

Sasvari Peter; Rauch, Wolf

Article — Published Version

Austria and Hungary: Different stages of readiness to create added value by using business information systems

PRO PUBLICO BONO - Public Administration

Suggested Citation: Sasvari Peter; Rauch, Wolf (2014) : Austria and Hungary: Different stages of readiness to create added value by using business information systems, PRO PUBLICO BONO - Public Administration, National University of Public Service, Institute of International Studies, Budapest, Iss. 3, pp. 169-178,
<http://193.6.1.94:9080/?docId=19056>

This Version is available at:

<https://hdl.handle.net/10419/104710>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

PRO PUBLICO BONO PUBLIC ADMINISTRATION

S C I E N T I F I C J O U R N A L



2014 3

NATIONAL UNIVERSITY OF PUBLIC SERVICE
FACULTY OF PUBLIC ADMINISTRATION



Editorial Committee

PUBLISHER RESPONSIBLE: *Prof. Dr. András Patyi*, rector, National University of Public Service

CHAIR OF THE EDITORIAL COMMITTEE: *Prof. Em. Dr. András Tamás*, (National University of Public Service Faculty of Public Administration, Institute of State and Social Theory)

EDITOR IN CHIEF: *Dr. Norbert Kis*, Vice-Rector for Continuing Education and International Affairs, (National University of Public Service)

EDITORIAL BOARD: *Dr. Marcell Biró*, Director General, (Ministry of Interior, Chief of Cabinet)

• *Dr. Botond Bitskey*, Secretary General, (Constitutional Court of Hungary) • *Prof. Dr. István*

Bukovics, Professor, (National University of Public Service Faculty of Public Administration;

Head of Public Management and Sectoral Administration Institute) • *Dr. Ákos Cserny*, As-

sociate Professor, (National University of Public Service Faculty of Public Administration) •

Dr. Zoltán Hazafi, Head of Career and Human Resource Institute, (National University of Pub-

lic Service Faculty of Public Administration) • *Dr. habil. Miklós Imre*, College Professor, (Na-

tional University of Public Service Faculty of Public Administration, Institute of Public Man-

agement and Administrative Branches) • *Dr. Frigyes Janza*, Secretary General, (Society of Mil-

itary Science Hungarian Association of Police Science), member (Supervisory Board, National

University of Public Service) • *Dr. Norbert Kis*, Vice-Rector for Continuing Education and In-

ternational Affairs, (National University of Public Service) • *Prof. Dr. István Kukorelli*, Head of

Department, (Eötvös Loránd University, Faculty of Law) • *Prof. Em. Dr. Gábor Máthé*, Profes-

sor, (National University of Public Service Faculty of Public Administration, Institute of State

and Social Theory) • *Dr. habil. György Müller*, Private Professor, (National University of Public

Service Faculty of Public Administration, Institute of State and Social Theory) • *Dr. habil. An-*

drás Nemeslaki, Head of Institute, (National University of Public Service Faculty of Public Ad-

ministration E-Public Service Development Institute) • *Prof. Dr. András Patyi*, rector, (Nation-

al University of Public Service) • *Dr. Krisztina Szentkirályi-Szász*, Chief Executive, (Nation-

al Publisher of Civil Service and Textbook Shareholding Company) • *Prof. Dr. András Torma*,

rector, (University of Miskolc) • *Prof. Dr. Gábor Török*, Head of Institute, (National University

of Public Service Faculty of Public Administration, Institute of Civilistics and National Econ-

omy) • *Prof. Dr. András Varga Zs.*, Head of Institute, Professor, (Pázmány Péter Catholic Uni-

versity Faculty of Law), Deputy Public Prosecutor (Office of the Prosecutor General) • *Jan Bár-*

ta, Prague, (Czech Academy of Sciences) • *Daniel Klimovsky*, Kosice, (Comenius University in

Bratislava) • *Zdenek Koudelka*, Brno, (Univeristy of Masaryk) • *Herbert Küpper*, Regensburg,

(Institut für Ostrecht) • *Walter Maier*, Ludwigsburg, (Ludwigsburg Financial and Administra-

tive Sciences College) • *Daniel Szergej Naumov*, Szaratov, (P. A. Sztolipin Volga Academy of

Civil Service) • *Tóth Mihály*, Kiev, (Ukrainian National Academy of Sciences) • *Igor Palús*, Kas-

sa, (Univeristy of Pavol Jozef Safárik) • *Ewa Poplawska*, Varsó, (Polish Academy of Science) •

Jan Ziekow, Speyer, (German Research Institute for Public Administration) • *Prof. Dr. Li*

Junqing, dean, (Minzu University of China)

PRO PUBLICO BONO – Public Administration

3. ISSUE

foreword	NORBERT KIS	3
studies	ÁDÁM RIXER	
	• Civil organisations' participations in legislative processes in Hungary	4
	ILONA BODONYI	
	• Police in diverse society	27
	GYÖRGY NYIKOS	
	• Institution-system in transition	41
	TAMÁS KAISER	
	• New forms of governance in the transnational cooperations	53
	TIBOR LÁSZLÓ BUSKÓ – ATTILA JÓSZAI	
	• Beginnings of urbanization processes	
	as exemplified by the Budapest Metropolitan Area	61
international outlook	ATTILA MARJÁN	
	• The euro's political economy relevance	73
	JAN PASTWA	
	• The role of the Visegrad Cooperation in EU Foreign Relations	83
	ĽUDMILA LIPKOVÁ	
	• Ten years of Slovakia's membership in the European Union	91
	TOMS ROSTOKS – VERONIKA ŠILKINA	
	• Latvia's foreign policy: 10 years of EU membership	100
	YURI KRIVOROTKO	
	• Public procurement system in Belarus: administrative aspect	112

professional forum	ÁGOSTON RESTÁS	
	• Decision making method in emergency	123
	KATALIN PALLAI	
	• Design considerations and results of a large integrity training programme for civil servants in Hungary	133
	LILLA BAUER	
	• Public education policy in the years of transition – Some remarks (comments) on the centralization of the public education system in Hungary	148
	GYULA OCSKAY	
	• ICT enabled cross-border governance	163
	PÉTER SASVÁRI – WOLF RAUCH	
	• Austria and Hungary: Different stages of readiness to create added value by using business information systems	169
	VALÉRIA LIMPÓK	
	• Good governance in the field of taxation	179
book review	ANDRÁS PATYI – ÁDÁM RIXER	
	• Hungarian public administration and administrative law	188
information	Authors of the current volume	193
	Publication Notice	194
	Table of Content: Hungarian, German, French	196
	Imprint	200

DISTINGUISHED READERS!

