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# Uvodnik

Spoštovani,

Tokratna tematska številka revije *Uprava* zaključuje deseto leto izhajanja. S ponosom se lahko ozremo na prehojeno pot. Začetki so bili namenjeni promociji uprave kot mlade znanosti, spodbujanju strokovnih prispevkov za študijske potrebe študentov in praktičnim napotkom za zaposlene v javnem ter zasebnem sektorju. Že po nekaj letih izhajanja pa smo želeli razširiti krog avtorjev predvsem s strokovnjaki iz tujine. Povabili smo jih v uredniški odbor, jih zaprosili, da so z nami sodelovali kot recenzenti in seveda kot cenjeni avtorji. Pri tem smo se soočali s podobnimi težavami kot večina znanstvenega tiska na svojem začetku, ko revije še niso vključene v mednarodne baze. Večina avtorjev v Sloveniji ponudi svoje članke najprej tujim revijam, ker s tem dosežejo enega od pogojev za napredovanje v habilitacijski naziv. Najboljši domači in tuji avtorji so nam pošiljali svoje prispevke zaradi prijateljskih odnosov do Fakultete za upravo in posameznikov, sicer pa so vsi najprej iskali objave v revijah s SCI. Zato je ožji uredniški odbor zastavil jasno strategijo razvoja revije *Uprava*: vedno višji kriteriji kakovosti, ki so vplivali tudi na recenzijske postopke, rast števila člankov, ki so se nanašali na izkušnje in znanstvene poglede avtorjev iz tujine, obravnava problematike celotnega javnega sektorja, od državne uprave, javne uprave do storitvenih dejavnosti.

Revija je bila predstavljena na konferencah najpomembnejših evropskih zvez za področje javne uprave: NISPAce in EGPA ter vključena v njihove baze. Vsako leto smo najboljše članke z mednarodnih konferenc, ki jih je organizirala fakulteta, objavili v posebnih izdajah revije. Tradicionalno smo pripravili posebno številko ob Dnevih slovenske uprave.

Revija je tako postala vedno bolj mednarodno usmerjena in s tem mednarodno prepoznavna. Služi kot obvezno študijsko gradivo ne samo študentom Fakultete za upravo, ampak po njej radi segajo tudi študentje drugih, tudi zasebnih fakultet s področja javne uprave. Senat fakultete je konec leta 2012 sprejel predlog preimenovanja revije v *International Public Administration Review*, ki bolje odraža znanstveno področje in njeno mednarodno naravnost.

Desetletnico izhajanja smo obeležili z okroglo mizo o dilemah znanstvenega tiska v Sloveniji. Povabili smo strokovnjake s področja knjižničarstva in urednike revij, ki imajo daljšo tradicijo in so že uvrščeni v mednarodne baze. Odzvali so se prof. dr. Primož Južnič, predstojnik oddelka za bibliotekarstvo na Filozofski fakulteti, nekdanji urednik znanstvene revije *Knjižnica*, dr. Maja Breznik, raziskovalka pri Filozofski fakulteti Univerze v Ljubljani in pri Mirovnem inštitutu, prof. dr. Marko Kambič, izvršni urednik revije *Lex Localis*, prof. dr. Jožef Duhovnik, dekan Fakultete za strojništvo in prof. dr. Franc Butala, odgovorni urednik revije *Strojniški vestnik*.

Zanimiv je bil prikaz odločitev uredniškega odbora Strojniškega vestnika, ki ga je podal prof. dr. Jože Duhovnik, z jasno opredelitvijo za visoko kakovost in obvezno recenzijo vsaj enega tujega strokovnjaka. To jim je omogočilo, da so izboljšali indeks citiranosti in postali zelo zaželena revija za objavo tako domačim kot tujim strokovnjakom. Prof. dr. Marko Kambič s Pravne fakultete v Ljubljani je navedel primer revije Lex Localis, ki je med najmlajšimi revijami v Sloveniji, ki so uspele priti v mednarodno bazo SSCI. Menil je, da je odločilna specializirana tržna niša, ki je bila pri njih vezana na področje lokalne samouprave. Mag. Katarina Puc, sodelavka revije od njenega začetka in nagrajenka ob deseti obletnici, je vsem prisotnim položila na srce skrb za slovenski jezik in razvoj stroke. Strokovni slovenski jezik postaja ogrožen, ker uporaba angleščine kot prevladujočega jezika v mednarodnih revijah postaja pravilo in se vedno manj objavlja v slovenskem jeziku. Ob jubileju smo se zahvalili tehnični urednici ge. Nataši Svržnjak za strokovno pomoč pri rednem izhajanju revije v zadnjih letih in drugim članom ožjega uredniškega odbora ter recenzentom.

Predvsem pa se ob koncu prvih desetih let izhajanja revije zahvaljujem vsem zvestim bralcem naše revije v prepričanju, da boste našli veliko zanimivega tudi v naslednjih številkah *International Public Administration Review*.

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*Stanka Setnikar Cankar*

# Are Public Sector Tax Practitioners Satisfied with the Services of South Africa Revenue Service?

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## ABSTRACT

The paper discusses the satisfaction with services provided by South Africa Revenue Service (SARS) to public sector tax practitioners to enhance tax compliance. A survey of 375 tax practitioners in eight provinces was made. Tax practitioners appreciate SARS services in paying tax refunds, responding to and handling enquiries, tax practitioners education and the organization of professional training/workshops. Accountants in particular strongly appreciate SARS tax practitioners education. Accountants and older tax practitioners appreciate SARS assistance in completing tax returns. Tax practitioners who work as Financial Managers, Accountants, and those who possess secondary level of education, diploma, degree or have special tax education find tax payer training to be quite useful. Older tax practitioners are more satisfied with SARS office services.

*Key words:* tax compliance, tax practitioners, service satisfaction, tax administration, South Africa

*JEL:* D73, H26, M48, H83, L84

## 1 Introduction

Tax noncompliance is a phenomenon confronting income tax administration across the globe. Recent reports indicate that tax practitioners in South Africa might be having tax compliance challenges. Tax noncompliance is defined as taxpayer's failure to remit a proper amount of tax. This could be attributed to the complexity or even contradictions in the tax legislation or tax administration procedure (Jackson & Milliron, 1986, p. 136; Kesselman, 1994; Kasipillai & Jabbar, 2003, p. 2). Noncompliance is also perceived as the failure of a taxpayer to report (correctly) the actual income, claim deductions

and rebates and remit the actual amount of tax payable to the tax authority on time (Kirchler, 2007, p. 3).

Government departments in South Africa face challenges in the collection, storage and dissemination of tax revenue information. Most of these departments could sometimes only rely on manual file based taxation information storage with hardly any dissemination taking place. Tax practitioners employed in public sector bodies, such as Chief Financial Officers, Finance Managers, Finance Officers, Accounting Officers etc., assist government departments to meet their tax payment obligations. Tax practitioners also are beginning to perform more technical duties, such as implementing, controlling, and auditing computer systems and networks and developing a business's technology plans. With the aid of special software packages, tax practitioners summarize transactions in the standard formats of financial records and organize data in special formats employed in financial analysis. A growing number of tax practitioners with extensive computer skills also specialize in correcting problems with software or in developing software to meet unique data management and analytical needs.

Unfortunately, in South Africa no minimum standard exists in respect of qualifications or experience required for tax practitioners to engage in the profession and that not all tax practitioners are subject to a code of professional conduct. Only about 55% of tax practitioners registered with SARS are registered with any professional body while others have no oversight or accountability (Lee, 2012).

The relationship between the tax agency and tax advisers could be viewed from an individualist perspective whereby they pursue mutually inconsistent objectives in an adversarial relationship. Some authors opine tax payments are commonly associated with emotions such as hope, despair, anger, outrage, defiance, frustration, disdain, suspicion, and deference (Rawlings & Braithwaite, 2003, p. 263). While the state is pursuing a goal of revenue maximisation, the ethical obligation of tax advisers is to uphold the law by ensuring that their client pays no more tax than is required by law (Burton & Dabner, 2008, p. 109).

The second view of the relationship flows from Rousseau (1762)'s concept of the »general will« whereby the individual and the state are not a dichotomy but a unity framed upon a common identity. The tax agency and the tax practitioners could be seen as comprising a partnership which pursues fulfilment of the »general will« expressed in the community's tax laws. Such a partnership may experience friction, but the parties strive to minimise conflict and seek to achieve negotiated positions and »practical« outcomes consistent with the »general will« (Burton & Dabner, 2008, p. 110). In this context, Tax agencies need processes that do not just make it easy for citizens to understand their obligations and comply with the rules, but also make it difficult for them not to comply. Above all, systems must be flexible enough



to allow prevention and detection strategies and business rules to change regularly, so that agencies are not outmanoeuvred by the constantly evolving tactics of tax evaders (Pretty & Negadi, 2012).

As an example, the Australia Tax Office (ATO) has changed the manner of its dealings with tax practitioners. This paradigm shift includes changes to the type of information it gathers, the preparedness to publicly disseminate information relevant to both taxpayer compliance and the accountability of the ATO, the breadth of its consultative arrangements with tax advisers and also its efforts to ease the administrative burden of tax advisers (Burton & Dabner, 2008, p. 111).

The recent trend towards the use of public private partnerships (PPP) to provide services traditionally carried out by the public sector alone, makes it imperative for SARS to also make a paradigm shift in its relationship with tax practitioners. The PPP arrangement has given rise to a number of value added tax (VAT) compliance issues of which the public sector partner needs to be aware and where SARS education programme will be of crucial importance. The public sector partner has to determine the nature of the service being provided, the person providing the service, the VAT treatment of the income and the person responsible for declaring the VAT and deducting VAT on any related costs (Deloitte, 2006).

Although many VAT compliance issues are common to all public sector bodies, those operating in different sectors will encounter issues that are specific to them. For example, any public sector body, running retail outlets, granting concessions for retail outlets, operating staff canteens, providing parking facilities, or providing general sporting or entertainment amenities for the community should consider whether they are required to be accounting for VAT (Deloitte, 2006). Local authorities will also be required to account for VAT in respect of fees obtained from the provision of golfing facilities, among others. Government departments may provide computer and internet services to employees. These may not be taxable if the services are required to carry out government business obligations, but a tax liability will exist if an employer-funded computer is purchased by the employee for personal use.

Published research concerning tax advisor's compliance behaviour in general and in South Africa in particular is still very limited. Nienaber (2010, pp. 33–37) reviews the literature on factors that could influence the ethical behaviour of tax professionals in South Africa. Hazelhurst (2003, p. 64) suggests that the difficult tax legislation implemented and ineffective tax collection pre-1994 have allowed South African taxpayers to divert large amounts of income tax to tax shelters and tax havens.

This paper is organised as follows: section one is essentially introductory. It discusses background issues of the connection between tax compliance and taxation issues of relevance to public sector bodies, the SARS and the manner

of interacting with tax practitioners. Section two highlights the role of tax practitioners in tax compliance in general and links this discussion to the expanded taxpayer service programme of revenue agencies where there is a paradigm shift in terms of the understanding of tax authorities relationship with the taxpayer and tax practitioners in particular. This leads to a discussion of what constitutes service satisfaction especially as it relates to a public body discharging services to tax paying customers. The study research methods are the focus of discussion in section three while results of the study are presented in the fourth section. The last section concludes the paper.

### **1.1 The Problem Statement**

In South Africa, the state lost R300 million (US\$ 36.6 million) through fraud and other financial misconduct by civil servants in the 2009/10 financial year, according to the Public Service and Administration Minister Lindiwe Sisulu. R260 million (US\$ 31.7 million) was lost in national departments and R40 million (US\$ 8.88 million) in provincial departments (Fin24, 2012). An analysis of compliance among South Africa's 35,000 tax advisors shows that, in their personal capacity, they are indebted to SARS to the tune of R260 million (US\$ 31.7 million), whilst at the same time they have 18,000 outstanding returns (Lee, 2012). Non-compliance by trusts and companies is also a key area of concern for SARS, and it has been determined that tax practitioners could be linked to over 107,600 companies and trusts.

Problems relating to physical mobility make it difficult for tax agencies to correctly assess liabilities or track taxpayers. Then there is the availability of public sector online channels that is making it easier and cheaper for criminals to target tax agencies from anywhere in the world (Pretty & Negadi, 2012). Hence, Lederman (2007, p. 695) suggests that one way in which tax administrators can ease enforcement difficulties is by using third parties as verifiers. Structurally, third parties have the incentive to verify the bona fides of the taxpayers' claim so that they do play an educational role. Tax practitioners can slow down or eliminate non-compliance resulting in reduced or little enforcement costs to taxpayers. However, where tax advisors engage in or encourage non-compliance, government needs to address these situations through legislation or monitor closely the audit process. People need a minimum fiscal knowledge to practice tax avoidance. Otherwise, they can use tax practitioners as paid assistance to devise strategies to exploit legal ambiguities. On the other hand it could be argued that experts reduce compliance costs by reducing legal uncertainties (Beck et al. 1994; Scotchmer 1989, p.182) and time or even anxiety costs (Reinganum & Wilde, 1991).

There have been many complaints regarding substandard service delivery by tax practitioners to their clients in respect of advice and tax compliance representation (SARS, 2003, p. 2). The complaints generally centre on the manner in which tax returns are completed. Tax returns are completed on the advice of the tax consultant or advisor who bears limited responsibility

for the advice given (SARS, 2003, p.2). While individuals can deliberately omit to report income, non-payment can also be due to errors, especially administrative errors within the tax organisation or submission of inaccurate information without the declaring taxpayer being aware. A lack of good quality data and poor data management combine to prevent tax preparing agencies gaining a clear picture of who is paying what, who is not, and what they should be paying (Pretty & Negadi, 2012).

Smaller tax practitioners in many developing countries may not have the infrastructure of more established tax practitioners. They may be at a disadvantage when it comes to identifying and recording certain taxable line items and hence may risk being non-compliant personally or making their clients non-compliant. Self-employed Chartered Accountants (CAs) or those employed in smaller private and public sector organizations must be vigilant in the proper identification and recording of taxable items in order to increase compliance with SARS guidelines.

From the perspective of SARS, this means a great deal of time and energy is spent unnecessarily and inefficiently in correcting errors made by or addressing the unprofessional conduct of a small but significant number of tax practitioners. It is hence of immense importance that a number of common practices in public sector organizations that qualify as taxable items would be identified and reported.

SARS has embraced this notion of responsive regulation and is reaching out to taxpayers, emphasizing education, good customer service, and an open dialogue. SARS hence targets South Africa's tax practitioners' sense of social responsibility and bolsters the prevention of noncompliance, while avoiding, at least early in the regulatory interaction, the use of costly punitive measures that might undermine tax practitioners' goodwill and intrinsic motivations to comply.

Experts advised that SARS could benefit greatly from conducting a study of this taxpayer group as a means to attain the required greater understanding of key segments. This has prompted the introduction of new legislation and a paradigm shift by SARS in terms of how the organisation relates to tax practitioners and the need to embrace the profession by providing comprehensive services to them. This can form the basis of a strategy to address key segments with appropriate communication and channel strategies to facilitate even more efficient tax collection. This informed the conduct of a survey of the needs of private sector tax practitioners in the country.

## 1.2 Taxation issues of relevance to public sector bodies

The public sector is not totally immune from tax. Like other organizations that provide services, own and manage assets, buy products and employ people, those in the public sector have tax costs to manage and obligations to meet.

Good and services supplied by public sector bodies, governments however are not subjected to full value added taxation. Gendron (2005) discusses the output of the public sector bodies as consisting of a combination of goods and services, is often treated as final consumption by the organization itself rather than consumption by the ultimate final consumers (persons).

For tax purposes, goods and services supplied by the public sector fall into the four categories:

**Taxable.** Any supply to which the tax applies at the normal rate is taxable. The seller is entitled to a refund of value added tax (VAT) incurred on input purchases undertaken to make taxable supplies.

**Zero-rated.** Any supply to which the tax applies at a rate of zero percent is said to be zero-rated. Even though the seller does not collect VAT on such supplies, it is entitled to a refund of the VAT incurred on input purchases undertaken to make zero-rated supplies.

Under a destination-based VAT system, any exported supplies are zero-rated.

**Exempt.** The seller does not collect the tax when making an exempt supply. Unlike the zero-rated case, however, the seller is not entitled to a refund of the VAT incurred on input purchases undertaken to make exempt supplies.

**Non-taxable.** Such activities are outside the scope of the VAT. Similar to the exempt case, the seller is not entitled to a refund of the VAT incurred on input purchases undertaken to make non-taxable supplies. This terminology is used in the European Union (EU) only and originates from the Sixth VAT Directive. The economic effects of the non-taxable status are the same as the exempt status. The distinction arises in the EU because the Sixth Directive identifies certain activities as specifically exempt.

Countries such as Australia, Canada, and New Zealand, as well as jurisdictions such as the Province of Quebec (Canada) use the taxable, zero-rated, and exempt categories. In Australia, sales are said to be *taxable*, *GST-free*, and *input taxed*, respectively. In New Zealand, zero-rated supplies are called *non-taxable* supplies. A significant proportion of supplies made by the public sector are exempt. Various VAT refund schemes that apply to input tax incurred on supplies other than taxable ones.

Taxation of public sector employees varies from country to country. For example, public sector employees are exempt from income tax in Sri Lanka but not in neighbouring India. Burmese authorities began to impose income tax on civil servants and military personnel from August 2006 (Paung, 2006).

In many countries and instances, special tax rules apply to government run entities. In some countries (e.g., in Germany, Italy, and Austria), civil servants are fully or partly exempt from social security taxes (old-age income, unemployment, or health insurance; see, e.g., Cardona, 2002). To the extent to which it relies on civil servants as its personnel, the government enjoys a labour cost advantage over the private sector.

In many countries, public-sector pension plans are extensively regulated by the country's Internal Revenue Code (IRC), the common source of rules governing the deferral of taxation for each type of pension plan. Because of their well-developed benefit programmes, the significant size of assets, and their large numbers of active and retired members, public-sector pension plans are naturally the subject of interest to all stakeholders involved in their operation, including public employers; employer associations; plan members and employee organizations; taxpayers; legislators on the state, local, and federal level; and, last but not least, beneficiaries (Employee Benefits Research Institute, 2005).

Civil servants in South Africa used to enjoy huge benefits and were showered with perks such as tax exemptions and preferential treatment on home loans. Things have however changed. From February 1998, lump sums payable on retirement by a state pension fund were no longer tax-free (Business Times, 1998).

Under the South African tax system, the financial savings in some instruments are broadly provided three types of tax incentives, *viz.*, (a) deductions, (b) exemptions and (c) tax rebates. Tax incentives on financial instruments having short and medium term lock-in provisions are evidenced to be used more as a vehicle for tax avoidance, by recycling of existing savings, than as an instrument for financial accumulation. In contrast, the saving in financial instruments with long lock-in provisions is generally undertaken with an objective to smoothing future consumption, in the events of anticipated fall in earned income (particularly retirement), anticipated increase in consumption needs (such as children) as well as unpredictable increase in needs and unpredicted reduction in income.

Different financial instruments could be categorized into (a) long-term financial savings, *i.e.*, savings in financial assets having, say, more than 6 years of maturity and (b) short and medium-term financial savings, *i.e.*, savings in financial assets having up to 6 years of maturity. The major financial instruments forming part of long-term savings particularly for old age security are Employees Provident Fund, Public Provident Fund, Public Pension Fund, etc., while financial instruments with short and medium-term redemption period include deposits, Government securities, relief bonds, national savings certificate, national saving scheme etc. While old age security schemes are meant to be illiquid and are not marketable instruments, financial instruments in securities like bonds and debentures, shares and government securities

should technically be treated as short to medium-term savings for tax purposes because of their high liquidity and marketability (Kumar, no date).

### **1.3 Tax non-compliance in public sector bodies**

Throughout all levels of government, tax and revenue agencies responsible for collecting government revenues are under pressure to produce more with fewer resources. Tax compliance reputation is critical for government and public sector bodies. It is embarrassing to public sector organisations when administrative errors of tax preparers or submission of inaccurate information leads to inaccurate assessment of officials tax liabilities. A 2012 report from the United States Internal Revenue Service (IRS) reveals that 36 of President Obama's executive office staff owe the country US\$ 833,970 in back taxes (Malcom, 2012). The IRS' 2010 delinquent tax revelations finds that officials of the U.S. Senate, House of Representatives, Department of Education, Homeland Security, Active duty military members owe US\$ 2.1 million, US\$ 8.5 million, US\$ 4.3 million, US\$ 37 million and more than US\$ 100 million respectively.

The Postal Service, Veterans Affairs, Department of Energy, Department of Justice, owe almost US\$ 270 million, US\$ 151 million, US\$ 5 million, and nearly \$17 million in back taxes respectively. There were 8,000 cases of non-compliance among IRS employees. Tim Geithner, had to pay up US\$ 42,000 in his own back taxes before being confirmed as US Treasury Secretary. The same Department had 1,181 other employees with delinquent taxes totalling US\$ 9.3 million.

While many public agencies in Europe have already established processes for compliance and enforcement, a combination of tax avoidance and error is still costing hundreds of billions of Euros in lost revenues for citizens every year. Tax preparers have to be familiar with the latest tax avoidance schemes.

In France in 2010 the tax and customs offices, DGFIP, reported a 3.5% increase in detected fraud, equivalent to € 97 million, bringing the total amount of revenue lost to fraud to € 2.8 billion. In the United Kingdom this year, tax avoidance schemes operated by big companies are described by the UK treasury as »aggressive« and »highly abusive« tax shelters.

In the United Kingdom, there are problems of public sector employees being paid off the public sector payroll, and instead being paid through a contract with their own personal service company. Data are available for civil service (2,400) and the BBC (about 25,000). Pay As You Earn is at the very heart of this issue and the corresponding lack of deduction for National insurance costs the government £ 106 billion in 2012. Government deficit will grow as long as this abuse is not stopped (Murphy, 2012). Annual Fraud Indicator has put the loss to the UK economy from fraud at £ 73 billion (NFA, 2012).

The health sector and tax authorities are the masters in corruption in Greece. Greece's public administration inspector's report for 2011 finds that out of 1,403 corruption cases examined, the worst offenders were officials working at the tax authority as well as high ranking civil servants with many years of work experience (Rakitzis, 2012). The majority of corruption cases concern local government officials, and employees in the health sector, at social security funds and town planning offices. Civil servants continue to establish their own private »businesses« within the public services knowing they won't get punished.

#### **1.4 Objective of the study**

The principal objective of this study is to examine the public sector tax practitioners opinion of services received from SARS and compare them to those received from other tax advisors, intended to improve tax compliance, and the degree to which they are satisfied with them. Also, the study examines tax practitioners satisfaction with general services provided by SARS.

## **2 The role of tax practitioners in tax compliance**

The term »tax practitioner« covers a diverse group of individuals, business structures and professional groups who provide a range of tax services for their clients. Self-employed and in-house accountants, tax advisers and registered tax agents, tax agent franchises and legal practitioners in the tax area are all embraced by the term (Marshall et al, 2006).

Westat (1980) reports that tax preparers believe their clients think of them as advocates. Consequently, if one assumes preparers are meeting the demands of their clients, the tax professional is an agent for the taxpayer. A competing view is that of the tax professional is an agent of tax administration, though this is a position sometimes put forth by the IRS (and weakly promoted through the use of preparer penalties), it does not appear to have support in the tax practitioner community. They are the channel of communication between SARS and large business taxpayers, particularly public bodies employing large numbers of taxpayers.

Hence, the role and behaviour of tax preparers in the tax system is very important. Roth et al, (1989) suggest that one of the most important influences on compliance behaviour is the community of tax practitioners. Professional tax advisors make compliance decisions either for, or in conjunction with, their clients. Tomasic and Pentony (1991) put the roles of tax practitioners into six categories, viz: acting (1) as independent advisers of their clients, (2) as unpaid employees of the internal revenue office, (3) as intermediaries between the internal revenue office and the taxpayer, (4) as tax advisers, (5) as protectors of their practice and finally as influences on the systems. Importantly Tomasic and Pentony (1991) concluded that tax practitioners play a major role in increasing the level of taxpayer compliance. Boccabella

(1993, p.391) also identifies a range of additional broad tasks that tax practitioners may currently be required to perform. These functions include representing and negotiating on behalf of taxpayers in proceedings with both the revenue authorities and policy makers.

Public sector bodies are expected to enforce the submission of valid tax clearance certificates in their public procurement and tender processes. South Africa Revenue Service can request details of payments made for any purpose by government departments and statutory bodies. Such information is usually required to assist in the selection of cases for audit and is normally related to payments made to specific persons or classes of persons. As an example, information could be requested from government departments in relation to grants, subsidies and contract payments for use in SARS audit operations.

Taxpayers are generally ambivalent about the morality of tax cheating. This increases the pressure on tax practitioners (Song & Yarbrough, 1978, p. 442). Someone who provides aggressive tactic might interpret and present facts that lead to different tax liabilities. This type of advice could lead clients to adopt tax positions that would probably not be upheld in a SARS audit. This is risky on account of the possibility that such an audit could result in legal disputes ((Hite & McGill, 1992, p. 400). Successful audits result in a penalty that even reduces client's »good« (Kaplan et al. 1988, p. 426). The loss of such good has a substantial influence on tax agents' reputation. Ayres, Jackson and Hite (1986, p. 300) study factors that explain differences in tax professionals' decisions in »gray« tax areas. They find that taking the effect on costs and benefits into account, as suggested by the individual tax compliance literature, the most obvious alternative is that Certified Public Accountants (CPAs) make best-effort normative evaluations. Experiences with tax administrations might influence their behaviour. With more experience, tax agents will obtain a higher knowledge on how to deal with tax administrations (Kaplan et al. 1988, p. 430).

Sakurai and Braithwaite (2001) show that tax practitioners (taxpayers) are quite successful in finding their suitable client (practitioner). They observe a specific market segmentation. Taxpayers who intend to minimise their taxes and who are high risk takers find tax agents who are good at finding loopholes. On the other hand, risk averse taxpayers find tax agents who fit in their demand.

Klepper and Nagin (1989, p. 167) also investigated the role of the tax practitioner in preparing tax returns. Similarly, Klepper, Mazuar and Nagin (1991, p. 205) develop an econometric model to empirically test the influence of tax preparers upon the compliance behaviour of taxpayers. They find that an expert's participation will discourage non-compliance on legally unambiguous income sources but encourage non-compliance on ambiguous



sources. The size of the enforcer/ambiguity-exploiter influence will be directly related to the quality of the evasion opportunity.

