

Knowledge Development Practice in Cross Country Comparison (Hungarian versus Slovak Business Service Sector)¹

Csaba Makó

Institute of Sociology of the Hungarian Academy
of Sciences & Debrecen University – Faculty of Economics

Péter Csizmadia

Institute of Sociology of the Hungarian Academy of Sciences

Miklós Illéssy

Institute of Sociology of the Hungarian Academy of Sciences

Ichiro Iwasaki

Hitotsubashi University, Tokyo, Japan

Miklós Szanyi

Institute of World Economy of the Hungarian Academy
of Sciences & Debrecen University – Faculty of Economics

Abstract

Since the last decades of the 20th century, we have been witnessing a historical shift in the economic structure reflected in the spectacular growth of the services at the expense of the manufacturing sector. Within the very heterogeneous service sector knowledge-intensive business services (KIBS) are presumed as a sub-sector providing complex and high quality services that rely on intensive knowledge use and increased learning capability. In this relation the authors intend to assess the company practice of knowledge use and development comparing Hungarian and Slovak KIBS firms. The most important empirical lessons are as follows: the

¹ Project funded by the Ministry of Education of Japan (Grant No. 19402023), the Nomura Research Fund, the Tokyo-maritime Research Fund, and the Hungarian Academy of Sciences.

experiences based (“on the job”) learning is more important than the participation in the formal education in both countries. However, in the Slovak firms the participation in formal education (“learning by acquisition”) is playing stronger role in the knowledge development and learning than in the Hungarian ones. Finally, it worth noting that in both countries, such external knowledge pools as customers, suppliers, consulting agencies are more significant sources of firms’ knowledge base than higher education and training institutions.

Key words: knowledge-intensive business service sector, participation in the formal education, on-site competence development, external knowledge source

1. Need to better understand innovation in the Knowledge Intensive Business Sector (KIBS)

In the present article, the authors explore the interrelationship between innovative performance, knowledge development and use and work organizations of firms operating in the Hungarian and Slovak Knowledge Intensive Business Sector (KIBS). The ability to learn and innovate are equally important for any economy, whether on an individual, firm, or national level. In this paper, we focus primarily on the analysis of learning at the firm level. In other words, the unit of analysis is the firm and its collective capacity to learn that we refer to as organizational learning. The exploitation of opportunities to connect to the global economy offers a special role of organizational innovation that we may characterize as learning organizations. It is of particular importance that firms adopting new organizational values and solutions encourage individual and especially collective learning through implementing various forms of organizational innovation (e.g., multifunctional working groups and team work).

Although there is an almost general consensus among innovation researchers that innovation has a positive impact on companies’ competitiveness, the majority of analysis focuses on the technological (product or process) innovation alone, while ignoring the important role and effect of organizational and socio-cultural innovation. The Oslo Handbook, produced by Eurostat and the OECD, which offers guiding principles for European innovation researchers to collect and analyze data, originally focused on technology-orientated product and process innovation alone. Not until the third edition, published in 2005, were the non-technology-related fields of marketing and organizational innovation added. Now, according to the *Community Innovation Survey (2004)*, financed by the European Union, the Union’s economic backwardness relative to the U.S.A. or Japan can be primarily traced back to the lack of so-called non-technological innovation

(organization and marketing) rather than to the lack of technological innovation². According to the European Competitiveness Report and other outcomes from other international surveys, the advantage that the U.S.A. enjoys over Europe is not contrary to popular belief, the result of a higher level of technological innovation. American firms lead in their ability to innovate in organizational and management practices as well as in marketing methods. New business models, innovative sub-contracting methods, and the integration of product and brand management play a key role in the introduction of technological innovation into new markets. Especially, in the present global economic and financial crisis, the so-called non-technological innovation represents a missing link that prevents European firms from taking advantage of the opportunities offered by new technology and other challenges of the present condition³.

Since the 1980s, a renewed interest has been registered to better understand, from both theoretical and empirical perspectives the complex, dynamic, and multi-level relationship between organizational development and innovation, especially in the KIBS sector⁴. This increased interest can be attributed to the fact that since the last decades of the 20th Century, we have witnessed a spectacular growth of the service sector at the expense of the manufacturing one. According to a research report of CEDEFOP, from 2000 to 2010 more than 4 million jobs were lost in the primary sector and utilities and almost another 4 million in the manufacturing sector in the EU-27 countries while around 13 million new jobs were created in the business, other services and non-marketed services sectors. The same trends are forecast for 2010–2020⁵.