The rapidly changing challenges of our time such as globalization, financial and security crises require public sector to be responsive and competitive in contest of national, regional as well as global interests. Public governance must have the organizational and operational capabilities enabling the effective realization of national interests. The core of our Journals' mission is to encourage researches on the state built on the comprehensive, multidisciplinary, comparative and applied approach towards good governance and public service. On the one hand, basic researches shall provide a stable framework of state theory for public reforms while applied researches shall lead to actionable knowledge that can efficiently support public policy and governmental actions. Our Journal aims to enhance the development of public values and the integrity of public service through research and expertise in particular by strengthening public and business confidence in the public sector and public governance as well as by improving the competitiveness and innovation capacity of public service.

This publication includes several papers of the 22nd Annual Conference of the Network of Institutes and Schools of Public Administration in Central and Eastern Europe (NISPAcee) held in May 2014 in Budapest, and The 10 years in the European Union – the lessons learnt and new challenges International Conference which was also held in May 2014 in Budapest.

It is our pleasure to promote some of recently published books in English such as Hungarian Public Administration and administrative law (ed. András Patyi – Ádám Rixer) and four other outstanding books published by NUPS: European Economic and Monetary Integration, Good Governance, ICT Driven Public Service Innovation, and International Protection of human rights.

Hopefully you have shown interest to our publications and coming the next Pro Publico Bono we will welcome your papers to be published, too.

Pro publico bono!

Norbert Kis
editor in chief

AUSTRIA AND HUNGARY: DIFFERENT STAGES OF READINESS TO CREATE ADDED VALUE BY USING BUSINESS INFORMATION SYSTEMS

It is very important to recognize that the future of e-government cannot be thought through in isolation, it cannot be assessed as a series of administrative tasks or a wider set of measures aimed at making the state more efficient. The administration of today and tomorrow essentially depends on the changes of the economy, society and culture as well. Local governments and public administration serve the interests of citizens and businesses alike, therefore public administration significantly depends on the knowledge, consciousness and mentality of individuals and enterprises, too. However, it is still an open question whether enterprises in Austria and Hungary actually have the IT infrastructure enabling them to adopt the devices of e-governance at a faster pace. The primary objective of this paper is to explore the differences and similarities in the usage of information systems in different size categories in Austria and Hungary. More precisely, it examines how frequently information systems are used in four of the pre-defined size categories (microenterprises, small and medium-sized enterprises and corporations) in both countries. Microenterprises in Hungary hardly used any information systems. When comparing the two countries, the smallest difference could be observed in the use of information systems by corporations.

• • • • •

1. INTRODUCTION

Technology investments both in business and in government applications are seen as key sources of innovation. The value of these investments – both from economic and social points of view – are defined by the outcome that these investments generate. In economics we might conclude that ICT investments generate value if the outcome is positive in economic terms, that is, it contributes to measures improving growth, productivity, efficiency or effectiveness. On the level of enterprises, these outcomes translate into revenue increase or cost savings but since the Internet boom of the 1990s, researchers have attributed more and more significance to ICT transformational outcomes. Transformation is closely coupled with radical innovation or non-incremental change, which fundamentally alters the traditional ways of doing business. Transformational impacts can result in major disruptions of

an industry's competitive structure, changes in user experience, in consumption (such as online shopping), altering business processes, creating brand new organizations and many others. The term "e-business" in this context places this issue in its focus: what kind of economic value is generated by ICT investments and how this value is ensured?

In the public sphere, e-government deals with a similar problem as far as value creation is concerned. The outcome, however, is very different: better governance, democratic transparency, improvement in social life. Beside the holistic and broad societal values, we can also define lower, public service level outcomes of ICT investments such as improved public service delivery, better coordination across government, improved public engagement, and more efficient process management. The use of ICT applications makes it effective to handle large amounts of administrative tasks. Data transfer will become faster and cheaper, increasing the dynamics of administration. Sharing databases between various institutions will lead to cost reduction, lessened complexity and the avoidance of unnecessary and redundant solutions. Archiving and data retrieval become easier and less expensive, the history of different types of administrative cases and matters gets easier to follow. However, it is possible to talk about efficiency only in the long run as online and offline services have to be maintained side by side as long as they are requested by public and business enterprises. Businesses have been using electronic devices to help their operation at some level since the emergence of computers. Naturally, similarly to all technical innovations, they were initially only available for large companies that had enough capital and were able to finance their development. In accordance with the proliferation of using computers, our basic assumption is that in countries where the use of IT devices is higher, enterprises have higher capability of manufacturing more complex products, and the production of more complex products leads to higher added value. Added value at basic prices can be simply defined as the difference between gross output (at basic prices) and intermediate consumption (at purchaser prices) and can be decomposed into the following components: Compensation of Employees; Gross Operating Surplus; Mixed Income; and Other Taxes on Production less Subsidies on Production. Among the EU member states, the capacity of generating added value was examined more closely in the case of two neighbouring countries, namely Austria and Hungary. Compared to the EU average of 27 countries, the average added value of the Austrian enterprises was higher by 70% with EUR 530,000 in 2012. In contrast, the average data of the Hungarian enterprises did not exceed EUR 87,000 which was equal to only 27 % of the EU average. The added value of microenterprises in Austria reached 173% and a modest 23% in Hungary in relation to the EU average. It mounted up to only EUR 17,000 in Hungary and EUR 124,000 in Austria per enterprise, which was nearly 7.5 times higher than the Hungarian data in 2012. The added value created by small-sized enterprises was eight times higher in Austria (EUR 1,042,000) and 18 times higher (EUR 315,000) in Hungary compared to microenterprises. The added value generated by the Hungarian medium-sized enterprises was only slightly over 40% of the average of the European Union (EUR 2,270,000). In the meantime, the added value of the medium-sized enterprises in Austria exceeded the EU average by 45%. Regarding the performance of the Hungarian enterprises, the corporations operating in the country lagged behind their Austrian counterparts to the least ex-

tent. The added value per enterprise in Austria was three times higher in the case of small- and medium-sized enterprises and two times higher in the case of corporations compared to their peers in Hungary.

