E-PUBLIC SERVICES: THE CASE OF E-TAXATION IN SLOVENIA

Maja Klun*, DSc
Faculty of Administration
Ljubljana, Slovenia

Mitja Dečman*, MSc
Faculty of Administration
Ljubljana, Slovenia

Abstract

The paper discuses e-taxation, one of the services offered by many governments in the world today. It argues that although this service can be developed well, according to the many benchmarking models in the world and become very familiar to members of the public , it can also be used poorly. The empirical results in the paper prove this. The case of Slovenia is presented, with a placement of Slovenia on the European map of e-government and a thorough description of the different electronic taxation services available to Slovenian citizens. Slovenia ranks above the EU average in online availability and in sophistication. The supply side of e-taxation services is then compared to the demand side and the results of different research studies and questionnaires are discussed and compared. Since e-taxation services, especially concerned with personal income tax, are still to be used more widely by Slovenian citizens, different existing approaches that have tried to correct the situation are analysed and new possibilities are suggested.

Key words: e-government, e-taxation, citizens' satisfaction, Slovenia

1 Introduction of e-government

E-government could be treated as a logical consequence of the implementation of information and communication technology (ICT) in public administration and all spheres

of human life, private and public. The whole "post industrial" society of the developed world and the world in development is transforming into an information society based on e-business and electronic communications in the private sector, public sector and personal life. As yet the development of an information society in different countries in the world is unequal but in general it is higher in the developed western countries. E-government is a significant part of the information society since it is a part of everyday life in different fields of personal and business life. In modern e-government a great deal of attention is devoted to the customer. In discussions of e-governance, the focus tends to be placed particularly on the interaction between customers and the public administration and customer orientation. The term e-governance, generally used in academic and research sphere, could be defined as "a way of describing the electronic links between government and its broader environment[s] – political, social and administrative". "Governance is the outcome of the interaction of government, the public service, and citizens throughout the political process, policy development, program design, and service delivery" (Kettl, 2002). The OECD project on the impact of e-government concluded that "e-government has the potential to be a major enabler in the adoption of good government practices" (PUMA, 2001). E-government supplements existing services, so specific socio-economic groups should not be isolated in the process.

According to Buckley (2003) e-government and e-public services should be identified separately. E-government means the provision of government information to citizens, the facilitation of active participation and consultation with citizens. It is often called or includes e-democracy. On the other hand e-public services, often called e-administration, means the delivery of public services to citizens, business partners and suppliers, and those working in the government sector by electronic media including information, communication, interaction, contracting and transaction. Citizens want fast, transparent and quality government services today, and the public administration should take care of all three criteria.

E-government is not all positive, with its emphasis on features such as 24x7 access to government services, services from the comfort of the home, lower services costs, reduced burden on government employees, and automated procedures. The negative consequences include, most importantly, higher costs for purchase and maintenance of ICT equipment, additional communication channels, additional knowledge requirements, the need for policies and plans. While planning e-government, it is often envisaged that the costs involved will be limited to purchase costs for ICT equipment while the costs of maintaining and upgrading ICT, educational cost for ICT users, costs for additional human resources for management and maintenance of ICT (or outsourcing costs) are quite often forgotten. When e-government is implemented, new communication channels appear. Next to existing channels like telephone, postal services and personal contact, which are not abolished, new channels like e-mail, e-forums, video conferences, electronic team work, electronic transactions and others appear. New technology demands new knowledge on the demand (members of the public) and the supply side (public administration employees). Additional education for the use of new equipment by employees is needed on the supply side, as well as the planning and implementation of new ways of thinking. ICT introduces new ways of working, especially more possibilities for horizontal cooper-

ation among different groups of employees in different organisations or so-called virtual teams. On the citizen side, the troubles are even greater since the digital divide causes additional problems relating to how to offer e-services to all citizens. Education in schools may be able to educate the younger generations, though even they depend on the education system being of sufficient quality and sufficiently up-to-date. The older generations are often left behind. The segment with the fewest problems is probably the private sector, which has overtaken the public sector through its search for profit. From the private sector come customers waiting for public sector e-services, ready to use them with all the technology and knowledge already in place.

E-government based on ICT usage and its advantages should also lead to changes in working processes and procedures. If we really want to take advantage of all the positive factors that ICT brings, we must change the processes. Business process reengineering is needed rather than just process automatisation. ICT influences or could influence the structure of public sector organisation, shaped on the basis of Weber's principles of bureaucracy theory (Weber, 1946). The rigid top-down structure prevents all the advantages offered by ICT from being utilised (Bearman, 1992). The new possibilities of networked hierarchies and horizontal virtual organisations or working groups are new types of working environment that have many advantages but represent new and untested surroundings and new challenges in the area of public administration. Some authors write about system-level bureaucrats and street-level bureaucrats (Snelen 1998, Reddick, 2005). Street level bureaucrats are public servants who have direct contact with citizens and system-level bureaucrats are the information systems that have replaced street-level bureaucrats through automation of their decision-making processes (Reddick, 2005). Through system-level bureaucrats and e-government services, ICT therefore enables cases to be processed more quickly, improves the monitoring of processes and performance, enhances the performance of organisations and also prevents employees from manipulating the information (Snellen, 2002).

The latest research and theories indicate that ideal e-government is focused on services offered through life events (such as having a baby or building a house; instead of birth certificate, health insurance, social security number for a newborn or gas permit, plumbing permit, electrical permit and others for building a house). This can be observed through many of the most developed government web portals in the world. The users of many services are of course citizens that are not all familiar with legislation, procedures and government structure. Often they do not know what to do, or how and where. Since government frequently makes requirements of citizens it is in the government's own interest to achieve this as fast as possible, as cheaply as possible and with a satisfied citizen at the end. A citizen-client is therefore presented with life-events to be resolved. And ICT and modern life-event portals can offer such a possibility.