Erard (1993) finds that the use of tax practitioners, particularly CPA's and tax lawyers is associated with increased levels of non-compliance. In particular, substantial differences in compliance characteristics is reported amongst the three categories of tax preparers (CPA and Lawyer, Non-CPA and Lawyer and self-prepared). The non-compliance on returns prepared by CPA and lawyers tends to be larger in frequency, average level, and variance as opposed to the returns from the other two categories.

## **2.1 Taxpayer expanded service paradigm of Revenue Authorities**

Evans and Lindsay (2001) identify three basic components of services, *viz*: the physical facilities, the processes and the procedures. The employees' behaviour typifies service processes while employees' professional judgments make up service procedures. A combination of process change and technology evolution is evident in the most effective tax agencies. Their systems and processes have already been modernised to maximise yield by improving compliance (Pretty and Negadi, 2012). Recently, many internal revenue authorities have been shifting from the traditional »enforcement« paradigm often used to analyze tax compliance behaviour, in which taxpayers are viewed and treated as potential criminals, and the emphasis is on repression of illegal behaviour through frequent audits and stiff penalties (Allingham & Sandmo, 1972, p. 335). An expanded »service« paradigm is now being embraced which recognizes the role of enforcement, but also emphasizes the role of tax administration as a facilitator and a provider of services to taxpayer-citizens. This has had significantly positive effects on citizen perception of the tax administration.

Customer focus is now being emphasized as an important theme in public management (Williams, Saunders & Staughton, 1999; Alford, 2002, p. 337); and in recent years public organizations have been striving to enhance services to customers (Klein, 2001, p. 41; Giannoccaro, Costantino, Ludovico & Pietroforte, 2008, p. 3). For example, there has been pressure on the public sector to offer more government services (Lau, 2000), and governments in different parts of the world compete among themselves by launching new initiatives to improve services to their citizens (Jakka, 2004, p. 239).

SARS has embraced this notion of responsive regulation and is reaching out to taxpayers, emphasizing education, good customer service, and an open dialogue. SARS hence targets South Africa's tax practitioners' sense of social responsibility and bolsters the prevention of noncompliance, while avoiding, at least early in the regulatory interaction, the use of costly punitive measures that might undermine tax practitioners' goodwill and intrinsic motivations to comply.

Fox and Meyers (1995, p. 118) define service delivery as the provision of public activities, benefits or satisfactions to the citizens. Service delivery relates both to the provision of tangible public goods and intangible services. This can be done by government institutions, organisations, private companies, non profit organisations and individual service providers. Table 1 provides an example of services provided by revenue authorities across the world.

**Table 1: Revenue Agencies Service Categories**

Service category	Description	Examples of services	Characteristics
Information	Information services and products which are one way communication and do not result in a change to account status	<ul style="list-style-type: none"> <li>- Education</li> <li>- Publications (paper and web)</li> <li>- Campaigns</li> <li>- Mass distribution of different types of information</li> <li>- Instructions</li> </ul>	<ul style="list-style-type: none"> <li>- Timing volume: partly predictable</li> <li>- Size volume: flexible, can be influenced, revenue body initiate</li> <li>- Standardisation/ automation: possible in many cases</li> </ul>
Interaction	Two-way communication, which in itself does not result in any change in account status.	<ul style="list-style-type: none"> <li>- Enquiry</li> <li>- Audit</li> <li>- Guidance</li> <li>- Debt collection</li> </ul>	<ul style="list-style-type: none"> <li>- Timing volume: partly predictable</li> <li>- Size volume: flexible, can be influenced</li> <li>- Standardisation/ automation: difficult</li> </ul>
Transaction	Activity or services that result in a change in account status or account information.	<ul style="list-style-type: none"> <li>- Filing of tax returns, VAT etc</li> <li>- Payment/refund</li> </ul>	<ul style="list-style-type: none"> <li>- Timing volume: very predictable</li> <li>- Size volume: can to a very little degree be influenced</li> <li>- Standardisation/ automation: great potential</li> </ul>

Source: OECD (2007)

For some time now, revenue bodies have been providing more accessible information services through use of new technology (e.g. by building on-line capability or making information available 24 hours a day, 7 days a week). More recently, many revenue bodies have given taxpayers the functionality of registering for tax system purposes, filing tax returns and paying tax electronically, all at times convenient to them. There have also been developments in the use of telephony services with revenue bodies in many countries establishing large call centre arrangements employing sophisticated telephony technology to facilitate access by phone for taxpayers to the information and other services they require (OECD, 2007, p. 32).

The spectrum of services within each category varies from country to country. Many of the revenue bodies, such as the Canadian Revenue Agency (CRA) have placed high priority over the past several years on improving its service delivery over the web. A survey by OECD (2007, p. 30) finds that several revenue agencies are finding the e-mail channel to be a challenge. It can be more time and cost intensive than initially expected. The survey reports that unstructured e-mail poses the biggest challenge and it can take a long time to respond to such contact. One interviewee reports that users do not come with a question, they come with a problem. Hence, most revenue agencies

do offer email as an option, but they do not promote the channel. For the user, e-mail is often seen as an alternative to a telephone call or a letter. Most citizens and businesses see e-mail as a natural part of the communication options and they will often search for an e-mail address at the website. However, the Netherlands Revenue Agency does not offer e-mail at all, and some other tax administrations have a very limited offer (OECD, 2007, p. 30).

Most revenue agencies have call centre facilities. The next step for some of them is now to transform these into contact centres, where several channels are integrated including e-mail. Overall, with a 90–95% penetration, telephone contact will remain an important channel for revenue bodies' universal access objectives (OECD, 2007, p. 30).

Revenue Agencies are aiming for a reduction in the volume of users that are served on face-to-face basis. One of the main reasons for this is that it is known to be the most expensive channel, and therefore efforts are made to reduce volumes.

Revenue Agencies, such as the one in Singapore, are increasing service-orientation by converting from a hard-copy filing system to a paperless imaging system, adopting the extensive use of electronic filing, a one-stop service to answer inquires about any type of tax, the ability for filers to see the entire tax form with any corrections before it is submitted, the use of interest-free installment plans for paying taxes with direct deduction from bank accounts, separate functional areas within the tax administration with little opportunity for corruption, and a changed attitude of officials toward taxpayers. During the last decade, the tax administration service of Singapore has gone from being the lowest rated government agency in public satisfaction to one that ninety percent of the taxpayers found to provide courteous, competent, and convenient services (Alm et al., 2011, p. 2). In Sweden, the assumption is that many taxpayers want to comply but that they are making mistakes unintentionally and that compliance would increase by focusing on service and information, influencing policy makers and initiating changes in the law to make it easier for users to comply (OECD, 2007, p. 42).

## **2.2 Service satisfaction**

Authors believe that satisfaction is an emotional reaction, a transaction-specific measure (see Bitner, 1990; Bolton & Drew, 1991; Cronin & Taylor, 1992). Emotions refer to a set of responses occurring especially during consumer experience (Westbrook & Oliver, 1991). High levels of satisfaction may include positive and negative emotions (Arnould & Price, 1993). These emotions could motivate some to evade taxes by understating their taxable incomes and/or overstating their deductible expenses.

Gomez, McLaughlin and Wittink, (2004) identify customer satisfaction (CS) as playing a key role in a successful business strategy. Public sector service

dimensions are somewhat different from those of the private sector as they are not threatened by the competitors and hence lacks in continuous improvement through competitive strategy. Sarin and Anil (2007) recommend that manpower in service organizations must work with the focus of satisfying the customer.

The general conceptualization of satisfaction can be grouped into two namely: transaction-specific satisfaction and cumulative satisfaction (Boulding et al., 1993; Jones & Suh, 2000; Yi & La, 2004). Transaction-specific satisfaction is a customer's evaluation of his or her experience and reactions to a particular service encounter (Cronin & Taylor, 1992; Boshoff & Gray, 2004), and cumulative satisfaction refers to the customer's overall evaluation of the consumption experience to date .

Carlzon (1989) opines that the quality of any service encounters or »moments of truth« experienced by customers forms part of their overall impression of the whole service provided (Dale, 2003) and by implication, their impression of the organization itself. Deming (1982) suggests that most people give their opinions based on the people that they see, and they are either satisfied or dissatisfied or delighted or even on the continuum in between.

According to Shand and Arnberg (1996, p. 17) different relations exist between the state and customers of the administration and include being consumers and being taxpayers. Taxpayer, customers have clear obligations towards the tax administration, but expect a certain level of service or help that would aid them in carrying out their duties.

Putnam (2000, p. 24) and Orren (1997, p. 78) also argue that public satisfaction with public trust in government is a function of both public expectation and perception of governmental performance. They identify an inverse relationship between public satisfaction and public expectation but a positive relationship between public satisfaction and public perception of governmental performance.

Public sector organizations lack a detailed understanding of the meaning of client service and its implications (Fountain, 2001, p. 65), and require knowledge about »how« to improve public services (Hodgson, Farrell & Connolly, 2007, p. 362–363). In particular, the public sector in most developing nations hardly has any performance measure of the services they provide (Kloot, 1999). This leads to public officials believing that they are largely responsible and accountable to the State rather than the people they serve (Kuppusamy et al., 2006). Although services provided are likely to be beneficial for the public, public officials however do not attract a strong package of significant satisfaction in the manner in which they meet the needs of the wider community. The lack of knowledge about interrelatedness of one department with another, method of operation, styles of negotiation and the execution of service delivery are reported to be frequent causes of public

dissatisfaction. Dissemination of information, exchange of views and ideas, and the analysis of potential solution to cases could therefore be essential to improved satisfaction with public service delivery.

Surveys and opinion polls confirm that citizens want improvements in the ways in which governments serve them, that is, a public administration that delivers better services and extends their reach and coverage more effectively and efficiently (Rondinelli, 2007). The ultimate goal of SARS is to provide public services whose elements are internally consistent and directed at meeting the needs of a specific target market segment. Too much or too little emphasis on one component will lead to problems and poor customer perceptions. Too much emphasis on behaviour might provide of friendly and personable environment at the expense of slow, inconsistent, or chaotic service. Too much emphasis on professional judgment might lead to good solution to customer problems but also to slow, inconsistent or insensitive service (Mansor & Razali, 2010).

### **3 Research methods**

A purposive survey was carried out of the needs of 375 public sector tax practitioners in eight South African provinces, omitting Limpopo. The survey sought to determine SARS public service satisfaction, its helpfulness in tax filing compliance process, and usefulness of SARS taxpayer education and other general services. The questionnaire administered included open which allowed respondents to give answers in a manner suitable to them. Closed ended questions were chosen in order to produce standardized answers data that can be analysed. Forty respondents were targeted for each province. Limpopo province was surveyed last but results from this province were excluded because of the problem of logistical difficulties encountered with field workers and enumerators during the survey and the fact that funds were depleted.

Satisfaction was measured using a 7-point Likert Scale for importance, 1 = *highly satisfied*, 2 = *very satisfied*, 3 = *somewhat satisfied*, 4 = *normal*, 5 = *somewhat unsatisfied*, 6 = *very unsatisfied*, 7 = *highly unsatisfied*. According to Cooper (2000), this type of scale is considered to be an interval scale. Therefore, measurement of central tendency and its dispersion can be made. A composite domain-specific satisfaction score was calculated by averaging the responses for the items. High scores reflected high levels of domain satisfaction; low scores indicated low levels. Responses were dichotomized as 0 (very dissatisfied, somewhat dissatisfied, neither satisfied nor dissatisfied, and somewhat satisfied) and 1 (very satisfied). Appropriate response percentages are hence presented.

### 3.1 Descriptive analysis

Of the forty 40 respondents targeted in each of the eight provinces covered in this survey, two returns were incomplete for each of the three provinces of Gauteng, Mpumalanga and Northern Cape. Western Cape survey was more rigorous than others because of the availability and enthusiasm of field workers and the province's economic importance. Eastern Cape, Kwazulu Natal and Gauteng have more non-citizens working as tax practitioners in the public sector. More men were surveyed in Eastern Cape, Free State, Kwazulu Natal, and Mpumalanga. More women were surveyed in Western Cape, Gauteng and North West provinces. An equal number of male and female respondents were surveyed in the Northern Cape. In order to be truly representative, our survey concentrated more on public sector tax practitioners who are Africans, Coloured and Asians.

### 3.2 Professionals covered in the survey by province

Table 2: Professionals covered in the survey by province

Region	Chief Financial Officer	Financial Officer	Financial Manager	Account-ant	Others	Total
Eastern cape	1	1	6	23	8	40
FS	1	1	6	23	8	40
Gauteng	6	8	4	14	6	38
KZN	6	10	7	16	0	40
Mpumalanga	6	8	4	14	6	38
NC	3	7	9	10	8	38
North West	1	1	6	23	8	40
Western cape	5	25	11	35	20	101

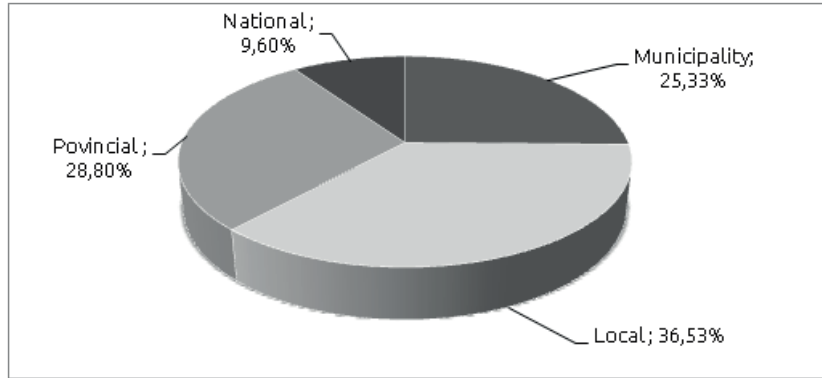
Source: Survey data

In general terms, most of the tax practitioners working in the public sector's finance departments are Accountants, Finance Officers/Managers. They are mainly aged between 34 and 37 having been employed in the public sector for an average of eight years.

### 3.3 Employment in spheres of government by province

They mainly work with local (37%), provincial (29%) and municipal (25%) authorities. Only some 9.6% work with the national government.

**Graph 1: Sphere of government where tax practitioners operate In South Africa**

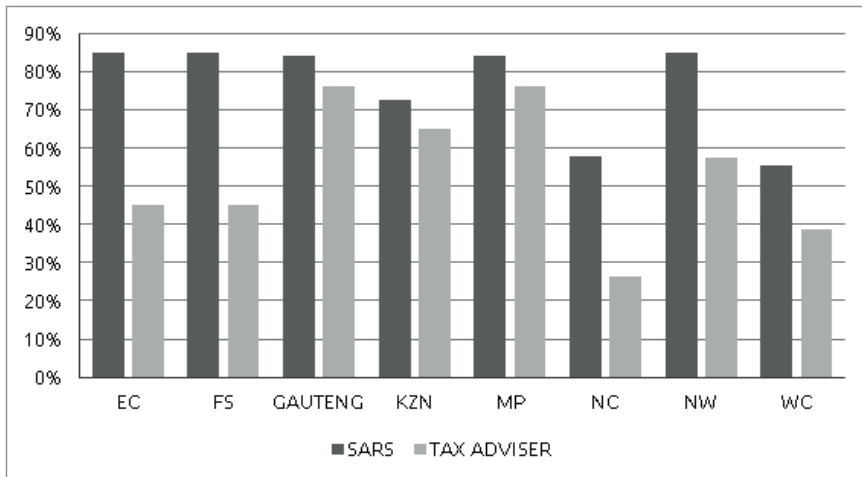


Source: Survey data

## 4 Results

### 4.1 Tax practitioners opinion of the helpfulness of SARS and tax advisers

**Graph 2: Tax practitioners opinion regarding how helpful SARS and tax advisers are in completing tax returns per province (in percentages)**



Source: Survey data

#### 4.1.1 SARS helpfulness in completing tax returns

Tax practitioners assessment of SARS helpfulness in completing tax returns as compared to receiving help from other tax advisers would suggest that SARS helpfulness is highly appreciated by public sector tax practitioners. Nearly 73% of those covered in the survey believe that SARS support in completing

tax returns is helpful. This assessment is significant and generally popular among Accountants and older tax practitioners.

#### 4.1.2 Tax practitioners rating of the helpfulness of tax advisors

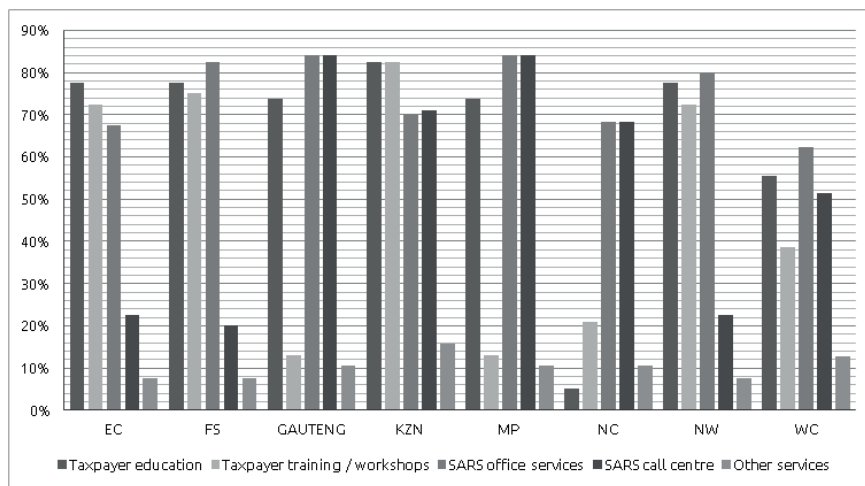
About 54% of those covered in the survey consider the assistance provided by the tax advisor in completing the tax returns as helpful. Tax practitioners employed as Financial Officers, Financial Managers, Accountants, older tax practitioners and those in possession of diploma and degree level education particularly appreciate the help they receive from tax advisors in completing tax returns.

### 4.2 Tax practitioners satisfaction with general services provided by SARS

#### 4.2.1 Respondents satisfaction with SARS taxpayer education

About 66% of those covered in the survey believe that SARS taxpayer education is helpful. Those belonging to the Accounting profession significantly hold this view. Other tax practitioners do not feel so strongly.

**Graph 3: Percentage of respondents who are satisfied with the following services provided by SARS per province**



Source: Survey data

#### 4.2.2 Satisfaction with SARS Taxpayer training

About 51% of the respondents consider SARS taxpayer training as useful. Tax practitioners who work as Financial Managers, Accountants, and those who possess secondary level of education, diploma, degree or have special tax education find tax payer training to be quite useful.



#### **4.2.3 Respondents satisfaction with SARS Office services**

About 71% of the tax practitioners surveyed regard SARS Office services as useful. This is irrespective of their employment types or socioeconomic characteristics. Older tax practitioners are more satisfied with SARS office services.

#### **4.2.4 Respondents satisfaction with SARS call centre services**

In terms of SARS general services considered unhelpful, SARS call centre services rank highest.

### **4.3 Public service satisfaction survey results**

#### **4.3.1 The time taken to pay refunds**

About 82% of tax practitioners surveyed are happy about time taken by SARS to pay refunds. This is more so for male tax practitioners and those with accounting backgrounds. Here SARS should keep up the good work.

#### **4.3.2 The time taken by SARS to respond to enquiries**

About 73% of those surveyed are very satisfied and provide a positive feedback about time taken by SARS to respond to enquiries.

#### **4.3.3 The manner in which SARS deals with enquiries**

The manner in which SARS deals with enquiries is also appreciated by tax practitioners. About 80% of respondents are happy about the manner in which SARS deals with enquiries.

#### **4.3.4 Personal contact with SARS office**

The majority (about 79%) of the tax practitioners say that they have made personal contacts with SARS Offices in the past. Africans, Financial Managers, Accountants, and those with specialized tax education significantly hold this view.

## **5 Conclusion**

There are complaints regarding substandard service delivery by tax practitioners to their clients in respect of advice and tax compliance representation. This has prompted the introduction of new legislation and a paradigm shift by the South Africa Revenue Service (SARS) in terms of how the organisation relates to tax practitioners and the need to embrace the profession by providing comprehensive services to them.

This study has sought to examine how satisfied public sector tax practitioners are with the services provided by SARS to enhance their tax compliance and

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their professional standing with their clients. A survey of 375 tax practitioners has been conducted across eight provinces who have been asked to rank the degree of their satisfaction with services provided by SARS. More public sector tax practitioners believe that SARS officials are more helpful in completing returns than the tax advisors.

On the other hand, more than two thirds of those surveyed, rate SARS taxpayers education, and office services, positively while only half of them have good opinion of SARS training. Accountants and those with specialised education strongly appreciate SARS taxpayer education. Public sector tax practitioners do not need much training on tax issues from SARS. Only about 20% of them indicate the need for some kind of additional quarterly training.

Overall, public sector tax practitioners have a positive attitude toward SARS general services, mainly regarding payment of refunds, responding to queries and the manner in which SARS deals with enquiries.

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POVZETEK

## **ALI SO DAVČNI SVETOVALCI JAVNEGA SEKTORJA ZADOVOLJNI S STORITVAMI DAVČNE UPRAVE JUŽNE AFRIKE?**

*Ključne besede: izpolnjevanje davčnih obveznosti, davčni svetovalci, davčna administracija, Južna Afrika*

### **Uvod**

Država Južna Afrika je po besedah ministrice za javni sektor in administracijo Lindiwe Sisulu v proračunskem letu 2009/10 izgubila 300 milijonov randov (36,6 milijona ameriških dolarjev) zaradi goljufij in drugih finančnih prekrškov javnih uslužbencev. Državne službe so izgubile 260 milijonov randov (31,7 milijona ameriških dolarjev), regionalne službe pa 40 milijonov randov (8,88 milijona ameriških dolarjev). Analiza izpolnjevanja davčnih obveznosti med 35.000 južnoafriškimi davčnimi svetovalci je pokazala, da so osebno Davčni upravi Južne Afrike (SARS) dolžni v znesku 260 milijonov randov (31,7 milijona ameriških dolarjev), medtem ko imajo istočasno 18.000 neplačanih vračil. Neizpolnjevanje obveznosti skladov in podjetij je tudi glavni razlog za zaskrbljenost SARS-a. Ugotovljeno je bilo, da so davčne svetovalci povezani z več kot 107.600 podjetji in skladi.

Ministrstva se soočajo s težavami pri zbiranju, shranjevanju in posredovanju informacij o davčnih prihodkih. Večina ministrstev se občasno lahko zanese samo na ročno shranjene podatke o obdavčenju, ki jih praktično nikoli ne posredujejo naprej. Davčni strokovnjaki, zaposleni v organih javnega sektorja, kot so direktorji gospodarsko-finančnega sektorja, finančni uradniki, računovodje, pomagajo ministrstvu pri izpolnjevanju davčnih obveznosti.

Vendar je veliko pritožb strank glede tega, da storitve davčnih svetovalcev pri svetovanju in prikazovanju davčnih obveznosti niso dobre. Pritožbe se večinoma nanašajo na dejstvo, da so davčne napovedi izpolnjene po nasvetu davčnih svetovalcev, ki nosijo le omejeno odgovornost za dane nasvete.

Težava je v tem, da v Južni Afriki ne obstajajo minimalni standardi glede usposobljenosti ali izkušenj, ki bi se zahtevali za davčne svetovalce za opravljanje poklica, prav tako niso vsi davčni svetovalci zavezani kodeksu profesionalnega ravnanja. Le približno 55 % vseh davčnih svetovalcev, ki so registrirani pri SARS-u, je registriranih pri kakem strokovnem telesu, medtem ko drugi nimajo nobenega nadzora ali odgovornosti.

### **Razlogi za razširitev storitev finančnih organov za davkoplačevalce**

Zaradi nedavnega povečanja števila javno-zasebnih partnerstev (PPP) za zagotavljanje storitev, ki jih je prej izvajal javni sektor sam, je nujno, da Davčni urad Južne Afrike spremeni svoj način sodelovanja z davčnimi svetovalci. PPP povečuje težave pri obračunavanju davka na dodano vrednost (DDV), česar se



mora partner javnega sektorja zavedati. Tukaj naj bi bil SARS-ov izobraževalni program ključnega pomena. Partner javnega sektorja mora določiti naravo storitve, ki jo zagotavlja, osebo, ki nudi storitev, obračun DDV-ja od prihodka, osebo, ki je odgovorna za prijavo DDV-ja in odbitek DDV-ja pri vseh povezanih stroških.

Čeprav je veliko vprašanj o obračunu DDV-ja skupnih vsem organom javnega sektorja, se tisti, ki delajo na različnih področjih srečujejo s številnimi specifičnimi vprašanji. Na primer, vsak organ javnega sektorja, ki vodi maloprodajne trgovine, podeljuje koncesije za trgovine, upravlja menze za zaposlene, zagotavlja parkirna mesta ali zagotavlja splošne, športne ali zabavne storitve za skupnost, bi moral razmisliti, ali mora obračunavati DDV. Lokalne oblasti bi npr. morale obračunavati DDV iz plačila pristojbin, pridobljenih iz oskrbe objektov za golf. Ministrstva lahko zagotovijo računalniške in internetne storitve zaposlenim. Te ne smejo biti obdavčene, če so storitve potrebne za opravljanje službenih zadolžitev, davčne obveznosti pa veljajo, če bo računalnik, ki ga je financiral delodajalec, kupil zaposleni za osebno uporabo.

V javni upravi se kot pomembna tema poudarja osredotočenost na stranke in tako si v zadnjih časih javne organizacije prizadevajo za izboljšanje storitev za stranke.

SARS je sprejel stališče, da bi se predpisi morali odzivati na realnost. Zato navezuje stik z davkopllačevalci, poudarja izobraževanje, dobre storitve za stranke in odprt dialog. SARS na tak način cilja na občutek južnoafriških davčnih svetovalcev za socialno odgovornost in krepki preprečevanje davčne utaje, medtem ko se, vsaj v začetni fazi zakonodajne interakcije, izogiba dragim kazenskim ukrepom, ki bi lahko omajali pripravljenost in motiviranost davčnih svetovalcev za upoštevanje davčne zakonodaje.

### **Literatura o davčnih svetovalcih in zadovoljstvu z izvajanjem javnih storitev v Južni Afriki**

Objavljene raziskave o ravnanju davčnih svetovalcev na splošno in še posebej v Južni Afriki so še vedno zelo omejene. Nienaber ocenjuje literaturo glede na dejavnike, ki bi lahko vplivali na etično vedenje davčnih svetovalcev v Južni Afriki. Hazelhurst sklepa, da sta izvajanje nepregledne davčne zakonodaje in neučinkovito pobiranje davkov pred letom 1994 dopustila južnoafriškemu davčnim zavezancem preusmeriti velike vsote davka od dobička v davčne olajšave in davčne oaze.