2. THE RELATIONSHIP OF ICT DEVELOPMENT AND ECONOMIC PERFORMANCE

The key strategic motive behind information system (IS) applications is to "make things better" which means in economic terms that there should be a correlation between the added value created by enterprises in a country and their ICT development. Higher added value means using more complex information systems and employing more IT specialists. In order to verify this existing relationship, a linear correlation analysis was performed between the IDI development of a country and the average added value generated by the enterprises operating there. The analysis was conducted by using the data collected in 27 EU countries. The information society is an elusive phenomenon to deal with: its measurement requires careful planning and it is difficult to quantify and approach by using economic and sociological methods. The measurements and comparisons, however, raise a number of problems. Simple indices of infrastructure can be measured more easily but the more variables are there to work with, the more difficult it becomes to measure appropriately. The indices are the measurements and comparative methods of various segments of information society. The weight of separate factors in a given index reflects the viewpoint of governments, inter-governmental organizations and academic workshops in terms of the necessary factors for the development of the information society. One of the most elaborated indices is the ICT Development Index (IDI), which is published by the United Nations International Telecommunication Union and based on internationally agreed information and communication technologies indicators. This index seemed almost ideal for the purpose of our analysis since it is used to measure the ICT development levels in 155 countries. The index itself, which can be used as an evaluation tool at global, regional and country levels alike, combines 11 indicators grouped into three subindices: ICT access, use and skills.

Correlation calculations are used to describe the direction and the strength of a linear relationship between variables. In our calculation, the correlation between two variables – the IDI index of a country and the average added value created by enterprises – was examined.

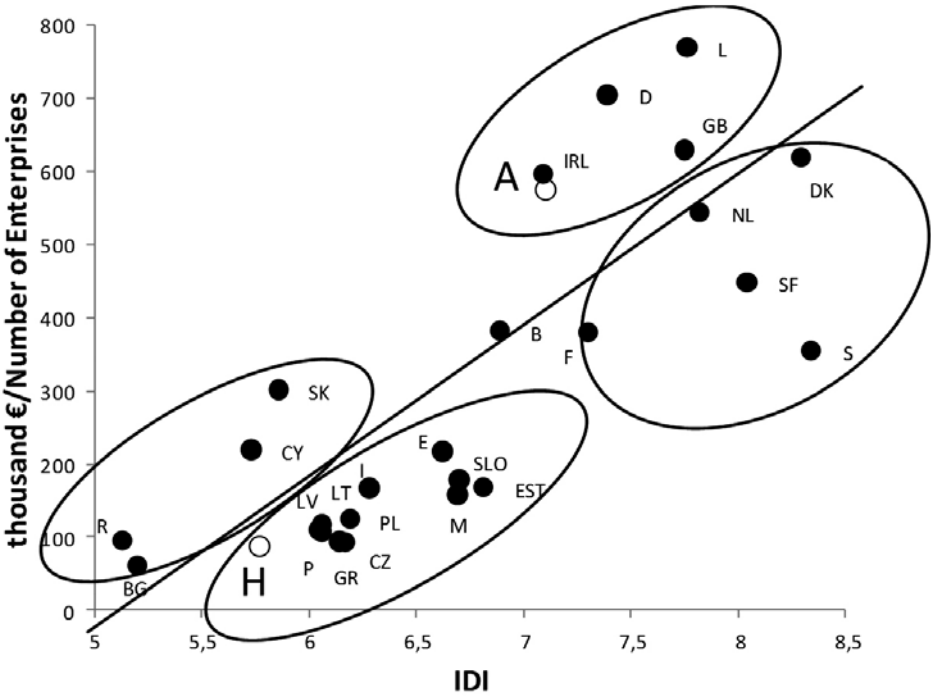
Depending on the individual countries the values of IDI were between 5 and 8.5, the added value per enterprise was between 50,000 and 800,000 Euros. The correlation coefficient is 0.791, which indicates a strong positive relationship. The linear correlation coefficient is the square of the determinant coefficient, which explains the added value with the IDI index by 61%. The standard error of the estimate (SEE) helps to determine the accuracy of the prediction. SEE shows the average standard deviation of the added value from the estimated values, which is a value of 1.39. The ANOVA table shows a similar division to variance analysis, based on the variance explained by each regression (817,842.426), and non-explained variance (487,849.245). Here, the significance of the f-test can also be read, which confirms the existence of the correlation (Sig. <.05).

In addition, it can also be observed by interpreting the t-test that the significance of the variable determining steepness is less than 5%, therefore IDI has a real effect on added value.

Based on the Unstandardized Coefficients, it is possible to read the formula of the regression line:

$$\text{Added value} = -1,010.976 + 196.45 \cdot \text{IDI}$$

Figure 1 • The correlation between the added value and the IDI development of the EU countries in 2012¹



If we take a closer look at the figures, it becomes clear that the member states of the European Union can be divided into four distinct groups.

- Relatively high added value per enterprise with a comparably higher IT development level. This group of countries includes Austria, Germany, the United Kingdom and Ireland.
- Relatively high added value per enterprise with a comparably lower IT development level. Denmark, the Netherlands, Finland, Sweden and France belong to this group.

¹ Abbreviations: A=Austria, B=Belgium, BG=Bulgaria, CY=Cyprus, CZ=Czeh Republic, DK=Denmark, EST=Estonia, SF=Finland, F=France, D=Germany, GR=Greece, H=Hungary, IRL=Ireland, I=Italy, LV=Latvia, LT=Lithuania, L=Luxemburg, M=Malta, NL=Netherlands, PL=Poland, P=Portugal, R=Romania, SK=Slovakia, SLO=Slovenia, E=Spain, S=Sweden, GB=United Kingdom

- Relatively low added value per enterprise with a comparably higher IT development level. Four countries can be found in this group, namely Slovakia, Cyprus, Romania and Bulgaria.
- Relatively low added value with a comparably low IT development level. This is the most populous group, comprising Lithuania, Latvia, Estonia, Malta, Spain, Italy, Slovenia, Poland, Greece, the Czech Republic, Portugal and Hungary.