2 Measuring e-government

The implementation of e-government in different countries has followed different paths. Some countries have planned well ahead, using strategies and action plans. Others have used a more ad-hoc approach, at least in the beginning, and later on found out that

without strategy no real success can be expected. At least in Slovenia different strategies and action plans were prepared and implemented considering e-government almost from the beginning of e-government development (Ministry of Public Administration, 2001 and Ministry of Public Administration, 2006).

Many studies have defined the range of e-government too narrowly, frequently only seeing it as the offering of services online. Yet e-government includes preparing and implementing policies, using ICT to provide a wide range of administrative functions, offering services, putting democracy into practice and including citizens in various processes of the state (OECD, 2003). Even one of the priorities of the newest EU action plan i2010 stresses that all citizens should benefit from trusted, innovative e-government services and have easy access to them without anyone being left behind (European Commission, 2005c). It is essential to determine how successful the implementation of e-government has been, and its current state. The need to measure the implementation of new systems and working practices is an established part of the theory in information science and information system development. As early as 1938 Shewhart had already conceived the Plan Do Study (Check) Act (PDSA or PDCA Cycle) later popularised as the Deming cycle, which contributes to continual improvement through a set of repeated steps (Tague, 2004). One of the steps (study or check) includes measuring and current state analysis. Only in this way can the positive and negative effects of implementation be determined, the realisation of objectives from strategies and action plans be checked, new policies be made, and errors corrected.

Assessments of the current state and progress in e-government may be local or global (organisations, regions, countries, world) and tend to produce comparisons or rankings. The problem with global measurements lies in finding a uniform and detailed methodology that is understood in the same way by all sides. This is very difficult to implement, particularly when measurements truly are global, i.e. at the international level. Frequently, organisations selected to perform measurements via public tenders do not want to reveal their methodologies in full, as that would harm their business interests. Sometimes the measurements include indicators that have not been selected in a practical manner and that measure e-government services or elements that are not of use. These can be used by public administrations in order to achieve the best possible ranking within the assessment and comparison of country development. One such example is the assessment of the "Declaration to the Police" (e.g. in case of theft) service in the eEurope benchmarking model. When someone is robbed, an online service is probably not an option. Consequently when analysing this "fully available online indicator" one can see that (in contradiction to other services) the ten new member states perform better (30%) than the old member states and also than Norway, Iceland and Switzerland (28%), suggesting that the service was implemented to achieve a higher ranking in eEurope benchmarking (European Commission, 2006). One also meets erroneous results in cases where measuring the demand side is carried out via public tenders. Private organisations selected by public tender to achieve results frequently turn to the e-government service providers themselves to make their work easier. The service providers want to portray themselves in a favourable light and are not neutral. This scenario has been observed in Slovenia, where the results of independent research groups and those given in service provider reports have differed significantly (Vintar et al., 2003).

Many measurements performed in the past also indicate that most measurements and research in the field were focused on the supply side, with not enough attention paid to demand (European Commission, 2005b; Reddick, 2005). The reason for this is that research into and measurement of supply is fairly simple, and can be carried out with low equipment and personnel costs, frequently in cooperation with the service providers. Often an internet search is used to review service provider websites (information and services). The methodologies and models for measuring the level of e-government and e-government service development differ. The level of e-service development is generally described using the four or five step classification given in Table 1. Slovenia, as a member of EU did not develop its own measurement methodology but used eEurope benchmarking model.

Table 1 Levels used to measure e-government service development

Level	eEurope	NOIE and DMR	Layne and Lee
1	Information	Web presence	Cataloguing
2	One-way interaction	Interaction	Cataloguing
3	Two-way interaction	Interaction	Cataloguing
4	Full electronic case handling	Transaction	Transaction
5		Transformation	Vertical and horizontal integration

Source: Cap Gemini Ernst and Young, 2005, NOIE and DMR, 2003; Layne and Lee, 2001

Table 1 sets out the levels of some models and attempts to equate or compare definitions from different models. The differences between the lower levels are not so great, but it is more complicated for the higher levels. The lowest level provides information via websites, allowing clients to find out procedures, legislation, basic data (address, office hours, etc.), and replaces having to find out this information by telephone, post or in person. A higher level includes a certain amount of interaction and one-way or two-way exchange of data between clients and the public administration. The highest level is sometimes the full electronic implementation of a specific process, i.e. from acquiring information and forms, electronic client identification, submission of application and payment through to the final electronic delivery of the service. A problem not seen at first glance is the manner in which these procedures are performed within the public administration, i.e. the extent to which the back-office has been computerised. A further issue is that the procedure could be just one of several required by a citizen to resolve a life event completely (e.g. moving house, or the birth of a child). Some models therefore define the highest level as including upgrades where various procedures and systems are integrated, resulting in the transformation of the public administration into "one-stop-government", with fully transparent processes and procedures (NOIE and DMR, 2003; Layne and Lee, 2001). The level of integration includes linking administrative bodies via integrated information systems and databases (vertical integration) and administrative procedures in various administra-

tive sectors (horizontal) (Layne and Lee, 2001). An example of vertical integration would be in the case of a death, where funeral affairs are organised at the local community level, while the registers for population, driving licence, and databases on pensions and taxpayers are all updated automatically. The matter is therefore dealt with at all vertical levels of the public administration at the same time. An example of horizontal integration would be the registration of a birth with automatic entry in the population register, production of a tax or social security number, or health insurance file.

The implementation of individual e-services is relatively simple at lower levels, as it does not require existing procedures and processes performed in the traditional manner to be re-designed. Results can also be achieved quickly, which can be immediately made public and used (political achievements). This means that most e-government services are implemented at lower levels. Higher-level services require changes in the management and organisation of the public administration itself, which is demanding in terms of both time and cost. It requires the work of different bodies to be standardised, support from the government or the highest levels of public administration and frequently also business process re-engineering. The problem is often in the fact that pre-election promises can more easily be kept by introducing lower-level services.

