public sector is e-government. This can be treated as a logical consequence of the implementation of ICT in public administration (Klun & Decman, 2006). Buckley (2003) identifies e-government as the provision of government information to citizens and the facilitation of active participation and consultation with citizens. He applies terms such as e-public services or e-administration to define the delivery of public services to citizens, business partners and suppliers, in addition to those working in the government sector by electronic media including information, communication, interaction, contracting and transaction. Based on this definition, e-procurement pertains to e-public services that are influenced by the development of ICT. It utilises electronic communication, special software for e-auctions and also uses ICT to carry out a number of stages of the procurement process, including search, sourcing, negotiation, ordering, receipt, and post-purchase review. In other words e-procurement is connected with ICT development. Information and communications technology is relevant because it contributes to a more transparent and competitive environment in which government has to operate, which might also stimulate innovation. The increasing use of ICT in the public sector, in combination with New Public Management reforms, is a unique field of study we would like to present in this article and aims to map the level of use of e-procurement in Slovakia and to analyse selected cases of e-procurement in Slovak conditions.

### LITERATURE REVIEW

Weber's bureaucratic way of government and public administration is characterized by hierarchical organization and operations based on rules (Baumol, 1965; Niskanen, 1971; Rosenbloom, 1986). Hierarchy and rules do not create sufficient pressure for innovation in public services which would lead to greater efficiency (Donahue, 1989; Hodge, 2000; Wolf, 1988), transparency (Reschenthaler & Thompson, 1996) and quality in providing them (Lane, 2000; Green, 2002). Since the 1970s bureaucratic management has been considered ineffective and the public sector has been facing social pressure which has required changes in several areas of its operation. The result of social pressure in these areas is public administration reform called New Public Management (NPM) which started in New Zealand in the 1980s and has continually spread to the UK and USA and into most OECD countries. NPM changed the classic bureaucratic model towards effective and professional public administration by implementation of organizational and structural instruments inspired in private sector management. NPM supports decentralization and devolution of decision-making and control processes of public management along with deregulation and de-monopolisation of public services (Donahue, 1989, Green, 2002; Hodge, 2000, Wolf, 1988). Reforms of government and public administration in the spirit of New Public Management have also brought, among many other innovations, the possibility of contracting out public services. Contracting means that when providing public services (political decision) a public authority (principal) has the responsibility to provide said services whereas public service production takes place in the private sector (agent) (Nemec, 2002; Nemec & Mikušová-Meričková, 2013).

Prior to NPM there was a wave of public procurement in the 1970's in which any systemic management of contracting between the public and private sectors was missing which led to repeated failures in this area (Walsh, 1995). Many authors deal with the problems of moral hazard and information asymmetry and their solutions were seen in the NPM reforms in the 1980's (Arrow, 1985; Bailey, 1987; Heichlinger, 2004; More, 1984; Nemec & Wright, 2002). Although NPM has indeed helped in numerous areas of procurement other problems with procurement occurred, such as the problem of transparency and how to handle a large amount of

contracting. As Mikušová-Meričková and Bašteková (2013) say the lack of transparency may preclude the participation of private partners in the public procurement. However, public procurement is a very important field as its effects are experienced in many different substantive policy areas – defence, education, energy, transportation, environment, and health care to name just a few (Snider & Rendon, 2008). Transparency may be affected mainly by insufficient notice of the procurement process, candidate discrimination, failure to comply with the rules on public procurement as well as the absence of budget constraints or corruption.

A possible solution to the lack of transparency and related problems could be in e-procurement. The European Commission (2012) defines e-procurement as the use of electronic communication and transaction processing by government institutions and other public sector organizations when buying supplies and services or tendering for public works. The European Union (EU) see e-procurement as a social innovation in public sector driven by ICT (Nasi, Cucciniello, Mele, & Valotti, 2014). Jap (2002) considers e-procurement a new concept in public services management and for its significant extension gives credit to the development of ICT which contributes to cost-effectiveness, ease of use and high availability. Other authors dealing with the topic (Chen, Smith, & Miller, 2008; Gasser & Palfrey, 2007; Hommen & Rolfstam, 2009; Joia & Zamot, 2002; Shalev & Asbjornsen, 2010; Sičáková-Beblavá, Šatníková, & Klátik, 2011; Trenkler, 2011) also associate the use of e-procurement with the development of ICT and as the main advantages of e-procurement they state:

- improving of the quality and flexibility of services;
- decreasing of service prices and variability;
- a solution for information asymmetry;
- increasing of a competitive effect;
- increasing transparency;
- reducing costs of procurement;
- increasing in time savings;
- an easy and fast spread of information about e-auctions and their progress;

- opening the markets also for foreign companies to participate;
- reducing the level of bureaucracy.

There have been several impulses to conduct this study. One of them is the focus of the European Commission and EU on e-procurement as a social innovation bringing the above mentioned advantages resulting in more dynamic, transparent and competitive environment in which government has to operate. Another impulse was the fact that, despite the popularity of using ICT in the provision of public services around the world, empirical evidence (Ifinedo & Singh, 2011; Pani, Agrahari, De, & Sahoo, 2011; Roztocky & Weistroffer, 2014; Weerakkody et al., 2012) shows that transition economies lag behind developed countries with the use of the ICT in the public sector. Slovakia is lagging behind EU27 countries in a number of enterprises using e-procurement. The EU27 average was 13% of enterprises using the Internet for interaction with public authorities (e-procurement) in 2010, whilst in Slovakia it was only 7% of enterprises (Eurostat, 2010). Therefore we have chosen two cases of e-procurement on the local level that can be set as an example or good practice to support the spread of e-procurement use. The local level of government was chosen for two reasons:

1. public services at local/municipal level can be delivered in more efficient and effective ways (Nemec & Meričková, 2011),
2. higher level of ICT adoption in public services is achieved by larger municipalities which are district seats and which are financially autonomous. This is an important lesson for the policy as the process of fiscal decentralization appears to be a very important means of narrowing the gap between the developed and transition economies (Černáková, 2014).

In this paper we will focus on the use of e-procurement in the conditions of the Slovak republic in general and also in particular by analysis of two selected municipalities that use e-procurement as a part of New Public Management reforms and innovations. This paper is part of the European Union research project LIPSE, in particular of the work package "Adoption, diffusion and upscaling of ICT driven innovations" which aims to collect data on drivers and barriers that play a role in upscaling of ICT driven innovations for e-procurement. Therefore we also present partial preliminary results on potential

drivers and barriers observed in two analysed cases which are to be examined further.

## METHODS

The goal of this paper is to map the level of use of e-procurement in Slovakia and to analyse selected cases of e-procurement in Slovak conditions as to whether the use of e-procurement contributes to a more transparent and competitive environment. To fulfil the first part of our goal we use analysis of policy documents, databases, websites and press releases on the use of e-procurement in Slovakia, as well as data from Eurostat, to map the level of e-procurement use in general. For the second part of the goal we use qualitative and quantitative analysis and the method of comparative analysis whilst comparing case studies of two selected municipalities that successfully have implemented e-procurement into their public services provision. The municipalities were selected because they fulfil the criteria of being larger municipalities, district seats and financially autonomous, i.e. these towns could be set as an example in narrowing the gap between the developed and transition economies in the field of use of ICT including e-procurement. Secondly, these towns are regularly in the top 20 municipalities for being the most transparent among 100 biggest municipalities in Slovakia (based on reports of Transparency International Slovakia, 2010-2012). As we stated above, transparency is one of the main advantages of e-procurement; ICT in this case helps to increase the notice of the procurement process and decrease candidate discrimination and level of corruption. The selected cases were ranked 3rd (Martin) and 19<sup>th</sup> (Snina) also thanks to the use of e-procurement. Data for e-procurement analysis in these cases were taken from the websites of both towns; data is publicly available by Act No 25/2006 Coll. of Laws on Public Procurement whereby all municipalities and other public institutions are obliged to publish information about public procurement. We filtered data on e-auctions for the years 2009 – 2011 as the contracts from later years have not yet been fully completed so we were unable to calculate the profitability of e-auctions. The methodology can be summed up in a few steps:

1. Collection and processing of data on e-auctions from the published results on Martin and Snina websites;

2. Determining the structure of e-auctions according to the subject of contract through a vertical analysis; and
3. Processing of data to obtain selected results (difference between price expected and the price for each e-auction, total savings, average savings per e-auction, profitability of e-auctions).