Članek obravnava zadovoljstvo s storitvami, ki jih nudi SARS davčnim svetovalcem javnega sektorja. Zajema vprašanja o povezavi med izpolnjevanjem davčnih obveznosti in obdavčitvijo, ki so pomembna za organe javnega sektorja in SARS. Poudarja pomen načina komuniciranja pri usmerjanju davčnih svetovalcev. Poudarja vlogo davčnih svetovalcev pri izpolnjevanju davčnih obveznosti. Pri tem razširja program podpore davčnih agencij davkopllačevalcem, kjer se je spremenil model odnosa davčnih oblasti z davkopllačevalcem in še posebej davčnim svetovalcem. Članek prav tako

obravnava, kaj pomeni zadovoljstvo s storitvijo, še posebej ker se nanaša na javni organ, ki opravlja storitve za stranke, ki plačujejo davke. Raziskovalne metode in rezultati raziskave so predstavljeni v zaključku članka.

### **Zadovoljstvo s storitvijo**

Organizacijam v javnem sektorju primanjkuje dobro razumevanje pomena storitev za stranke in njihovih posledic, potrebujejo pa znanje o tem, »kako« izboljšati javne službe. Javni sektor v večini držav v razvoju nima pravega sodila za merjenje uspešnosti storitev, ki jih ponuja. To vodi do prepričanja javnih uslužbencev, da so pristojni in odgovorni predvsem državi, ne pa ljudem, ki jim služijo.

Avtorji verjamejo, da je zadovoljstvo čustveni odziv, merjen na specifični transakciji. Čustva se nanašajo na skupino odzivov, ki se pojavijo predvsem v izkušnjah potrošnikov. Visoka stopnja zadovoljstva lahko vključuje pozitivna in negativna čustva. Ta čustva lahko nekatere motivirajo, da utajijo davke s podcenjevanjem svojih obdavčljivih prihodkov in/ali s precenitvijo svojih priznanih stroškov.

### **Raziskovalna metoda**

Predstavljena raziskava je bila izvedena na podlagi odgovorov 375 davčnih svetovalcev javnega sektorja v osmih provincah Južne Afrike, brez province Limpopo. Raziskava je skušala določiti zadovoljstvo s SARS-ovo javno službo, njeno pripravljenost pomagati v procesu urejanja davčne usklajenosti in uporabnost SARS-ovega izobraževanja davkoplačevalcev ter druge splošne storitve. Razdeljeni vprašalnik je vključeval vprašanja odprtega in zaprtega tipa. V vsaki od devetih provinc je bilo v ciljni skupini štirideset anketirancev. Anketa je bila nazadnje izvedena v provinci Limpopo, a so bili rezultati iz te province izključeni zaradi logističnih težav z delavci na terenu in popisovalci med anketiranjem ter dejstvom, da so bila izčrpana vsa sredstva. Odgovori so bili razdeljeni na 0 (zelo nezadovoljen, nekoliko nezadovoljen, ne zadovoljen ne nezadovoljen, nekoliko zadovoljen) in 1 (zelo zadovoljen).

### **Rezultati**

Velik del davčnih strokovnjakov javnega sektorja meni, da so pri izpolnjevanju davčnih napovedi SARS-ovi uradniki bolj v pomoč kot davčni svetovalci. Več kot dve tretjini anketiranih ocenjuje SARS-ovo izobraževanje davkoplačevalcev in administracijo pozitivno, medtem ko jih ima le polovica dobro mnenje o SARS-ovem usposabljanju. Računovodje in tisti s specialistično izobrazbo zelo cenijo SARS-ova izobraževanja davkoplačevalcev. Davčni svetovalci javnega sektorja ne potrebujejo veliko izobraževanja SARS-a o davčnih vprašanjih. Le približno 20 % jih je izrazilo potrebo po dodatnem četrletnem izobraževanju. Na splošno imajo davčni svetovalci javnega sektorja pozitiven odnos do SARS-ovih storitev, predvsem glede plačila povračil, odzivov na poizvedbe in načina, kako SARS obravnava vprašanja.

# Crisis and Organisational Innovation: Icelandic Local Government Responses

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## ABSTRACT

**This article examines the relationship between radical change in an institutional context and organisational innovation. It is based on an exploratory case study of three Icelandic local governments conducted in autumn 2010 and summer 2011. While many crises, when scrutinised closely, appear to be more like *threats* of crisis, Iceland's economic crisis is a genuine crisis with real and immediate effects. The three local governments studied responded to the crisis with actions that promote cooperation, reorganisation, acquiescence and involvement. The study demonstrates that most of these actions were reactive and somewhat non-innovative, though some were innovative – at least in this particular context.**

*Key words:* innovation, local governments, Iceland, economic crisis, acquiescence

*JEL:* H83

## 1 Introduction: Indigence is the mother of invention

If one really must be innovative, one will be – or so the adage goes. When under pressure, we seem to be able to find ingenious, original and uncomplicated solutions deep within ourselves. If this is true of people, it should also be true of organisations, since they are made up of people. Organisations facing severe challenges have good opportunities to unleash their creative and troubleshooting energies, so a reasonable assumption would be that crises catalyse innovation (Behn, 1980). Literature on organisational innovation

indicates that this may be the case, at least for some organisations and under certain conditions (see discussion in Schroeder, Van de Ven, Scudder & Polley, 1989; Slappendel, 1996), and literature on change management finds that this is fairly common (Rombach & Solli, 2006).

Due to the crisis, government budgets have recently been severely cut in several European countries, notably Ireland, Iceland, Greece, Spain, Italy and Portugal. The long-term solvency of some of these countries is even in question. Other countries, both inside and outside the European Union, are scrutinising the effects of the economic crisis on the above countries, as the responses of their central governments are important for the world economy. However, economic crises of this magnitude affect not only central governments, but local ones as well. Local governments, located near the citizens, must handle individual tragedies such as unemployment, poverty and alienation, as well as the effects of institutional instability and distrust. If innovative action is needed anywhere, it is probably at this level. Interestingly, in an empirical study of three local governments in Sweden, Brorström (2012) found that the 2008/2009 crisis brought about actions identified as old solutions to old problems. However, Sweden's crisis was not nearly of the same magnitude as Iceland's. In fact, key actors in the local governments studied in Sweden did not even call the situation a crisis.

We seek examples of innovative local government actions in confronting the economic crisis. Our aim is to build knowledge of the relationship between radical change in the institutional context and organisational innovation; specifically, to build our knowledge of the organisational actions of local governments in response to the economic crisis.

Definitions of innovation from the literature refer to nearly anything concerning change. In this article, we define innovation (in administration) as a type of measure not previously encountered – at least not in response to the studied problem and organisational context (cf. Slappendel, 1996). Innovation – taken to refer to possible solutions to problems – has positive connotations as a prerequisite for making something different happen, for better or worse. An innovation is something that breaks from routine, tradition and formal and informal plans, causing an organisation to change course and head in a new direction.

Bureaucracy, the main structural principle of local governmental organisations, tends to dampen innovation (e.g., Mintzberg, 1979). However, local governments, like any organisations, are faced with a need to be innovative. This article is based on an exploratory case study conducted in November 2010, and a follow-up study from June 2011, of Icelandic local governments, which experienced a severe economic crisis in 2008. Iceland is an interesting case for research into institutional context and innovation. The entrepreneurial tradition is said to be strong in Iceland, and Icelanders' self-perception includes a sense of »making things work«, often in novel

ways. Individualistic perspectives on innovation regard this kind of culture and self-perception as important determinants of creativity and therefore of innovation (Knight, 1967; Sarros, Cooper & Santora, 2008).

Iceland was chosen because of its context and history, and because its relatively small size facilitates study. The relationships between various sectors are close in Iceland, and the distances between people in different domains are not great. This closeness could enhance innovation, since it facilitates communication between the organisation and its context, for example, between local governments, state government and citizens (for a discussion of communication and innovation, see Saren, 1987). The local level is especially interesting, as it must handle demands from individuals and organisations while ensuring that local governmental organisation is robust.

## **2 Responding to institutional processes: Analytical framework**

Crisis has no clear-cut definition. When a situation is labelled a crisis, someone is always defining it as such for a reason (Jönsson, 1982). Not least, new leaders tend to define the conditions prevailing during their takeover as constituting a crisis that necessitates changes (Rombach & Solli, 2006). This rhetoric, if successful, can spur personnel to make organisational reforms.

The crisis examined here has inspired various accounts. It has been described quantitatively (SIC, 2010), for example in terms of the amount of money lost (in November 2008, Iceland's three big banks had to write down their assets by approximately 60%), the percentage of people who lost work (this figure increased by approximately 360% from August 2008 to February 2009), the number of people leaving Iceland (from net in-migration of 5,299 individuals in 2007 to out-migration of 2,369 in 2009). It has also been described qualitatively, in many tragic individual stories. The crisis is well known in Iceland and the rest of Europe, and the experts discussing the crisis in the media are renowned and credible. An economic crisis of this magnitude, which radically changes the conditions of local government activity, puts pressure on organisations to respond: the crisis must be handled in some way, supposedly by changes and actions appropriate to the new situation.

### **2.1 Strategies and translation**

Neo-institutional theories highlight conformity and adaptation to social norms and rituals more than effective processes. Public policies, laws, values and beliefs in an organisational field are institutional constituents exerting isomorphic pressures on the organisational configuration. Bringing the environment into the organisation often results in inconsistencies between activities and external rituals, and decoupling is one way to resolve these (Brunsson, 1985; Meyer & Rowan, 1977). Oliver (1991, p. 147) developed a typology of organisational strategies for responding to institutional

pressures (conformity, acquiescence, compromise, avoidance, defiance and manipulation).

A later development in organisational studies was the »travel of ideas« metaphor, which moved theoretical development from a »diffusion« to a »translation« model in which institutional pressures, or rather external ideas, are translated, changed and localised in organisations (Callon, 1986; Czarniawska-Joerges & Joerges, 1996). We use Oliver's typology and the translation model as analytical tools in this article.

## **2.2 Traditional organisational responses to crisis**

Traditional cutback management literature is relatively homogeneous as regards the measures organisations should take when encountering crisis. While it is far from obvious that these measures necessarily succeed (Feldheim, 2007; Levine, 1979; Levine, Rubin & Wolohojian, 1981; Nelson, 1998), they do indicate an ability to act and willingness to adapt. The literature presents various standard cutback measures, including:

- reducing staffing levels by attrition, hiring freezes, implementing RIF (reduction in workforce) plans, eliminating positions, early retirement, etc.;
- eliminating, reducing, and phasing out whole or parts of programmes;
- raising additional revenues from new sources;
- shifting responsibility for certain programmes to other agencies;
- deferring certain activities (e.g., building maintenance, renovations and studies);
- improving quality, efficiency and effectiveness (e.g., via process mapping and reengineering);
- using lower-cost labour (i.e., part-time workers, temporary workers and volunteers);
- using labour-saving approaches (i.e., increased use of technology and automation);
- providing incentives for resource conservation and performance improvement;
- reducing expenditures on selected budget items (e.g., travel and purchasing).

As mentioned above, crisis as a catalyst for innovation is the starting point of this article. If the Icelandic local governments had responded to the crisis using only the above measures, they could hardly be considered innovative, as these measures have all been used before. However, the way in which these measures were translated and communicated in the organisations could be innovative. The following sections present our methodology, followed by

three empirical cases and a discussion. In the last section, we discuss our conclusions.

### **3 Methodology**

We base our analysis on data from three local governments, the central government and the Association of Local Authorities in Iceland. We selected the local governments using snowball sampling. First, we chose Reykjavik because, as Iceland's largest local government, it could be expected to have taken many actions in response to the crisis. Then we chose Hafnarfjörður, which we learned was confronting major financial problems. Finally, we chose Borgarbyggð, which is well-known for major problems but, unlike the other two, has a relatively small population. The Association of Local Authorities and the central government body were selected because of their general knowledge of financial conditions and the information they could provide on specific local governments and their financial situations and actions.

Our research strategy has been pragmatic in that we have combined methods (Silverman, 1993) in order to understand and describe the institutional pressures on and responses of the studied local governments. It is also pragmatic in that it is neither purely inductive nor deductive, but follows a pattern of creative abduction (Schurz, 2008). Inspired by Strauss and Corbin (1990) and Charmaz (2006), our data processing involved iterative shifts between collecting, sorting, coding, categorising and probing the data and collecting new data, until we were able to reconstruct the relationship between the crisis and local government responses.

The data analysed were gathered on two field visits to Iceland in December 2010 and July 2011. We gathered data using a field-note diary and 17 personal interviews (Kvale, 1996) with key actors in the selected organisations, summarised in Table 1. All the selected interviewees gave their informed consent to participate in the study.

**Table 1: Interviewees**

Organisations	Interviewees, visit 1	Interviewees, visit 2
Reykjavik	Director of Administration Financial Manager	Director of Administration
Hafnarfjörður	Mayor Financial Manager	Mayor (E-mail)
Borgarbyggð	Mayor Project Leader in Infrastructure Financial Manager	Mayor Financial Manager
Central government (Department of Local Authorities)	Department Manager Expert on Municipal Development	Department Manager
Association of Local Authorities	Managing Director President Director of Development and International Affairs	Managing Director

On the first visit, a query template of 12 general questions, covering financial developments over the last decade, organisational responses to financial stress and effects inside and outside the organisations, guided all interviews. These questions were followed up by more specific questions. All interviews were recorded and transcribed verbatim. On the second visit, a smaller sample of key actors was interviewed (except in Hafnarfjörður, where we followed up by e-mail). The questions in the second round of interviews referred more specifically to local government actions taken to handle the financial and social situation. Each interview was led by one or two researchers and lasted two to three hours. During and between the visits, the research group met frequently to discuss findings and queries.

## **4 Three Icelandic local governments and the crisis**

In winter 2008–2009, Iceland experienced one of the worst financial crises in its history as a result of the worldwide financial crisis, excessive public expenditures and excessive private spending. In 1994, the financial sector was deregulated and Icelandic banks were privatised. A new era in Icelandic banking had begun, and the new financial entrepreneurs were young, aggressive and risk-taking. Stories of the Icelandic financial market and business climate as a whole emphasised rapid decision-making, high profits, unconventional behaviour, close relationships and great creativity. At the local government level, substantial resources were spent on large projects that made Iceland seem a progressive and modern state with fantastic opportunities for citizens and tourists alike.

The oversized banking sector (approximately ten times the Icelandic GNP), the banking sector's risky investments and the small amount of Icelandic currency made the effects of the financial crisis especially large. In 2009, central government debt reached approximately EUR 150,000 per Icelander. This has had a major impact on the everyday life of every Icelander and has left the public sector struggling to satisfy citizen needs.

When the president of Iceland, Ólafur Ragnar Grímson, declared Iceland bankrupt at the end of 2008, many strategies for handling the situation were devised. For example, the banks were put under state control, the banks' risky foreign investments were sold and a great deal of public expenditure was radically cut back. At the local government level, some structural changes were made, such as local government amalgamations.

### **4.1 Reykjavik**

In most countries, a city the size of Reykjavik, Iceland's capital, would be considered small. Its population as of 1 January 2010 was 118,326, or 37% of the population of Iceland. Together with its surrounding local governments, the capital area has a population of 200,907, or 63% of the population of Iceland.



The financial crisis that struck in October 2008 obviously affected Reykjavik. However, since a local government is by definition local, a huge devaluation of the local currency does not particularly affect it, as most of its transactions are conducted in the local currency. The main problem for the city was the rapid increase in unemployment, from 1% in 2007 to 9% in 2009, which meant higher costs and lower income for the city. The collapse of the building industry drastically reduced the expected revenue from the sale of building sites. Unfortunately, Reykjavik was investing intensely in an energy plant when the crisis struck. For this investment, the city had borrowed heavily in foreign currency; after devaluation, the cost of servicing this debt almost doubled in terms of the local currency.

The initial response was to unite all stakeholders. The city councillors set aside their differences to unite in crisis management activities, and an action group including members from both the majority and minority factions was established. This was done after years of conflict during which the city had seen, for example, four mayors in four years.

Budgeting for the time of crisis was based on three main principles: secured basic services for citizens, unchanged user fees and no layoffs of permanent city employees. Focusing on children and the elderly was a lesson learned from Finland. One of the first local government actions was to look closely at Finland, the Netherlands, Norway and other countries that had had to deal with major crises.

In the first round of cutbacks, the wages of most city officials and politicians were lowered. The mayor's salary was cut by 15%, high officials' salaries by 10% and most other employees' salaries by 5%. Those with the lowest earnings were not subject to pay cuts. New hiring was frozen, and a review board was created to oversee all new hiring in the administration. Total staffing of 8,000 was reduced by approximately 500. International relations programmes were cut back.

City employees were motivated to offer ideas for cost savings through a special project: approximately 3,000 employees suggested 1,500 ideas, and approximately 300 of these were implemented immediately. These ideas included using energy-efficient instead of regular lighting, serving children porridge instead of cornflakes and letting the schools and kindergartens bake their own bread. According to our respondents, such cutbacks saved ISK 1.4 billion (EUR 9.6 million) as of January 2009.

In 2010, it became clear that the potential of conventional cutback measures had been exhausted, and that the initial response had not been enough. The focus now shifted to organisational reforms. Several reform projects were defined, each with a board that included stakeholders and change or project managers. For example, projects sought to:

- reduce school system overhead by merging schools, playschools and daytime childcare where possible;
- restructure school canteens and establish joint kitchens for school meals;
- assist smaller local governments with human resources, finances, etc.

In summer 2011, Reykjavik was still in financial crisis, with unemployment at 8–9%; the ISK was still weak, and other European countries were falling into crisis, making the financial climate difficult. Reykjavik, however, was planning optimistically. Although unemployment was high, the 2009 forecast had foreseen worse conditions.

## **4.2 Hafnarfjörður**

Iceland's third largest town, Hafnarfjörður, has nearly 26,000 inhabitants and is situated in a bay just south of Reykjavik, between the capital and the international airport. Many of Hafnarfjörður's inhabitants work in or do business with Reykjavik, and its proximity to the capital boosted Hafnarfjörður's growth over the last decade. This potential for ongoing growth prompted the local government to invest heavily in projects to create new building land on the lava fields surrounding the town. These investments were paid for with foreign borrowing in euros, on the assumption that income from selling the land would cover the borrowing costs. However, the 2008 crisis made the land practically unsellable, and the local government even had to return deposits to some early buyers. All that is left of these projects is a network of streets, complete with streetlights, sewers and cables, but no houses.

Compared to many Icelandic local governments, Hafnarfjörður has an extensive public service, offering its inhabitants 15 kindergartens, eight primary schools, two secondary schools, various indoor sports facilities, harbour services, a library, music festivals, museums and – as the mayor put it – »everything a community needs to have.« Hafnarfjörður is proud of what it offers and people are still moving there.

The 2008 crisis led directly to decreased income and increased expenditures. The leaders of the three political parties represented on the city council discussed the situation, agreeing that the citizens and their welfare were most important. Together, they formulated three main lines of action. Firstly, cooperation between political parties would increase, given that the crisis was deemed more important than local politicking. Once or twice a week the three party leaders meet for three or four hours to discuss and analyse the progress made and to find new ways to continue making progress. Secondly, Hafnarfjörður is cooperating with other local governments to find solutions to their largely shared problems. Thirdly, Hafnarfjörður is trying to involve its inhabitants in the process, inviting them to open meetings at which the budget is discussed. All parties participate in this, even minority parties that

before would simply blame any problems on the majority party. As the mayor says, »Things are different now – we have to think differently.«

Organisationally, the crisis has prompted Hafnarfjörður to »cut the fat«, as the mayor puts it: to cut management overtime, freeze hiring and generally reduce spending, eliminating all nonessentials. »This is not enough,« explains the mayor, »now we will have to cut to the bone.« In practical terms, cutting »to the bone« translates into letting go of approximately 30 employees in the staff of 1,400, merging education and welfare units and closing the planning unit. The last cut was not difficult, since Hafnarfjörður already has whole neighbourhoods planned and ready for construction.

### **4.3 Borgarbyggð**

Borgarnes, the largest town in Borgarbyggð municipality, has approximately 2,000 inhabitants – over half the total population of the municipality. It is an important commercial town in western Iceland, and its economy is based primarily on commerce, farming and tourism. Since 1998, a tunnel under Hvalfjörður (»the whale fjord«) has facilitated travel to and from Reykjavik, making Borgarnes a popular place to live. Borgarbyggð represents the amalgamation of Borgarnes and several other local governments (Hraunhreppur, Alftaneshreppur and Borgarhreppur), making the local municipality relatively large in terms of both space and population.

From 1998 until the crisis in 2008, Borgarbyggð was developing well: the population was growing steadily by a few percent a year, the two universities (Bifröst University and the Agricultural University of Iceland) were attracting young people to the region and industry and tourism were growing. The local government's economy was sound and stable. The situation changed radically in 2008, when Borgarbyggð began struggling with outmigration, empty housing, rising unemployment and industry closures.

By late 2008, Borgarbyggð's economy was so poor that it had to report to a national government inspection authority. It also had to present an action plan, which was approved. This plan called for cutbacks in all service areas except social services, the need for which had increased. The local government found itself forced to sell all its shares in the local savings bank and thereby end an important relationship. Borgarbyggð also closed a day care centre and reduced the opening hours of those that remained. In the school sector, the town avoided a school closure (after major citizen protests), instead reorganising the school sector: now the elementary schools are organised into one school district instead of three, and education has been reorganised so that, for example, two classes can be taught together. Other cutbacks have resulted in reduced purchases of various products. The mayor says that services were increased in 2005 and 2006 – when smaller local governments were merged into a single larger one – to levels that now seem luxurious. It is not just the service level that has decreased. By cutting luxuries,

Borgarbyggd has reduced its permanent staff by ten (of a total of 280). Overtime has also been cut and more people now work part-time. Salaries have decreased by 12–15% for top managers and by a lower percentage for those with lower earnings. Employees no longer receive compensation for travelling in their own cars when going to meetings; instead, the local government owns three cars that can be borrowed and has also tried to minimise the number of meetings.

Almost all measures to handle the crisis were implemented by the local government administration, though other community actors have also been involved. Local government and the local business community have met on the initiative of the local government to discuss the hard times, but have not tried to organise any joint action.

Although the municipal economy is currently strained, there are some positive signs regarding the future. Not far from Borgarbyggd is a smelter that in recent years has employed almost 400 people, approximately 10% of whom live in Borgarbyggd. The mayor of Borgarbyggd says the smelter will attract other companies. Another positive development is the Landnamssetur («The settlement centre» – a historical museum), which opened in 2006. It has received numerous awards and is attracting an increasing number of tourists.

## 5 Discussion

The actions taken in the three cases are summarised in Table 2. The local governments appear reactive rather than proactive and the key actors in our study seem to have fully mastered traditional cutback management (Feldheim, 2007; Levine, 1979; Nelson, 1998): they reduce, sell, close, freeze and reorganise. They also cooperate with various stakeholders and try to involve them in creating ideas and plans. Table 2 shows that local governments have acquiesced to and complied with expectations regarding how organisations usually handle financial crisis. They have accepted the norms.

**Table 2: Actions taken**

Actions	Reykjavik	Hafnarfjörður	Borgarbyggd
Cooperation and involvement	- Between political parties	- Between political parties - With other local governments - With citizens	- With business community
Reorganisation	- Review board - Change boards - School sector mergers	- Merging education and welfare - Planning unit closed	- Reorganised school sector
Reduction	- Salary cuts - Cut in international relations - Employee cost-saving ideas - No assistance to smaller local governments	- Reduced personnel costs - Reduced spending	- Sold shares in bank - Cutbacks in service areas - Closed day care centre - Reduction in purchases - Reduced personnel costs

Were the local governments in the study innovative in their crisis handling? Their actions were mainly non-innovative, but some elements of their actions, when examined closely, should be considered innovative. Firstly, some actions are new in the local contexts studied. The local governments emulate what other local governments in other countries have done via measures not previously implemented in the new context. The change in institutional context – the crisis – imposes pressures for isomorphism (the reproduction of similar organisational structures), isopraxis (the standardisation of organisational practices) and isonymism (the imitation of organisational labels or names) (Erlingsdóttir & Lindberg, 2005) that reflect organisations and organising practices in other countries, such as the Netherlands and the Scandinavian countries. While not innovative in a larger context, these changes are innovative in the local context. This search for useful ideas and experiences in other countries suggests that this is how the studied local governments manage to balance priorities and to bargain (Oliver, 1991, p. 147) with institutional stakeholders, such as creditors, central government inspection authorities and political opponents.

Secondly, the local governments may take actions that represent new responses to this kind of crisis. These actions seek to involve a broad range of actors and interests and entail a search for innovative solutions. One local government asked employees to come up with cost-saving measures, which led to a great number of useful ideas. Another local government sought to involve local residents, and yet another tried to involve and adapt to commercial and industrial conditions.

Crisis seems to be an opportunity to reorganise local government. The local governments in the study have reorganised vital parts of their services, and considered from a public opinion perspective this seems less onerous than shutting down schools and day care centres altogether. Politicians, employees and citizens protest less during a crisis, making change from a well-worn path to a new one more feasible.

Crisis represents an opportunity for some actors to facilitate change. It is an opportunity for new leaders – not politicians, but managers, administrators and controllers – to reshape their organisations into what they want them to be, and they often take advantage of this opportunity. These actors' arguments and language are developed in the management field (Rombach & Zapata, 2010) and are well suited to turbulent situations. They take the opportunity to change what they want, possibly for reasons other than the crisis.

Our data indicate that two concepts merit discussion: cooperation and reorganisation. A crisis is a good opportunity to unify an organisation. In the local governments in the study, the crisis has led to less conflict, more collaboration and more joint action – antagonism is perceived as an inappropriate luxury in this situation. Various actors inside and outside the

local government organisation seem to feel that they have a responsibility to act. In Oliver's (1991) terms, institutional pressure is being handled, not merely reactively and passively, but more actively. The key actors' tactics involve concepts such as balancing, pacifying and bargaining, but also co-opting and influencing, important stakeholders. Local government strategies range from highly reactive and traditional to highly active and even innovative.

## **6 Conclusions**

Our conclusions are derived from a specific context of harsh economic circumstances in a specific country. The local governments in the study are not average Icelandic local governments, as their financial conditions are more strained than in most cases. These governments were strategically chosen to facilitate a study of innovative actions taken in response to stressful economic situations. At the time of writing, many countries in Europe and elsewhere are facing dire times, so the present results might be interesting from a broader perspective. We hope that studies of other local governments responding to crisis will follow.