The literature dealing with service sector innovation can be classified into two contrasting schools of thinking: the first theoretical stand stresses the particular character of the innovation in the service sector (e.g. the key role of organizational development, extensive use of external knowledge sources, higher priority of training, and collective practice of knowledge development,

² *European Competitiveness Report 2001*, Commission Staff Working Paper, European Commission, SEC 1705, 2001.

³ According to the latest review on the impact of the global financial and economic crisis, despite the downturn, entrepreneurs are enjoying a worldwide renaissance, and the U.S.A. still leads the world. A. Wooldridge, Global heroes (special report on entrepreneurship) *The Economist*, March 14th, 2008, pp. 3–19.

⁴ A. Salter, B. Tether, *Innovation in Services (Through the Looking Glass of Innovation Studies)*, Advanced Institute of Management (AIM) Research's Grand Challenges on Service Science, 2006; A. Lam, *Organizational Innovation*, in: Eds. J. Fagerberg, D.C. Mowery, R.R. Nelson, *The Oxford Handbook of Innovation*, Oxford University Press, Oxford 2005, pp. 115–147.

⁵ European Centre for the Development of Vocational Training: CEDEFOP Briefing Note February 2010, downloadable: http://www.cedefop.europa.eu/EN/Files/9021_en.pdf.

interactive working practices, client-specific specialisation, generalisation of consultative way of working etc.) in comparison with the manufacturing sector⁶. The second approach emphasizes the similarity of innovation in the service and manufacturing sectors and refuses the “black” and “white” views on the sector specificity character of innovation⁷.

This paper provides the first analysis of the systematically collected company level data with the objective to better understand the diffusion and drivers of organizational innovation and the practice of knowledge development comparing the KIBS sectors in Hungary (2008) and Slovakia (2008–2009). In the next section we will present the most important elements of the methodology used in the surveys, then in the section three we make a short comparison on the company knowledge development practice in Hungary and Slovakia, contrasted with the data gained from the Continuous Vocational Training Survey (2005), where possible.

2. Sample of the Company Survey and Research Method

The cross-country company survey was designed to collect systematic information on the working practice of the business service firms operating in Hungary and Slovakia⁸. There is no generally accepted definition for “business service”; this category covers rather heterogeneous economic activities. In our study, based on the literature screening and with the intention to produce internationally comparable data, the knowledge-intensive professional services

⁶ A. Leiponen, *Organizational Knowledge and Innovation in Business Services*, Paper presented at the DRUID Summer Conference 2003 on *Creating, Sharing and Transferring Knowledge. The Role of Geography, Institutions and Organisations*, Copenhagen, 12–14 June 2003; A. Salter, B. Tether, *Innovation in Services (Through the Looking Glass of Innovation Studies)*, Advanced Institute of Management (AIM) Research’s Grand Challenges on Service Science, 2006; M. Toivonen, *Future Prospects of Knowledge-Intensive Business Services (KIBS) and Implications to Regional Economies*, „ICFAI Journal of Knowledge Management”, Vol. 4., no. 3., 2006, pp. 18–36.

⁷ K. Pavitt, *Patterns of technical change: towards a taxonomy and a theory*, „Research Policy”, 1984, 13, pp. 343–373; R. Evangelista, *Sectoral patterns of technological change in services*, „Economics of Innovation and New Technology” 2000, 9, pp. 183–221; R. Evangelista, M. Savona, *Innovation, employment and skills in services. Firm and sectoral evidence*, „Structural Change and Economic Dynamics”, 2003, Vol. 14. No. 4. ; M. Miozzo, L. Soete, *Internationalisation of services: a technological perspective*, „Technological Forecasting and Social Change” 2001, 67, pp. 159–185.

⁸ Regarding the service sector, the following classifications were often used (Salter-Tether, 2006): (1) traditional service (e.g., personal service), (2) system service (e.g., airlines and banking), and (3) knowledge-intensive business service (KIBS). The main focus of our research is on activities classified under the KIBS.

offered for other companies are defined as “business services”, such as IT services (both software and hardware), administrative and legal services, financial services and R&D⁹. Table 1 contains the activities selected for the purpose of the company surveys both in Hungary and Slovakia.