Austria is situated above the regression line while Hungary can be found below it. This means that the average added value generated by the enterprises operating in Hungary is lower than they could achieve by benefiting from their actual IT development level. In contrast, the IT development level in Austria is lower than the average added value produced by the country.

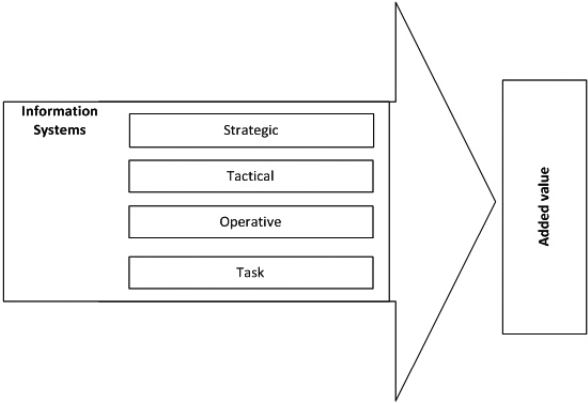
The correlation between added value and the ICT development level of a country is close. Nevertheless, the use of ICT has some beneficial effects that are difficult to quantify. The “Common List of Basic Public Services” is a recommendation for the performance of public service by the European Union which defines obligations for the member states regarding the range and levels of public service provided online. If businesses and citizens have a higher frequency of ICT usage in a country, it can also be assumed that they use the services offered by e-administration to a greater extent.

3. HOW DOES ORGANIZATIONAL USE OF ICT CONTRIBUTE TO BETTER ORGANIZATIONAL PERFORMANCE

This is a complex and widely researched question and this part of the paper intends to show and introduce the first fundamental element of the value creation process, that is, how information systems are configured.

The levels leading to the creation of added value are summarized in a rudimentary model shown in Figure 2, which, according to Resource Based Value theories, contribute to the value creation by enterprises.

Figure 2 • The logical framework of IT added value and the research model of the paper



Based on Antony's classification and in line with our assumptions, these systems can be transformed into decision-making and organizational levels of specific activities that are completed with a fourth one. These four levels are associated with the following tasks:

- Top-level management determines the business policy of an enterprise but they should provide guidance for the strategy to be implemented as well. In addition to the preparation of plans, they have to ensure their implementation and the correction or modification of their strategy if circumstances and conditions change.
- Middle-level management has to implement a policy specified by the top-level management, elaborating and implementing tactical tasks.
- The responsibility of the operational level of management is to directly control the implementation of real processes based on the strategy and tactics defined by the upper management levels.
- At the lowest executive level, the implementation of simple mass transactions is done. It can also be called the level of tasks.

Our analysis shows that in all aspects a noticeable difference can be observed between Austria as a high added value performer and Hungary as a catching-up performer. The primary research was based on a questionnaire that had already been filled out by Hungarian enterprises. The same questionnaire was used among the Austrian enterprises, providing a good opportunity to compare and analyze the two countries. The questionnaires were sent out randomly, regardless of company size, business activity and regional location. The sample size for comparison was almost identical as 94 enterprises in Hungary and 99 enterprises in Austria completed and returned the questionnaire by the set deadline.

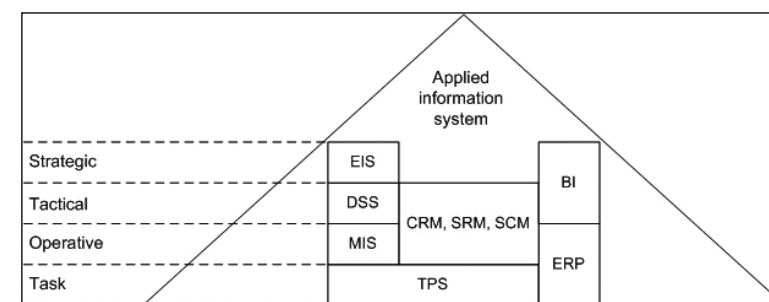
4. INFORMATION SYSTEMS AND CORPORATE DECISION LEVELS

In order to understand information systems (IS), we need to be aware of their general features, functions and key activities, together with their inter-relatedness to one another. Burt and Taylor define information systems as *“an integrated user-machine system for providing information to support the operations, management, analysis, and decision-making functions in an organization. The system utilizes computer hardware and software, manual procedures, models for analysis, planning, control, and decision-making by using a database”*².

If it is true that certain specific IS can closely be connected to certain decision-making levels, then it is worth examining how each IS is related to the other and exactly what levels of decision-making they are designed to support. An Executive Information System (EIS) is a type of Management Information System (MIS) that facilitates and supports senior executive information and decision-making needs. It provides easy access to internal and external information relevant to organizational goals. It is commonly considered a specialized form of decision support system (DSS). MIS systems are distinct from other information systems because they are used to analyze and facilitate strategic and operational activities. Original-

ly, the term MIS described applications providing managers with information about sales, inventories, and other data that would help in managing the enterprise. Over time, the term broadened to include: decision support systems, resource management and human resource management, Enterprise Resource Planning (ERP), Enterprise Performance Management (EPM), Supply Chain Management (SCM), Customer Relationship Management (CRM), project management and database retrieval applications. Transaction processing is a style of computing that divides work into individual, indivisible operations, called transactions. A Transaction Processing System (TPS) or transaction server is a software system, or software/hardware combination, that supports transaction processing. According to the traditional structure, MIS, DSS and EIS are based on a TPS system. CRM, SRM and SCM systems are basically designed to support decision-making at operational and tactical levels but it is inevitably necessary to have an underlying TPS system that addresses the daily tasks. ERP systems include some important functions of TPS, and are able to support the full operational level. Business Intelligence (BI) systems can include all sorts of decision-support systems used at middle and senior management levels that appear as BI applications. BI systems are always based on some lower-level support systems, mostly on ERP systems. ERP and BI systems can also be found in a complex package.