During a crisis, a local government does not govern proactively, but mainly reactively. A local government does what its surroundings tell it to do – although possibly reluctantly. In the studied cases, creditors were the strongest external players: they wanted their money back and were largely unwilling to compromise. Others in the institutional field, such as the state, business community and voters, were also telling the local governments what to do. Local government somehow had to satisfy all demands simultaneously and, without sending conflicting messages, appear to function as normally as possible. During and after a crisis, measures are required in response to the crisis, external actors are constantly scrutinising the organisation's statements and actions, and the slightest deviations are noted and immediately reported. Under these circumstances, it is not easy to be innovative: if an organisation is supposed to do as it is told, then it can hardly do anything but acquiesce. As seen in this article, however, some of the actions taken were innovative – at least in this context and as solutions to particular problems – in embracing political cooperation and citizen involvement. To conclude, our main finding is that, although many actions were taken to deal with the crisis, most of them were reactive and somewhat non-innovative.

*Crisis and Organisational Innovation: Icelandic Local Government Responses*

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POVZETEK

## **KRIZA IN ORGANIZACIJSKA INOVATIVNOST: ODZIVI ISLANDSKE LOKALNE UPRAVE**

*Ključne besede: inovacija, lokalna samouprava, Islandija, ekonomska kriza, pristajanje*

### **Revščina je mati izuma**

Če res moramo biti inovativni, tudi bomo – vsaj tako pravi pregovor. Ko smo pod pritiskom, smo globoko v sebi sposobni najti domiselne, izvirne in nezapletene rešitve. Če to velja za ljudi, bi moralo veljati tudi za organizacije, saj jih sestavljajo ljudje. Organizacije, ki se soočajo s težkimi izzivi, imajo dobro priložnost, da sprostijo svojo kreativno energijo in energijo za odpravljanje težav. Umestna je torej domneva, da bi krize morale sprožati inovacije. Literatura s področja organizacijske inovativnosti kaže, da je temu lahko tako, vsaj v nekaterih organizacijah in pod določenimi pogoji, in literatura o spremembah upravljanja ugotavlja, da je to precej pogosto.

Zaradi krize so v nekaterih evropskih državah močno oklestili proračune, zlasti na Irskem, Islandiji, v Grčiji, Španiji, Italiji in na Portugalskem, v državah, katerih dolgoročna plačilna sposobnost je sporna. Druge države, znotraj in izven Evropske unije, temeljito proučujejo vplive gospodarske krize v prej omenjenih državah, saj so odzivi njihovih vlad pomembni za svetovno gospodarstvo. Vendar pa gospodarske krize takšnega obsega ne vplivajo na državo samo na centralni ravni, temveč tudi na lokalni. Lokalne uprave, ki se nahajajo bližje državljanom, se morajo ukvarjati s problemi posameznikov, kot so nezaposlenost, revščina in odtujenost, kot tudi s posledicami institucionalne nestabilnosti in z nezaupanjem. Če so kje potrebna inovativna dejanja, po tem je to verjetno na tej ravni. Zanimivo, Broström je v empirični študiji treh lokalnih uprav na Švedskem ugotovil, da je kriza v letih 2008/2009 pripeljala do ukrepov, prepoznanih kot stare rešitve za stare probleme. Vendar pa kriza na Švedskem ni bila niti približno tako razsežna kot na Islandiji. Pravzaprav je ključni akterji v proučevanih švedskih lokalnih uprav sploh niso imenovali kriza.

Iskali smo primere inovativnih dejanj lokalne uprave za soočanje z gospodarsko krizo. Naš cilj je bil ugotoviti odnos med korenito spremembo v institucionalnem okviru in organizacijsko inovativnostjo; konkretno, pridobiti znanje o organizacijskih dejanjih lokalnih uprav kot odziv na gospodarsko krizo.

Islandija je bila izbrana za proučevanje zaradi njenega konteksta in zgodovine ter ker njena relativno majhna velikost lajša proučevanje. Na Islandiji so posamezni sektorji med seboj tesno povezani, razdalje med ljudmi na različnih področjih niso velike. Bližina bi lahko povečala inovativnost, saj lajša

komuniciranje med organizacijo in njenim kontekstom, na primer, med lokalno upravo, državo in državljani. Lokalna raven je še posebej zanimiva, saj se mora ukvarjati z zahtevami posameznikov in organizacij in hkrati zagotavljati stabilnost lokalne uprave.

### **Odzivi na institucionalne postopke: Analitični okvir**

Kriza nima jasne definicije. Ko je situacija označena kot kriza, jo vedno nekdo kot tako definira z razlogom. Ne nazadnje, novi voditelji radi trdijo, da pogoji, ki prevladujejo med njihovim prevzemom, povzročajo krizo, kar zahteva spremembe. Takšna retorika, če je uspešna, lahko spodbudi ljudi k organizacijskim reformam.

Krizo, ki jo obravnavamo tukaj, so opisovali različno. Opisovali so jo kvantitativno z vidika, na primer, vsote izgubljenega denarja (novembra 2008 so tri velike islandske banke morale odpisati približno 60 % premoženja), odstotka ljudi, ki so izgubili zaposlitev (povečal se je za približno 360 % od avgusta 2008 do februarja 2009), števila ljudi, ki so zapustili Islandijo (od neto 5299 posameznikov, ki so se preselili leta 2007, do 2369 posameznikov, ki so se odselili leta 2009). Opisovali so jo tudi kvalitativno, z mnogimi tragičnimi individualnimi zgodbami. Na Islandiji in v preostali Evropi je kriza dobro poznana in strokovnjaki, ki razpravljajo o krizi v medijih, so priznani in zaupanja vredni. Gospodarska kriza takšne razsežnosti, ki korenito spremeni pogoje aktivnosti lokalnih uprav, pritiska na organizacije, da se odzovejo; s krizo se je treba na neki način spoprijeti, torej s spremembami in dejanji, primernimi novim razmeram.

Neoinstitucionalne teorije poudarjajo pomen usklajenosti in prilagojenosti socialnim normam in običajem, bolj kot pomen uspešnosti procesov. Na organizacijsko obliko enako vplivajo javna politika, zakoni, vrednote in prepričanja v organizaciji. Oliver je razvil tipologijo organizacijskih strategij, ki se uporablja kot analitično orodje v tem članku, tj. usklajevanje, pristajanje, kompromis, izogibanje, kljubovanje in manipulacija kot odziv na institucionalne pritiske.

### **Metodologija**

Naša analiza temelji na podatkih treh lokalnih uprav, centralne vlade in Združenja lokalnih oblasti na Islandiji. Naša raziskovalna strategija je bila pragmatična v tem, da smo združili metode z namenom, da bi razumeli in opisali institucionalne pritiske na lokalne uprave in njihove odzive. Pragmatična je tudi v tem, da ni ne izključno induktivna ne deduktivna, ampak sledi vzorcu kreativne abdukcije. Upoštevajoč ugotovitve Straussa in Corbina ter Charmaza je naše obdelovanje podatkov vključevalo večkratno ponavljanje zbiranja, urejanja, šifriranja, kategoriziranja in preverjanja podatkov ter zbiranja novih podatkov, dokler nam ni uspelo rekonstruirati odnosa med krizo in odzivom lokalnih uprav.

Proučevane lokalne uprave niso povprečne islandske lokalne uprave, saj je njihov finančni položaj bolj kritičen kot pri večini. Bile so strateško izbrane, da bi olajšale proučevanje inovativnih dejanj kot odziva na krizne gospodarske razmere. Analizirani podatki so bili zbrani med dvema obiskoma Islandije, decembra 2010 in julija 2011.

### **Zaključki**

V tem času se številne države v Evropi in svetu soočajo s težkimi časi, zato bi bili pričujoči rezultati lahko zanimivi iz širše perspektive. Upamo, da bodo sledile nove študije o odzivih lokalnih uprav na krizo.

V času krize lokalne uprave ne upravljajo proaktivno, ampak večinoma reaktivno. Lokalna uprava naredi, kar zahteva okolje – čeprav verjetno nerada. V preučevanih primerih so bili upniki najmočnejši zunanji akterji: nazaj so hoteli svoj denar in se niso bili pripravljene veliko pogajati. Vendar so drugi akterji na institucionalnem področju, kot npr. država, poslovna skupnost in volivci, prav tako narekovali lokalni upravi, kako ukrepati. Lokalna uprava je morala nekako zadovoljiti vse zahteve in je morala hkrati delovati čim bolj normalno. Med krizo in po njej so potrebni ukrepi kot odziv na krizo, zunanji akterji neprestano pregledujejo izjave in dejanja organizacije in vsako najmanjše odstopanje se opazi ter nemudoma objavi. V takih pogojih ni lahko biti inovativen: če naj bi organizacija poslovala tako, kot od nje pričakujejo drugi, ji ne preostane veliko možnosti za inovacije. Kot pa je razvidno iz članka, je nekaj ukrepov bilo inovativnih – vsaj v kontekstu krize in kot rešitev za določene probleme – glede pristajanja na politično sodelovanje in vključenost državljanov. Taktika prepričevanja ključnih akterjev zahteva usklajevanje, pomirjanje in pogajanje, pa tudi izbiranje pomembnih deležnikov in vplivanje nanje.

Kriza je dobra priložnost za poenotenje zaposlenih v organizaciji. V preučevanih lokalnih upravah je kriza povzročila manj konfliktov, omogočala več sodelovanja – antagonizem se v krizni situaciji dojema kot neprimerno razkošje. Zdi se, da se različni akterji, znotraj in izven organizacije lokalne uprave, zavedajo odgovornosti za ukrepanje. Naša glavna ugotovitev pa je, da je bila večina ukrepov reaktivnih in nekoliko neinovativnih, čeprav so bili sprejeti za spopadanje s krizo.

# The Usefulness of the Discrete Choice Experiment in Providing Effective Healthcare

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## ABSTRACT

Given that in times of crisis the burden of chronic disease is increasing, preventive interventions are becoming more important as they affect the maintenance and improvement of the population's health, therefore reducing government spending on the sick leave and disability benefits. As public healthcare is characterized by administrative decision-making and relying on non-market mechanisms in the resource allocation, it requires the implementation of economic evaluations. This discussion shows that because the specifics of public healthcare complicate the data collection of revealed (market) preferences, it is necessary to rely on stated preferences of respondents in order to evaluate the economic value of health interventions as well to improve public health care interventions and make them more patients oriented. Also, this article explores the method of discrete choice experiment along with its applications in healthcare, which seeks to identify the marginal rate of substitution between relevant attributes of public healthcare intervention and its impact on the patients' choice, hence enabling a broad application of the method.

*Key words:* public healthcare, health spending, prevention, stated preferences, discrete choice experiment

*JEL:* D61, D78, H51, I11, I18

## 1 Introduction

Public funding of healthcare implies administrative decision-making and relying on non-market mechanisms in the resource allocation, which requires the formation of high-quality public health policies. But many health systems are characterized by the increased health spending and a kind of healthcare crisis, which is not caused solely due to lack of money (Pelletier et al., 2009), but also due to the non-compliance of healthcare spending, the fragmentation of healthcare services, the non-existence of continuous healthcare and the

inadequate funding of the cost-effective preventive interventions. Achieving efficiency in the use of public healthcare resources is not an easy task and involves harmonization at the macro and the micro level. At the level of preventive health interventions the efficiency can not be achieved without a satisfactory level of effectiveness, in achieving which the demand side factors (patients) play a significant role.

The response rate of the target population influences the effectiveness of preventive health interventions, but it also presents the information on revealed preferences of the target population. Furthermore, under the assumption of the rational behavior of individuals, the response rate to preventive interventions should be high whilst the low response rate of the target population (revealed preferences) would imply small social value of preventive health interventions. However, the question arises whether revealed preferences (response rate), in the case of (non-)response to preventive interventions, provide insights into the value (utility) of preventive interventions. Namely, it is well known that even though individuals might consider a certain action to be beneficial they will not necessarily act in accordance with it, which can lead to a distorted value based on revealed preferences. Therefore, the hypothesis of this paper is: by studying individuals' stated preferences it is possible to improve preventive public health interventions and determine their economic value by using method of discrete choice experiment (DCE). The purpose of this paper is to highlight the economic importance of the early detection and prevention of chronic diseases and the role of patients' preferences in creation of optimal health service.

Accordingly, the second part of the paper deals with the economics of prevention and the determinants of individual and social demand for preventive healthcare. After this, the third part of the paper reflects the evaluation of benefits in healthcare with an emphasis on the importance of valuation of stated preferences when conducting economic evaluation or improving healthcare interventions. Finally, one of the most promising methods of stated preferences in healthcare, a method of discrete choice experiment, is presented in the fourth part of the paper in which the theoretical and methodological framework is given along with the review of its application in healthcare.

## **2 Economics of preventive healthcare**

The traditional approach to healthcare is based on the concept of the disease with an uncertain appearance (and outcome), and limited duration of a medical intervention. However, the typical patient has changed and it has become common to suffer from several diseases at the same time (Kenneth & David, 2006; Nolte et al., 2008) and to still experience extended life expectancy. Also, it is anticipated (Mathers & Loncar, 2006) that by the 2030 the chronic

diseases will make 70% of the global burden of disease<sup>1</sup> and cause 80% of deaths worldwide.

Poor health and chronic illness can affect the economy through spending and savings (capital formation), as well as the level of education (Suhrcke et al., 2006). Reduced household consumption and the level of education, due to illness, have a negative impact on gross domestic product, while at the same time expenditures for chronic diseases across Europe are taking an increasingly large share in the government and private consumption. Empirical research at the micro level shows that chronic diseases reduce wages, earnings, labor force participation and productivity while, also, affecting early retirement, disability benefits and high rate of employee turnover (Suhrcke et al., 2006). Therefore, it is necessary to redesign the public health system towards a model of integrated care<sup>2</sup> with a focus on chronic disease management<sup>3</sup> and to ensure greater sensitivity to patients' needs and preferences, consequently increasing the efficiency of the provision of public healthcare.

The prevention of chronic diseases that reduces morbidity and disability has a significant part in integrated medicine and there is a growing interest towards the prevention (Clarke, 2010). Given that in times of crisis the burden of chronic disease is increasing, preventive interventions are becoming more important as they affect the maintenance and improvement of the population's health, therefore reducing government spending on sick leave and disability benefits. Also, the effective use of the prevention helps to reduce the need for curative care and the associated high costs of medical treatment (Wei-Hua et al., 2010; Sassi & Hurst, 2008) which is of great importance nowadays. However, investment in prevention is not only in the interest of the government but also in the interest of the employers (Pelletier et al., 2009), who can save 2–3 dollars on average, in costs associated with the loss of productivity due to employee illness only by spending a dollar on medical/pharmaceutical costs.

## **2.1 Individual demand for prevention**

Empirical studies of demand for healthcare are theoretically based on Grossman's (1999) model of human capital in which individuals invest in their health and the level of individual's health directly affects the level of his utility, but also the time available for market and non-market household production<sup>4</sup>. In other words, the utility of consumption which an individual derives from

- 1 The WHO project »The Global Burden of Disease« estimates incidence, prevalence, severity and duration, and mortality for more than 130 major causes of illness, and includes data from 2000 onwards for the members of WHO and various sub-regions around the world.
- 2 According to the model of integrated care treatment is organized in a way that the healthcare is better connected among the full range of health services. Examples from Europe are the introduction of case management by the NHS in the UK, and the Spanish pilot project in which the entire medical care is available from a single source (Busse et al., 2010).
- 3 In a number of European countries there are considerable variations in the approaches to chronic disease management that are being implemented in different healthcare settings (McKee & Nolte, 2004).
- 4 Households combine market goods and their time in order to produce the goods that are the ultimate source of their utility (Becker, 1965).

his income depends directly on his health state. If spending on medical care ( $M$ ) decreases, the stock of individual's health ( $H$ ) will also decrease  $H(M)$ , influencing the level of income  $Y(M)$  to decrease. Consequently, the amount of resources available for spending on other goods will increase at a decreasing rate up to a certain point after which every further reduction in medical care costs would reduce the health state of the individual. This will cause the reduction in income that will overturn savings in medical costs, leading to further reduction in the overall level of consumption. Finally, when medical care  $M = 0$ , the income  $Y = 0$  at the level of consumption  $X = 0$ .

The compromise between different goals of consumption and health can be shown by a conventional microeconomic optimization model, keeping in mind that the marginal benefit of investing in additional unit of health contains the consumption as well as the investment component (Zweifel et al., 2009). The first relates to the direct increase in utility due to reduction of time spent in illness and the other relates to indirect increase in utility through the possibility of increasing wealth and income. Consequently, the demand for medical care is derived from the demand for health and by investing in prevention an individual can increase his utility while at the same time reducing it by sustaining from unhealthy activities and consumption. From an economic perspective improvement in health is not the only purpose of human life and individuals derive utility from various forms of consumption and activities, of which only a small portion ensures a good health.

The insurance model, which determines the impact of health insurance coverage on the individual's demand for prevention, is also used in explaining the demand for prevention. Namely, if a patient is experiencing prevention and curative care as substitutes (Phelps, 1978; Meier, 2000), a decrease in the price of curative care will decrease the demand for prevention, potentially leading to problem of ex ante moral hazard. But, according to the empirical research (Kenkel, 2000), pronounced reduction of prevention among the insured individuals was not found. The reason may be that, according to the model of human capital, health is the ultimate form of utility as well as the „means“ for enabling other form of utility and good health is a function of both curative and preventive care. Also, empirical results suggest that curative care may actually complement the use of prevention as in the case of early detection of breast and cervical cancer (Kenkel, 1994), meaning that individuals with covered curative costs find the early detection very useful.

## 2.2 Prevention and social welfare

In principle, prevention has greater potential than treatment of chronic disease for increasing the social welfare by decreasing or avoiding the burden of chronic disease. However, there are at least two significant differences between prevention and curative care (Sassi & Hurst, 2008) that should be taken into account when considering social welfare and the demand for prevention. Firstly, the goal of prevention is to change the conditions



giving rise to the occurrence of disease, including the environment in which people live, the level of education and their way of life. Modification of these terms includes certain sacrifices by individuals at an additional cost of material resources. Secondly, healthy individuals are the target population of preventive interventions, therefore the benefits of reducing the risk of developing the disease is seen in the future, which is reducing the value of prevention in the present. Thus, the extent to which prevention can improve the social welfare is defined by mutual relationship of previously mentioned sacrifices and the present value of future risk reduction.

When considering the social benefits of prevention it is important to distinguish between two basic categories of prevention (Kenkel, 2000). The first relates to primary prevention, such as vaccination or healthy lifestyle which reduces the likelihood of disease occurrence, while the secondary prevention includes activities such as screening tests which minimize the consequences of disease and limits the loss of health (Kenkel, 1994), without affecting the probability of disease occurrence. The introduction of public preventive health interventions often requires proof of substantial cost savings and according to Russell (1986), very simplified, it depends whether the cost of prevention will be less than the cost of treatment multiplied by the incidence rate<sup>5</sup> without the prevention. This formulation does not make much sense in calculating the cost-effectiveness of secondary prevention (early detection) because it does not affect the incidence rate but increases the success of treatment and reduces future medical costs.

Given the growing prevalence of chronic disease, secondary prevention can achieve significant savings. Therefore, the goal of secondary prevention is to detect as many diseases at their early stage when the likelihood of curing is greater and the cost of illness is lower. Thus, the success of preventive public health intervention is determined by the response rate of target population. Keeping that in mind, the next chapter will review the importance of stated preferences in public health decision-making.

### **3 Evaluation of benefits and stated preferences methods**

Scientific advances in medicine and technology have contributed to the increase in quality of healthcare, which is on the other side limited by the availability of resources in the form of time, people, money, which creates a gap between the technically possible and economically feasible (Poulsen et al., 2008). Economic evaluations in health, which are theoretically based in welfare economics, have shown to be a good decision-making framework in situations of budget constraint and there is an increasing interest in their

<sup>5</sup> The incidence rate measures the number of new patients in a defined period of time compared to the total number of persons multiplied with the monitoring time.

use<sup>6</sup> as the implementation of economic evaluation plays an important role in prioritizing healthcare costs.

If the government wants to invest its limited resources in public healthcare programs that will be of greatest interest to the community, it is necessary, along with the cost side, to evaluate the benefit side which entails the issue of the definition and measurement of the benefits. In theory, the evaluation of benefits in healthcare will depend on the selection of one of the two dominant approaches which are welfarism and extra-welfarism (McGuire, 2001). According to welfarism, the outcome of healthcare is assessed according to its contribution to the overall level of efficiency compared to the other arguments of the utility function, while extra-welfarism assesses the outcome of healthcare according to its contribution to health solely. For extra-welfarism the only relevant are the changes in health and not the changes in the overall level of utility so the benefits of healthcare are expressed through the impact on mortality along with the health related quality of life for which generic measure of Quality Adjusted Life Years (QALY) has been developed.

### 3.1 Orientation towards broader concepts of benefits

A significant amount of research in the field of healthcare economics is based on a non-monetary evaluation of preferences and the evaluations of benefits, within conducted economic evaluations which are almost entirely based on health outcomes (Birch & Donaldson, 2003), as evidenced by the widespread use of QALY in the cost-utility analysis (CUA). However, the criticism of the use of QALY followed, arguing that the exclusive focus on the maximization of a single defined objective (health) is neglecting many other important criteria in public health prioritization, such as needs, efficiency and equality (Golan et al., 2011; Green, 2009; Gyrd-Hansen, 2004; Mirelman, 2012). Besides those, another objection to the QALY refers to the neglecting of social preferences for the equitable distribution of health.

If the above mentioned as well as other non-health benefits are considered to be relevant in the assessment of social welfare (which would depend on the selection of welfarist or extra-welfarist approach), it is necessary to take into account the value of non-health and process characteristics (Moony, 1994). This has been confirmed by empirical research (Ryan, 1999) in which patients were willing to trade-off the changes in health outcomes for process features such as waiting time, cost etc. Consequently, the cost-benefit analysis (CBA) that expresses healthcare benefits in terms of individual willingness to pay (WTP) grows in importance as its evaluation criteria is utility maximization (McGuire, 2001).

<sup>6</sup> For example, in Australia, Canada, USA, Sweden, Portugal, Finland, UK, Holland, Germany, Ireland (Drummond & Sculpher, 2006) there is an upward trend in the use of economic evaluation (mainly cost-effectiveness and cost-utility analysis) in public healthcare in order to achieve efficiency.

According to welfare theory, individuals are the best judges of their well-being and if under the assumption that the maximum amount individuals are willing to pay (sacrifice) for a certain good or service indicates their level of utility, monetary value of benefits is determined by individual willingness to pay (WTP). Therefore, the level of well-being can be determined by observing actual choices of individuals in the market (RP) or by testing hypothetical choice of the individuals (SP). Namely, when certain goods or services are traded in the market, buyers and sellers reveal their preferences directly through price and quantity signals, while in the absence of the market mechanism (as in the case of public health) preferences are not revealed in the same manner. Therefore, the economic evaluation is required for the assignment of value to non-market goods or services.

The value of goods and services can be expressed in terms of money (WTP) and in non-monetary units (QALY), using an indirect approach with revealed preferences data or direct approach with stated preferences data (McIntoch, 2010). By using the indirect approach the value of non-market good or service is revealed by some complementary market (e.g. patients' transportation costs), while direct approach requires the construction of the hypothetical market where respondents are asked to state their preferences for non-market good or service. Therefore, within the CBA, the benefits of healthcare can be determined by using SP or RP methods which do not require benefits to be expressed in terms of health and health related quality of life only (QALY).

### **3.2 Eliciting stated preferences to inform decision-making**

Economists are typically (justifiably) skeptical when it comes to relying on what consumers say that they will do in relation to what they actually do. However, there are situations when there is no other choice but to rely on the testimony of the consumer/patient, or do nothing, as in the case of healthcare. Louviere, Hensher and Swait (2000) in one of the most cited books in the field of discrete choice argue that, along with the well-developed economic theory as one, there are many reasons why economists should be interested in hypothetical choices (SP) of economic agents. Briefly, the appropriateness of SP compared to RP is reflected in situations when it is necessary to estimate the demand for a new product with new characteristics and features, when there is very little variation of the explanatory variables on the market<sup>7</sup>, when they are highly collinear, when the data collection on the market is extremely time-consuming and expensive, and when the product is not traded on the market, which is important for public healthcare. In this sense, it is possible to determine the overall economic value (use value, non-use value and option value) with SP (Kjær, 2005).

<sup>7</sup> Competitors in numerous industries coordinate prices and levels of service and the price remains unchanged over a longer period of time.

The interest for using the SP techniques has increased dramatically in the environmental economics and the health economics from the mid-1990s onwards, and can be classified generally (Merino-Castello, 2003) as contingent valuation (CV) and multi-attribute valuation (MVA). Lately, in a number of SP research in health economics discrete choice experiment (DCE) – a form of MVA is being used which can be attributed to numerous advantages of the methodology. Namely, in DCE respondents make choices in a manner consistent with the way in which they would actually choose in a real market and it is more appropriate in situations when it is necessary to evaluate several attributes simultaneously, while CV would need the construction of more scenarios. Another advantage of DCE in relation to CV is in reduced multicollinearity between the attributes and the avoidance of problems in the respondents' answers that are characteristic for the CV method (Bateman et al., 2002). Also, DCE seeks to identify the relationships in which attributes are substituted by each other, at the same time maintaining the same level of utility, i.e. the marginal rate of substitution (MRS) and its impact on the respondents' choice, hence enabling a broad application of the method. In this sense, the most advantageous and certainly unique to DCE is that it can be used in both CBA (estimating monetary value of WTP) and CUA (estimating the utility weights within QALY) (Ryan et al., 2006; Lanscar et al., 2011).

Finally, the reason for conducting DCE is twofold. Firstly, it leads to the structured conclusions about the respondents' preferences related to the research question and the possible trade-offs between the attributes. Secondly, the researcher can determine the amount to which patients are willing to pay themselves for some of the elements (attributes) or a healthcare service as a whole. Besides that, monetary evaluation (WTP) is a way of quantifying the value of healthcare intervention in the broadest sense.

## **4 Discrete choice experiment in healthcare**

The appropriateness of DCE method is based on two basic assumptions. First, the alternatives (goods or services) differ according to their characteristics (attributes) (Lancaster, 1966) and second, the evaluation of the alternatives depends on the attribute levels. By changing the attribute level it is possible to predict the changes in individual's choices between different alternatives and therefore to determine individual preferences. This way it is possible to design an optimal service within the available resources which is very important in ensuring cost-effectiveness of preventive healthcare interventions.