Table 1. Share of KIBS firms by types of activities (NACE10 codes) in Hungary and Slovakia (%)

Activity	Hungary	Slovakia
Accounting, finance and legal services (NACE codes: K 66.1 Activities auxiliary to financial services, except insurance and pension funding; K 66.2 Activities auxiliary to insurance and pension funding; K 64.9 Other financial service activities, except insurance and pension funding; M 69 Legal and accounting activities; M 70 Activities of head offices; management consultancy activities)	20.9	22.7
Human resource management (NACE codes: N 78 Employment activities; P 85.5 Other education)	19.4	20.7
Technical engineering, consultancy (NACE kódok: M71 Architectural and engineering activities; technical testing and analysis; M 72 Scientific research and development)	25.2	18.5
Information and computer related activities (NACE codes: J62 Computer programming, consultancy and related activities; J 63 Information service activities)	21.9	21.6
Advertising, marketing, customer service, other services (NACE codes: M 73 Advertising, market research; M 74.3 Translation and interpretation activities; N 77.3 Renting and leasing of other machinery, equipment and tangible goods; N 81.1 Combined facilities support activities; N. 81.2.2 Other building and industrial cleaning activities; N 82.2 Activities of call centres)	12.6	16.5
Total	100	100

In the first quarter of 2008, according to the National Register of Economic Organizations compiled by the Hungarian Central Statistical Office (HCSO), 4049 companies with 10 or more employees were registered in the field of business services, while 2714 were registered in Slovakia¹¹. In order to design a statistically representative firms' sample, 200 companies were selected from the Hungarian and 100 companies in Slovakia using a multi-stage stratified sampling method.

⁹ For more details, see Makó-Illéssy-Csizmadia (2008).

¹⁰ NACE: „Statistical Classification of Economic Activities” – an international statistical systems for classification and registration of economic activities. Source: http://ec.europa.eu/competition/mergers/cases/index/nace_all.html

¹¹ L. Bajzikova, H. Sajgalikova, E. Wojcak, M. Polakova, *Multinational and Local Resources – Business Services (Report for Slovakia)*, Bratislava, Comenius University in Bratislava – Faculty of Management, May 2009, p. 25.

The basic economic activity of the firms classified by the NACE code was used as the stratification variable. This sampling method ensured equal chances to all companies belonging to the population surveyed to be selected in the sample and reflected to the heterogeneity of the organizational population as well. In other words, the sampling structure reflects the composition of the companies operating in various (e.g. "new" and "matured") economic activity branches. For instance, there are more IT companies within the field of IT services than facility management providers or more clothing companies within the "matured" manufacturing industry than the pharmaceutical ones. The sampling frame was restricted for companies employing at least 10 persons. To guarantee the statistical representativeness of the survey, the data sets were weighted. The final database is statistically representative of the firm population surveyed, i.e., the 4,094 companies operating with at least 10 employees in Hungarian business services and the 2,714 companies operating with at least 10 employees in Slovak business service sectors investigated.

3. Skill Requirements and Knowledge Development Practice in the Firm

3.1 Differences in Skill Development and the Key Role of Experience-Based Learning

In this section we take up the issue of knowledge development practices of the firms investigated. In our interpretation organizational learning indicates "... the capacity (or process) within an organization to maintain or improve performance based on experience. This activity involves knowledge acquisition (the development or creation of skills, insights, relationships), knowledge sharing (the dissemination to others of what has been acquired by some), and knowledge utilisation (integration of the learning so that it is assimilated, broadly available, and can also be generalized to new situations"¹². There is a strong interplay between innovation and learning process within the organization and in this respect it should be noted the complementary character of the formal education and experience-based learning as Nielsen¹³ summarized: „To make

¹² A.J. DiBella, E.C. Nevis, J.M. Gould, *Understanding Organizational Learning Capability*, „Journal of Management Studies”, May 1996, 33, 3, pp. 363.

¹³ P. Nielsen, *From Theories to Themes and Basic Definitions*, MEADOW Project (Measuring the Dynamics of Organisations and Work), 6th FP, Aalborg University Business School, Aalborg, 2007, p. 67.

learning complete and sufficient, with the innovative mode in focus, it is necessary to combine experience-based and reflective learning with the new knowledge achieved from formal training and education. Only in this way does learning become both knowledge-based and experience-based, and may evolve dynamically in the context of the organization”.

Skills development and formal training are important preconditions for innovation. However, what really matters is the ability of a person to mobilize his/her qualification in a concrete job situation. “While qualifications are individually adopted characteristics, built into and carried out by a person, competence as a concept has to do with specific job situations and assignments, and concerns the capacity of an employee to use his or her qualifications in the job situation... In line with this definition, *competence development* as a concept in this context will be defined as continuous development of experiences, skills, influence, possibilities and responsibilities, related to the job situation, tasks and context of the employees”¹⁴.