Many countries realised that too little attention was being paid to measuring demand for e-government services and started to include the importance of the demand side in the development strategies. Even the latest information society strategy from the European Commission stresses this issue (European Commission, 2005b). The focus on supply of services and generalized electronic access to main basic public services online from the first strategy is now extended with a focus on the use of services and implementation of e-government in the direction of an efficient and all inclusive information society. Measuring the demand side is more difficult than measuring the supply side. It generally involves a very large population, which is difficult to measure fully and so the issue of representative sampling arises, and all the other complexities of statistical measurements. At the same time it requires greater financial resources, better equipment for gathering and processing and analysing results, more advanced knowledge and more human resources.

Recently, demand-side measurements have become more common, including a telephone survey of internet users (Reddick, 2005) and citizens at the local community level (Moon, 2002) in the United States, the NOIE and DMR research projects (2003) in Australia, and the SIBIS (2003) research in the European Union.

3 Online availability of public services in Europe and e-taxation

Along with many countries, states and governments, the European Commission has placed great emphasis on the contribution of internet technology to the delivery of public services. Since 2001 it has measured the online availability of government public services, as part of the eEurope model. Torres et al. (2005) presented research results on the development of e-government initiatives in the EU. According to the 2005 results, e-government initiatives are still predominately non-interactive and non-deliberative. They tend to reflect present service delivery patterns, not to transform them.

The percentage of the population in EU-25 aged 16-74 that obtains government information via the internet doubled between 2002 and 2004 to 21% (around 40% in the EU-15) according to demand-side research (households) from 2004 (see European Commission, 2005b). The results from the same survey also indicated that only 10% used websites to download official form and only 6% used the internet to submit completed forms. The percentages are much higher though for business (45% for obtaining information, 41% for obtaining forms and 29% for submitting completed forms).

3.1 Measurement in the past and today

The eEurope measurement model includes measuring the online availability of public services according to a sophistication scale with stages 0 (0%) to 4 (100%). It measures twelve online services for citizens and eight for businesses using a web-based survey. The services are grouped in four clusters (income-generating, registration, returns, and permits and licenses).

According to the European Commission results of the 2005 measurement the "income-generating" service cluster, which includes mainly taxes and social contributions, had an average online sophistication score of 94% (see European Commission, 2006). This average is by far the best for all four clusters. It is also the only cluster that scores better than the survey average of 75%. The income-generating cluster includes personal income taxes, social contribution for employees, corporate tax, value added tax (VAT) and customs declarations (businesses). The cluster average for EU-10 is 85% and for the eighteen other countries 97% (EU-15 plus Norway, Iceland and Switzerland, known as EU-15+). The best scoring service within this cluster is VAT with a score of 96%; the lowest-scoring service is social contributions for employees with a score of 89%. The cluster average for the fully available online indicator is 84% (60% for the EU-10 and 95% for the EU-15+). The progress since 2001 within this cluster shows that the fastest growing public services within the cluster for the EU-15+ are customs declaration and social contribution for employees, while the slowest is personal income tax.

Results for the online sophistication and full availability of these online services by country show that Slovenia ranks above the EU average.[1] Austria with an online sophistication score of 95% and a full online availability score of 83% ranks first place among EU countries, followed by Malta and Estonia.

Online sophistication for services shows that Slovenia reached a score of 100% (stage 4) for all included services, while in 2004 a score of 0% was applied for social contribution for employees. The 100% score means that case-handling, decision and delivery of a standard tax declaration procedure can be carried out over the internet.

4 E-taxation in Slovenia

The Slovenian population of about two million citizens is on its way to evolving into an information society. According to the measurements and research made at the end of

---

[1] Slovenia ranks in 7th place for full availability and in 8th for sophistication.

2004, 55% of the population between the ages of 10 and 75 have internet access and 52% of households have internet access. From the results gained in October 2005 49% of the population uses the internet monthly, 41% weekly and 29% daily (RIS, 2005). According to latest Eurostat report at the beginning of 2005, 96% of businesses in Slovenia had internet access (Finland 98%, Denmark 97%, Sweden 96%), and 74% had broadband access (Eurostat, 2005). The same report also mentions 48% internet access availability for Slovenian households (19% with broadband access).

4.1 E-taxation portal: supply-side point of view

The Slovenian government introduced a special e-taxation portal soon after the main e-government portal. Slovenia's e-taxation portal was established at the end of 2003. Initially, taxpayers could find and print several tax forms on the e-taxation portal. Later on, form completion was possible, so that taxpayers could complete forms, print them and submit them by post to the tax administration. Electronic filing of personal income tax and VAT was enabled in 2004. Since then the number of services available to taxpayers has increased every year.

The use of the portal is free of charge and offers several tax services to taxpayers. The portal is continually updated and improved. Electronic tax-filing offers taxpayers a number of advantages:

- filing is quicker and easier since instructions are only a mouse click away;
- checks on illogical errors are automatic;
- taxpayers can correct mistakes or make and save changes in their file returns several times before the final deadline for filing;
- the portal is always available;
- filing is enabled from abroad;
- electronic filing saves time and costs.

To register and use the services, taxpayers require a personal computer, web browser and a digital certificate. Taxpayers can use digital certificates issued by government which are free of charge or they can use several certificates issued by banks and other institutions. This was beneficial for those taxpayers that already used e-banking services and owned digital certificates. Over the last year more than 53% of the taxpayers using portal services used certificates issued by a bank, and 44% used a government certificate.

Personal income taxpayers who are not able to register on the e-taxation portal for several reasons (lack of equipment, lack of computer know-how), can authorize family members and friends to register for them. The authorization must be signed and delivered to a tax office on paper. Business taxpayers can authorize accounting offices (external authorization) and their employees (internal authorization). By the end of 2005 the tax administration had approved around 75,000 authorizations.

According to Tax Administration of Republic of Slovenia (2006) the services currently available to taxpayers are:

- filing personal income tax return

- filing capital gains tax return
- VAT self-assessments
- VAT registration
- VIES (report and checks for identification numbers)[2]
- registration for status of exporter
- notification of electronic accounts
- external and internal authorizations for businesses
- receiving notifications and announcements from the tax administration
- employee filing of withholding taxes (social contributions, advance tax payments etc.)
- advance payments of personal income tax for dividends
- self-assessment and filing corporate income tax returns
- control of personal income tax data (for employees who withhold the tax)
- report about revenues from interest (EU directive).