These steps should assist us in answering our research question as to whether the e-procurement in the analysed cases contributes to a more transparent and competitive environment in public services management and provision.

This article consists of four parts preceded by an introduction and literature review where we briefly described the context of what is already known on ICT driven innovations; especially concerning those innovations in NPM reforms in public services provision and the ensuing innovations in public e-procurement. The first part discusses the research strategy (goal and methodology used). Part two presents the results of our document analysis of e-procurement in Slovakia. The third part analyses the selected case studies of two municipalities and discusses potential drivers and barriers of ICT driven innovations for e-procurement. The last, fourth, part is a conclusion of our findings.

## RESULTS AND DISCUSSION

### E-procurement in Public Services

The European Commission is aware of its status as a major procurer and it has therefore set the goal of transition to full electronic procurement by mid-2015. EU countries should have full e-procurement by mid-2016.

In Slovakia the progress of e-procurement is mainly coordinated by The Office for Public Procurement in Slovakia which is the central state administration authority for public procurement (Statute of the Office for Public Procurement). The office was established as an independent office with an independent budget on January 1. 2000 and was founded by Act No. 263/1999 Coll. on Public Procurement with responsibilities for the development of state policy in the field of public procurement and for the review and control of tender processes by contracting authorities and entities (as requested by the Act on Public Procurement No. 25/2006 Coll.). The progress of e-

procurement implementation can be summed up in the following steps:

1. Launching e-submission of notices used in public procurement for all types of contracts and procurement procedures electronically; with a connection to eSender service. Building a powerful e-communication interface to publish notices by the contracting entities.
2. Extension, upgrade and building of a new central processing information system that shall be connected to different registers (Business Register, Trade Register, List of Registered Entities etc.).
3. Establish a connection between the Office for Public Procurement (OPP) and an information system of the Office for Publication in order to send mandatory notices to The Official Journal of the European Union.
4. Launch new electronic services for the creation of a contract with the support of all procedures and procurement phases.
5. Extend the eProcurement information system with a separate module for the need to use all steps and phases (simplification of e-auctions). Introduction of simplified e-auctions for the lowest price.
6. Ensure easy handling of documents using a system for document management.
7. Creation of a safe, high-quality communication interface for communication between the contracting authorities/entities and candidates/applicants.
8. Availability of a "full text" search tool.
9. Access for the blind and visually impaired.
10. Capability to provide a higher level of classified information in an automatic mode.
11. More effective options to access the system for domestic and foreign users.
12. Ensure the use of basic registers for harmonization of data and use of joint modules by the Central Government Portal.

13. Introduction of safety standards to all OPP systems as well as the standards for exchanging notices, offers and information and for communication between public contracting authorities/entities and candidates/applicants.

Steps 1, 4 and 6 were fully implemented in 2010; the other steps are being continuously implemented.

There is no specific incentive for contracting authorities to use e-procurement; however, government resolution No. 852/2007 obliges central authorities to use EVO (a register of procurement documents and operates the procurement portal) for purchases above national thresholds (more than €200,000 for goods and services or more than €5,000,000 for construction work). There are a few initiatives that simplify the whole process and ease the access to contracts below the threshold (between €10,000 and €40,000) and contracts of small value (less than €10,000 for goods and services or less than €20,000 for construction work) which are likely to be awarded to SMEs.

As for enterprises using electronic procurement systems the overview is shown in Table 1. All enterprises employ 10 or more persons (excluding the financial sector).