Prior to describe the knowledge development practice of the firms surveyed, we identified the types of knowledge and skills required by the employers. The most important knowledge evaluated by the employers interviewed in both countries, are as follows:

1. Professional-technical skills (Hungary: 93.7% and Slovakia: 98.1%)
2. Reliability in work (Hungary: 97.5% and Slovakia: 89.1%)
3. Customer centred attitude (Hungary: 90.3% and Slovakia: 86.5%)

Evaluating the importance of the various methods of knowledge development in the firm, the following classification was used:

- (1) Participation in formal education
- (2) Competence development
- (3) Improving social skills¹⁵

In both countries, such forms of experience-based (“on-site”) knowledge or competence development as “consulting with management/other employees” and “on-the-job training (OJT)” are playing more important role in comparison with

¹⁴ P. Nielsen, *The Human Side of Innovation System. (Innovation, New Organization Forms and Competence Building)*, Aalborg University Press, Aalborg 2006, p. 124.

¹⁵ Besides the briefly presented classifications of knowledge preconditions for learning or innovative organization, another strand of the labour process school makes distinction between “learning as acquisition” and “learning as participation”. Quoting Felstead et al. (2008, p. 5), “The former refers to a conceptualization, which views learning as a product with a visible, identifiable outcome, often accompanied by certification or proof of attendance. The latter perspective, on the other hand, views learning as a process in which learners improve their work performance by carrying out daily activities”. This distinction is similar to the distinction of “formal education” and “competence development”.

the participation in formal education (e.g. participation in courses/educational schemes and involvement in further training tailored for the needs of the firm)¹⁶. In spite of this common pattern, it should be noted that the formal training (e.g. standard educational schemes, further training) is playing relatively more significant role in the Slovak business service firms than in the Hungarian ones.

The importance of training aimed to improve the social skills of employees (e.g., motivation of cooperation between various organizational units and job rotation) is located between the “competence development” and “participation in formal education”.

In both countries “consulting with managers and other employees” and “on-the-job training” (or “learning by participation”) were more often used tools of knowledge development than “participation in the formal training” (or “learning by acquisition”). In addition to this common pattern of knowledge development, we identified slight differences, too. Such sources of experience based learning as “attending professional fairs and expositions” are playing more important role in Hungary than Slovakia, (67.5% versus 44.3%), however, “job rotation” is organized more frequently in the Slovak business firms in comparison with the Hungarians (40.1% versus 31.1%). In relation with the development of social skills, the cooperation between organizational units has similarly important role in both countries (Hungary: 62.6% and Slovakia: 63.3%), but team-work as a widely recognised source of social skill development¹⁷ is more widely used in the Slovak business service firms in comparison with the Hungarians (74.0% versus 57.1%). The next table illustrates the methods of knowledge development employed in company practices.

Table 2. Methods of knowledge development in the KIBS sector*

Methods of knowledge development	Hungary n=196	Slovakia n=97
I. Participation in formal education:		
Standard courses/educational schemes	45.5%	60.4%
Further training designed according to the needs of the firm	64.3%	69.6%

¹⁶ According to the experiences of an European-wide project, carried out in 13 countries on outsourcing software development in a leading IT firms, only 10% of training activities based on training program, and the remaining 90% represented by the on-the-job training (OJT). (Flecker-Holtgrewe-Shönauer-Dünkel-Meil, 2008, p. 57).