Figure 3 • Corporate decision-making levels with the supporting IS³



It is needed to emphasize that this categorization should not be regarded as a rule, it describes only the current major trends. There are instances showing that some systems also extend to other levels of decision-making, and general shifts between these levels are also possible due to the continuous development. After giving a more thorough insight into the functions and main activities of the described information systems, the major results of our analysis are highlighted below, showing the main tendencies of using information systems in all of the four examined company size categories.

Nearly two-thirds of the Austrian microenterprises used TPS systems. The proportion of ERP systems (both used and planned to use) was up to 27% in 2012. Using MIS sys-

² Burt, E. & Taylor, J. A. – Information and Communication Technologies: Reshaping Voluntary Organizations? – Nonprofit Management and Leadership, 11(2) – 2003 – 131–143 pp.

³ Kacsukné B. L. & Kiss, T. – Bevezetés az üzleti informatikába – Budapest: Akadémiai Kiadó – 2007

tems reached 23%; their planned use was 3%. Less than one-tenth of the Austrian micro-enterprises reported using SCM and SRM systems. The proportion of the intended use of CRM systems reached 17%, although the rate of their actual use was only 5%. Using DSS did not exceed 1% in Austria. The use of such strategic systems as BI and EIS affected only one-tenth of the microenterprises in Austria in 2012. A quarter of the Hungarian micro-enterprises were using or planning to use TPS systems. The intended use of ERP systems did not exceed 10% in this size category. The planned use of MIS and SRM reached 15%, it was the second highest rate following the intended use of CRM which was 35%. The use of strategic systems was less than 5%. The use of SCM systems did not exceed 5%, either, their intended use was around 15% in 2012. It can be stated that none of the Hungarian microenterprises used IS at a higher frequency rate of 5%. Small-sized enterprises in Austria used TPS systems in the largest proportion; their usage rate was 75%. ERP systems were used by 46% of them. At operational level, MIS systems were used by nearly a quarter of the Austrian enterprises in 2012. The use of different tactical IS in the case of CRM and SRM affected the fifth of small-sized enterprises. Small-sized enterprises in Hungary most commonly used TPS systems (30%) followed by ERP (15%) and CRM (15%) systems. 15% of them reported using SRM systems. Based on the responses, none of the small-sized enterprises in Hungary used any kind of decision support systems. 7% of them used BI and only 4% of them reported using EIS systems.

Table 1 • The penetration rate of IS among micro-enterprises and small-sized enterprises in Austria and Hungary

Country		Austria			Hungary		
Levels	IS	Used	Not used, introduction is planned	Not used, introduction is not planned, either	Used	Not used, introduction is planned	Not used, introduction is not planned, either
Micro-enterprise							
Strategic	BI	8%	8%	84%	0%	5%	95%
	EIS	2%	0%	98%	0%	5%	95%
Tactical	DSS	0%	5%	95%	0%	5%	95%
	SCM	0%	8%	92%	5%	10%	85%
	SRM	7%	10%	83%	5%	15%	80%
	CRM	5%	17%	78%	5%	35%	60%
Operative	MIS	23%	3%	74%	0%	15%	85%
Task	ERP	20%	7%	73%	0%	10%	90%
	TPS	60%	2%	38%	5%	20%	75%
Small-sized enterprise							
Strategic	BI	29%	4%	67%	7%	11%	82%
	EIS	4%	7%	89%	4%	11%	85%
Tactical	DSS	0%	4%	96%	0%	30%	70%
	SCM	4%	11%	85%	11%	19%	70%
	SRM	22%	4%	74%	15%	15%	70%
	CRM	22%	4%	74%	15%	19%	66%
Operative	MIS	43%	4%	53%	7%	26%	67%
Task	ERP	46%	4%	50%	15%	22%	63%
	TPS	75%	7%	28%	30%	19%	51%

Nearly 90 % of the Austrian medium-sized enterprises used TPS systems. The proportion of using ERP reached 80% in 2012. The use of MIS systems approached 70%, and their planned use was 6%. Over a fifth of the medium-sized enterprises reported using SCM and SRM systems in Austria. The rate of using CRM exceeded 37 %, being the highest frequency rate among the IS used at tactical level. The use of DSS was not typical in this size category. The use of strategic systems, including the use of BI, affected more than a third of the Austrian medium-sized enterprises. More than half of the Hungarian medium-sized enterprises used or planned to use the TPS systems. Using ERP systems was more than 40% in this size category. The intended use of MIS and SRM was nearly 40%, and 44% in the case of CRM systems which was the highest rate in the group of IS used at a tactical level. The use of EIS systems was used by nearly a quarter of the medium-sized enterprises. Although, the use of SCM systems affected a quarter of medium-sized enterprises, their intended use was up to 26% in 2012.

Table 2 • The penetration rate of IS among medium-sized enterprises and corporations in Austria and Hungary

Country		Austria			Hungary		
Levels	IS	Used	Not used, introduction is planned	Not used, introduction is not planned, either	Used	Not used, introduction is planned	Not used, introduction is not planned, either
Medium-sized enterprises							
Strategic	BI	38%	6%	56%	7%	19%	74%
	EIS	7%	7%	86%	26%	4%	70%
Tactical	DSS	0%	14%	86%	19%	18%	63%
	SCM	19%	0%	81%	26%	26%	48%
	SRM	25%	0%	75%	37%	19%	44%
	CRM	37%	12%	51%	44%	15%	41%
Operative	MIS	69%	6%	25%	41%	15%	44%
Task	ERP	81%	0%	19%	41%	7%	52%
	TPS	88%	6%	6%	52%	7%	41%
Corporation							
Strategic	BI	92%	8%	0.00%	20%	15%	65%
	EIS	67%	8%	25%	45%	10%	45%
Tactical	DSS	33%	17%	50%	35%	20%	45%
	SCM	55%	18%	27%	40%	0%	60%
	SRM	64%	18%	18%	60%	5%	35%
	CRM	75%	17%	8%	50%	10%	40%
Operative	MIS	92%	8%	0%	60%	5%	35%
Task	ERP	92%	8%	0%	60%	10%	30%
	TPS	100%	0%	0%	75%	10%	15%

Every responding corporation in Austria reported using TPS systems. The use of ERP by corporations was almost 90%. Nine out of ten corporations used MIS systems at the operational level. In the case of CRM, the use of various IS at a tactical level affected three-fourths of the Austrian corporations. With a usage rate of more than 60%, the use of SRM was the second most commonly used tactical system in Austria. The use of SCM systems was typical of every second, the use of DSS was typical of every third corporation in Austria. The use of

BI systems reached an impressive 90% and the use of EIS was also high, affecting more than two-thirds of the enterprises belonging to this size category. The most frequently used information system was TPS among the Hungarian corporations, reaching 75%. It was followed by the use of ERP (60%) and MIS (60%) systems. CRM systems were used by 50% of them. Based on the responses, six Hungarian corporations out of ten used SRM systems. It was also remarkable that only a fifth of the Hungarian corporations used any kind of BI systems and nearly half of them used EIS systems during their daily operations.