In Slovakia electronic auction or its abbreviated form of e-auction is a commonly used term for electronic procurement. According to the Public Procurement Act No. 263/1999 Coll. electronic auction can be characterized as a repetitive process that uses electronic devices to submit new prices revised downwards and/or new values concerning certain items and parts of tenders. Under this law an e-auction is only a part of e-procurement but in the condition of the Slovak Republic it is the most used part (up to 2014 there were 88,872 realised e-auctions with 1,700 participating subjects with a volume of 8.2 milliard EUR based on information from [www.proebiz.sk](http://www.proebiz.sk)) and for the contracts with small value the e-auction is actually the complete e-procurement process. Therefore we analyse the e-auction further in this text.

The purpose of an e-auction is to create a ranking of tenders using automatic evaluation. The Act further specifies that the e-auction cannot be used in cases of such contracts whose parameters cannot be quantified i.e. expressed in absolute or relative value. The

**TABLE 1**  
**Enterprises in Slovakia Using Electronic Procurement Systems in 2011-2013**

	2011	2012	2013
Enterprises using the Internet for accessing tender documents and specifications in public authority electronic procurement systems	22%	25%	25%
Enterprises using the Internet for offering goods or services in public authority electronic procurement systems (eTendering)	22%	23%	22%
Enterprises using the Internet for accessing tender documents and specifications in public authority electronic procurement systems and for offering goods or services in the systems	14%	14%	22%
Enterprises using the Internet for offering goods or services in public authority electronic procurement systems (eTendering), in their own country	21%	22%	22%
Enterprises using the Internet for offering goods or services in public authority electronic procurement systems (eTendering), in other EU countries	6%	6%	3%

Source: Authors' elaboration based on data from Eurostat.

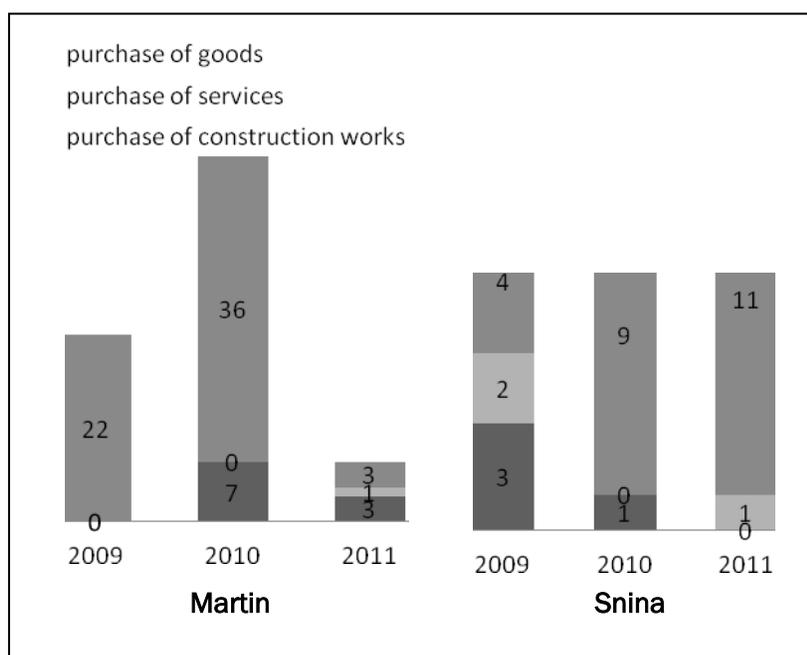
use of e-auctions is very widespread and in specific cases it is also obliged by law to be used by public contracting authorities (public tender, restricted or negotiated procedure with publication). In terms of financial limits it is required to use an e-auction by a contracting authority in contracts above the threshold (more than €200,000).

The first e-auction took place in the town of Levice in December 2005 and was a contract of small value related to the printing of the town's newspaper. The e-auction saved the town about 40% of the funds. Prior e-auction, the newspapers were black and white whereas afterwards were printed in a colour version. Levice used e-auction despite the fact that the Act imposes no such obligation. After the successful implementation of e-auctions in Levice it was followed by other cities and also by libraries, hospitals and ministries; currently e-auctions are used by government organizations at both national and local/municipal levels. In the next part we will analyse two other municipalities which have successfully implemented e-auction into their procurement, in particular the towns of Martin and Snina.