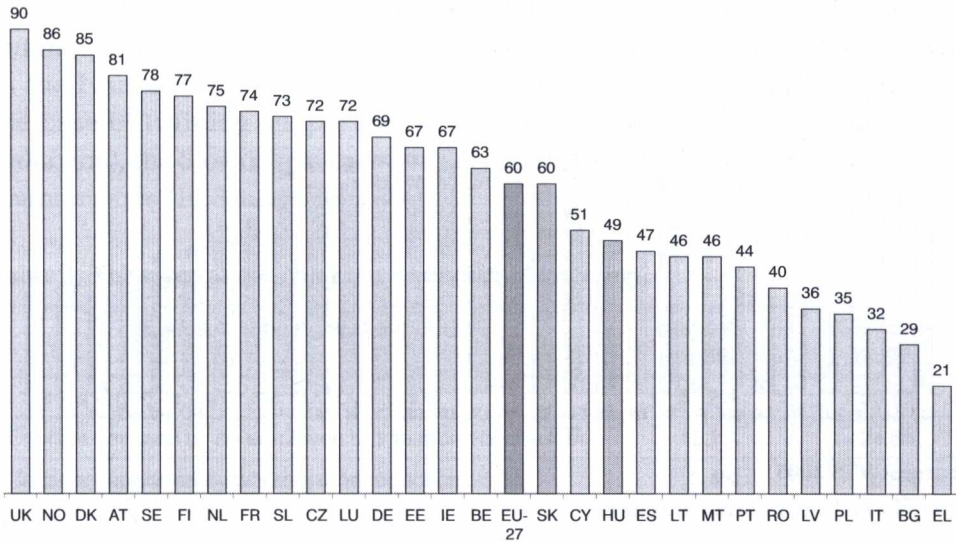
¹⁷ R. Kyzlinková, L. Dokulilová, A. Kroupa, *Teamwork and high performance work organisation*, Dublin, European Foundation for the Improvement of Living and Working Conditions, 2007.

II. Experience based learning or competence development:		
Consulting with management/other employees	80.3%	75.5%
On-the-job training (OJT)	74.1%	70.3%
Attending professional fairs and expositions	67.5%	44.3%
Job rotation	31.1%	40.1%
III. Improving social skills:		
Supporting cooperation between organizational units	62.6%	63.3%
Team-work	57.1%	74.0%

3.2. Company Training Practice: More Training and Stronger Reliance on the External Knowledge Sources in Slovakia than Hungary

While the former section focused on the identification of various forms of knowledge development (i.e. participation in formal education, experience-based learning and improving social skills), this section takes up the issue of company training practice and the role of external knowledge sources.

Figure 1. Distribution of enterprises providing training courses* in % of the all enterprises by European countries¹⁸ in 2005



Source. CVTS 2005

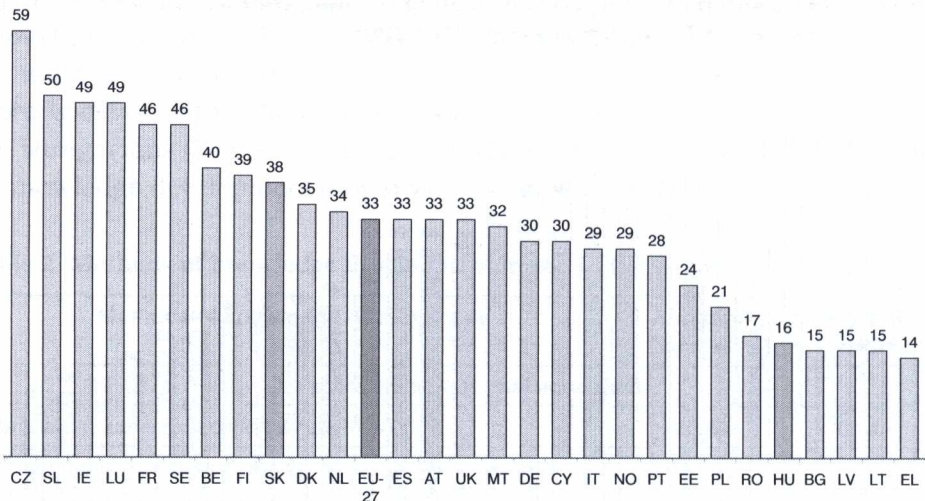
* Both formal and informal training

¹⁸ EU-27 + Norway

According to the data stemming from the latest wave (2005) of the European Continuing Vocational Survey¹⁹ (CVTS) the different European countries have remarkable variations in terms of their company training practices.

On average, 60% of the European companies provided formal and/or informal training courses to employees in 2005. The UK, the Nordic countries (Norway, Denmark, Sweden and Finland), some continental countries (Austria and the Netherlands) have the largest proportion of training providers. Among the post-socialist countries Slovenia, the Czech Republic and Estonia are in better position than the EU-average. Romania, Latvia, Poland, Italy, Bulgaria and Greece are lagging far behind the EU-average. Slovakia performs around the average, while Hungary is in a weaker position (49%). It is worth, however, noting that country differences can be partly explained by the various institutional settings of the different vocational training systems (e.g. in the UK firm-specific company training plays an important role in the vocational training system, which is not the case for in most of the post-socialist countries).

Figure 2. Percentage of employees participating in CVT courses* in 2005 by European countries in 2005



Source. CVTS 2005

* Both formal and informal training

¹⁹ The Continuing Vocational Training Survey (CVTS) is a European Union-wide representative employer survey on vocational training practice of the European enterprises and carried out by the Eurostat.