5. CONCLUSIONS

As it is increasingly visible, information society creates a new type of state, a digital state that becomes, at least partially, a network state following the model of network economy and network society. Therefore, regional and local government administrations become more and more equal players to the central government, which is the traditional holder of the highest executive power. Their primary task is to create an atmosphere for citizens and business enterprises alike to participate rather than being subjects or subordinates. In order to achieve this, all stakeholders (such as citizens, private sector and state) must have adequate technical infrastructure and personnel. This is why it is crucial for the enterprises to be prepared for the challenges and opportunities of a digital state. The frequency rate of using IS by microenterprises in Austria exceeded the same rate as in Hungary. In fact, the same result was found in the case of using IS both at operational and strategic levels. In the case of the surveyed 9 IS it was found that the Hungarian microenterprises hardly used or did not use any of them at all. It can be explained by the complexity of the products and services offered by those enterprises, which, in turn, might affect the added value created by them. There was a more than seven-times difference between Austria and Hungary in this respect in 2012. The use of IS among the Austrian small-sized enterprises was twice as high at the level of performing tasks and six times as high at the operational level as it was found in the case of their Hungarian peers. A 30% handicap could be observed only at the tactical level while the Hungarian added value was barely a third of the Austrian one. The use of IS by medium-sized enterprises at the tactical level was very similar both in Austria and Hungary. It was remarkable, however, that the Hungarian data showed a 30% decrease at the level of tasks and at the operational level while the added value was still only about a third compared to the Austrian figures. The average added value generated by the Hungarian corporations was nearly half of their Austrian counterparts while there was a narrow gap in terms of operational and tactical levels and a more robust difference could be found at the strategic level.

Authors of the current volume

ÁDÁM RIXER

Associate Professor, Head of Department of Administrative Law
Károli Gáspár University of the Reformed Church
in Hungary, Law Faculty, Budapest, Hungary
rixer.adam@kre.hu

ÁGOSTON RESTÁS

Associate Professor
National University of Public Service Institute
of Disaster Management, Department of Fire
Prevention and Rescue Control, Budapest, Hungary
restas.agoston@uni-nke.hu

ATTILA JÓSZAI

Assistant Lecturer
National University of Public Service, Faculty of Public
Administration, Budapest, Hungary
joszai.attila@uni-nke.hu

ATTILA MARJÁN

Associate Professor, Head of department
National University of Public Service Institute
of International Studies, Department of International
and European Law, Hungary
marjan.attila@uni-nke.hu

DR. HABIL. ILONA BODONYI

National University of Public Service
Faculty of Law Enforcement
ibodonyi@gmail.com

GYÖRGYI NYIKOS

Associate Professor
National University of Public Service, Budapest (Hungary)
and *First counselor, attache of cohesion policy, Permanent*
Representation of Hungary to the EU, Brussels (Belgium)
nyikos.gyorgyi@uni-nke.hu

JAN PASTWA

Director
Poland's National School of Public Administration, Poland
info@ksap.gov.pl

KATALIN PALLAI

Associate Professor
National University of Public Service, Budapest, Hungary
katalin@pallai.hu

LILLA BAUER

PhD student
Corvinus University of Budapest, Budapest, Hungary
bauer.lilla37@gmail.com

PROF. ING. EUDMILA LIPKOVÁ, CSC.

Dean
University of Economics in Bratislava, Slovakia
Faculty of International Relations
lipkova@euba.sk

GYULA OCSKAY

Secretary General
Central European Service for Cross-Border Initiatives,
Budapest, Hungary
gyula.ocsokay@cesci-net.eu

PÉTER SASVÁRI

Associate Professor
National University of Public Service, Budapest, Hungary
sasvari.peter@uni-nke.hu

O.UNIV.PROF.MAG.DR. WOLF RAUCH

Professor
Karl-Franzens Universität Graz, Austria
wolf.rauch@uni-graz.at

TAMÁS KAISER

Associate Professor
National University of Public Service, Faculty of Public
Administration, Institute of Management and
Governance, Department of Public Policy and Public
Administration, Budapest, Hungary
kaiser.tamas@uni-nke.hu

TIBOR LÁSZLÓ BUSKÓ

Senior Lecturer
National University of Public Service, Faculty of Public
Administration, Budapest, Hungary
busko.tibor@uni-nke.hu

TOMS ROSTOKS

Assistant Professor
Department of Political Science, University of Latvia
toms.rostoks@lu.lv

VERONIKA ŠILINKA

PhD student
Doctoral School of European Integration and Baltic Sea
Region Studies University of Latvia (EIBSRS), Latvia

VALÉRIA LIMPOK

Senior Lecturer
Szechenyi Istvan University, Kautz Gyula Faculty of
Economics, Győr, Hungary
limpok@sze.hu

PROFESSOR YURI KRIVOROTKO

Lev Sapieha Foundation, Central Office
kriff55@gmail.com

Call for Papers

The academic journal of Pro Publico Bono-Public Administration edited by the National University of Public Service aims to provide platform for publishing academic articles written in the field of public service.

The aim of the paper: Publishing researches and professional experiences in the fields of public service, public management and public politics, further more enhancing the interaction between the academic views and practical implementation, along with advertising the knowledge regarding the development in the quality of public administration.