The personal income tax online service was one of the first services offered to Slovenian citizens. Several surveys of taxpayers, carried out even before the personal income tax online service was established, showed that taxpayers would like to file tax returns electronically. The tax administration estimated that 10% of taxpayers would file personal income tax returns via the internet. The estimates have not yet been realized; nevertheless the number is increasing by more than 40% every year (Table 2).

Table 2 Personal income tax and e-filing of tax return

Year	E-filing of tax returns (number)	Percentage of total number of personal income taxpayers
2004	16,842	1.5
2005	23,807	2.0
2006	35,803	2.8

Source: Tax Administration of Republic of Slovenia, 2006

A detailed analysis of taxpayers using electronic filing was made for 2004. It was found that 53% of all taxpayers that filed their personal income tax returns via the internet were from the two largest cities in Slovenia, Ljubljana and Maribor. In Ljubljana 2.3% of all taxpayers filed tax returns via the internet, but in Maribor fewer than 1%, ranking Maribor only 6th place by percentage. About 38% of taxpayers that filed tax returns electronically did so in the last four days before deadline. Almost 40% of taxpayers were be-

---

[2] With 99% availability the Slovenian VAT Information Exchange System (VIES) become one of the most reliable VIES in EU. The Slovenian e-taxation portal was also one of the finalists in the competition "eEurope Awards for e-Government" for good practice.

tween 30 and 39 years old, followed by taxpayers aged 40-49, and 20-29 as the third placed group. Together over 80% of taxpayers that filed tax returns electronically were between 20-49 years old. More than 60% were male taxpayers.

After the first year of availability, the tax administration carried out a situation analysis as the response was lower than expected. According to Maligoj (2005), among the possible reasons the tax administration suggested for this were:

- owners of digital certificates for online banking do not actually use them (therefore wrong predictions and expectations were done)
- citizens do not trust this service
- citizens are not aware of this service
- using the personal income tax online service was too complex.

The first reason is impossible to prove or disprove since banks do not provide such data. The second reason could be resolved over a matter of years as trust in e-government online services and especially personal income tax online service increases. The third reason proposed is unconvincing, since different research was done among citizens with positive results and a lot of media attention focused on the service. The last possible reason for the poor response was the focus of improvements made by the tax administration. To acquire detailed information, the tax administration used a telephone helpdesk support centre. According to the tax administration report (Maligoj, 2005), the taxpayer support office received around 9,000 telephone calls and replied to 3,300 e-mails in 2005. The centre reported the following problems found by taxpayers:

- Complexity of acquiring a digital certificate and installing it – by far the most problematic issue.
- Registering an installed digital certificate with the personal income tax online service since it uses ActiveX component, which presents a threat to the web browser and is treated as such. Even more problems exist for Mozilla web browser users.
- Complicated and non-transparent services web pages and forms.
- Fears that electronic proof of on-time electronic submission is not sufficient as a legal form of evidence and not trusted (the proof was received by taxpayers in a digitally signed XML document).

The following action was taken by tax administration personal income tax online service project team:

- Additional campaign to inform the citizens about the service.
- Additional information for users on the Tax Administration Portal accessible to all users.
- Removal of personal income tax online service navigation and form-filing problems.

The results from another survey completed in 2005 in Slovenia (Figure 1) present user satisfaction with the personal income tax online service (Kunstelj, Leben and Vintar, 2006). The lowest satisfaction was measured for security and protection of privacy and the highest for completeness of the service.

Figure 1 Satisfaction of users using personal income tax online service
       in Slovenia (n=112)
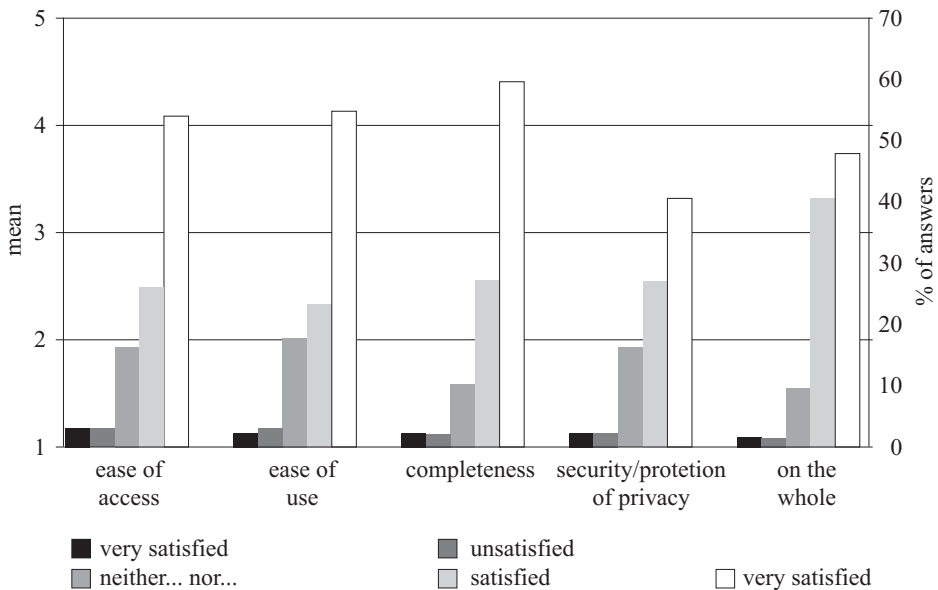
Source: Kunstelj, Leben and Vintar (2006).

Considering personal income tax online service, different actions to produce better turnout were chosen among different countries. Some, like France, offered taxpayers many incentives (Lanteri, 2005), including:

• instant acknowledgement of receipt

• exemption from attaching charges and related document vouchers

• extension to submission deadline granted to taxpayers filing electronically, from April 4 to May 15

• 20 Euro tax reduction for individuals with fiscal domicile in France

• immediate calculation of the amount of tax to be paid.