If we broaden the scope and take not just the proportion of companies that provide training but also the percentage of the employees participating in training activities, the picture becomes more complex. Approximately every third employee participated in company training in Europe in 2005, there are, however, remarkable differences between the European countries. In the Czech Republic almost 60% of all employees participated in training courses and Slovenia, Ireland, Luxembourg, France and Sweden also perform far above the average in this respect. Romania, Hungary, Bulgaria, Latvia, Lithuania and Greece are in the worst position within the EU-27. In Slovakia 38% of all employees took part in formal and/or informal company training, while this proportion in Hungary was only 16%, far below the European average. These data indicate that there are rather large inequalities among Hungarian employees in terms of the access to new knowledge. The low participation rate indicates that the access to and transfer of knowledge within companies, which is a prerequisite of innovation and high-value added economic activities, are limited.

The findings of the joint survey provide broader insight into the company practice of the Hungarian and Slovak KIBS firms. Empirical outcomes indicate visible differences between the two countries company practices. As shown in the next table, in the Slovak business service firms, every second employee (50.7%) participated in a training course organized and financed by the firms (in 2007). In the Hungarian case only less than one third of the firms organised and financed training for their employees (31.2%). Employees' autonomy in participating in training, again, is stronger in the Slovak than in the Hungarian firms (Slovakia: 24.5% versus Hungary: 16.1%). Even, in the case of training supported by non-financial means (e.g., working time reduction), the Slovak firms are performing visibly better than their Hungarian counterparts (10.8% versus 5.4%).

Table 3. The rates of the company's supported training

Forms of training and support	Hungary n=196	Slovakia n=97
Courses organized and financed by the firm	31.2%	50.7%
Courses selected by an employee but financed by the firm	16.1%	24.5%
Courses supported by working time reduction	5.4%	10.8%

With respect to the content of the training, we found that, in both countries almost half of the training courses was aimed to improve job-related specific knowledge and two-fifths of the employees were involved in job-specific or

general training. In both sectors, less than 10% of employees had a chance to participate in training activities improving their generic knowledge and competencies (e.g., language and communication skills).

Finally, as concerning knowledge development practices of the firms, we paid special attention to the role of external knowledge sources. There is a consensus among the scholars dealing with innovation that organizational differences in generating innovation are intimately related to the “absorption” or to the dynamic capabilities of companies. The dynamic capabilities indicate the “firms” ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments”²⁰. In relation with the particular importance of external knowledge in the radical innovation generation processes within the KIBS sector, Salter and Tether²¹ stressed that “Radical innovations in these industries will typically involve changes more than one of the triumvirate of the employees’ division of labour, technologies, and organization, as their complex intertwining can create powerful barriers to innovation amongs incumbents. Outsiders and newcomers are therefore the main source of more radical innovation. When incumbents do initiate the change (...) this is typically through a new and separate organisation”.

Identifying the importance of the external knowledge sources, managers participating in the company surveys were asked to asses the role of these sources. The next table illustrates the shares of the external knowledge source use in the Hungarian and Slovak business service firms practice.

Table 4. External sources of knowledge development (multiple answers) in the Hungarian and Slovak KIBS firms

External knowledge sources	Hungary n=196	Slovakia n=97
Customers	79.2%	61.9%
Suppliers, service providers	62.1%	59.8%
External consulting	54.2%	68.0%
Higher educational institutions	27.4%	55.7%
Educational (training) institutions	29.0%	66.0%
Research institutes	19.7%	28.9%
Development agencies,	26.5%	23.7%
Labor market agencies, professional associations	25.9%	43.3%

²⁰ W. Lazonick, *The Innovative Firm*, in: Eds. J. Fagerberg, D. C. Mowery, R. R. Nelson, *The Oxford Handbook of Innovation*, Oxford: Oxford University Press, 2006, p. 33.

²¹ A. Salter, B. Tether, *Innovation...*, op. cit., p. 13.

Ranking in order, the experience and knowledge of customers, suppliers and external consultings are the most important external knowledge sources in both countries in comparison to such external knowledge sources as “higher education”, “training institutions” and “labour market institutions”. However, these institutions – especially educational (training) institutions and labour market agencies – are still playing more important role in the Slovak than in the Hungarian company practice. We need to include other factors (e.g. R&D expenditure, access to a highly educated and skilled population, quality of institutions, etc.) to better understand the systematic prerequisites for the knowledge-based growth in the countries investigated²². However the relatively stronger reliance on the variety of external knowledge sources in the Slovak KIBS in comparison to Hungary indicates the Slovak KIBS firms’ better innovation and learning potential.