We are looking forward to receiving articles in the following columns:

Academic proceedings and studies

The aim of this column is introducing both the domestic and international research developments in the fields of political sciences, jurisprudence and social sciences along with exchanging ideas among academic workshops and doctoral schools.

Professional forum

The aim of this column is providing opportunity for scholars in the field of public administration to exchange experiences, to introduce new practice, and to present recent innovation in the field of public service.

International Outlook

The aim of this column is presenting the research developments in the field of international and social sciences with special focus on the strategy and practice of international public service, on the cooperation and advancement of European public administration system, on the endeavor of EU, and on the programme of the development in public administration produced by different international organisations.

Review

This column is dedicated to present the academic events, news, programme, reviews, and reports about different conferences in the fields of political sciences, constitutional theories and public administration.

PUBLISHING

The journal is issued in every three months in Hungarian, and occasionally in English. The table of contents is in English, in German, in French.

The question of publishing or not a received article is the task of the editorial board according to their rules of procedure. A member of the editorial board, who is responsible for reporting about the received article, has to come forward with a suggestion of publishing (or not) the given article based on the opinion of the literary adviser. The stylistic revision and report is anonymous.

The journal of Pro Publico Bono – Magyar Közigazgatás is also published online. Please find the online version under the following link: www.ppb.mk.uni-nke.hu where the archives of the journal are also available.

CONDITIONS OF PUBLISHING

Extent

The extent of the studies should be no longer than 25 000 n, including the title. Please pay detailed attention to edition of the hierarchy of titles.

Editing

One page should contain 25-26 lines using either 1.5 or double spacing, using 60 characters to the line, whilst the size of letter is 12 and the type of letter is Times New Roman. The margin should be 20 mm on the left hand side, 30 mm on the right hand side, 40mm on the bottom and 25 mm on the top. After and before every title, sub-title, quote, one row space should be left. The most important keywords or parts of a sentence should be highlighted by using bold type. Any other typography is not acceptable. Every figure and table should be listed on a single paper and in a single folder using serial number and title for each, and these should be submitted to the editorial board. Please pay detailed attention to the submission of the final version of the tables. If the author intends to use any charts or tables that have been already published in any other study, it is the obligation of the author to sort out the question of copy right.

References

The author should use footnotes on the bottom of the page and it should contain the following: *Authors – The name of authors – The title of the article – The place of publication- the date of publication – the extent of the article*. The size of letter in the footnotes should be 10 points. Reference list in the end of the article is not required.

Sending the articles to the editors board

The article with proper page number should be sent online to the email address of the editors board: ppb.mk.szerkesztoseg@uni-nke.hu

Please send an English abstract, which should be no longer than 1500 n. In order to enable the reader to have contact with the authors, the authors should allow the readers know information such as the author's position, place of employment, academic title, contact details such as e-mail address. These contact details are published in the 'Authors of the current volume' column.

FURTHER INFORMATION: <http://en.uni-nke.hu/research/periodicals>

Tartalom

köszöntő	KIS NORBERT	3
tudományos közlemények/ tanulmányok	RIXER ÁDÁM	4
	• Civil szervezetek részvétele a jogalkotási folyamatban Magyarországon	4
	BODONYI ILONA	27
	• A rendőrség egy sokszínű társadalomban	27
	NYIKOS GYÖRGYI	41
	• Kohéziós intézményrendszer átalakulóban – eltérő megoldások Lengyelországban és Magyarországon	41
	KAISER TAMÁS	53
	• A kormányzás új formái a transznacionális együttműködésekben	53
	BUSKÓ TIBOR LÁSZLÓ – JÓSZAI ATTILA	61
	• Az urbanizációs folyamatok kezdetei Budapest főváros térségének példáján	61
nemzetközi kitekintő	MARJÁN ATTILA	73
	• Az euró politikai gazdasági relevanciája	73
	JAN PASTWA	83
	• A visegrádi együttműködés szerepe az EU külkapcsolataiban	83
	LUDMILA LIPKOVÁ	91
	• Ten years of Slovakia's membership in the European Union	91
	TOMS ROSTOKS – VERONIKA ŠILKINA	100
	• Lettország külpolitikája: az EU-tagság tíz éve	100
	YURI KRIVOROTKO	112
	• Közbeszerzési rendszer a Belarusz Köztársaságban: igazgatási szempontok	112
tudományos fórum	RESTÁS ÁGOSTON	123
	• Döntéshozatali módszer kényszerhelyzetben	123
	PALLAI KATALIN	133
	• A magyarországi köztisztviselők integritás-tréningek tervezési megfontolásai és eredményei	133
	BAUER LILLA	148
	• Oktatási közpolitika az átmenet éveiben - néhány megjegyzés (észrevétel) a magyar közoktatási rendszer központosításáról	148
	OCSKAY GYULA	163
	• Infokommunikációs technológia a határokon átnyúló kormányzás szolgálatában	163
	SASVÁRI PÉTER – WOLF RAUCH	169
	• Az Információs Rendszerek és a gazdasági hozzáadott érték kapcsolata Ausztria és Magyarország összehasonlító példájának tükrében	169
	LIMPÓK VALÉRIA	179
	• Jó kormányzás az adózás területén	179
könyvszemle	PATYI ANDRÁS – RIXER ÁDÁM	188
	• Magyar Közigazgatás és közigazgatási jog	188
tájékoztató	E számunk szerzői	193
	Szerzőinkhez	194