But these incentives would not work in every country. In Slovenia instant acknowledgement of receipt is offered but is too complex and not trusted. Immediate calculation of the amount of tax to be paid is available as well. The tax administration's upgrade of the e-taxation portal to offer more transparent content and easier navigation did not help either. The next future step, the provision of preformed and calculated forms, planned in Slovenia for 2006, might help. This option is available for example in Sweden, where everything is pre-completed and calculated and then sent to the taxpayer as a report. The taxpayer can confirm it by online service, SMS or a phone call. We may think that e-filing is a genuinely modern and effective way of offering services to cli-

ents but this is not always the case. For example, while Slovenia is striving to persuade as many citizens as possible to use the personal income tax declaration on line, many Scandinavian citizens do not have to do that at all. They receive the complete final report by mail and just save it at home. And this is not done by putting services online but by re-engineering government processes, connecting databases and reorganizing government. Of course legislative and organisational obstacles have to be removed. For example, in Slovenia, tax deductions have to be reported by citizens while they are filling in their online forms. If the tax administration wishes to check these data, the citizen is invited to present all the invoices used for tax deduction. Since this amounts to only 2% of taxable income, most taxpayers report it. If there were online services like those in Scandinavian countries, this deduction would have to be abolished or accepted as normal for every citizen.

In 2005 the tax administration prepared several new services, especially for businesses: as well as filing VAT returns, businesses could file employee and employer social security contributions, advance payments of personal income tax for employees and corporate income tax. They were able to see records of filed documents and – since the end of the year 2005 – all taxpayers registered with the e-taxation portal received notifications and requests to file tax returns. VAT payers registered as users of e-taxation no longer receive blank forms in paper format. The tax administration planned to issue so called e-cards to VAT payers that would enable them to check their tax balance, but the service was postponed.

In 2005 the total number of electronically filed documents was ca 309,000, which represents approximately 6% of all documents processed by the tax administration (Table 3). VAT returns were the most common tax returns, followed by personal income tax. The electronic filing of corporate income tax returns was possible for pilot companies most of the year. Since November 2005 all companies have been able to file tax returns, therefore the small share of filed documents by companies is not very low. The proportion of electronically filed documents differs from the proportion of total filed documents. Most VAT and corporate income taxpayers decided to file their tax returns using the e-taxation portal. A very small proportion of personal income taxpayers decided to do so.

Table 3 Filed documents by taxpayers in 2005

	Total filed documents (%)	Electronically filed documents	
		(%)	(number)
VAT[a]	12.7	22.1	68,480
Corporate income tax[a]	1.2	0.9	2,745
Personal income tax (tax returns)	23.7	7.7	23,807
Other documents	62.4	69.3	214,499
Total	100	100	309,531

[a] *The taxpayers determine the due themselves, while the Tax administration assesses the tax.*

Source: Tax administration of Republic of Slovenia, 2006

Of other documents, the most commonly submitted electronically were control data documents for withholding taxes and different requests by taxpayers. Documents concerning withholding taxes represented around 56% of all filed documents, therefore the possibility of electronic filing for these taxes was an important improvement in the e-taxation portal in the last quarter of the year 2005.

The number of electronically filed documents increases every month. At the beginning of 2005 only 5% of VAT payers filed tax returns electronically, in September the share rose to more than 16%. Since the tax administration for those taxpayers did not issue paper forms, cost savings for the tax administration were estimated to 10.3 million tolars (approximately 42,900 euros) or approximately 157 tolars per taxpayer.[3] Taxpayers could save at least postal costs in a total of 7.9 million tolars. According to eEurope research over 90% of citizens using e-services find the online services beneficial (see European Commission, 2005a). They stated that the main advantages are a saving in time and flexibility. The average time saved per transaction per VAT service was estimated at 38 minutes. If we use the average gross wage to estimate time costs, the saved costs reached 5.3 million tolars for all VAT payer transactions. The other important costs saving for tax administration are storage costs, since the tax administration should store about 5 million paper documents every year for at least 10 years.

In 2006 it became possible to file capital gains tax returns through the e-taxation portal. The e-taxation portal was used by 4.8% of all taxpayers for this tax.

In the 2005-08 strategic development plans for e-taxation in Slovenia, the tax administration estimates that around 80% of all companies and 20% of individuals will file their tax returns electronically (Tax Administration of Republic of Slovenia, 2004). As we can see the most important taxes are included in the e-taxation portal. Some taxes that are levied automatically (such as property tax or inheritance tax) or are declared and paid by the purchaser (motor vehicle tax) are excluded. The collecting costs for most of the excluded taxes are low for the tax administration and taxpayers. The tax administration's strategic plans do not state exactly for which taxes electronic filing will be available in the future.

The cost savings for taxpayers deciding to file a tax return electronically can be estimated at 310 tolars (1.3 euros), the sum of the cost for purchasing a tax form and postal costs. Since tax forms can be printed from the internet free of charge those costs may be even smaller. According to eEurope results, the average time saved per taxpayer was 76 minutes, so the costs saved are even higher (see European Commission, 2005a). Large cost savings considering personal income tax online service are estimated to tax administration, since some logical controls are made electronically. Additionally, the tax officers do not need to rewrite the tax return in electronic form. Next year some further steps toward a decrease of costs will be taken, especially the reduction of time costs, since the tax administration is planning to deliver pre-completed forms (according to control data) to personal income taxpayers in electronic and paper form.

---

[3] Slovenian tolar. Exchange rate: EUR 1 = SIT 239.7

Developments in some European countries indicate that electronic filing could prove to be a success story. Of the new EU member states, Estonia ranks in the first place with more than 60% online availability of basic public services. The electronic submission of tax declarations was even more popular than their tax administration expected (Estonian Tax and Customs Board, 2005). Personal income tax was submitted electronically by 59% of taxpayers in 2004 and grew annually by 20%. In the first year (2000) 3% of taxpayers were already filing electronically. Taxpayers are offered pre-completed income tax returns and tax administration estimates that the proportion of taxpayers using this service will increase to 70%.