### Selected Cases of E-procurement - Martin and Snina

In the selected towns we analysed the e-auctions in the period 2009 – 2011 based on data available from the towns' websites. Figure 1 shows the subjects of e-auctions in the towns of Martin and Snina. In both towns, the e-auctions were most used for contracts on construction work. In Martin there were 61 out of 72 realised e-auctions (85%) in the analysed period and in Snina there were 24 e-auctions for construction work out of 31 e-auctions (75%). Basically these were for building construction, reconstruction of pathways and roads, enlarging car parks etc. As for Martin, we can also include information on the type of contractors: only in one case was the winning entity from the public sector, the rest were entities from the private sector (98%) of which there were mostly small and medium enterprises and self-employed. Compared to the standard public

**FIGURE 1**  
Subject of e-auctions in Martin and Snina, 2009 – 2011



Source: Based on data from [www.martin.sk](http://www.martin.sk) and [www.snina.sk](http://www.snina.sk).

procurement prior to the introduction of e-auctions this is a significant increase. In standard public procurement there only 52% of winning entities were from the private sector, moreover, these were rather large companies linked to the public sector in some way.

The town of Martin spent €1.67 million on tenders via e-auction in the period 2009-2011, with total savings of €278,739 which is more than 14% from the assumed bid. In Snina, the situation is similar, the town also saved approx. 11% from the assumed bid in e-auctions; the total value of tenders was more than €18 million determined by a large amount of investment contracts. These savings were calculated from the comparison between the assumed and winning bids. It would be more accurate to include the saving of time and input of personnel in operating e-auction but the municipalities do not keep records of the time savings, furthermore, personnel costs are included in the costs for e-auctions which we present later in chart 2. On average, the savings in both towns were 12.79%, which corresponds with the research of Sičáková-Beblavá et al. (2011) who indicate that the savings of public sector organizations are between 6 and 12%. To compare with other countries we briefly state the savings on e-auctions in some countries. For example, in Paraguay the savings were 12% in 2011 (Mereles, 2012), in the USA it was 10 % (Wyld, 2011), Great Britain reported savings of 25% (Major, 2006) and in Austria e-auctions brought savings of less than 3% (European Commission, 2010). A more detailed overview of the amounts for e-auction and savings in our analysed cases is in Table 2.

**TABLE 2**  
**Total Savings on E-Auctions In Martin and Snina, 2009-2011**

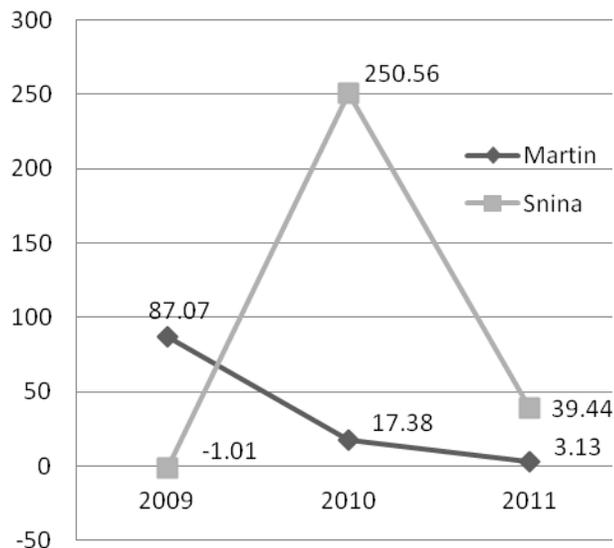
		2009	2010	2011
<b>Martin</b>	assumed bid	€568,285	€1 213,352	€167,634
	winning bid	€424,621	€1,101,264	€144,647
	difference	€143,664	€112,088	€22,987
<b>Snina</b>	assumed bid	€409,777	€1,625,213	€18,358,227
	winning bid	€410,576	€1,427,268	€6,254,860
	difference	- €799	€197,945	€2,103,367

Source: Based on data from [www.martin.sk](http://www.martin.sk) and [www.snina.sk](http://www.snina.sk).