### **4.1 Theoretical foundation of the discrete choice experiment**

The theoretical framework of DCE contains elements of traditional microeconomic theory of consumer behavior, such as the formal definition of rational choice. However, the fundamental shift from the traditional consumer theory is reflected in the setting that the consumer obtains utility

from the characteristics (attributes) associated with the good, and not from the good per se (Lancaster, 1966). This methodology collects data about the respondents' preferences in hypothetical scenarios, while the new scenario is formed with every modification of the level of the attributes. By providing certain variations in the scenarios, it is possible to determine the relations in which the attributes are substituted by each other, and to examine the extent to which each of the attributes affects the choices of the individuals. The scenarios with the alternatives and product descriptions are commonly performed with the technique of experimental design in order to encourage respondents to trade-off, in this way taking into account the concept of opportunity cost in the process of preference elicitation.

The respondents' choices are analyzed by using a well-tested random utility theory (RUT) introduced by Thurston<sup>8</sup> in 1927. According to RUT, utility is a latent construct that is not fully observational to the examiner, and consists of two components – a systematic (explicable) and a random one (inexplicable). The systematic component consists of attributes which explain the differences between the alternatives and covariates that explain the differences in the choice of the individuals, while the random component includes all the unidentified factors that influence the choice. Furthermore, as individuals are imperfect units of measure, the random component may also include factors that influence the variability associated with the individual, and not the option of choice per se. Finally, RUT estimates the maximum likelihood of possible choice with regard to the attributes of the alternatives, i.e. the model estimates the coefficients that maximize the probability of the actual respondents' choice, with the assumption that the individual seeks to maximize his level of utility.

#### **4.2 The construction of discrete choice experiment in healthcare**

The attributes, within a discrete choice method, are the variables that have two or more fixed levels, whereas the identification and the selection of attributes and their levels is the initial step in the process of experimental design, which has the biggest impact on the obtained experiment results and their validity (Kløjgaard et al., 2012). In determining the attributes it is important to avoid a conceptual overlap between attributes, in statistics known as the correlation, because that would disable the exact estimation of the main effect<sup>9</sup> of each attribute on the dependent variable, while the range of the selected levels of attributes should include realistic situations, in this way increasing the accuracy of the estimated parameters (Hall et al., 2004). Furthermore, it is necessary to ensure a balance of the experimental design, i.e. to ensure the occurrence of different levels of attributes about the same

<sup>8</sup> The theory and methods of discrete choice analysis were further on developed by McFadden (1973) for which he received the Nobel Prize in Economics in 2000.

<sup>9</sup> The main effect refers to the direct independent impact of change in the level of attribute on the variable of the choice, while the indirect effect refers to the impact of the simultaneous variation of two or more attributes.

number of times, which minimizes the variance in the estimated parameters (Mangham et al., 2009). The third feature that characterizes an effective design is the minimal overlap, meaning that the researcher should minimize the likelihood of repeating the same level of the attribute because the value of an attribute can be determined only by a comparison with other attributes.

Most recently, improved methods of experimental design such as the orthogonal array<sup>10</sup> and D-efficient design<sup>11</sup> are used and new software solutions for creation of choice sets are developing. However, in spite of the progress in the design, a lot of choice experiments are based on a statistically inefficient design (Louviere & Lancsar, 2009). Besides the statistical properties of experimental design that should be satisfied (identification and precision), Louviere, Hansher and Swait (2000) point to two non-statistical properties that affect the suitability of the design, such as cognitive complexity and market reality. DCE tends to simulate market choices and establish consistency in the respondent's choice. Therefore, it is necessary to correctly identify relevant attributes in the decision-making process and to determine the significant attribute levels, for which it is necessary to first conduct a qualitative analysis that will include the opinions and the experiences of all relevant respondents. Although qualitative analysis is used in the majority of empirical studies for the identification of attributes and their levels and pilot testing of the entire questionnaire, qualitative process is recorded only in one third of the conducted researches (cf. de Bekker-Grob et al., 2012), thus calling for better reporting of the qualitative process.

The next key aspect of the application of DCE methodology is certainly the choice of the econometric model for the analysis of individuals' choices. The analysis typically implies the use of a logistic regression model with a categorical dependent variable such as logit, probit or multinomial logit (MNL), whereas the starting point in choosing the most appropriate model is the error distribution of the model. Earlier studies in healthcare (Ryan & Gerard, 2003) were mostly investigating binary choices or the so-called forced choices using probit and logit models in the analysis of the obtained data. However, with the recognition of the need for and the importance of multiple selections (e.g. the possibility of opt-out) the application of MNL (de Bekker-Grob et al., 2012) was imposed. As MNL is based on the assumptions that are very restrictive with regard to human behavior, and can limit the reality when considering the various options of healthcare policy, there is an increasing emphasis on the use of models of greater flexibility, such as nested logit, latent class logit and mixed logit.

<sup>10</sup> Fractional factorial design that is both orthogonal and uniform is known as the orthogonal array. The orthogonal array exists only in certain combinations of attributes and their levels, while for the other combinations a compromise between the degree of orthogonality and balance has to be found (Mangham et al., 2009). The researcher should choose the most efficient design, for what is proposed D-efficient design (Burgess & Street, 2005).

<sup>11</sup> A review of the literature in the period 1990-2000 has not found any work that used D-efficient design, while in the period 2001-2008 12 DCEs were recorded in which D-efficient design was used, using SAS statistical program (de Bekker-Grob et al., 2012).

Although the application of DCE in healthcare is marked by the improvement in the statistically efficient design and the development of econometric models, progress is lacking in the field of external validity with respect to hypothetical bias in the data. Precisely because the respondents' hypothetical choices are tested, DCE is subject to criticism in the part that it does not reflect the actual choices of individuals and therefore is not suitable for evaluating and predicting the effects of changes in health policies. In previous studies the internal validity of the model was mostly examined (i.e. DCE axioms about the completeness were tested (the individuals form and express the complete set of their preferences), rationality (individuals prefer more in respect to less good) and continuity (individuals substitute all features by each other)) which confirmed (Ryan & Gerard, 2003) the existence of the completeness of preferences and rationality of the respondents but suggested irregularity of the axiom of continuity.

### **4.3 Application in healthcare**

The main reason for the introduction and use of DCE in healthcare was to overcome QALY framework (Louviere & Lancsar, 2009), and to enable evaluation of non-health outcomes (Ryan & Gerard, 2003). As the initial introduction of DCE in healthcare aimed at stressing the importance of non-health outcomes and process characteristics (Ryan & Gerard, 2003), the same method was used for measuring the compromises which individuals are willing to make in relation to the process characteristics and the resulting consequences on health, and some studies (Ryan, 1999) showed that respondents were willing to change a substantial part of the potential improvement of health state for the better care during the process of medical intervention. In many DCE studies, there were investigated the relative importance of experience attributes, the compromises between different attributes, the willingness to pay for the marginal change of the attribute as well as the overall monetary value of different configurations of services (cf. de Bekker-Grob et al., 2012).

Until the year 2000, DCE was not particularly widespread in health economics<sup>12</sup>, partly because of limited interest of the pharmaceutical industry and government in the use of economic evaluation based on preferences. However, the interest in this method has significantly increased over the last decade, especially in the UK, Australia, the U.S., and Denmark and the Scandinavian countries (Kjær, 2005), which has increased the use and dissemination of DCE as well as the comprehension of its wider use. Today, the DCE is also used for evaluation of health outcomes (cf. de Bekker-Grob et al., 2012); prediction of the acceptance of new policies or healthcare programs (Hall et al. 2002); exploration of the compromise between health outcomes

<sup>12</sup> In the period 1990–2000 34 studies (3 a year) in Great Britain were identified (Ryan & Gerard, 2003), and in the period 2001–2004 25 (7 a year) new studies were conducted and the following 80 until July 2007 (27 a year) (de Bekker-Grob et al., 2012).

and patients' experience factors (Gyrd-Hansen, 2004; Lanscar et al., 2007); exploration of preferences of certain groups of respondents<sup>13</sup>.

DCE have mostly been applied in health economic research in high-income settings with UK being the leading contributor to the literature followed by US, Australia, and Canada (de Bakker-Grob et al., 2012) and there are only few DCE health economic research conducted in low- and middle-income countries with a growing interest in the use of DCE in African countries e.g. Ghana, Ethiopia, Tanzania, Zambia (cf. Mangham et al., 2009). Although the usefulness of DCE is not yet recognized in the countries of Eastern Europe and former Yugoslavian countries it can be expected that the usefulness of the multi-criteria approach to health priority setting and advantages of DCE will certainly be recognized in the near future.

## 5 Conclusion

Recent years have been marked by the economic crisis, but also healthcare crisis caused by demographic and health reasons, such as the aging of the population and the increased burden of chronic disease in developed countries. This creates a lot of pressure on budget spending and threatens the sustainability of national healthcare systems. Thus, the need and the importance of prevention and public preventive interventions arise, whereby it is important to ensure a certain level of effectiveness of preventive interventions in order to achieve its cost-effectiveness.

As healthcare is a non-market commodity its value (utility) can be determined by using RP or SP methods within the economic evaluations that have shown to be a good decision-making framework in situations of budget constraint. But along with evaluation of preventive interventions it is also important to achieve a certain level of its effectiveness (e.g. adequate uptake). Therefore, when planning public health services or interventions it is important to take into consideration the factors that affect the demand because the success (effectiveness) of the implementation of public health interventions will depend on it. This is why patients' preferences and the factors that influence their decision-making should be included in the process of design, customization and implementation of those interventions.

In addition to being very useful for the economic evaluation of health interventions (assessment of social value), DCE is also suitable for their improvement because it enables the determination of the way in which preferences affect individual decision-making. DCE method seeks to identify the relationships in which goods (attributes) are substituted by each other,

<sup>13</sup> For example, Bishop et al. (2004) compared the preferences of healthcare professionals and patients in relation to the screening test; Hall et al. (2006) compared the preferences of the general population and high-risk subgroups in relation to genetic screening; Ubach and others (2003) compared the preferences of pharmacists and general practitioners in relation to the electronic prescribing system; Bech (2003) compared the preferences of politicians and hospital management in relation to the compensation system.



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at the same time maintaining the same level of utility, i.e. the marginal rate of substitution and its impact on the respondents' choice, which is of great importance in sectors with strong budget constraints. This substitutability feature is at the heart of microeconomic concept of value as trade-offs that consumers are making by choosing smaller quantities of one good for larger quantities of another good reveal the essence of value which they assign to a good, enabling a broad application of the method for the purposes of planning public health policies.

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POVZETEK

## **UPORABNOST METODE DISKRETNE IZBIRE PRI ZAGOTAVLJANJU UČINKOVITE ZDRAVSTVENE OSKRBE**

*Ključne besede:*

Slabo zdravje in kronična bolezen lahko vplivata na ekonomijo preko porabe in prihrankov (investicije), kot tudi na stopnjo izobrazbe. Empirična raziskava na mikro ravni je pokazala, da kronične bolezni znižujejo plače, dobiček, sodelovanje delovne sile in produktivnost, medtem ko hkrati vplivajo na zgodnje upokojevanje, invalidnino in visoko stopnjo fluktuacije zaposlenih. Glede na to, da se breme kroničnih bolezni v času krize povečuje, vedno bolj pomembni postajajo preventivni ukrepi, saj vplivajo na vzdrževanje in izboljšanje zdravja prebivalstva in tako zmanjšujejo vladne stroške za bolniški dopust in invalidnino. Učinkovita raba preventive pomaga tudi zmanjšati potrebe po zdravljenju in s tem povezane visoke stroške zdravniške oskrbe, kar je dandanes zelo pomembno.

Če vlada želi investirati svoja omejena sredstva v programe javnega zdravstva, ki bodo najbolj zanimivi za skupnost, je potrebno, da poleg stroškovne plati oceni tudi koristno plat, kar vključuje tudi vprašanje definicije in merjenja koristi. Ekonomsko vrednotenje na področju zdravstva, ki teoretično temelji na ekonomiji blaginje, je pokazalo, da je dober okvir za odločanje v času proračunskih omejitev. Za njegovo uporabo vlada povečano zanimanje, saj izvajanje ekonomskega vrednotenja igra pomembno vlogo pri postavljanju prioritet pri stroških zdravstvenega varstva. Velik del raziskav na področju zdravstvene ekonomike temelji na nedenarni oceni preferenc in oceni koristi, znotraj opravljenega ekonomskega vrednotenja, ki skoraj v celoti temeljijo na zdravstvenih rezultatih, kot je razvidno iz široko razširjene uporabe mere »leta zdravstveno kakovostnega življenja« (QALY) v analizi stroškovne uporabnosti (CUA). Vendar pa je sledila kritika uporabe QALY, ki je navajala, da osredotočenost na maksimizacijo izključno enega cilja (zdravje) zanemarja številne druge pomembne vidike pri razvrščanju v javnem zdravstvu, kot so potrebe, učinkovitost in enakost. Poleg teh, se na uporabo QALY nanaša še ugovor glede zanemarjanja socialnih preferenc za pravično razdelitev zdravstva.

V skladu s teorijo blaginje so posamezniki najboljši sodniki svoje blaginje in če, na podlagi domneve, da najvišji znesek, ki so ga posamezniki pripravljeni plačati (žrtvovati) za posamezno dobro ali storitev, nakazuje njihovo raven koristnosti, je denarna vrednost koristi določena s posameznikovo pripravljenostjo za plačilo (WTP). Zato se lahko stopnjo blaginje določi z opazovanjem dejanskih izbir posameznikov na trgu (RP) ali s preizkušanjem

hipotetične izbire posameznikov (SP), ki ne zahteva, da so koristi izražene samo glede na zdravje in z zdravjem povezano kakovostjo življenja (QALY). Ob predpostavki racionalnega obnašanja posameznikov bi morala biti odzivnost na preventivne ukrepe (razkrite preference) visoka, medtem ko bi nizka odzivnost ciljne populacije nakazovala na nizko socialno vrednost preventivnih zdravstvenih ukrepov. Postavlja se vprašanje, ali razkrite preference (odzivnost) v primeru (ne)odzivanja na preventivne ukrepe, ponujajo vpogled v vrednost (korist) preventivnih ukrepov. Dobro je znano, da čeprav lahko posamezniki določene ukrepe obravnavajo kot koristne, ni nujno, da bodo ravnali v skladu s tem, kar lahko pripelje do popačene vrednosti na osnovi razkritih preferenc. Kljub temu so ekonomisti običajno (upravičeno) skeptični, ko pride do zanašanja na izrečene preference. Vendar pa v določenih situacijah ni druge izbire, kot zanesti se na pričevanje potrošnika/pacienta, ali pa ne ukrepati, kot v primeru zdravstvenega varstva, kjer se je zanimanje za uporabo tehnik SP (kot so kontingenčno vrednotenje in metoda diskretne izbire) dramatično povečalo od sredine devetdesetih let dalje.

V zadnjem času se v številnih raziskavah v zdravstveni ekonomiki uporablja metoda diskretne izbire (DCE), kar lahko pripišemo številnim prednostim metodologije. V DCE se namreč anketiranci odločajo skladno s tem, kakor bi se dejansko odločili na pravem trgu, in je bolj primerna v situacijah, ko je nujno oceniti več atributov hkrati, medtem ko bi pri kontingenčnem vrednotenju (CV) potrebovali izdelavo več scenarijev. Še ena prednost DCE v primerjavi s CV je v zmanjšani multikolinearnosti med atributi in izogitvi nekonsistentnosti v odgovorih anketirancev, ki so značilni za metodo CV. Poleg tega DCE poskuša identificirati odnose, v katerih se atributi zamenjajo drug z drugim in hkrati ohranijo enako raven koristnosti, tj. mejno stopnjo substitucije (MRS) in njen vpliv na izbire anketirancev, kar omogoča široko uporabo metode. V tem pogledu je največja prednost in edinstvenost DCE v tem, da se lahko uporabi tako pri analizi stroškov in koristi (ocenjevanje denarne vrednosti WTP) kot pri analizi stroškovne uporabnosti (ocenjevanje uteži uporabnosti znotraj QALY).

Teoretični okvir DCE vsebuje elemente tradicionalne mikroekonomske teorije vedenja potrošnikov, kot so formalna definicija racionalne izbire. Vendar pa se temeljni premik od tradicionalne teorije potrošništva odraža v okolju, tako da potrošnik pridobi korist od značilnosti (atributov), ki so povezane z dobrim in ne od dobrega samega po sebi. Atributi, znotraj metode diskretne izbire, so spremenljivke, ki imajo dve ali več fiksnih stopenj, medtem ko sta določitev in izbira atributov in njihovih stopenj začetni korak v procesu načrtovanja poizkusa, kjer je končni rezultat vprašalnik z različnimi scenariji, ki vsebujejo alternative, opisane z ustreznimi ravnmi atributov. Z zagotavljanjem razlik v scenarijih je mogoče določiti odnose, v katerih se atributi zamenjajo drug z drugim, in preučiti, v kolikšni meri vsak od atributov vpliva na izbire posameznikov. Ker se DCE nagiba k simulaciji odločitev na trgu in vzpostavitvi doslednosti anketirancevih odločitev, je treba pravilno opredeliti pomembne attribute v procesu odločanja in določiti stopnje pomembnih atributov, za

kar je treba najprej opraviti kvalitativno analizo, ki bo vključevala mnenja in izkušnje vseh pomembnih anketirancev.

Z uporabo dobro preizkušene teorije slučajne koristnosti (RUT) analiziramo izbiro danih možnosti, ki so jo opravili anketiranci. Teorija ocenjuje največjo verjetnost mogoče izbire z obzirom na attribute možnosti, tj. model oceni koeficiente, ki maksimizirajo verjetnost dejanske izbire anketirancev, s predpostavko, da posameznik želi maksimizirati svojo stopnjo koristnosti. Po RUT je koristnost latentni konstrukt, ki ga opazovalec ne opazuje v celoti in je sestavljen iz dveh delov – sistematičnega (razložljivega) in naključnega (nerazložljivega). Analiza običajno nakazuje uporabo logističnega regresijskega modela s kategorično odvisno spremenljivko, kot so model logit, model probit ali multimodalni logit (MNL), medtem ko je izhodiščna točka pri izbiri najprimernejšega modela napačna porazdelitev modela. Ker MNL temelji na predpostavkah, ki so zelo omejevalne glede človeškega vedenja in lahko omejijo realnost, ko upoštevajo različne možnosti zdravstvene politike, je vedno večji poudarek na uporabi modelov, ki so bolj prilagodljivi, kot so hierarhični logit, logit latentne spremenljivke in mešani logit.

Do leta 2000 DCE ni bila posebej razširjena v zdravstveni ekonomiki, deloma zaradi omejenega interesa farmacevtske industrije in vlade za uporabo ekonomske ocene na podlagi preferenc. Vendar pa se je zanimanje za to metodo v zadnjem desetletju znatno povečalo, še posebej v Veliki Britaniji, Avstraliji, ZDA, na Danskem in v skandinavskih državah, kar je povečalo uporabo in širjenje DCE, kot tudi razumevanje njene širše uporabe. Začetna uvedba DCE v zdravstvu je bila namenjena poudarjanju pomena rezultatov, ki niso povezani z zdravjem, in lastnosti procesa. Danes pa se DCE uporablja za ocenjevanje zdravstvenih izidov; napovedovanje sprejema novih politik ali zdravstvenih programov; raziskovanje kompromisov med zdravstvenimi izidi in dejavniki izkustva pacientov; raziskovanje preferenc posameznih skupin anketirancev.

Poleg tega, da je zelo koristna za ekonomsko vrednotenje zdravstvenih ukrepov (ocena družbenega pomena), je DCE primerna tudi za njihovo izboljšanje, saj omogoča določitev načina, na katerega preference vplivajo na posameznikovo odločitev. Metoda DCE želi določiti razmerje, v katerem se blago (atributi) zamenjajo z drugimi, hkrati pa ohranjajo isto stopnjo koristnosti, tj. mejno stopnjo substitucije in njen vpliv na izbiro anketirancev, kar je velikega pomena v sektorjih s strogimi proračunskimi omejitvami. Ta funkcija zamenljivosti je v središču mikroekonomskega koncepta vrednosti kot kompromisi, ki jih potrošniki delajo, ko izberejo manjše količine ene dobrine za večje količine druge dobrine, razkrivajo bistvo vrednosti, ki jo dodelijo dobrini, in s tem omogočijo široko aplikacijo metode za namene načrtovanja politike javnega zdravstva.





# The Relationship between the Mayor and Deputy-Mayor in the Slovenian Local Self-Government System

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## ABSTRACT

The paper analyses the question of relations between the mayor and deputy-mayor, particularly in terms of division of competences. The paper also deals with the standpoints of mayors and deputy-mayors regarding the institution of deputy-mayor. Furthermore, it verifies the assumption that the current regulatory framework regarding the appointment (and determination of competences) of the deputy-mayor is not entirely appropriate. Based on the analysis of objective data and research surveys among mayors and deputy-mayors of Slovenian municipalities, we analyse the problems of the functioning of those players. We learn that the current Slovenian legislation is favourable to consolidating the position and power of the mayor, because he/she can freely appoint and determine competences of the deputy-mayor(s).

*Key words:* mayor, deputy-mayor, relation, competences, municipality, Slovenia

*JEL:* Z00

## 1 Introduction

The Slovenian system of local self-government features two primary municipal bodies: the municipal council and the mayor. Another important body is the supervisory committee (Brezovšek et al., 2008, p. 169; Vljaj, 2007). The municipal council is the legislative body, whereas the mayor represents the apex of the local-level executive. For a long time, various typologies of local self-government systems have been proposed. They have been based on theory and/or empirical evidence and concern the horizontal division of power in local communities, that is, the relationships between the local

council, the mayor, and the executive officials (see Heinelt & Hlepas, 2006, pp. 29–41). Mouritzen & Svava have also devised a typology of the systems of local self-government, dealing with the horizontal division of power. When constructing the models, their considering is based on the hypothesis that the structural characteristics of a municipal administration in a certain state reflect the balance or compromise between three organisational principles, as follows: (1) rule by the people (the non-professional public), (2) political leadership, and (3) expertise. Even though Mouritzen & Svava take all three organisational principles into account, they set political leadership as the basis for their typology's development. Namely, the fundamental question is how political power is acquired, maintained/preserved, wielded, and distributed. Political power depends on the degree of a political actor's control – either of a single person or of a collective body – in two areas: firstly, to what extent one or more political actors control the municipal council, and secondly, to what extent one or more political actors control the execution of tasks. Formal structure can answer these two questions; however, Mouritzen & Svava warn us that the informal rules and norms existing in certain municipal bodies are important, too (Heinelt & Hlepas, 2006, p. 31).

Mouritzen & Svava study the depth of fusion and mixing of administration and politics as they analyse how political and administrative leaders influence and complement one another. Based on this analysis, they formulate four ideal-type models of local-level government, as follows:

- The strong mayor model: The elected mayor controls the majority in the municipal council and is also in full charge of all executive functions. The director of municipal administration (henceforth, the DMA) performs tasks determined by the mayor; in this way, they are subordinated to the mayor, as the latter can fire and hire the director without prior consent of other politicians or political bodies. In addition to the DMA, mayors can also employ political advisors who help them with their functions. This form of government explicitly stresses the principle of political leadership. In this manner, rule by the people and expertise conform to strong political leadership.
- The committee leader model: One person is an obvious political leader of the municipality – they may (or may not) hold the title of mayor. The political leader may (or may not) control the local council. In this model, executive powers are shared. The political leader can be entrusted with certain executive functions, whereas the remaining functions fall within the jurisdiction of the collective body, that is, the permanent committee composed of elected politicians and the DMA. This model features a more even mixing of all three organisational principles than do the other models.
- The collective body model: The collective body, that is, the executive committee, is at the centre of decision-making and is responsible for all executive functions. The executive body is comprised of elected

local politicians and the mayor who chairs it. This model attributes the greatest emphasis to the principle of rule by the people (members of the collective body are elected by the people), with principles of political leadership and expertise conforming to it.

- The local council–manager model: In this case, all executive functions are held by the professional administrator (a city manager) appointed by the local council. The local council is in general control over politics, yet its cooperation in administrative matters is limited. The local council is a relatively small body; it is led by the mayor, who formally presides over it and is in charge of ceremonial/protocol functions. This model stresses the principle of expertise, whereas the principles of rule by the people and political leadership are limited (Mourtizen & Svava, 2002, pp. 55–56).

This article's theoretical point of departure is represented by the strong mayor model, which assumes that the elected representative of the people possesses a great majority of executive power (or even the whole of it) and that they can freely select, appoint, and dismiss not only the highest senior civil servant, who is thus completely subordinated to the mayor;<sup>1</sup> but also the mayor may appoint other political advisors, so as to offer assistance in the execution of mayoral functions. We apply the selected model to Slovenia in order to analyse the relationship between the mayor and the deputy-mayor(s) as political advisor(s). Hence, the primary focus of this article is on the relationships between the aforementioned actors in connection with the division of their competences and functions. Furthermore, by using empirical data, we analyse standpoints of mayors and deputy-mayors regarding the institution of the deputy-mayor and test the hypothesis stating that the current normative framework of the manner of selection of deputy-mayor(s) is inappropriate.

## **2 Mayor's position in the Slovenian system of local self-government**

The mayor is the personal, individual body of the municipality, a holder of political function, elected by secret ballot in direct elections for a four-year term of office (Brezovšek in Kukovič, 2012, p. 125; Šmidovnik, 2005). The right to vote is conferred upon voters who have permanent residence in the municipality (Local Self-Government Act, Article 42). Suffrage for the election of a mayor is identical to suffrage for election of the municipal council (Kavčič & Grad, 2008, p. 392).<sup>2</sup> The right to vote and to be elected as mayor is thus

<sup>1</sup> See also Kukovič, S. et al. (2012). Mayor: The Strongest Player in Slovenian Local Government?. *Czech Journal of Political Science* XIX(3), pp. 218–233.

<sup>2</sup> »The responsibility of the executive to the municipal council in pursuance of Article 3(2) of the Charter having to be viewed as a vital element of the domestic democratic organisation of local authorities (Rec. 113/2002), whereas the use of forms of direct democracy other than council elections is explicitly allowed, the election of the executive (and particularly of the mayor) directly by the population probably even becoming the most widespread form (Rec. 151/2004). Each such reform probably represents an example of democratic progress.

conferred upon every citizen who has the right to vote in elections to the municipal council. The Slovenian system of local self-government features a fairly simple candidacy procedure, since candidate-mayors can be proposed by political parties or groups of voters. If the latter is the case, the candidacy must be supported by the number of signatures equal to at least two per cent of all voters who cast their votes in the first round of the most recent mayoral election, yet this number must not be less than fifteen or more than 2,500. Elections of mayor use a double-round absolute majority vote system; in other words, the candidate who receives the absolute majority of the votes cast is elected as the mayor. If none of the candidates receives the majority of the votes cast, a second round of elections is held for the two candidates who received the greatest number of votes in the preceding round. If two or more candidates receive the same highest number of votes or if two or more candidates receive the same second highest number of votes, the choice of candidates that will enter the second round of elections, which has to be held no later than 21 days after the first round, is determined by lot. The names of the two remaining candidates appear on the voting paper in the sequence reflecting the respective number of votes each received in the first round. If the number of votes received by each of them is equal, their sequence is determined by lot (Local Elections Act, Articles 106 & 107). The mayor can be elected either in regular elections or by-elections. Regular elections of mayors, which are held together with the regular elections to municipal councils, are summoned by the chairman of the National Assembly of the Republic of Slovenia; by-elections of the mayor are held in case a mayor's term of office ceases prior to its formal expiry, for whatever reason(s), and are summoned by a municipal electoral commission (Kavčič & Grad, 2008, p. 392).