In Ireland 9% of all income tax returns were filed electronically in 2002, increasing rapidly to 53% in 2004. Simplifications and additional improvements of their electronic portal were therefore successful. In 2004 18% of corporate tax self-assessment returns and 12% VAT returns were also filed electronically (Irish Tax and Customs Board, 2005).

In the United Kingdom, the tax administration has made several steps toward promoting and improving online services, but the growth rates were not high. In the 2004-05 financial year it took several steps for increased use of online services to be attained. Large employers must file their employer annual reports online, medium-sized employers must file theirs online from 2005-06 and only small employers can select either way (electronic or paper). The estimated proportion of employers that will use the online service is 45%. Online filing of personal income tax grew steadily to 17%, while online filing of corporate tax grew below expectations and reached just 0.7% in 2005 (Inland Revenue, 2005).

Table 4 Percentage of online personal income tax submission

| Country	2002	2003	2004	2005
Estonia	21	36	59	–
France	0.6	7	20	–
Ireland	9	34	53	–
Slovenia	–	–	1.5	2
Spain	–	8	15	–
Sweden	–	–	13	28

Source: Annual reports and yearbooks of mentioned countries

4.2 Online services for citizens: the demand-side point of view

Among Slovenian citizens, e-government and especially specific taxation services were in demand years before they were implemented. In 2001, research by the Economics Faculty in Ljubljana show that 34% of respondents said they would use e-personal income tax filing, 30% said definitely not and 36% maybe (Tršinar, 2001). In the same year there was a questionnaire on the government e-portal, where more than 50% respondents thought that e-VAT and e-personal income tax were important on-

line services. In 2002 almost 50% of personal income taxpayers responded that they would use electronic filing (Klun, 2002). Accordingly, when the service was implemented in 2004, the Tax Administration expected 50,000 to 70,000 online forms. The reality was of course different (see Table 2). In July 2004 a small questionnaire was published on the government portal to investigate people's reasons for not making use of e-government services. Answers included security issues (28%), internet access problems (12%), software being too complicated (16%) and a lack of knowledge about these services (42%).

*Figure 2 Satisfaction with personal income tax online service (%)*
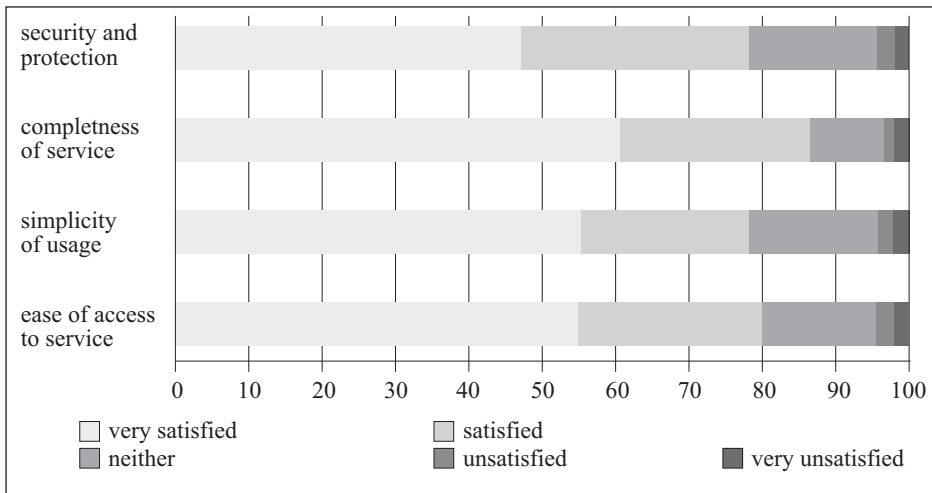
Source: Kunstelj, Leben and Vintar (2006).

One of Slovenia's largest e-government research projects into e-government services was carried out in 2005 focusing on the demand side (Kunstelj, Leben and Vintar, 2006). It included a telephone survey, personal interviews with citizens and an e-mail survey of employees in public administration bodies. Part of the survey was based on a telephone opinion survey performed in July 2005 with the use of Computer Assisted Telephone Interviewing (CATI) method, which enables quick and reliable data collection on the basis of dynamic sequencing of questions (the next question depends on the interviewee's previous answers – branching). The survey sample was developed using random digital dialling sampling technique, where in each household identified by the telephone number selection procedure, the actual respondent aged 18 years and older was chosen by applying the latest birthday procedure. The final sample included 1028 successful interviews with an average time of twelve minutes per interview. Data were weighted according to the demographic composition of Slovenia's population (gender, age, education, employment status and region), which assures the representativeness of the sample for those demographic variables. The number of respondents per question was sufficient using a 95% confidence

level for the survey results to be generalized to the whole population. The questionnaire comprised eight sets of questions. In addition to demographic questions, respondents were asked about their use of different information technologies and their awareness, interest, usage and satisfaction with four different kinds of e-government supply, i.e. information, e-mail communication with public servants, downloading of application forms and public e-services. The seventh group of questions referred to e-government in general, where respondents gave answers on their general satisfaction and confidence in e-government, about the future use of e-government and their opinions about their view of future e-government development. And the last set of questions provided some comparative data about satisfaction with 'traditional' forms of government.