Bibliography

- Bajzikova L., Sajgalikova H., Wojcak E., Polakova M., *Multinational and Local Resources – Business Services (Report for Slovakia)*, Bratislava: Comenius University in Bratislava – Faculty of Management, May, 2009.
- DiBella A. J., Nevis E. C., Gould J. M., *Understanding Organizational Learning Capability*, „Journal of Management Studies”, May 1996, 33, 3.
- European Commission, *European Competitiveness Report 2001*, Commission Staff Working Paper, SEC 1705, 2001.
- Bibliografy European Innovation Scoreboard 2008, *Comparative analysis of innovation performance*, European Commission, Enterprise and Industry, PRO INNO Europe paper No. 10. Luxemburg: Office for Official Publications of the European Communities, 2009.
- Evangelista R., *Sectoral patterns of technological change in services*, „Economics of Innovation and New Technology”, 2000, 9.
- Evangelista R., Savona M., *Innovation, employment and skills in services. Firm and sectoral evidence*, „Structural Change and Economic Dynamics” 2003, Vol. 14. No. 4.
- Felstead A., Gallie D., Green F., Zhou Y., *Employee Involvement, the Quality of Training and the Learning Environment: An Individual Level Analysis*, (submitted for publication in the *International Journal of Human Resource Management*), 2008.

²² R. Veugelers, *Assessing the Potential for Knowledge-based Development in Transition Countries*, “Bruegel Working Paper”, 2010/01, May 2010.

- Flecker J., Holtgrewe U., Schönauer A., Dunkel W., Mail P., *Restructuring across Value Chains and Changes in Work and Employment, (Case Study evidence from Clothing, Food, IT and Public Sector)*, Leuven: Katholieke Universiteit Leuven, 2008.
- Kyzlinková R., Dokulilová L., Kroupa A., *Teamwork and high performance work organisation*, Dublin, European Foundation for the Improvement of Living and Working Conditions, 2007.
- Lam A., *Organizational Innovation*, in: Eds. Fagerberg J., Mowery D. C., Nelson R. R., *The Oxford Handbook of Innovation*, Oxford: Oxford University Press, 2005.
- Lazonick W., *The Innovative Firm*, in: Eds. Fagerberg J., Mowery D. C., Nelson R. R., *The Oxford Handbook of Innovation*, Oxford: Oxford University Press, 2005.
- Leiponen A., *Organizational Knowledge and Innovation in Business Services*, Paper presented at the DRUID Summer Conference 2003 on Creating, Sharing and Transferring Knowledge. The Role of Geography, Institutions and Organisations, Copenhagen, 12–14 June 2003.
- Leiponen A., *Knowledge services in the Finnish Innovation System*, in: Ed. Schienstock G., *Embracing the Knowledge Economy, (The Dynamic Transformation of the Finnish Innovation System)*, Edward Elgar, London 2004.
- Lundvall B. A., *One Knowledge Base or Many Knowledge Pools?*, DRUID Working Paper No. 06–08, Danish Research Unit for Industrial Dynamics, 2006.
- Makó Cs., Csizmadia P., Illéssy M., Iwasaki I., Szanyi M., *Organizational Innovation in the Manufacturing Sector and the Knowledge Intensive Business Services*, Tokyo: Center for Economic Institutions – Research Paper Series, No. 2009–1, Institute of Economic Research – Hitotsubashi University, October 2009.
- Makó Cs., Illéssy M., Csizmadia P., *Szervezeti innovációk és tudásfelhasználási minták az üzleti szolgáltatások területén*, Budapest: MTA Szociológiai Kutatóintézet, December 2008.
- Miozzo M., Soete L., *Internationalisation of services: a technological perspective*, „Technological Forecasting and Social Change” 2001, 67.
- Nielsen P., *The Human Side of Innovation System. (Innovation, New Organization Forms and Competence Building)*, Aalborg: Aalborg University Press, 2006.
- Nielsen P., *From Theories to Themes and Basic Definitions*, MEADOW Project (Measuring the Dynamics of Organisations and Work), 6th FP, Aalborg University Business School, Aalborg 2007.
- Pavitt K., *Patterns of technical change: towards a taxonomy and a theory*, „Research Policy”, 1984, 13.
- Salter A., Tether B. S., *Innovation in Services (Through the Looking Glass of Innovation Studies)*, Advanced Institute of Management (AIM) Research’s Grand Challenges on Service Science, 2006.