As mentioned, candidate-mayors can be determined by political parties and groups of voters. Non-partisan candidates can submit their candidacies if they are supported by groups of voters; the size of any such group is ultimately determined by the size of a municipality in which such a candidate is proposed. In this way, non-partisan candidates have a relatively simple way of asserting their passive suffrage, which is also confirmed by empirical data on four recent local elections. These reveal that non-partisan candidates have been successful, as they have achieved a high percentage of elected candidates relative to the number of candidacies submitted. Haček (2010, p. 43) concludes that the absolute numbers of mayors who, at least formally, have not run for the office as members of political parties have been constantly increasing; ever since the 1998 local elections, the greatest number of municipalities

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But the existence within the community of two poles which in principle enjoy identical levels of democratic legitimacy might well jeopardise the fundamental principle of the pre-eminence of the representative assembly in pursuance of Article 3(2) of the Charter, and possibly cause blockages within the municipal apparatus. It would therefore be appropriate to envisage introducing a system to minimise this risk, for example by providing for the possibility for the representative council to submit to a referendum a proposal for the dismissal of the executive (the mayor), or a system for submitting the composition of the council itself to the popular vote under certain circumstances.« (See document 20th Anniversary of the European Charter of Local Self-Government - CG (12) 6 Part II, Explanatory memorandum, Article 30.)

have had mayors who have not been proposed by any political party (43 in the 1998 local elections, 59 in 2002, 66 in 2006, and 70 in 2010 local elections).

In accordance with the organisation of the work of the municipality and the distribution of competences within the municipality's tasks across municipal bodies, the function of the mayor is at the same time both executive and coordinative. The initial arrangement of the Local Self-Government Act envisaged a quite strict separation of the function of mayor from the function of municipal council; however, this proved to hamper the operation of local self-government, resulting in a tighter integration of both functions by subsequent amendments to the Act. Now, the mayor even has a direct link to the municipal council, as he or she represents it and summons its sessions and chairs them,<sup>3</sup> but the person is not a member of it and has no right to vote. In addition, the mayor has various functions in relation to the municipal council as well as influence on its operation. On the one hand, the mayor's responsibility is to take care of the implementation of decisions adopted by the municipal council;<sup>4</sup> on the other, he or she has an important function of proposing an array of decisions to the municipal council<sup>5</sup> and finally to oversee the lawfulness of the latter's operation<sup>6</sup> (Kaučič & Grad, 2008, pp. 369–370).

The mayor is the »master« of the municipality. Namely, by signing different contracts, inviting public tenders, rational and economical implementation of the budget, and consistent adherence to the principle of good diligence, all of this on a daily basis, the mayor takes care of the municipality's assets and increases its value and quality. Their task is also to summon citizens' assemblies and (when people's lives and/or property are compromised) to adopt urgent measures<sup>7</sup> (Prašnikar, 2000, p. 46).

**3** See Article 33 of the Local Self-Government Act.

**4** The mayor (1) provides for the publication of the statutes, decrees, and other general legal acts of the municipality; (2) provides for the annulment of conclusions and the execution of other decisions of the municipal council; (3) directs the work of the municipal administration with regard to the execution of decisions adopted by the municipal council; and (4) executes the decisions of the municipal council in accordance with their own powers and tasks (Local Self-Government Act, Article 33).

**5** The mayor submits proposals of the following: (1) the draft budget of the municipality and the draft consolidated balance sheet, as well as other budgetary acts; (2) the establishment of bodies of the municipal administration and the body(-ies) of joint municipal administration; and (3) the appointment of deputy-mayors and the decision on (non-)professional performance of the function of deputy-mayor.

**6** Within the scope of their competences, the mayor provides for the lawfulness of regulations and other decisions adopted by the municipal council, as follows: the mayor may (1) withhold the publication of a general legal act of the municipality; (2) submit a request to the Constitutional Court for the assessment of the compliance of a municipality's general legal act with the Constitution and the law; (3) withhold the execution of the decisions adopted by the municipal council and notify the competent ministry of the unlawfulness of the decisions in question; and (4) initiate the procedure for the nullification of administrative decisions before the Administrative Court (Local Self-Government Act, Article 33; Catalogue of the Competences of Slovene Municipalities, 1997).

**7** As commander of the civil protection, the mayor decides on all matters concerning the protection against environmental and other disasters and adopts the protection and rescue plans (Local Self-Government Act, Article 33; Catalogue of the Competences of Slovene Municipalities, 1997).

However, the mayor's most important function is to be the head of the municipal administration. The mayor is sovereign and practically untouchable throughout their entire term of office. Together with the municipal administration they head, the mayor can pursue a very independent policy in the municipality, regardless of the one pursued by the municipal council. However, this can cause trouble in case the elected mayor does not come from one of the parties that control a majority in the municipal council. To conclude, the mayor of a Slovenian municipality is thus the central figure of the Slovenian local self-government system, and being an individual, one-person body, the mayor is the most noted figure among the citizens.

### 3 The relationship between the mayor and the deputy-mayor

Article 33.a of the Local Self-Government Act stipulates that the municipality has at least one deputy-mayor who is appointed (and dismissed) by the mayor.<sup>8</sup> The mayor selects and appoints the deputy-mayor from among members of the municipal council, meaning that every deputy-mayor is previously directly elected to the municipal council. The deputy-mayor's task is to assist the mayor with their work and to perform tasks belonging to the scope of the mayor's competences for which the former is authorised by the latter. Also, the deputy-mayor substitutes for the mayor in case of the latter's absence or non-attendance. During the time of absence, the deputy-mayor performs current tasks within the mayor's jurisdiction plus those tasks the mayor additionally authorises them to execute.<sup>9</sup>

Since the Act contains no specific provision as to the number of deputy-mayors (*»at least one«*), the municipality may have several deputy-mayors. If this is the case, the mayor is supplanted by the eldest deputy-mayor, unless one of them has been predetermined for this role by the mayor. A similar arrangement holds for the preliminary termination of a mayor's term of office

8 This legislative arrangement has been in force since 2005 (the amendment to the Act was published in the Official Gazette of the Republic of Slovenia, No. 72/2005, on July 29, 2005). Prior to this, the Act had stipulated that the deputy-mayor was to be appointed and dismissed by the municipal council, acting on a proposal submitted by the mayor, who selected a member of the municipal council as candidate deputy-mayor (this amendment to the Act was published in the Official Gazette of the Republic of Slovenia, No. 74/1998, on November 3, 1998).

9 At this point, we stress the *problématique* of simultaneous performance of two functions by the deputy-mayor, since the deputy-mayor, as a single person, acts both as a legislator when acting as a member of the municipal council and as the executor of their own legislative decisions and solutions when performing the function of the deputy-mayor. This is obviously contentious from the standpoint of a clear division of competences and political power. Initially, the Local Self-Government Act (until subsequent amendments would be passed in 1998) was built upon a strict division of power as regards the bodies of the municipality and their mutual relationships – especially between the municipal council and the mayor (Grafenauer, 2000, p. 415). This is clearly stipulated as concerns the mayor: since they usually head the municipal administration, their participation in the decision-making of the municipal council would be unacceptable (Vlaj, 1998, p. 273; Vlaj, 2012b). However, this fact is simply overlooked in the case of the deputy-mayor, who can *de facto* substitute for the mayor and who perform tasks belonging to the scope of the latter's competences, whilst retaining their right to vote in the municipal council.

– in this case, the deputy-mayor performs the mayor's function until a new person is elected to the office and assumes their position. If a municipality has several deputy-mayors, the mayor is replaced by the person who they themselves have selected, provided that the mayor is not dismissed. If the mayor does not select any of the deputy-mayors to temporarily hold their office or if the mayor is dismissed, the principle of seniority does not apply. Instead, the municipal council determines who of its members will perform this function (Local Self-Government Act, Article 33.a).

Just as the mayor and the members of the municipal council, the deputy-mayor is a holder of political function in the municipality. Municipal politicians usually serve in their office non-professionally<sup>10</sup> (this is true of all municipal councillors); however, the mayor has the choice of whether to perform their function professionally or non-professionally.<sup>11</sup> In unison with the mayor, the deputy-mayor may also opt for (non-)professional performance of their function (Brezovšek & Kukovič, 2012, p. 197). Every holder of a local-level political function is entitled to a salary, provided that they exercise the function professionally or at least to remuneration if they perform it in a non-professional mode. Salaries of professional holders of municipal political functions are determined in accordance with the act that regulates salaries in the public sector. If the deputy-mayor performs their function non-professionally, they are entitled to remuneration no higher than 50 % of the salary they would receive for professional performance of the office. The exact sum of the deputy-mayor's remuneration is determined by the mayor, taking into account the scope of the deputy-mayor's powers, whereby allowance for years of service is not considered (Local Self-Government Act, Article 34.a).

According to the Local Self-Government Act, every municipality should have at least one deputy-mayor. However, the data we acquired reveal that this is not the case.<sup>12</sup> We found that 34 municipalities have no deputy-mayors at all; most such municipalities belong to the group of municipalities with a population between 3,000 and 5,000 inhabitants (14 out of 53). As is evident from Table 1, most municipalities without deputy-mayors are small (up to 5,000 inhabitants), whereas in the groups of large(r) or the largest municipalities (beyond 20,000, more than 30,000 and exceeding 100,000 inhabitants), there is no municipality that would not have at least one deputy-mayor.

<sup>10</sup> The phrase »perform their function professionally« is used in sense that this is mayor's/ deputy-mayor's full-time job and that she/he is not employed somewhere else.

<sup>11</sup> According to data from the Ministry of Justice and public administration, Local Self-Government Department, there were 108 professional mayors in Slovenian municipalities in 2009; in 2010, there were 111; in 2011, the number somewhat increased, to 128; in 2012, the data has so far been submitted by 182 municipalities, in which 104 mayors perform their functions professionally (Ministry of Justice and public administration, Local Self-Government Department, 2012).

<sup>12</sup> Data collection took place in the second half of December 2011, by virtue of an inquiry regarding the number of deputy-mayors and the mode of their function (professional or non-professional) sent to official e-mail addresses of Slovenian municipalities.

With respect to the number of deputy-mayors appointed, most municipalities have a single deputy-mayor (109 out of 177, or 62%), followed by municipalities with two deputy-mayors (54), three deputy-mayors (11) and three urban municipalities (Kranj, Maribor and Ljubljana), which have four deputy-mayors each. Clearly, the number of deputy-mayors increases with the size of municipalities, according to the number of inhabitants. At the end of December 2011, a total of 262 municipal councillors held the office of deputy-mayors in Slovenian municipalities.<sup>13</sup>

**Table 1: Municipalities according to the number of inhabitants and the number of their deputy-mayors**

	No. of Municipalities	Do not have	1 Deputy-Mayor	2 Deputy-Mayors	3 Deputy-Mayors	4 Deputy-Mayors	Number of Deputy-Mayors
Up to 3,000 inhabitants	58	10	41	7	/	/	55
From 3,001 to 5,000 inhabitants	53	14	28	10	1	/	51
From 5,001 to 10,000 inhabitants	47	7	25	13	2	/	57
From 10,001 to 15,000 inhabitants	19	1	6	10	2	/	32
From 15,001 to 20,000 inhabitants	17	2	6	7	2	/	26
From 20,001 to 30,000 inhabitants	8	/	2	4	2	/	16
From 30,001 to 100,000 inhabitants	7	/	1	3	2	1	17
Over 100,000 inhabitants	2	/	/	/	/	2	8
<b>Total</b>	<b>211</b>	<b>34</b>	<b>109</b>	<b>54</b>	<b>11</b>	<b>3</b>	<b>262</b>

Source: Research Project »Mayors and Deputy-Mayors« (2012).

In the earlier section on institutional basics, we mentioned that the deputy-mayor – in consultation with the mayor – decides whether to perform their function professionally or non-professionally. The data show that Slovenian municipalities have 245 non-professional deputy-mayors (this represents 94%) and only 17 deputy-mayors who perform their function professionally. Since we were interested in whether professional execution of the office of deputy-mayor is conditioned by the non-professional status of the mayor, we

<sup>13</sup> During our data collection, the new composition of the National Assembly was constituted, which included 7 deputy-mayors (all of them came from municipalities with over 10,000 inhabitants), whose function expired as a consequence; in addition, the function of one deputy-mayor expired because that person was appointed to another posting that is also incompatible with the deputy-mayor function (if these persons were considered, the total number of deputy-mayors would be 270). These 8 deputy-mayors were excluded from the analysis and subsequently from the research itself.



checked whether the mayors of these municipalities performed their function professionally or non-professionally. The results show that in 9 municipalities, the functions are performed professionally by both the mayor and (at least one)<sup>14</sup> deputy-mayor; in the remaining 7 municipalities, the mayors are non-professional and their respective deputy-mayors are professional. Hereby, we add the data on deputy-mayors as regards their sex. As is the case with mayors, the ratio is strongly in favour of men with deputy-mayors as well, as there are only 42 female deputy-mayors, which amounts to only 19%. As a curiosity, we may add that 7 female deputy-mayors perform their function professionally, from among 17 professional deputy-mayors in Slovenian municipalities, which represents 41% of such deputy-mayors.

Apart from objective statistics, we wanted to gather certain data on the relationships between mayors and deputy-mayors of Slovenian municipalities by virtue of the analysis of answers in survey questionnaires. For this purpose, we conducted a survey among current mayors and deputy-mayors of Slovenian municipalities and asked them about their standpoints regarding the institution of deputy-mayor.<sup>15</sup> From among 114 mayors who participated in the survey, 100 (87.7%) responded<sup>16</sup> that they had appointed (at least one) deputy-mayor;<sup>17</sup> 14 (12.3%) mayors claimed they had appointed no deputy-mayors.<sup>18</sup>

**14** According to our data, only the Urban Municipality of Maribor currently has two professional deputy-mayors.

**15** Our research project »Mayors and Deputy-Mayors« was conducted by the Centre for the Analysis of Administrative-Political Processes and Institutions in February 2012 and covered mayors and deputy-mayors of Slovenian municipalities (it included 200 mayors and 262 deputy-mayors; 11 mayors were subsequently excluded from our analyses as they were elected at parliamentary elections in December 2011, which resulted in the expiry of their terms of office as mayors and by-elections of mayors were performed in March 2012; additionally, we excluded 8 deputy-mayors as well — see footnote 12). 114 completed questionnaires for mayors (57%) and 123 for deputy-mayors were returned (47%).

**16** Question: »Did you appoint the deputy-mayor?« If »yes« the sub-question was: »How many?«; if »no« the sub-question was: »Why not?«.

**17** Of these, 64% of mayors have one deputy-mayor, 29% two and 7% three deputy-mayors. The mayors who appointed more than one deputy-mayor were asked why they did so. Mayors were given several possible answers from which they had to pick the ones they agreed with. Most mayors (47.2%) agreed that this was a manner of overcoming political discord; 33.3% said this was due to the size of their municipalities or excessive scope of their work; 30.6% agreed with the statement that this was the more efficient division of work; 22.2% of mayors stated that the deputy-mayor was a matter of coalition treaty. However, 80.6% of mayors opposed the statement claiming that they had appointed several deputy-mayors because they were performing their function non-professionally.

**18** The mayors who have appointed no deputy-mayors were asked about the reasons for such a decision. 21.4% of mayors responded that they had no available funds; 14.3% claimed there had been no suitable personnel to recruit from in the municipal council; and 64.3% of mayors answered that they had no deputy-mayor because they simply did not need one.

**Table 2: Powers of the mayor delegated to the deputy-mayor for execution (percent)**

	Mayors		Deputy-mayors	
	yes	no	yes	no
Complete powers in case of mayor's absence	61.7	38.3	56.8	43.2
Representation and legal representation of the municipality	48.1	51.9	76.6	23.4
Representation of the municipal council plus summoning and chairing of its sessions	12.3	87.7	31.5	68.5
Submitting proposals of decrees and other general legal acts of the municipality	7.4	92.6	16.2	83.8
Execution of the decisions adopted by the municipal council	19.8	80.2	42.3	57.7
The heading of municipal administration	2.5	97.5	3.6	96.4
Providing for the publication of adopted general legal acts of the municipality and the protection of constitutionality and lawfulness in the operation of municipal bodies	1.2	98.8	10.8	89.2
Management of the municipality as a <i>sui generis</i> enterprise and acting in legal relationships of the municipality under property law	0	100.0	4.5	95.5
Public relations, summoning of citizens' assemblies, summoning of local referenda and responding to citizens' questions, initiatives, and proposals	8.6	91.4	40.5	59.5
Performance of delegated tasks and decision-making in administrative matters belonging to the scope of municipality's original and delegated (i.e., state) competences	7.4	92.6	6.3	93.7
Management of project groups for the most demanding, crucial projects and the largest investments	35.8	64.2	36.9	63.1
Execution and monitoring of the municipal budget	9.9	90.1	36.0	64.0
Tasks in the field of public tenders and procurement	17.3	82.7	24.3	75.7
Independent formulation of key systemic solutions and other materials of highest difficulty	4.9	95.1	15.3	84.7
Management of procedures and decision-making in matters of employment relationships (i.e., hiring personnel)	1.2	98.8	3.6	96.4
Other*	18.5	81.5	18.0	82.0

\* Other: responses related to either: a) civil society activities, societies; b) the work and coordination of local communities and city quarters; c) various duties of protocol and presence at public events; d) management of projects for public water distribution and sewerage systems and management of civil servants' work; e) the area of economy and assistance with small-scale projects intended for the municipalities' development.

Source: Research Project »Mayors and Deputy-Mayors« (2012).

As far as delegation<sup>19</sup> of powers is concerned, 80% of mayors who took part in the survey responded that they had delegated part of their powers to their deputy-mayors; on the other hand, the percentage of deputy-mayors who claimed that they had been delegated part of the mayor's competences

<sup>19</sup> The term »delegation« is used in the sense that the mayor his/her tasks and responsibilities transfer to the deputy-mayor(s) for the execution/implementation.

is even somewhat higher (91.1%).<sup>20</sup> Survey participants were further asked to tell us the approximate share of delegated powers;<sup>21</sup> 79% of mayors and 46.2% of deputy-mayors said this share was below 25%.<sup>22</sup> Table 2 shows that most mayors delegate their competences as regards representation and legal representation of the municipality to the deputy-mayors (48.1% of mayors, according to mayors themselves and 76.6%, according to deputy-mayors included in the survey); however, none of the mayors claimed that they had authorised their deputy-mayor(s) to manage the municipality as a *sui generis* enterprise and act in legal relationships of the municipality under property law.

In addition to our interest in the percentage and type of mayors' tasks deputy-mayors tend to execute, we asked both groups of actors where (if at all) their respective municipalities had stipulated the competences or tasks of their deputy-mayor(s).<sup>23</sup> 61.6% of mayors and 69.7% of deputy-mayors responded that these competences were set down by the statutes of their municipalities; a relatively high percentage of both mayors (41.4%) and deputy-mayors (48.4%) said that these competences were set down by decisions on the appointment of individual deputy-mayors; this was followed by the rules of procedure of the municipal council (29.3% of mayors and 32% of deputy-mayors maintained that the competences of deputy-mayors were set down by this act). Less than one tenth of mayors and deputy-mayors who participated in the survey replied that the deputy-mayor's competences were not stipulated anywhere.

Since there have been frequent allusions to the (non-)necessity of the institution of deputy-mayor, we asked both groups of survey participants a question that referred to this issue.<sup>24</sup> Nearly 86% of mayors and 98% of deputy-mayors answered that the municipality undoubtedly required a deputy-mayor. Furthermore, 82% of mayors and 53% of deputy-mayors said that one deputy-mayor was necessary. 16% of mayors and 37% of deputy-mayors claimed that two were required. 2.6% of mayors and 10.3% of deputy-mayors thought that the municipality should have three deputy-mayors.<sup>25</sup>

**20** Question: »Does the mayor authorize deputy-mayor(s) to perform the tasks within mayor's competence?«. If »yes« the sub-questions was: »What are these tasks?«.

**21** Question: »The proportion of such tasks is?«. The possible answers were: »less than 25 percent«; »between 25 and 50 percent«; »between 50 and 75 percent«; »more than 75 percent« and »don't know«.

**22** In total, 97% of mayors said that the percentage of matters belonging to the scope of their competences they had delegated to the deputy-mayor was less than 50%; on the other hand, 84 % of deputy-mayors estimated the share of these matters to be below 50%.

**23** Question: »The competences or tasks of deputy-mayor(s) were set down...«. The possible answers were: »competences were set down by the statutes«; »competences were set down by decisions on the appointment of individual deputy-mayor«; »the competences of deputy-mayors were set down by the rules of procedure of the municipal council«; »competences were not stipulated anywhere« and »other«.

**24** Question: »Does the municipality need the deputy-mayor?« If »yes« the sub-question was: »How many?«.

**25** Mayors and deputy-mayors were given some suggestions as to what determines the number of deputy-mayors in a certain municipality. They expressed their agreement with each of the suggestions as follows: the size of a municipality (52.7% of mayors and 65.5% of deputy-mayors

At the same time, over 64% of mayors and 45% of deputy-mayors agreed that the function of the deputy-mayor should be non-professional; alternatively, only 4% of mayors and 12% of deputy-mayors stated the opposite, that is, were in favour of the professional mode of this function; 29.5% of mayors and 43% of deputy-mayors thought that the mode of execution of the deputy-mayor's function should depend on the (non-)professional status of the mayor.<sup>26</sup>

It is also interesting that just over 78% of mayors and almost 84% of deputy-mayors said that the deputy-mayor's holding a double function (the legislative and the executive) was acceptable; the statement that the deputy-mayor should give up the function in the municipal council was supported by 13% of mayors and by less than 7% of deputy-mayors.<sup>27</sup> At the end of our survey, there was a question for deputy-mayors, asking whether or not they were satisfied with the sum of remuneration they received for their work,<sup>28</sup> and 65% of deputy-mayors said they were and agreed with the payment they were receiving,<sup>29</sup> which hardly comes as a surprise, as this represents extra income for them.<sup>30</sup>

#### 4 Conclusion

This article deals with two actors within Slovenian municipalities, namely, the mayor and the deputy-mayor. Its primary interest is in the relationships between the mayor and the deputy-mayor, especially from the aspect of division of powers. We can conclude that the mayor is free to delegate (or not) tasks from the scope of their own competences to the deputy-mayor, without being obliged to take any consultations with other municipal (or state) authorities. In this manner, tasks and competences of deputy-mayors vary significantly across Slovenian municipalities. Moreover, despite the fact that the legislator envisioned that every municipality must have at least one

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agreed with this statement); available funds (9.7% of mayors and 12.6% of deputy-mayors); scope of work (57% of mayors and 56.3% of deputy-mayors); the mode of holding the term of office of the mayor (non-professional) and potential other deputy-mayors (53.8% of mayors and 52.9% of deputy-mayors); and balance of power in the municipal council (22.6% of mayors and 10.9% of deputy-mayors).

**26** Question: »Do you think that the deputy-mayor(s) should exercise its function:«; possible answers: »professional«; »non-professional«; »depend on the (non-)professional status of the mayor«; »don't know«.

**27** Question: »Do you think that deputy-mayor's holding a double function (the legislative and the executive) is acceptable?«

**28** Question: »Are you satisfied with the sum of remuneration you receive for your work?«

**29** Remuneration for the non-professional mayor includes attendance fees for attending the sessions of the municipal council and membership in its committees and commissions. These rewards are categorised under the budgetary term of »municipal expenditures of system's operation« (including all those expenditures related to the maintenance of the system or the operation of the municipality, i.e., its bodies – the mayor, municipal councillors, municipal administration, etc.) and even though these costs vary widely across municipalities, they typically represent around one fifth of all budgetary expenditures of an average Slovenian municipality (Brezovnik & Oplotnik, 2012, p. 283).

**30** As a curiosity, we mention a comment made by one of the deputy-mayors who took part in the survey, claiming his reward to be too high with respect to the duties he performs as a deputy-mayor.

deputy-mayor, there are 34 municipalities whose situation remains against the law, because their mayors have not appointed deputy-mayors.<sup>31</sup>

However, we want to give special emphasis to what we consider a quite inappropriate legislation regarding the very method of appointment of the deputy-mayor and the manner in which their competences are set down. As we have already said, the deputy-mayor are autonomously appointed and dismissed by the mayor; therefore it is urgent to consider a different selection method.

The law stipulates that there has to be at least one deputy-mayor, whilst giving no maximum number of deputy-mayors and also lacking criteria that would justify (if at all) more than one deputy-mayor per municipality. Therefore, the authors propose a reflection on different methods of selection, such as direct election of the deputy-mayor by citizens, that is, by voters (and from among them), or election of the deputy-mayor by the municipal council. The current legislation is all too favourable to the consolidation of the mayor's position and power, as they can (and in a majority of cases, they do) appoint their followers to the functions of the deputy-mayor, who (often uncritically) support the mayor in every aspect.<sup>32</sup> Apart from a more appropriate arrangement of selection of the deputy-mayor, clear delineation of competences of each of the two actors is necessary, because the more exactly the responsibilities and relationships are defined, the less room there is for confusion and potentially contentious situations.

In conclusion we also want to draw attention to the general problématique of authorising the deputy-mayors, since in this way, legitimacy, which voters confer upon the directly elected politician (i.e., the mayor) is lost. So what is then the case with accountability? Is authorisation of mayors for the execution of certain competences (according to the legislation currently in force for the appointment of deputy-mayors) acceptable and admissible? In this regard, the deputy-mayors unquestionably represent interesting aspect worth researching.

<sup>31</sup> Data as of January 2012.

<sup>32</sup> We augment this claim with the data acquired by this year's survey among mayors and deputy-mayors, in which 87% of mayors and 90% of deputy-mayors who took part claimed the current method of the deputy-mayor's selection to be inappropriate. Question: »What do you think about current method of the deputy-mayor's selection?« The possible answers were: »it is appropriate«; »deputy-mayor should be chosen among citizens«; »deputy-mayor should be elected by municipal council«; »deputy-mayor should be directly elected«; »don't know«.