Figure 3 Reasons for not using personal income tax online service (%) (n=325)
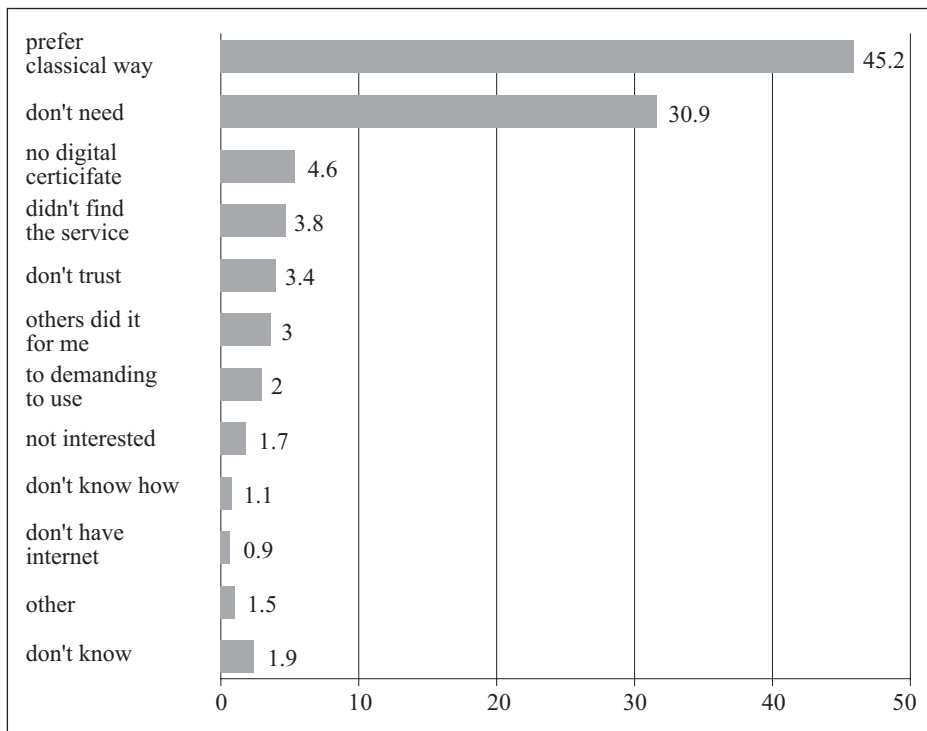
The results show that almost 60% of respondents use personal computers, less than 50% use the internet and over 70% know about online e-government services. When asked to name at least one, 30% of those who thought they knew about online e-government services mentioned personal income tax online and 45% did not name one. When prompted by the interviewer, another 50% of respondents recalled that they

heard about personal income tax online. In the segment of questions on the usage of services, 13% respondents reported using personal income tax online (i.e. 26% of internet users). The Figure 2 gives the satisfaction of these users with personal income tax online service.

Among those that have not used the personal income tax online service the far most important reason is that they prefer existing methods (45%). Security concerns rank fifth, with 3.4% (Figure 3).

Among non-users of personal income tax online service, 35% are very interested in this service, and 23% not at all (Figure 4). Among those that use the internet but do not know about personal income tax online service or do not know of any online e-government service, 60% would very probably use this service if they needed it and 5.7% would not.

These results show that among the issues that must be addressed in the future, the spread of digital certificates, advertising of the service and resolving trust and security issues are most important factors in the future development of the personal income tax online service. One possible way would be good promotion; according to the results of this research citizens would prefer TV ads (47%), internet ads (37%) and newspaper ads (29%) to other ways of advertising.

Figure 4 Non-users of personal income tax-online (%) (n=319)
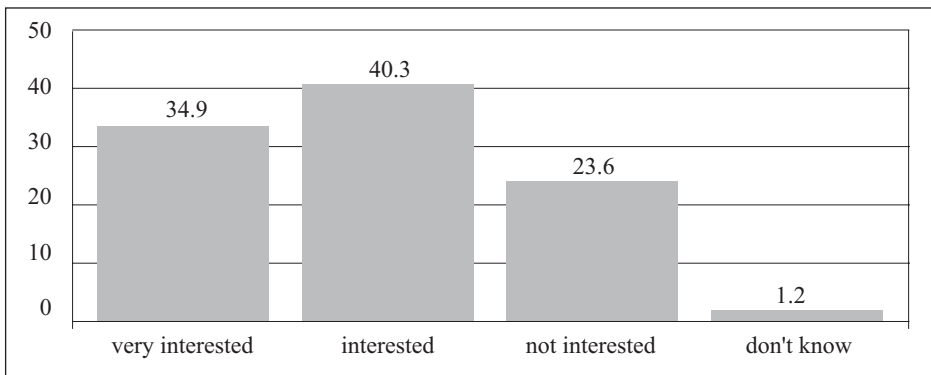
Source: Kunstelj, Leben and Vintar (2006).

5 Conclusion

E-government measuring is important since e-government is a new field and the services, although many have already been implemented, are only now gaining the full support of citizens and the private sector. Since no long-term experiences are available, the data measured can indicate what is wrong or even what changes would be an improvement. Slovenia, like many other countries, is measuring e-government, not only

in general but also in specific fields like e-taxation. The data from surveys conducted in Slovenia shows that e-filing of tax returns is used more widely each year but is still far away from planned. Although very well known, the personal income tax online service is not very well used, even compared to many other European countries. The use of online services reduces costs for all taxpayers and they should have their attention drawn to this. As the research results indicate, one of the major issues is trust, so the tax administration should put greater emphasis on promoting electronic filing with all its advantages for taxpayers. Additional incentives like tax credits could also be considered. In the past a prize draw called "Keep your [VAT] Receipt" to publicise the introduction of VAT was quite successful, so a similar incentive could be also used to promote the use of electronic filing by personal income taxpayers. To overcome certificate issues, which was also stated by taxpayers, the introduction of electronic national identity cards will guarantee user security and probably help to increase the number of online declarations.

Companies meanwhile are far more aware of their tax compliance costs and are in favour of such developments. The tax administration is already considering making electronic filing compulsory for large and medium-sized companies but it should also consider improvements to attract small taxpayers.

The research results presented, particularly those relating to the demand side of e-taxation, were mostly taken from broader research into the use of online services and are not concentrated on e-taxation alone. Successfully to promote electronic filing and implement other initiatives, the tax administration needs independent research into taxpayers to examine the important elements needed to promote e-taxation among individuals and companies.

REFERENCES

Bearman D., 1992. "Diplomatics, weberian bureaucracy and the management of electronic records in Europe and America". *American Archivist*, 55 (4), 168-181.