Toivonen M., *Future Prospects of Knowledge-Intensive Business Services (KIBS) and Implications to Regional Economies*, „ICFAI Journal of Knowledge Management” 2006, Vol. 4., No. 3.

Резюме

Развитие практических знаний в венгерском и словацком секторе услуг – сравнение

Начиная с последних десятилетий XX века мы являемся свидетелями исторических изменений, происходящих в экономике, которые ведут к spectacularному развитию услуг за счет производственного сектора. В рамках очень дифференцированного сектора услуг бизнес-услуги, опирающиеся на интенсивные знания (KIBS – Knowledge Intensive Business Services), считаются подсектором, оказывающим комплексные услуги высокого качества, базирующиеся на интенсивном использовании знаний и усиленной склонности к учению. Исходя из этого, авторы статьи предпринимая попытку оценить способы использования знаний и их развития в фирмах, оказывающих бизнес-услуги, опирающиеся на интенсивные знания (KIBS firms), приходят к следующим выводам: в обеих странах процесс практического учения ('on the job' learning) важнее участия в формальном образовательном процессе. Однако в словацких фирмах участие в этом формальном процессе ('learning by acquisition') играет большую роль в процессе учения и углубления знаний, чем в венгерских фирмах. Кроме того, стоит обратить внимание на факт, что в обеих странах внешние ресурсы знаний, как клиенты, поставщики, консалтинговые фирмы являются более значимым источником знаний, чем высшие учебные заведения или учреждения по переподготовке кадров.

Makó Csaba is specialized in organizational changes (innovations), in learning organizations and in their institutional (e.g. labour relations system) contexts in an international perspective. He is Research Director at the Institute of Sociology of the Hungarian Academy of Sciences and is involved in numerous national and international projects (e.g. "Work Organization and Restructuring the Knowledge Society" 2005–2009, "Measuring the Dynamics of Organization and Work" (MEADOW 2007–2010). He is a full time professor and Director of the PhD School in at Debrecen University Faculty of Economics and Business Administration. Major recent publications: *Changes in Work in Transformation Economies' (The Case of the New Member States)*, (2009), Leuven: Catholique University Leuven – Institute for Advanced Labour Studies (HIVA), (Co-authors: Illéssy, M., Csizmadia, P, Kirov, V.,Galev, T.), *Work and Employee Representation*,

Tokyo: Chuo University, (Co-authors: Ishikawa, A., Warhurst, Ch., *The Role of Technology in Value Chain*, (2009) Leuven: Catholique University Leuven – Institute for Advanced Labour Studies (HIVA), (co-authors: Greenan, N., Kocoghu, Y., Walkowiak, E., Csizmadia, P).

Péter Csizmadia (1973) is currently a researcher at the Institute of Sociology of the Hungarian Academy of Sciences. In the last few years he has participated in several international research projects. His research activities focus on various aspects of workplace innovations, organisational learning and knowledge-intensive business services.

Miklós Illéssy (1975) is currently a researcher at the Institute of Sociology of the Hungarian Academy of Sciences. In the last few years he has participated in several international research projects. His research activities focus on organisational innovation, flexibility and knowledge-intensive business services.

Ichiro Iwasaki is full professor of economics at Hitotsubashi University, Tokyo, Japan. He received his doctoral degree in economics at Hitotsubashi University in 2001, where he is a professor at the Institute of Economic Research. His research interests are focused upon transition economies, comparative economic systems, and financial and organizational economics. He is the author and editor of numerous books and journal articles, including: *Comparative Economic Analysis: Transition to a Market Economy and the Role of the State*, published by the Minerva Press (Kyoto, Japan); and *Organization and Development of Russian Business: A Firm-level Analysis* (co-edited with Tatiana G. Dolgopyatova and Andrei A. Yakovlev), published by Palgrave Macmillan (Basingstoke, UK).

Miklós Szanyi (DSc) is research adviser of the Institute of World Economy of the Hungarian Academy of Sciences, and professor of the University of Debrecen. His main research interest is comparative analysis of market economic institutions of transition economies as well as corporate performance and the role of multinational corporate networks in the modernization process of these countries. Miklós Szanyi is the author of two books, several book chapters and over 150 scientific publications in leading Hungarian and foreign journals.