Sommaire

Introduction/Préface	NORBERT KIS	3
Études	ÁDÁM RIXER	4
	• La participation des organisations civiles dans le processus législatif en Hongrie	4
	ILONA BODONYI	27
	• La police dans une société diversifiée	27
	GYÖRGYI NYIKOS	41
	• Les institutions en transition (politique de cohésion en Pologne et Hongrie)	41
	TAMÁS KAISER	53
	• Nouvelles formes de gouvernance dans la coopération transnationale	53
	TIBOR LÁSZLÓ BUSKÓ – ATTILA JÓSZAI	61
	• Les débuts des processus d'urbanisation par l'exemple de la région métropolitaine de Budapest	61
Perspectives internationales	ATTILA MARJÁN	73
	• LA pertinence politique et économique de l'euro	73
	JAN PASTWA	83
	• Le rôle du Groupe de Visegrád dans les relations extérieures de l'UE	83
	LUDMILA LIPKOVÁ	91
	• Dix ans de l'adhésion de la Slovaquie à l'Union européenne	91
	TOMS ROSTOKS – VERONIKA ŠILKINA	100
	• La politique étrangère de la Lettonie: 10 ans d'adhésion à l'UE	100
	YURI KRIVOROTKO	112
	• Système de passation des marchés dans la République du Bélarus: les aspects administratifs	112
Forum	ÁGOSTON RESTÁS	123
	• La prise de décision en cas de/dans les situations de catastrophe	123
	KATALIN PALLAI	133
	• Les considérations de conception et les résultats d'un programme de formation à l'intégrité des fonctionnaires en Hongrie	133
	LILLA BAUER	148
	• Politiques publiques d'éducation dans les années de transition – Quelques remarques (commentaires) sur la centralisation du système d'éducation publique en Hongrie	148
	GYULA OCSKAY	163
	• TIC au service de la gouvernance transfrontalière	163
	PÉTER SASVÁRI – WOLF RAUCH	169
	• Autriche et Hongrie: Les différentes étapes de préparation pour créer de la valeur ajoutée en utilisant des systèmes d'information d'entreprise	169
	VALÉRIA LIMPÓK	179
	• La bonne gouvernance dans le domaine de la fiscalité	179
Revue	ANDRÁS PATYI – ÁDÁM RIXER	188
	• L'administration publique et le droit administratif Hongrie	188

Inhaltsverzeichnis

Begrüßung	NORBERT KIS	3
Studien	ÁDÁM RIXER	
	• Die Teilnahme der Zivil Organisationen in gesetzgebende Prozesse in Ungarn	4
	ILONA BODONYI	
	• Die Polizei in einem diversem Gesellschaft	27
	GYÖRGY NYIKOS	
	• Verwandelnde Institution (Kohäsionspolitik in Poland und in Ungarn)	41
	TAMÁS KAISER	
	• Neue Formen der Regierungführung in den transnationalen Kooperationen	53
	TIBOR LÁSZLÓ BUSKÓ – ATTILA JÓSZAI	
	• Beginn des Urbanisationablaufes nach dem Beispiel Budapest Hauptstadt	61
Internationaler Ausblick	ATTILA MARJÁN	
	• Der politische wirtschaftliche Relevanz des Euros	73
	JAN PASTWA	
	• Die Rolle der visegrader Kooperation in den fremden Reaktionen der EU	83
	LUDMILA LIPKOVÁ	
	• 10 Jahre der europäischen Mitgliedschaft der Slowakei	91
	TOMS ROSTOKS – VERONIKA ŠILKINA	
	• Die Außenpolitik des Lettlands: 10 Jahre Mitgliedschaft in der EU	100
	YURI KRIVOROTKO	
	• Öffentliches Auftragswesensystem in der Republik Weißrussland: administrative Standpunkte	112
Fachforum	ÁGOSTON RESTÁS	
	• Beschlussfassung im Notfall	123
	KATALIN PALLAI	
	• Standpunkte und Folgerungen der Planung des ungarisches Staatsbeamte Integrität-Training Programs	133
	LILLA BAUER	
	• Öffentliche Politik des Bildungswesens in den Jahren der Übergang – einige Kommentare (Bemerkungen) über die Zentralisation des ungarisches öffentliches Bildungssystems	148
	GYULA OCSKAY	
	• ICT in dem Dienst der grenzüberschreitenden Staatsregierungs	163
	PÉTER SASVÁRI – WOLF RAUCH	
	• Österreich und Ungarn: verschiedenes Niveau der Bereitschaften mit der Benutzung des geschäftlichen Informationssystems für Zusatzwertschaffung	169
	VALÉRIA LIMPÓK	
	• Verantwortungsbewusste Regierungsführung in dem Feld der Steuerung	179
Rundschau	ANDRÁS PATYI – ÁDÁM RIXER	
	• Ungarische Öffentliche Verwaltung und Verwaltungsrecht	188

Imprint

PRO PUBLICO BONO – PUBLIC ADMINISTRATION

PUBLISHER: National University of Public Service

RESPONSIBLE FOR PUBLISHING: Prof. Dr. András Patyi

CHAIR OF THE EDITORIAL BOARD: Prof. Em. Dr. András Tamás

EDITOR IN CHIEF: Dr. Norbert Kis

Identification number on the paper-based publications: ISSN 2063-9058

Identification number of the internet publication: ISSN 2063-9066 (online)

Editorial staff

STAFF: Zsófia Balla, Magdolna Séra, Réka Tózsá, Csilla Paksi-Petró

ADDRESS: National University of Public Service, H-1118 Budapest, Ménesi út 5.

MAILING ADDRESS: H-1519 Budapest, Pf.: 275

E-MAIL: ppb.mk.szerkesztoseg@uni-nke.hu

WEBSITE: [http:// ppb.mk.uni-nke.hu](http://ppb.mk.uni-nke.hu)

Edited by András Patyi–Ádám Rixer

Hungarian Public Administration and Administrative Law

The system of Hungarian public administration has gone through major institutional and legal changes in the past three-four years. This English language publication, Hungarian Public Administration and Administrative Law, presents the system of today's Hungarian public administration to foreign readers – its constitutional bases, main functions (for example public finances, public services), its main institutions, procedures, sanction system, staff – by paying special attention to the aforementioned changes. Moreover, it must be mentioned that some of the essays shed light on the history of public administrative institutions and draw their course of development.

SCHENK VERLAG

PRO PUBLICO BONO – Public Administration

S C I E N T I F I C J O U R N A L
NATIONAL UNIVERSITY OF PUBLIC SERVICE
FACULTY OF PUBLIC ADMINISTRATION

PUBLISHER: National University of Public Service

RESPONSIBLE FOR PUBLISHING: Prof. Dr. András Patyi

CHAIR OF THE EDITORIAL BOARD: Prof. Em. Dr. András Tamás

EDITOR IN CHIEF: Dr. Norbert Kis

MAILING ADDRESS: H-1519 Budapest, Pf.: 275