As shown in Table 2, it is clear that e-auctions fulfilled their purpose and helped to reduce the costs of purchases. In only one case is the outcome negative – the town of Snina ended up with a loss of €799 on e-auctions in 2009 which was due to an amendment to a contract which had to be signed by the town. We also calculated average savings per e-auction and for Martin we can state that it amounts to €3,871.36 at an average winning price of €23,201.85. The town of Snina has savings of €69,712 with an average winning price of €548,264 but in this case it is very misleading due to the values in 2011 when the town had large investment activities in construction works.

Of course, e-auctions also have their costs, mostly for rent of the e-auction system and its maintenance, but also for the personnel operating e-auctions. On average, one e-auction in Martin cost €214.58 in the analysed period, whereas in Snina it was €1,663.84. If we calculate the profitability of e-auction in every year, based on standard formula (savings from e-auctions/costs of e-auctions), we can state that Snina has a better return (Figure 2).

**FIGURE 2**  
Return of E-Auction Costs in Martin and Snina, 2009 - 2011



Source: Based on data from [www.martin.sk](http://www.martin.sk) and [www.snina.sk](http://www.snina.sk).

Based on the analysed cases, we can state that the implementation of e-auctions in these towns was successful and e-auction as such is a suitable tool for costs optimization on the municipality level.

Moreover, the TIS Analysis (2012) indicates similar positive results for the whole of Slovakia: the highest savings on e-auctions compared to tender procedures without using them were in the procurement of legal and consulting services (21% savings from the planned prices) and construction (20% savings). Significant savings by e-auctions in the past years were reached when purchasing services for waste disposal (14%) and energy (9%). On the contrary, no savings were achieved by the e-auction method when purchasing furniture and food, and only slight savings when buying motor vehicles and medical equipment (roughly 2%).

#### **Potential Drivers and Barriers of ICT Driven Innovations for E-procurement**

This part presents partial results of potential drivers and barriers in implementing e-procurement as the ICT driven innovation observed in the analysed cases. As the research project has not been finished yet, these are only preliminary suggestions that are to be further examined in 2015 with data collected in personal interviews based on interview protocol prepared by the project leader (Bocconi University, Italy). At present, from information and data obtained from our analysis and from other authors, we can say that the most significant potential drivers are as follows:

- ICT readiness – generally, in Slovakia, ICT readiness is on quite a good level; measured by e-Government index, Slovakia ranked 0.615 in 2014 (the closer to 1, the better). This index is composed of sub-indexes such as online service index and telecommunication infrastructure index (UN E-Government Readiness Knowledge Base, 2014). Both analysed towns have established Internet infrastructure and several online services and applications for citizens (e.g. “On-line office”, “Message for the mayor” etc.)
- Following a good case/best practice – inspired by successful e-auctions in other municipalities, both the towns of Snina and Martin implemented e-auctions into their public procurement.

Moreover, Martin has cooperation with a non-governmental organization that helped the town to implement several anti-corruption and pro-transparency tools, including e-procurement (Kuvíková & Vaceková, 2009).

- Reduction of administrative and operational costs – in both cases wages were reduced; also the time needed for procurement was shorter (Poliak, 2014).

Potential barriers that showed up in analysed cases can be summarised as follows:

- Amendments to contracts – or so called “winner’s curse” - when the winning bid is so low that the contractor is not able to fulfil the contract (Sashi & O’Leary, 2002) which leads either to bankruptcy of the contractor or to amendments to the contract as in the case of Snina. These amendments increase the prices of e-auction and in the end can make the total price of public e-procurement higher than it would be in a standard public procurement (Snina ended up with a loss of €799 on e-auctions in 2009 which was due to an amendment to a contract).
- Implementation costs, costs of e-auctions – the price of e-auction system depends on the solution that the municipality chooses; if they choose a private company provider the price differs - Martin and Snina had very different costs for e-auction systems. Snina pays €790.02 per year for use of e-auction system. Martin does not have a fixed cost for the system use and on average use per e-auction cost 214.58. These costs could be seen as a barrier in the further spread of e-procurement. There is an option to use the public system EVO (e-procurement portal) provided by the Office for Public Procurement. Transaction costs would be zero in this case which can be seen as a driver for e-procurement implementation as opposed to a barrier.
- Lack of access to information which might lead (and very often leads) to corruption (e-procurement is a relatively classified process, citizens do not have access to the online auction room to watch and control the progress of an auction). This issue is connected with the ethics of public procurement as described by Hunsaker (2009).