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POVZETEK

## **ODNOS MED ŽUPANOM IN PODŽUPANOM V SLOVENSKEM SISTEMU LOKALNE SAMOUPRAVE**

*Ključne besede:* župan, podžupan, odnos, kompetence, občine, Slovenija

V slovenskem sistemu lokalne samouprave imamo dva poglobitna občinska organa, to sta občinski svet in župan, poleg njiju pa v občinah deluje še nadzorni odbor. Občinski svet je zakonodajno telo, medtem ko župan predstavlja vrh izvršilne veje lokalne oblasti. Na podlagi teorij in/ali empiričnih izkustev se že vrsto let se pojavljajo različne tipologije sistemov lokalnih samouprav, ki se ukvarjajo s horizontalno delitvijo moči v lokalnih skupnostih, torej z razmerji med lokalnim svetom, županom in izvršilnimi uradniki. Tudi Mouritzen in Svava sta oblikovala tipologijo sistemov lokalnih samouprav, usmerjeno na horizontalno delitev moči. Pri oblikovanju modelov je njuno razmišljanje temeljilo na hipotezi, da strukturne značilnosti občinske uprave v neki državi odražajo ravnovesje ali kompromis med tremi organizacijskimi načeli, in sicer med (1) vladanjem ljudstva (nestrokovne javnosti), (2) političnim vodstvom in (3) strokovnostjo. Kljub temu, da Mouritzen in Svava upoštevata vsa tri organizacijska načela, postavljata politično vodstvo kot izhodišče za razvoj tipologije. Temeljno vprašanje je namreč, kako se politična moč pridobiva, vzdržuje/ohranja, izvaja in deli. Politična moč je odvisna od stopnje nadzora političnega akterja – bodisi ene osebe bodisi kolektivnega organa – na dveh prizoriščih. Prvič, v kolikšni meri nadzoruje ena oseba ali več političnih akterjev občinski svet in drugič, v kolikšni meri eden ali več političnih akterjev nadzoruje izvrševanje nalog. Formalna struktura nam lahko odgovori na zastavljeni vprašanji, vendar avtorja opozarjata, da so (vsaj tako ali pa še bolj) pomembna vzpostavljena neformalna pravila in norme v določenih občinskih organih. Mouritzen in Svava sta torej proučevala globino spajanja in mešanja uprave in politike, saj sta analizirala, kako politični in upravni voditelji vplivajo drug na drugega ter kako se dopolnjujejo. Na podlagi analize sta izoblikovala štiri idealne modele vladanja na lokalni ravni, in sicer model močnega župana, model vodje odbora, model kolektivnega telesa, model lokalni svet – menedžer.

Teoretsko izhodišče prispevka predstavlja model močnega župana, ki upošteva, da ima izvoljeni predstavnik ljudstva veliko večino (ali pa celo vso) izvršilne oblasti ter da prosto izbira, razrešuje in zaposluje ne samo najvišjega javnega uslužbenca, ki je tako povsem podrejen županu; ampak lahko tudi imenuje še druge politične svetovalce, ki mu pomagajo pri opravljanju njegovih funkcij. Izbrani model smo aplicirali na Slovenijo in analizirali odnos med županom in podžupanom kot političnim svetovalcem. V prispevku nas zlasti zanima razmerje med omenjenima akterjema v povezavi z delitvijo njihovih pristojnosti in funkcij. Poleg tega smo na podlagi empiričnih podatkov analizirali stališča



županov in podžupanov do instituta podžupana ter preverjali domnevo, da aktualni normativni okvir glede načina izbire podžupana ni ustrezen.

S pomočjo analize zakonodaje, objektivnih podatkov in podatkov izvedene empirične raziskave smo ugotovili, da lahko župan samostojno, ne samo imenuje podžupana/e, ampak lahko na njega/njih svobodno in brez potrebnega posvetovanja z drugimi občinskimi (ali državnimi) organi prenaša (ali pa ne) zadolžitve iz sklopa županovih pristojnosti. Tako se naloge in pristojnosti podžupanov med občinami precej razlikujejo. Še več, ugotovimo, da kljub temu, da je zakonodajalec predvidel, da ima vsaka občina najmanj enega podžupana, obstaja kar nekaj občin, ki delujejo v nasprotju z zakonom, saj župan ni imenoval niti enega podžupana.

Še posebej pa želimo izpostaviti – po našem mnenju – dokaj neustrezno zakonodajo glede samega imenovanja podžupana ter določitve pristojnosti tega akterja. Kot smo zapisali, podžupana avtonomno imenuje in razrešuje župan, zato bi bilo nujno potrebno razmisliti o drugačnem načinu izbire. Zakon določa najmanj enega podžupana, ne predvidi pa najvišjega števila podžupanov, kot tudi ne kriterijev, po katerih bi lahko imela občina več kot enega župana (če sploh). Avtorja zato predlagava premislek o drugačnih načinih izbire, kot sta na primer neposredna volitev podžupana s strani občanov (in izmed občanov) ali izvolitev podžupana s strani občinskega sveta. Trenutna zakonodaja je namreč preveč naklonjena utrjevanju pozicije in moči župana, saj lahko (in v večini primerov je tako) na mesto podžupana imenuje svoje pripadnike, ki ga v vseh pogledih (običajno nekritično) podpirajo.<sup>1</sup> Poleg primernejše ureditve izbire podžupana pa je nujno jasno določiti tudi njegove pristojnosti, kajti natančneje so zadolžitve in odnosi definirani, manj je prostora za nejasnosti in možne sporne situacije.

Ob koncu prispevka smo želeli tudi opozoriti na splošno problematiko pooblaščenja podžupanov, saj se s tem izgublja legitimnost, ki jo volivci podelijo neposredno voljenemu, torej županu. Kako je potem z odgovornostjo? Ali je pooblaščenje za izvajanje določenih pristojnosti (glede na aktualno zakonodajo imenovanja podžupanov) sploh dopustno in sprejemljivo? Tudi s tega vidika je po našem mnenju analiziranje odnosa župan in podžupan ter premislek o morebitni spremembi zakonodaje še kako pomemben in ne nazadnje tudi nujen.

<sup>1</sup> Slednje naj podkrepimo s podatki iz letošnje raziskave med župani in podžupani, kjer kar 87 % županov in 90 % podžupanov meni, da je trenutni način izbire podžupana primeren (Raziskava »Župani in podžupani«, 2012).



# Pomen izvedbenih politik pri uvajanju sistema upravljanja informacijske varnosti

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## IZVLEČEK

Informacijska tehnologija v organizaciji nudi orodje za doseganje poslovnih ciljev. Skoraj nemogoče si je predstavljati organizacijo, ki bi uspešno poslovala brez ustrezne informacijske podpore poslovnim procesom. Enako velja za informacijsko varnost, saj organizacije, sploh v javnem sektorju, pri poslovanju ustvarjajo vse večje količine podatkov, katerih razkritje bi pomenilo razkritje poslovnih tajnosti ali kršitev zakonskih določb glede razkritja osebnih ali drugih podatkov. Informacijska tehnologija, kakor tudi informacijska varnost, sta danes vtkani v domala vse poslovne procese organizacije. Zaradi tega morajo organizacije uvesti organiziran pristop zagotavljanja ustrezne podpore informacijski varnosti, to je sistem upravljanja informacijske varnosti. Le-ta vključuje različne ravni varnostnih politik kakor tudi izvedbene politike, ki določajo ravnanje zaposlenih pri izvajanju poslovnega procesa tako, da bo zadoščeno zahtevam informacijske varnosti. V članku je opredeljen pomen informacijske varnosti in sistema za upravljanje informacijske varnosti. Na procesu dodeljevanja pravic dostopa do aplikacij v Davčni upravi Republike Slovenije je prikazan primer izvedbene politike, njen pomen v procesu vzpostavitve sistema upravljanja informacijske varnosti ter zagotavljanja varnosti podatkov. Opredeljen je tudi pomen izvedbene politike z vidika tveganj informacijske varnosti.

*Ključne besede:* informacijska varnost, sistem upravljanja informacijske varnosti, poslovni proces, Davčna uprava Republike Slovenije

*JEL:* D73, D81, K22

## 1 Uvod

Hitre družbene in ekonomske spremembe so težko predvidljive in segajo v temelje družbe. Zato spremembe in prilagoditve v organizacijah zahtevajo sprotno in takojšnje odzivanje na nove oblike tveganj. V sodobni družbi številnih varnostnih tveganj in groženj je treba ob sistematičnem pristopu na področju varnosti posvetiti posebno pozornost tudi obvladovanju informacij. Varnost je mogoče v teh primerih razumeti kot splet varnostnih ukrepov in postopkov, potrebnih za zaščito, sledljivost in preventivo zlorabe informacije (Tarman, 2012). Spremenjene ekonomske razmere v pogojih globalne konkurence so v zadnjih treh desetletjih sprožile potrebe po reformah tako v zasebnem kot v javnem sektorju. Družbenoekonomski razvoj je s svojim pritiskom na javne finance sprožil številna vprašanja o učinkovitem, preglednem in namenskem trošenju proračunskih sredstev (Stanimirovič & Vintar, 2012).

Organizacije posledično namenjajo vse večjo pozornost optimizaciji stroškov ter tehnološkim in drugim izboljšavam. Glede na tveganja in posledično s tem povezane mogoče stroške se vse pogosteje skrbi tudi za sistem varovanja informacij in komunikacij. Poslovni procesi so vsestransko povezani z informacijsko tehnologijo, saj informacijski sistemi obdelujejo in shranjujejo informacije, aplikacije, inovacije in zaupne podatke, ki so potrebni za opravljanje funkcij organizacije. Če se podatke pravilno uporablja, shranjuje in ščiti, se gradi zaupanje do partnerjev, zagotavlja poslovanje v skladu z zakonodajo in pravili ter zmanjšuje tveganja na vseh ravneh poslovanja.

Raziskava *Information Security Breaches Survey* o informacijski varnosti iz leta 2010, ki jo je izvedlo podjetje *Price Waterhouse Coopers* in je zajela preko 500 malih, srednjih in velikih podjetij, kaže, da je varnostna politika nujen element v podjetju. Podatki raziskave kažejo, da so človeški faktor, nepoštenost in zli nameni glavna varnostna težava v 62 % primerov, povzročitelje pa so v 82 % primerov zaposleni v organizaciji (Price Waterhouse Coopers, 2010). Raziskava, izvedena v letu 2012, kaže, da kar v kar 75 % velikih organizacijah in 61 % malih podjetjih lahko zaposleni uporabljajo pametne telefone in tablične računalnike za dostop do njihovih poslovnih sistemov. Ob tem 82 % velikih organizacij poroča o kršitvah varnosti, ki jih povzročajo zaposleni, vključno s 47 %, ki so izgubili ali razkrili zaupne informacije (Price Waterhouse Coopers, 2012). Zato je treba pri upravljanju varnosti informacij in komunikacij vzpostaviti organizacijske, tehnične, kadrovske in varnostne ukrepe tako, da bodo obvladovali notranje in zunanje vire tveganj ter varnostna tveganja.

Informacijska varnost se ukvarja z varovanjem informacij pred nepooblaščenim dostopom, razkritjem, uničenjem spremembo ali nerazpoložljivostjo. Informacijsko varnost lahko opredelimo tudi kot področje, ki se ukvarja z ohranjanjem zaupnosti, celovitosti in razpoložljivosti informacij. Poleg tega skrbi še za ohranjanje drugih lastnosti, kot so verodostojnost, odgovornost, neovrgljivost in zanesljivost (ISO/IEC 17799:2005, 2004). Po t. i. Parkerjevi

šesterici (angl. *Parkerian hexad*) je treba poleg zaupnosti, razpoložljivosti in celovitosti obravnavati še posest, istovetnost in uporabnost.

Informacijsko varnost označujemo kot varovanje (Ministrstvo za javno upravo, 2010):

- zaupnosti: varovanje podatkov in informacij pred razkritjem nepooblaščenim ter zagotavljanje odgovornosti za njihova dejanja;
- celovitosti: varovanje podatkov in informacij pred neavtoriziranimi spremembami, zagotavljanje verodostojnosti – točnosti, popolnosti in nespremenljivosti informacij ter postopkov procesiranja;
- razpoložljivosti: varovanje podatkov, informacij in servisov pred prekinitvami v delovanju ter zagotavljanje informacij pooblaščenim uporabnikom v času, ko jih potrebujejo, in na zahtevani način.

Varovanje zaupnosti informacij preprečuje nepooblaščen dostope in razkritje tistim osebam, ki do njih niso upravičene. Primer kršitve tega načela je razkritje zaupne informacije osebam, ki za to nimajo ustreznega pooblastila. Celovitost ali neoporečnost pomeni pravilnost informacij. To zagotavlja, da ne pride do nepooblaščenih ali nekontroliranih aktivnosti, kot so ustvarjanje, spreminjanje ali izbris informacijskih virov. Razpoložljivost informacij in informacijskih virov pomeni njihovo dosegljivost v trenutku, ko se pojavi poslovna potreba oziroma zahteva po njih. Primer kršitve tega načela je nerazpoložljivost elektronskega poštnega predala v delovnem času. Informacijska varnost se nanaša na vse sisteme in procese, ki so neposredno povezani z njimi (informacijski sistemi, zaposleni, računalniška oprema, agregati, fizična varnost, povezava v svetovni splet in podobno). Zaradi tega se informacijska varnost dotika celo vprašanj, kot so varovanje zasebnosti, upoštevanje zakonskih in drugih določil, neprekinjeno poslovanje, okrevanje po nesrečah, fizično varovanje, upravljanje z incidenti, varovanje človeških virov in podobno. Da lahko dosežemo ustrezno raven informacijske varnosti, moramo najprej poiskati optimalno razmerje med varnostjo, povezano z zaposlenimi, varnostjo, povezano s fizičnim varovanjem in varnostjo, povezano z organizacijo.

Informacijska tehnologija danes pokriva vse poslovne procese in je zaradi tega zagotavljanje varnega poslovanja organizacije postalo predvsem vprašanje oziroma problem zagotavljanja učinkovite informacijske varnosti. Dostop pooblaščenim osebam do ustreznih in kakovostnih informacij ob pravem času omogoča kakovostno delovanje, odločanje in prilagajanje. Zaradi tega naj bo vzpostavitev kakovostnega sistema varovanja informacij eden od strateških ciljev vsake sodobne organizacije. Le na tak način lahko organizacija doseže neprekinjeno poslovanje, zmanjša poslovna in druga tveganja, zmanjša stroške, povezane z informacijsko varnostjo, obvaruje dobro ime ter si zagotovi skladnost delovanja z veljavno področno zakonodajo.

Varovanje informacij in informacijskih sistemov je stalen proces, ki z dopolnjevanjem organizacijskih in tehničnih ukrepov varuje podatke oziroma

informacije pred razkritjem in nepooblaščenim dostopom (zaupnost), uničenjem in spremembami (celovitost) ter prekinitvami (razpoložljivost). Priprava celovite informacijske varnostne politike je tako prvi korak v smeri oblikovanja strategije varnega poslovanja. Varovanje informacij in informacijskih sistemov pomeni tudi usklajenost z zahtevami, opredeljenimi v zakonodaji.

V članku je na primeru izbranega poslovnega procesa v Davčni upravi Republike Slovenije prikazan primer izvedbene politike kot navodilo o dodeljevanju pravic dostopa do aplikacij. Proučen je njen pomen v procesu vzpostavitve sistema upravljanja informacijske varnosti ter zagotavljanju varnosti podatkov. Analiziran je tudi pomen izvedbene politike ob tveganjih informacijske varnosti. Pomen in vlogo izbranega primera izvedbene politike je na podlagi ugotovitev mogoče analizirati tudi v drugih poslovnih okoljih v javni upravi ali realnem sektorju.

## 2 Sistem upravljanja informacijske varnosti

Naloga sistema upravljanja informacijske varnosti (SUIV) je obvladovanje sodobnega poslovnega informacijskega sistema, nadzor nad delovanjem informacijskih virov in zmanjševanje učinkov entropije (težnje k nenehnemu propadu) poslovnega sistema. Zato uvajanje sistema varovanja informacij posega na vse odločitvene ravni procesa upravljanja. Certifikacija skladnosti sistema z zahtevami in določili ustreznega standarda ima pomembno vlogo tako pri delovanju organizacije kakor v sodelovanju z okoljem, saj zagotavlja vsem partnerjem, da organizacija obvladuje ustrezno raven varovanja informacij.

Koristi uvedbe sistema upravljanja informacijske varnosti:

- celosten pristop k informacijski varnosti v organizaciji;
- pravočasno odkrivanje in poročanje o varnostnih incidentih ter posledično zmanjšanje stroškov, ki jih taki dogodki povzročajo;
- kakovostnejše načrtovanje in vlaganje v tista področja, kjer je to res potrebno;
- učinkovito upravljanje in odprava varnostnih groženj;
- strukturiran in skladen pristop;
- dvig zaupanja v upravljanje informacijskih virov.

Sistem za upravljanje varovanja informacij naj torej zajema naslednja področja: organiziranost varovanja, razvrstitev in nadzor sredstev, človeške vire, fizično in okoljsko varovanje, upravljanje komunikacij in produkcije, nadzor dostopa, razvijanje in vzdrževanje sistemov, neprekinjeno poslovanje ter usklajenosti.

Prednosti, ki jih prinaša sistem upravljanja informacijske varnosti:

- okrepitev obstoječega okolja nadzora informacijske varnosti s ponovnim poudarkom na nadzoru nad varnostjo poslovnih informacij ter z nadgradnjo obstoječih politik in kontrol informacijske varnosti;
- spodbuda za pregled in posodabljanje nadzora informacijske varnosti – zmanjševanje tveganja;
- strokoven, standardiziran in racionalen pristop za obvladovanje tveganj, ki zagotavlja skladnost med več sistemi v daljšem časovnem obdobju in dosledno usmerja tveganja informacijske varnosti; pristop, upoštevajoč tveganje, se osredotoča na področja največjih tveganj in omogoča zmanjševanje tveganja;
- vodstvo in zaposleni so boljše seznanjeni s pogoji in nadzorom informacijske varnosti – kar omogoča zmanjševanje tveganja.

Zaznavanje in interpretacija varnosti sta v veliki meri odvisna od splošne varnostne kulture v organizaciji. Za ponazoritev – če zapisana pravila ali postopki v določeni organizaciji štejejo za neučinkovita in nepomembna, je takšen tudi odnos do varnostnih pravil. V organizaciji se vzpostavi negativen odnos do delovnih orodij, ki se najpogosteje kaže v obliki izgovorov, da določena naloga ni bila izvedena zaradi tega, ker je pravila ne narekujejo (Guldenmund, 2000). Aktiven odnos posameznika do zaščite in varovanja osebnih ter zaupnih podatkov, ki zajema celotno znanje o zaščiti in varovanju teh podatkov ter se kaže z zavestnim vedenjem v konkretni situaciji, lahko opredelimo kot izraz visoke stopnje varnostne kulture. Ta ne pomeni zgolj vedenja, ampak predvsem vsebino, globlje motive in vzroke, kjer je ogroženost vrednot glavni povod za njihovo zaščito (Košmrlj, 1982).

### **3 Standardi in sistem upravljanja informacijske varnosti**

Področje upravljanja informacijske varnosti obravnava večje število mednarodno priznanih standardov in priporočil, kot so: SGP – *Standard of Good Practice*, ki ga izdaja *Information Security Forum* (ISF), BS 7799 (*British Standards Institute* – BSI), CIP-002-1, ki ga izdaja *North America Electric Reliability Council* (NERC), SP 800-53 A, ki ga izdaja *National Institute of Standards and Technology* (NIST), in ISO/IEC 27001 (*International Organization for Standardization* – ISO).

V prispevku se bomo osredotočili na družino standardov upravljanja informacijske varnosti 27000, ki so osnova za uvajanje sistema upravljanja informacijske varnosti. V to družino spadajo naslednji standardi:

- ISO/IEC 27000:2011 Informacijska tehnologija – Varnostne tehnike – Sistemi upravljanja informacijske varnosti – Pregled in izrazoslovje
- ISO/IEC 27001:2005 Informacijska tehnologija – Varnostne tehnike – Sistemi upravljanja informacijske varnosti – Zahteve
- ISO/IEC 27002:2008 Informacijska tehnologija – Varnostne tehnike – Pravila obnašanja pri upravljanju informacijske varnosti

- ISO/IEC 27003:2011 Informacijska tehnologija – Varnostne tehnike – Smernice za izvedbo sistema upravljanja informacijske varnosti
- ISO/IEC 27004:2011 Informacijska tehnologija – Varnostne tehnike – Upravljanje informacijske varnosti – Merjenje
- ISO/IEC 27005:2011 Informacijska tehnologija – Varnostne tehnike – Upravljanje tveganj informacijske varnosti.

Med navedenimi standardi je za certifikacijo priporočljiv standard ISO/IEC 27001:2005. Le-ta vsebuje formalni nabor specifikacij za model upravljanja informacijske varnosti. Splošna zahteva standarda je, da organizacija razvije, izvede, vzdržuje in stalno izboljšuje dokumentiran SUIV v skladu s poslovnimi aktivnostmi, ranljivostjo, ogroženostjo in tveganji. Naloga SUIV-a je, da zagotavlja ustrezne in sorazmerne varnostne kontrole, ki primerno ščitijo informacijska sredstva in omogočajo zaupanje strank ter drugih zainteresiranih.

Standarda ISO/IEC 27001:2005 in ISO/IEC 27002:2008 sta poslovodno in od posameznih tehnoloških rešitev neodvisni orodji, ki ponujata celovit pregled varovanja informacij pri poslovanju organizacije. Standarda sta glede informacijske varnosti celovita. To pomeni, da ne obravnavata le informacijske tehnologije in informacij v elektronski obliki, temveč informacije v vseh mogočih oblikah in medijih. Pri tem so mnoge opisane kontrole povsem organizacijske narave in niso povezane s tehnologijo, kot na primer razvrstitev informacij, politika čiste mize, fizično varovanje objektov, upravljanje človeških virov in podobno.

#### **4 Uvedba sistema upravljanja informacijske varnosti v organizaciji**

Uvedba sistema upravljanja informacijske varnosti je projekt, ki ga je treba izpeljati skrbno in v skladu z dobrimi praksami projektnega menedžmenta. To pomeni, da je treba opredeliti cilj, finančna sredstva, časovni okvir izvedbe projekta ter druge projektne vire, ki naj bodo na voljo pri uvedbi SUIV-a (npr. človeški viri, infrastruktura).

Pomemben vidik pri uvedbi sistema je ustrezna določitev cilja, ki mu bo SUIV zadostil. Uvedba sistema mora temeljiti na odločitvi in podpori najvišjega vodstva, ki mora spoznati ustrezen način vzpostavitve upravljanja informacijske varnosti kot pot pri doseganju rezultatov poslovanja na pregleden in kljub temu varen način.

Organizacije pri uvajanju SUIV-a pogosto ne sledijo projektnemu načinu uvajanja sistema. Tovrsten pristop je ustrezen, v kolikor organizacija razume pomen informacijske varnosti in uvede sistem skrbno ter v celoti. V kolikor pa se izpustijo določeni postopki ali celo izdelki, ki so prepoznani kot pomemben del končnega sistema, lahko sledi:

- varnostne politike in navodila niso usklajeni;



- varnostne politike in postopki niso podprti z ustreznimi navodili;
- sistem je nepregleden in ne omogoča doslednega izvajanja cikla PDCA<sup>1</sup> (načrtuj, izvajaj, nadzoruj, ukrepaj);
- sistem je le nabor delnih rešitev in nepovezana celota.

Če se SUIV ne uvede projektno ali se uvaja denimo kot posledica zahtev zunanjih dejavnikov po ureditvi področja, ki še ni del upravljanega dela informacijske varnosti v organizaciji, so v procesu uvajanja značilne medsebojno slabo ali celo nepovezane aktivnosti. Pogoste so tudi ponavljajoče aktivnosti, ki so časovno in finančno zahtevnejše, kot če bi bila uvedba sistema izvedena projektno.

Pri uvedbi SUIV-a je treba izvesti naslednje korake:

- vzpostavitev organizacijske strukture informacijske varnosti (odbor informacijske varnosti, vodja informacijske varnosti);
- analiza vrzeli, ki poda sliko trenutnega stanja v organizaciji glede na določila in zahteve ustreznega standarda in nakaže prihodnje korake projekta;
- ocena tveganja: ocena ogroženosti, posledic in ranljivosti informacij ter zmogljivosti za obdelavo informacij in verjetnost dogodka naštetih pojavov;
- določitev ciljev uvedbe sistema in opredelitev področij, ki jih bo uvedba sistema obsegala (postavitev meja);
- priprava krovne varnostne politike in drugih (področnih) varnostnih politik; krovna varnostna politika opredeljuje osnovna načela varovanja informacij v organizaciji in naslavlja druge varnostne politike, ki podrobno urejajo posamezna področja;
- opredelitev postopkov in navodil, ki bodo določali postopanje uslužbencev pri izvajanju poslovnih procesov na način, da bo zadoščeno zahtevam informacijske varnosti;
- predstavitev rezultatov projekta vodstvu;
- integracija sistema z drugimi sistemi vodenja, če so v organizaciji vzpostavljeni;
- usposabljanje zaposlenih.

Če je eden izmed ciljev projekta uvedbe SUIV-a tudi njegova certifikacija (npr. v skladu z mednarodnim standardom ISO/IEC 27001:2005), so potrebni iše dodatni postopki, in sicer:

- izvedba notranje presoje in odprava morebitnih neskladnosti glede na določila in zahteve standarda, po katerem bo izvedena certifikacija;
- izvedba certifikacijske presoje.

Vzpostavitev krovne politike informacijske varnosti in vzpostavitev področnih politik je izhodišče za vzpostavitev ustrezne ravni informacijske varnosti v

<sup>1</sup> Demingov krog PDCA (*Plan-Do-Check-Act*)

organizaciji. Varnostna politika ni smernica ali standard, niti ni postopek, temveč je načrt za celovit program varnosti. Varnostna politika opredeljuje varnost tako, kot podrobnejši opis izdelka opredeljuje izdelek (Barman, 2002). Varnostna politika informacijskega sistema je definirana kot celovit pogled na varnost informacijskega sistema in zajema vse dejavnike, organizacijska pravila in postopke, ki kakorkoli vplivajo na varno in zanesljivo delovanje celotnega informacijskega sistema (Štrakl, 2003). Varnostna politika predstavlja osnovni temelj, na katerem se lahko razvije učinkovit in celovit program varnosti. Varnostna politika pomeni tudi uvajanje varnostnih pričakovanj vodstva v praksi, v obliki specifičnih, izmerljivih in preverljivih ciljev ter nalog. Varnostno politiko lahko opredelimo kot celovit načrt varovanja informacij in delovnih procesov v organizaciji, ki je zavezujoč za vse zaposlene, pred različnimi (neželenimi) zunanjimi in notranjimi vplivi, ki ogrožajo informacijsko varnost neke organizacije in varnost organizacije kot celote (Kralj, 2012).