Buckley, J., 2003. "E-service quality and the public sector." *Managing Service Quality*, 13 (6), 453-462.

Estonian Tax and Customs Board, 2005. *Yearbook 2004* [online]. Available from: [http://www.emta.ee/failid/MTA_aastaraamat_2004.pdf].

European Commission, 2005a. *eEurope 2005: An Information Society for All* [online]. Brussels: European Commission. Available from: [http://europa.eu.int/information_society/eeurope/2002/news_library/documents/eeurope2005/eeurop2005_en.pdf].

European Commission, 2005b. *Online Availability of Public Services: How is Europe Progressing? (Web-based Survey on Electronic Public Services: Report of the Fifth Measurement, October 2004)* [online]. Available from: [http://www.egovmonitor.com/features/cgey01.html].

European Commission, 2005c. *A European information society for growth and employment i2010*. COM(2005) 229. Brussels, June 2005.

European Commission, 2006. *Online Availability of Public Services: How Is Europe Progressing? Web Based Survey on Electronic Public Services Report of the 6th Measurement June 2006* [online]. Available from: [http://europa.eu.int/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf]

Eurostat, 2005. *Internet usage in the EU25 in 2005* [online]. Available from: [http://www.evropa.bg/en/del/info-pad/news.html?newsid=1898].

Inland Revenue, 2005. *Revenue Annual Report 2004-05* [online]. London: HM Revenue and Customs. Available from: [http://www.hmrc.gov.uk/].

Irish Tax and Customs, 2005. *Revenue Annual Report 2004* [online]. Dublin: Irish Tax and Customs. Available from: [http://www.revenue.ie/annualreport/annualreport_2004/en/anrep_04.pdf].

Kettl, D. F., 2002. *The Transformation of Governance: Public Administration for Twenty-First Century America*. Baltimore, USA: Johns Hopkins University Press.

Klun, M., 2002. *Merjenje učinkovitosti in uspešnosti v javnem sektorju s poudarkom na davčni upravi.* Doktorska disertacija. Ljubljana: Ekonomska fakulteta.

Kunstelj, M., Leben, A. and Vintar, M., 2006. *E-government in Slovenia: does supply meet demand?*. 14th NISPACee Annual Report.

Lanteri, J., 2005. "Electronic Filing is a Success" [online]. *Newslwtter of Inter American Center of Tax Administrations,* 37 (11), 10. Available from: [http://www.ciat.org/boletin/imprim/newsletter_may_2005.pdf].

Layne, K. and Lee, J., 2001. "Developing fully functional E-Government: A four stage model". *Government Information Quarterly*, 18 (2), 122-136.

Maligoj, T., 2005. *Edohodnina – leto dni kasneje (Personal Income Tax Online service – a year after)*. Dnevi Slovenske Informatike. Razprava s konferencije. 124-130.

Ministarstvo javne uprave, 2001. *Strategija e-poslovanja v javno upravo* [online]. Ljubljana: Ministarstvo javne uprave. Available from: [http://www.sigov.si/cvi/sep-kv.pdf].

Ministarstvo javne uprave, 2006. *Strategija e- uprave Republike Slovenije 2006-2010* [online]. Ljubljana: Ministarstvo javne uprave. Available from: [http://e-uprava.gov.si/eud/e-uprava/sep2010_200406.doc].

Moon, M. J., 2002. "The evolution of e-government among municipalities: rhetoric or reality?" *Pregled javne uprave*, 62 (4), 424-433.

NOIE and DMR, 2003. *e-Government Benefits Study*. [online]. Canberra: Commonwealth of Australia. Available from: [http://www.agimo.gov.au/publications/2003/03/e-govt_benefits_study].

OECD, 2003. *The e-Government Imperative*. Paris: OECD.

Porezna uprava Republike Slovenije, 2004. *Poslovna strategija za obdobje 2005-2008* [online]. *Available from:* [http://www.durs.gov.si/fileadmin/durs.gov.si/pageuploads/Davcni_uradi_in_uradne_ure/Strate__ki_na__rt/Poslovna_strategija__2_.pdf].

Porezna uprava Republike Slovenije, 2006. *E-davki* [online]. Available from: [http://edavki.durs.si/OpenPortal/Pages/StartPage/StartPage.aspx].

Porezna uprava Republike Slovenije, 2006. Neobjavljeni podaci.

PUMA, 2001. *OECD project on e-government: analysis framework and methodology* [online]. Paris: OECD. Available from: [http://www.oecd.org/puma]

Reddick, G., 2005. "Citizen interaction with e-government: From the streets to servers?". *Government Information Quarterly,* 22 (1), 38-57.

RIS, 2005. *RIS 2005 – Raba interneta in spletna obiskanost* [online]. Available from: [http://www.ris.org/index.php?fl=0&p1=276&p2=621&p4=636&id=640].

SIBIS, 2003. *SIBIS Pocket Book 2002/03: Measuring Information Society in the EU, the EU Accession Countries, Switzerland and the US* [online]. Available from: [http://www.sibis-eu.org].

Snellen, I., 1998. "Street-level bureaucracy in an information age" in: I. Snellen and W. van de Donk, eds. *Public administration in and information age: A handbook.* Amsterdam: IOS Press, 497-505.

Snellen, I., 2002. "Electronic governance: Implications for citizens, politicians and public servants". *International Review of administration sciences*, 68 (2), 183-198.

Tague, N. R., 2004. *The Quality Toolbox, Second Edition*. New York: ASQ Quality Press, 2004.

Torres, L., Pina, V. and Royo, S., 2005. "E-government and the transformation of public administrations in EU countries." *Online Information Review*, 29 (5), 531-553.

Tršnar, I., 2001. "E-uprava - Uvodnik*". Okno uprave*, 2 (4), 1-2.

Vintar, M. [et al.], 2003. "Development of e-government in Slovenia". *Information Polity*, 8 (3-4), 133-149.

Weber, M., 1946. *From Max Weber: Essays in sociology*. New York: Oxford University Press.