## CONCLUSION

Public administration reform strategies in the spirit of New Public Management highlight the necessity for restructuring public administration and establishment of a plural system of ownership forms in the system of providing public services, pursue an increase in efficiency and quality of public services through the introduction of suitable elements of market regulation and create a competitive environment in the public sector. Demonopolization of public services has enabled the formation of alternative approaches to the public services provision. Within the alternative approaches contractual provision of public services dominates. The implementation of these approaches is linked to the process of public procurement which has a direct impact on the success of the contractual provision of public services and projects of public-private sector in terms of achieving value for money. Several problems resulting from a lack of transparency in public procurement can be solved to some extent by electronic public procurement. Based on the analysed cases we cannot prove nor dispute this statement; in both cases the citizens and sometimes even enterprises participating in the e-auctions raise questions about the results as they doubt there was no corruption involved in the selection of the winning contractor. However, these views were only voiced in some discussion forums and press releases and no official accusations were made nor positive proof provided. The fact is that e-auctions and their results are published online which increases the observation of the procurement process and also the possibility of public control.

E-procurement should also increase competition between the parties involved by increasing the number of foreign participants and SMEs. Increase in the number of contracting entities in the tender increases not only the level of competition but also reduces the possible monopoly of a potential contractor in any given country or region. The number of candidates also has a direct impact on reducing bidding prices compared to the base (assumed) price. That is the main principle of e-auction - if the process involved more candidates, they, in pursuit of victory, reduce their bids. This was proven in analysed cases where the participants and winners were mostly SMEs and self-employed (98% of participants in Martin were SMEs and self-employed) and the savings on e-auctions were more than €2 Million in total for both municipalities.

We can state that we fulfilled our goal partially: we mapped the general use of e-procurement in Slovakia by analysing the state of art (on average 18% of enterprises use e-procurement in the period 2011 – 2013) and defining continuous steps for implementation of e-procurement. The second part of our goal was linked to the research question whether the e-procurement in analysed cases contributes to a more transparent and competitive environment in public services management and provision. We proved only one part of the research question: a more competitive environment was achieved by implementing e-procurement in analysed cases (more participants in e-auctions than in standard public procurement in Martin, these were mostly SMEs and self-employed, no data available for Snina) but the transparency is debatable. On the one hand, the obligatory publishing of e-auction results on their webpages gives more opportunity for control of public procurement contracts. It is obvious that more people can see the procurement results on the webpage than on some notice board, but we do not have any data to prove or refute this question of transparency. On the other hand, e-auction is a classified process which does not permit citizens to observe the progress of the e-auctions so the increase in transparency is indeed questionable. It would be daring to say that the more transparent environment has been partially achieved and further research in this area is necessary as it might be one of the potential failures of implementing e-procurement.

Nevertheless, not only non-transparency of the procurement processes can be a threat, there are several more reasons for failure of a contractual provision of public services, i.e. imperfections of the systematic decision-making process on possible alternatives to provide the public service; unclear legislation defining the obligations for ex-ante evaluation of e-auction; conflict of interest in the evaluation process; ineffective public management - very often because of misapprehension of the importance of evaluation, lack of relevant information and sometimes because of the failure of modern management techniques, etc. It might have been due to lack of relevant information on the part of the contractor or the field of service in the case of Snina when the amendment was necessary and the final price for procurement was higher. If the town had investigated the applicant, they might have discovered that it was not possible to provide such a service for the little money the applicant had bid.

E-procurement is a step forward with some limitations. It provides cheaper and more transparent technologies, transparency has been significantly improved (TIS reports, 2010-2012), but e-procurement does not change common attitudes. Corruption is still to be seen even with e-procurement arrangements. Despite this, e-procurement, with all its benefits and risks, can be seen as a successful innovation in the management of public services with the use of ICT.

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