Z vidika uslužbenca so krovne in področne politike pogosto vsebinsko in izvedbeno preveč splošne. Zato je treba izdelati natančnejša navodila, ki določajo ravnanje uslužbenca pri izvajanju poslovnih procesov. Takšna navodila kakovostneje določajo postopke ravnanja uslužbenca in opredeljujejo ustrezne obrazce ter evidence, ki se uporabljajo pri izvajanju procesa. V navodilih se opredelijo vloge posameznikov v obravnavanem procesu, njihove dolžnosti in odgovornosti ter tveganja in posledice v primeru opustitve dolžnega ravnanja.

## **5 Uvedba sistema upravljanja informacijske varnosti v davčni upravi – primer izvedbene politike**

V Davčni upravi Republike Slovenije (v nadaljevanju davčna uprava) je skrb za varnost podatkov, celovitost in dostopnost podatkov naloga in dolžnost do vseh davčnih zavezancev v Republiki Sloveniji. V davčni upravi je več kot 2400 zaposlenih, v okviru Generalnega davčnega urada in 16 davčnih uradov ter 41 izpostav. Poslovanje je procesno zasnovano in deluje v skladu z zahtevami mednarodnega standarda kakovosti poslovanja ISO 9001:2008. Vzpostavitev ustreznega sistema informacijske varnosti v vsaki organizaciji, kakor tudi davčni upravi, omogoča varnost podatkov pred neavtoriziranim dostopom, uporabo, razkritjem ali spreminjanjem podatkov, k čemur davčno upravo zavezuje tudi zakonodaja (Zakon o tajnih podatkih, Uredba o varovanju tajnih podatkov itd.). Prepoznavanje pomena informacijske varnosti se kaže tudi v podpori najvišjega vodstva, saj so zahteve glede ustrezne vzpostavitve sistema SUIVdel poslovne strategije davčne uprave.

Priprava celovitega SUIV-a obsega vse oblike varnostnih tveganj in je osnova za nemoteno in kakovostno poslovanje organizacije. »Politiko varovanja informacij« tvori več notranjih dokumentov, ki vodstvu ali oddelku, odgovornemu za varnost služijo kot krovna strategija varovanja oziroma vodilo pri kakovostnem in učinkovitem izvajanju varnostnih ukrepov in drugih aktivnosti v organizaciji (na primer aktivnost za zaščito informacij pred

razkritjem, izgubo ali krajo, aktivnost za neprekinjeno poslovanje in podobno). Politiko varovanja informacij sestavljajo krovna varnostna politika, ki ima podobno vlogo kot ustava za državo, in področne politike, ki predstavljajo smernice za oblikovanje izvedbenih varnostnih politik, kot je na primer navodilo o varni uporabi prenosnih naprav ali navodilo o dodeljevanju dostopa do aplikacij. Sistematično opredeljevanje postopkov, ki je v splošnem značilno za zagotavljanje informacijske varnosti, je pomembno z vidika preventive, saj prispeva k zmanjševanju, preprečevanju in izogibanju nevarnostim, ki so povezane s tako občutljivim področjem dela (Rančigaj et. al, 2012).

Kot primer izvedbene politike je v članku predstavljeno navodilo o dodeljevanju pravic dostopa do aplikacij. Proces je mogoče opisati z naslednjimi primeri uporabe: dodelitev dostopa do aplikacije, omejitev oziroma dodajanje pravic obstoječemu dostopu in odvzem oziroma ukinitve pravice dostopa do aplikacije. V primeru organizacije z manjšim številom zaposlenih, ki za izvajanje poslovnih procesov praviloma uporablja tudi manjše število aplikacij, je zagotovitev ustrezne ravni varnosti pri izvajanju postopkov procesa upravljanja z dostopi do aplikacij načeloma enostavno opravilo. V primeru velikih organizacij, kot je davčna uprava, so ti postopki kompleksnejši. V davčni upravi je več kot 2000 uslužbencev, ki dostopajo in uporabljajo veliko število notranjih in zunanjih aplikacij. Zaradi velikosti organizacije je doseganje ustrezne ravni varnosti narekovalo potrebo po določitvi več oseb, t.i. skrbnikov, ki so odgovorni za upravljanje dostopov do aplikacij.

Pri procesu dodeljevanja pravic dostopa do aplikacij so zaznana naslednja tveganja s področja informacijske varnosti:

- razkritje uporabniškega imena in gesla;
- dodelitev dostopa do aplikacije uporabniku, ki teh pravic sicer nima;
- dodelitev preveč oz. prevelikega obsega pravic uporabniku za dostop do aplikacij;
- neukinitve dostopa do aplikacije, ko bi to moralo biti izvedeno.

Do razkritja uporabniškega imena in gesla lahko pride zaradi nevestnega ravnanja uslužbenca, ki mu je bil dostop dodeljen ali zaradi neupoštevanja varnostnih postopkov pri dodeljevanju dostopa do aplikacije (evidentiranje, obveščanje).

Merila opremljenosti delovnega mesta opredeljujejo, kaj uslužbenec potrebuje za opravljanje delovnih nalog. Treba mu je dodeliti ustrezno računalniško opremo (osebni ali prenosni računalnik, tiskalnik ali le dostop do mrežnega tiskalnika itd.), pisarniško opremo in dostope do aplikacij. V kolikor se ne upošteva meril, se lahko uslužbencu dodelijo dostopi do aplikacij, do katerih ni upravičen. Enako velja za dodelitev preveč pravic v okviru ene aplikacije.

Ko je uslužbenec razporejen na drugo delovno mesto, je treba ukiniti dostope do aplikacij, do katerih več ni upravičen, oziroma odvzeti ali dodati pravice

znotraj posamezne aplikacije glede na zahteve delovnega mesta. V kolikor uslužbenec zapusti organizacijo, je treba ukiniti vse dostope do aplikacij, ki so mu bili dodeljeni. Obe okoliščini zahtevata centraliziran sistem evidentiranja dostopov do aplikacij za posameznega uporabnika. V nasprotnem primeru se zaradi neustreznega obveščanja določeni dostopi ne ukinejo. V kolikor gre za notranje aplikacije, lahko le-te izkoristi uslužbenec, ki pozna uporabniško ime in geslo bivšega uslužbenca ter neupravičeno dostopi do aplikacije oziroma izvede neavtoriziran dostop do podatkov. V kolikor gre za zunanjo aplikacijo, lahko do podatkov dostopi tudi bivši uslužbenec, čeprav mu je že prenehalo delovno razmerje z organizacijo, kjer mu je bil dostop dodeljen.

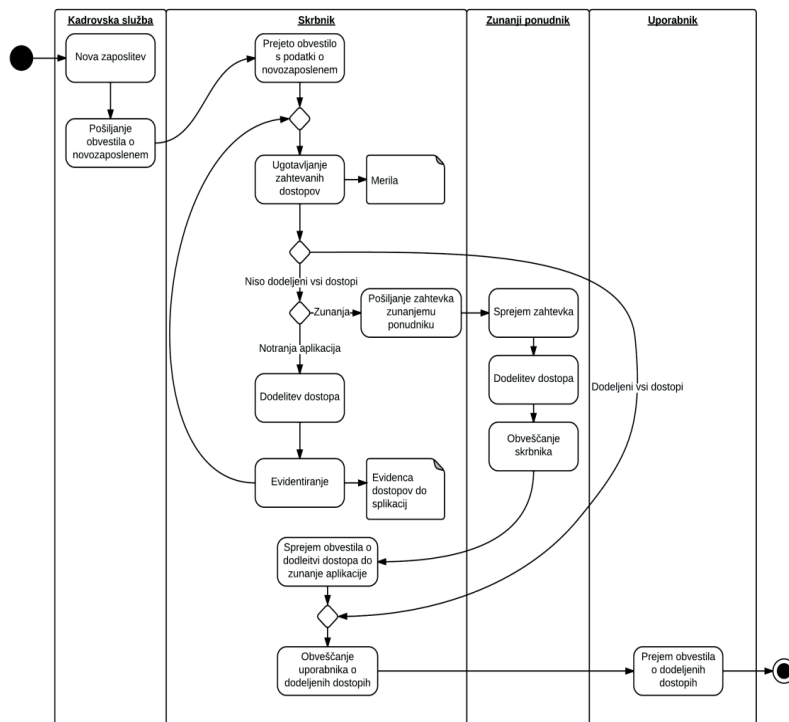
Proces prožijo naslednji dogodki:

- nova zaposlitev uslužbenca,
- premestitev uslužbenca,
- zahtevke za nov dostop oziroma za dodajanje ali odvzem pravic obstoječega dostopa in
- prekinitve delovnega razmerja uslužbenca.

Obveščanje skrbnikov o kadrovskih in drugih spremembah, je pomemben del procesa, saj se na ta način doseže, da so uslužbencu pravočasno dodeljeni ustrezni dostopi, z ustreznimi pravicami, oziroma so mu pravočasno omejeni ali odvzeti tisti dostopi in pravice, ki mu v primeru prerazporeditve ali prekinitve delovnega razmerja ne pripadajo več.

Postopek dodelitve dostopov do aplikacij novozaposlenemu prikazuje diagram aktivnosti na sliki 1. Obvestilo o novozaposlenem posreduje kadrovska služba. Skrbniki dodeljevanja dostopov dodelijo dostope v skladu z merili, kjer je določeno, do katerih aplikacij in na kateri ravni ima uslužbenec pravico dostopa glede na njegovo delovno mesto. V primeru, da je treba dodeliti dostop do notranjih aplikacij, skrbnik oblikuje novo uporabniško ime in geslo ter posodobi podatek o dostopu do aplikacije za uporabnika v evidenco dostopov. V kolikor je treba dodeliti dostop do zunanje aplikacije, skrbnik izpolni zahtevek in ga pošlje zunanjemu ponudniku, ki je skrbnik aplikacije. Zunanji ponudnik izda uporabniško ime in geslo za dostop do aplikacije ter ju posreduje skrbniku na davčno upravo. Na koncu skrbnik pošlje uporabniku obvestilo s podatki o dostopih do posameznih aplikacij.

Slika 1: Postopek dodelitve dostopov do aplikacij za novozaposlenega



## 6 Sklepne ugotovitve

Pomen informacijske varnosti je najlažje opredeliti takrat, ko je mogoče opredeliti vrednost informacije (npr. konkurenčna prednost) ali posledice v primeru okvare ali razkritja informacij. Pomembnost varovanja informacij zaradi kompleksnosti področja zahteva organiziran pristop v obliki upravljanja informacijske varnosti. Zato je vzpostavitev celostnega sistema upravljanja informacij postala potreba organizacije, ki se zaveda pomembnosti varnosti podatkov.

Nekatere organizacije so dolžne vzpostaviti sistem upravljanja informacijske varnosti in ga tudi potrditi oziroma certificirati po enem od veljavnih standardov na področju informacijske varnosti. Certifikacija je lahko zahteva trga, poslovnega partnerja, zakonodaje ali zahtev organizacije, ki opredeljuje predpise za delovanje organizacij s ciljnega področja.

Krovne in področne politike določajo okvir varnostne politike v organizaciji, vendar praviloma ne zadoščajo za celovito uvedbo SUIV-a. Pogosto so odsotna natančna navodila, ki določajo ravnanje uslužbenca in s tem zmanjšanje nastanka tveganj na področju informacijske varnosti. Takšna navodila vsebujejo izvedbene politike, ki določajo odgovornosti, dolžno ravnanje, postopke, opredelijo obrazce ali uslužbenca usmerijo na druge dokumente.

Namen izvedbenih politik je, da uslužbenec izvaja aktivnosti v določenem poslovnem procesu na način, ki je obvladovan, nadzorovan in v skladu z varnostno politiko.

V primeru, da pri uvedbi SUIV-a organizacija ne opredeli izvedbenih politik, ki so bile v analizi vrzeli ali pri oceni tveganja opredeljene kot potrebne, je takšna uvedba SUIV-a nepopolna. Posledično so povečana tudi tveganja na tem področju. Izkazuje se, da davčna uprava z izvedbenimi politikami pomembno dopolnjuje uveden sistem upravljanja kakovosti, zmanjšuje informacijska in poslovna tveganja ter povečuje preglednost in sposobnost procesov.

V članku predstavljeni primer dodeljevanja dostopov do aplikacij v davčni upravi prikazuje proces, ki mora biti s stališča informacijske varnosti celostno in strokovno obravnavan. Gre za kompleksen proces, ki od vodstva, skrbnikov in zaposlenih zahteva odgovorno ravnanje, zavedanje in obvladovanje tveganj in posledic. Zaradi tega mora biti proces ustrezno dokumentiran. Pri izvajanju postopkov v skladu z vzpostavljenimi navodili, ki jih vsebujejo izvedbene politike informacijske varnosti, se zmanjšajo tveganja, zmanjša se verjetnost kršitve celovitosti, dostopnosti ali zaupnosti, ki so ključne značilnosti ustrezno vzpostavljenega sistema za upravljanje informacijske varnosti.

Menimo, da vzpostavitev izvedbenih politik brez krovne politike ne omogoča ustrezne osnove za učinkovit sistem SUIV v davčni upravi, kakor sicer v organizacijah. Izvedbene politike so pomembne del sistema, brez katerih sistem sicer obstaja, vendar ni pregleden in obvladljiv. Ob tem se tudi ne obravnava vseh tveganj, ki jih je mogoče obvladovati z vzpostavitvijo izvedbenih politik. S krovno politiko in poslovnikom kakovosti v davčni upravi ter z drugimi notranjimi dokumenti, ki opredeljujejo obvladovanje dokumentacije, obveščanja zaposlenih, informacijske varnosti idr., je vzpostavljen sistem stalnih izboljšav, preventivnih in korektivnih ukrepov, inovacij ter merjenja učinkov uvedenih ukrepov tudi za področja, ki jih obravnavajo izvedbene politike. Oblikovanje in uvedba izvedbenih politik v davčni upravi poteka v sodelovanju z vsemi ključnimi dejavniki: zaposlenimi, skrbniki, lastniki procesov ter vodstvom. Poseben poudarek na ravni izvedbenih politik je na medsebojni usklajenosti in skladnosti s krovno politiko ter morebitni medsebojni integraciji. Medsebojno neusklajene izvedbene politike pomenijo nov vir tveganj in neskladnosti v procesu poslovanja in ukrepanja. V davčni upravi nadaljnji razvoj na tem področju sledi cilju poenostavitve izvedbenih politik ter gradnji informacijske podpore njihovem izvajanju, meritvam, analizam in nadzoru.

Vzpostavitev sistema SUIV pomeni pričetek dolgoročnega procesa v organizaciji. Pomembna je tudi njegova integracija z drugimi sistemi vodenja, v kolikor so uvedeni. Vzpostavitev krovnih in področnih politik ter uvedba ustreznih izvedbenih politik je del procesa, ki zagotavlja ustrežnejšo raven informacijske varnosti. Zaradi nenehnih sprememb v organizaciji mora tem spremembam slediti tudi SUIV. To pomeni, da se spremembe odražijo tako v krovni politiki in področnih politikah kakor tudi na ravni izvedbenih politik.

Sistem stalnih izboljšav med drugim narekuje skladnost, aktivno prilagodljivost in posodobitev dokumentov, spremljanje, analiziranje ter merjenje učinkov uvedenih ukrepov, tudi izvedbenih politik. Izkušnja uvedbe izvedbenih politik v davčni upravi dokazuje višjo raven kakovosti in varnosti poslovanja, dvig razumevanja delovnih postopkov, zmanjšanje tveganj ter učinkovitejše obvladovanje in delovanje sistema.

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## SUMMARY

# **IMPORTANCE OF OPERATION POLICIES IN IMPLEMENTING INFORMATION SECURITY MANAGEMENT SYSTEM**

*Key words: information security, information security management system, business process, Tax Administration of the Republic of Slovenia*

Information Technology in an organization provides an essential tool for functioning and achieving business goals. The field of information security is becoming increasingly important as organizations, including those in the public sector, create more and more data in their business. Allowing this data to be uncovered would reveal vital business information and/or constitute a violation of legislative provisions regarding the security of personal or other data.

Information security consists of:

- security confidentiality: securing data and information from being uncovered by a non-authorized person and ensuring said person is held responsible for their actions;
- security integrity: securing data and information from unauthorized changes, ensuring reliability – the preciseness, completeness and invariability of information and processing procedures;
- security availability: securing data, information and services from operational interruptions and ensuring that information is provided to authorized users when it is needed and in the required way.

The security of information and information systems is a continual process for protecting data or information from being uncovered and from unauthorized access (confidentiality), destruction, alteration (integrity) and interruption (availability). Appropriate organizational and technical measures complement this process. Preparing a comprehensive information security policy is the first step towards creating a strategy for safe operations. The security of information and information systems also implies harmonisation with demands put forth in the relevant legislation.

The task of the information security management involves knowledge of the contemporary business information system, controlling the operation of information sources and reducing the effects of entropy (the tendency towards continuous destruction) of the business system. The information security management system thus intervenes on all crucial levels of the operation process. Certification that the system is in accordance with the demands and provisions of an adequate standard has an important role in operational organization and in cooperation with the surroundings because it ensures that all partners control the adequate level of information security.

Information Technology and information security are involved in almost all business processes of the organization. It is therefore necessary to introduce organized access to ensure adequate support for information security – the information security management system. This includes various levels of security policy as well as an operational policy which outlines how employees are to behave when carrying out their tasks in the operation process if they are to fulfil the requirements of information security. In the paper definitions are given for information security and the information security management system. Implementation policy is discussed using the example of the process for assigning access rights to applications at the Tax Administration of the Republic of Slovenia. The significance of implementation policy in the process of setting up the information security management system and ensuring data security is the focus of an in-depth investigation. Implementation policy is also defined in reference to information security risk.

The field of information security management includes a large number of internationally acknowledged standards and recommendations: SGP – Standard of Good Practice, published by Information Security Forum (ISF), BS 7799 (British Standards Institute – BSI), CIP-002-1, published by North America Electric Reliability Council (NERC), SP 800-53 A, published by National Institute of Standards and Technology (NIST), in ISO/IEC 27001 (International Organization for Standardization – ISO).

Of the standards listed, the ISO/IEC 27001:2005 standard is recommended for certification. This standard presents a formal set of specifications for a model of information security management. The common requirement of the standard is that organizations develop, carry out, maintain and continuously improve its documented information security management system taking into account their business activities, vulnerability, threats and risk. The task of the information security management system is to ensure adequate and comparable security controls that adequately protect the means of information and make customers and other interested parties confident.

Standards and other good practises for information security management systems in organizations highlight the following steps as crucial:

- setting up the information security organization structure (council of information security, leader of information security);
- analyzing the gap: assessment of the current situation in the organization in terms of the provisions and requirements of an adequate standard and outlining steps that must be taken in the future;
- risk assessment: assessment of threats and consequences, the vulnerability of information, the efficiency of information processing and the possibility that the events listed could occur;
- defining the goals of introducing the system and determining the fields the introduction of the system will encompass (setting up limits);

- preparing the main security policy and other (local) security policies: the main security policy defines the basic principle of information security in the organization and addresses the other security policies that manage particular fields in detail;
- defining processes and instructions that will determine how employees are to proceed when conducting business processes if they are to fulfil the requirements of information security;
- presenting the results of the project to the management;
- integration of the system with other management systems if such systems exist in the organization;
- training employees.

Main and local policies determine the range of security policy in the organization; however, this as a rule is not sufficient for the comprehensive introduction of information security. There is often a lack of detailed instructions, which outline the behaviour of employees and thus reduce risk in the field of information security. Instructions of this kind constitute an implementation policy that determines responsibility, required behaviour and processes and defines blank forms or directs the employee to other adequate documents. The purpose of implementation policy is to ensure that an employee carries out activities in a specific business process in a way that is controlled and in accordance with the security policy.

One example of implementation policy presented in the paper is the instructions on allocating rights for applications. The process can be described in terms of the following examples of usage: allocation of access to the application, limitation or addition of rights to the existing access and deprivation or abolition of rights to access the application. In the case of an organization with few employees, which accordingly uses fewer application for carrying out business processes, ensuring an adequate level of security when carrying out processes for managing access to applications is a simple task. In the case of large organizations like the Tax Administration, these processes are highly complex. At the Tax Administration over 2000 employees have access to and use a large number of internal and external applications. Because of the size of the organization it is necessary to achieve an adequate level of security and to appoint more so-called administrators, who are responsible for managing access to the applications.

The following risks in the field of information security can be identified in the process of allocating rights to applications:

- uncovering a username and password;
- allocating access to an application for a user who usually does not have this right;
- allocating too many access rights or too great an extent of access rights to a user;

- failing to abolish access to an application in a timely, appropriate manner.

It may happen that a username and password are uncovered because of the unintentional actions of an employee who was given access. This may be the result of a failure to consider security processes when giving access to the application (recording, information).

Standards for workplace equipment define outline what an employee needs to carry out everyday tasks. Adequate computer equipment (personal computer or laptop, printer or access to a network printer, and so forth), office equipment and access to applications must be defined. If these standards are not considered, it may happen that an employee is allocated access to applications for which he or she is not authorized; similarly, too many rights may be given in the framework of a single application.

When an employee transfers to a different job or position, access to those applications for which the person is no longer authorized must be cancelled and/or rights for a particular application must be added or abolished in line with the requirements of the new job or position. When an employee leaves the organization, any and all access to the application he or she had been given during his or her time at the organization must be cancelled. Both circumstances imply the need for a centralized system for recording an individual user's access to the application. Failing to do this could result in access not being cancelled simply due to inadequate information. In the case of internal applications, these can be used only by an employee who knows the username and password of the former employee and can thus obtain unauthorized access to the application or unauthorized access to data. In the case of external applications, the former employee himself or herself has access to data even though his or her employment relationship with the organization where he or she was given access no longer exists.

The process is triggered by the following events:

- hiring a new employee;
- transfer of an employee to another job or position;
- request for new access or for the adding or removal of rights to/from existing access and
- termination of an employee's employment relationship.

Informing administrators about personnel and other changes is an important part of the process, as this ensures that employees are given adequate, timely access with adequate rights or are limited or denied, in a timely manner, access and rights which no longer belong to them once their employment relationship has been changed or terminated.

In the event that implementation policy was not adequately defined when analysing the gap or assessing risk, the information security management

system may be considered incomplete. Risk is consequently higher in this field. It was found that through its implementation policy, the Tax Administration has provided an important counterpart to the system for quality management, and in doing so has lowered information and business risks and enhanced the transparency and capabilities of processes.

The paper presents the case of allocating access to applications at the Tax Administration. The discussion highlights how the process should be dealt with as a whole and professionally from the standpoint of information security. It is a complex process that demands of management, administrators and employees responsible behaviour and an awareness of and control over risks and consequences. It follows that the process must be adequately documented. When the process is carried out in accordance with the instructions contained in the implementation policy for information security, risks as well as the likelihood of breaching complexity, access or confidentiality – the main characteristics of a competently implemented system for information security management – are reduced.

We believe that setting up an implementation policy without a main policy would not provide an appropriate basis for an information security management system at the Tax Administration or in organizations in general. Implementation policy represents an important part of the system: without it the system may exist, but it will not be very transparent or manageable. Such systems also fail to address those risks that could be controlled by setting up an implementation policy. Through its main policy and quality guidelines, as well as other internal documents that define controls on documentation, employee information, information security, etc. the Tax Administration has established a system for constant improvement, preventive and corrective measures, innovations and measuring the effects of measures introduced in the fields covered by the implementation policy. The design and introduction of an implementation policy at the Tax Administration was conducted in cooperation with all key factors: employees, administrators, owner of processes and the management. On the level of implementation policy, special emphasis is placed on consistent interaction and compliance with the main policy and potential synergies. Potential non-synergy of the implementing policy presents a new source of risk, and measures will need to be taken accordingly in the process of operations. At the Tax Administration, a further development in this field is aimed at simplifying implementation policy and establishing information support for its performance, measurement, analysis and control.

Setting up an information security management system is the beginning of a long-term process at an organization. Its integration with other management systems is also very important, in so much as such systems have been or will be introduced. Establishing a main policy and local policies and the introduction of an adequate implementation policy are part of the process for ensuring a more adequate level of information security. Organizations also undergo

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considerable changes, and the information security management system must keep pace with these changes. This means that changes are reflected in both the main policy and in local policies and on the level of implementation policy. The system of constant improvement dictates, among other things, accordance, active compliance and updating documents, monitoring, analysing and measuring the effects of the introduced measures, including the implementation policy. The experience of introducing an implementation policy at the Tax Administration has shown that in this way, a higher level of quality and operation security, greater understanding of working processes, reduced risk and more effective control over and functioning of the system can be achieved.

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1. Uredništvo lahko še pred recenzijo zavrne objavo članka, če njegova vsebina ne ustreza najavljeni temi, če je bil podoben članek v reviji že objavljen, ali če članek ne ustreza kriterijem za objavo v reviji. O tem uredništvo pisno obvesti avtorja.
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**1.01 Izvirni znanstveni članek.** Izvirni znanstveni članek je samo prva objava originalnih raziskovalnih rezultatov v takšni obliki, da se raziskava lahko ponovi, ugotovitve pa preverijo. Praviloma je organiziran po shemi IMRAD (Introduction, Methods, Results And Discussion) za eksperimentalne raziskave ali na deskriptivni način za deskriptivna znanstvena področja.

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dve pozitivni recenziji, od tega eno od tujega recenzenta. Če recenzenti razvrstijo članek različno, o končni razvrstitvi odloči uredniški odbor.

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5. Avtor prejme rezultate recenziranja praviloma v treh mesecih od oddaje članka.

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**Prispevek na konferenci:**

- Bugarič, B. (2002). Od hierarhične k participativni (odprti) javni upravi. *IX. dnevi slovenske uprave. Portorož* (str. 23–29). Ljubljana: Visoka upravna šola.

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- World Bank. (2001). *World Development Indicators*. Washington: World Bank.

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- Richmond, J. (2005). Customer expectations in the world of electronic banking: a case study of the Bank of Britain. *PhD*. Chelmsford: Anglia Ruskin University.

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