

KNOWLEDGE MANAGEMENT AND POSSIBILITIES OF PROFESSIONAL DEVELOPMENT IN PUBLIC SECTOR

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One of the important parts of Human Resource Management (HRM) is knowledge management and professional development of employees of each organisation. There are no doubts that it is vital for general organisations development and sustainability. Professional development of public sector employees is necessary for developing environment. There should be training programmes especially for public sector institutions' employees from new European Union countries.

For this study authors make the assumption that public sector employees are all officials, civil servants, staff and employees engaged in public sector organisation activities and employed by these organisations.

The problem outlined in this paper is connected to the assumed to work in public administration employees that do not have relevant education to fill appropriately opened vacancies on the market. The aims of the study is to define the areas of a group the most required occupations on Latvian labour market in public administration and propose the justified ways of professional development of current and future employees in public administration. The objective of the authors is to present the historical overview on knowledge management and learning concepts applying monographic research. One more objective of the paper is to compare and generalise the definitions of the terms 'knowledge economy' and 'knowledge management'. The task of the authors was also to analyse the job standards and requirements for the public sector employees. This analysis helped to identify what kind of education and skills are important for public administration employees. Authors also made a research on lifelong education possibilities for public service servants and employees based on case of Latvia.

The main conclusion after the analysis of definitions of the term 'knowledge management' is that it is possible to consider knowledge management as a process of making decisions connected to the activities for leveraging knowledge of people in the organisation, to improve their performance. According to the analysed standards of the chosen for the analysis occupations the main knowledge requirements for some public sector occupations are at the following fields: Communication, Country language and foreign languages, Finance, Labour relations, Law, Legislation, Occupational health and safety, Professional terms, Professional ethics, Project management, Record keeping. Only professional terms and record keeping requirements could not be covered by offered courses within analysed master programmes on Public Administration or Management. However, beside formal education, public sector employees can take Massive Open Online Courses, participate in special trainings or be trained on the working place to improve or gain some skills that have not been developed at school or university. Conclusions mainly are based on the quantitative data and the pilot small range studies. Applicable conclusions are made using inductive method.

Based on the research authors propose the most suitable set of subjects, which could be proposed for further professional development in public sector. There are possibilities proposed for public sector employees for their further professional development. However, there is a need of special education programme development based on new tendencies and standards for public service employees.

Keywords: *public sector, knowledge management, professional development, human resource management.*

Introduction

One of the most important parts of the organisation is human resources (HR). People in the organisation can add value by their abilities to do something, by their skills and knowledge. Therefore, one of the human resource management (HRM) parts is knowledge management (KM).

In 1999 Bertels and Savage wrote that 'we are at the beginning of a 10-to 50-year transition to a knowledge-based economy'. Now 15 years later we should admit that authors of the quote recognised the right trend. Knowledge of people employed by the organisation is the core value of

this organisation. HR are valued more by their knowledge not only by their abilities and skills. Organisations need knowledgeable people with high education and to satisfy the demand society become even more educated each year. In Latvia at service sector employers are not amazed by Master degree of their employees, it is usual practice, necessity.

In case of Latvia this trend could be supported by the statistical data. Within other studies authors had compared the education level of the Latvian Parliament deputies, the results are following: since 1998 more than 93% of the parliament deputies have higher education.

As it was defined by Becker (1975) one of the Nobel Prize laureates and co-former of the ‘human capital theory’ ‘human capital’ is the stock of competencies, *knowledge*, social and personality attributes, including creativity, cognitive abilities, embodied in the ability to perform labour so as to produce economic value.

Professional development of public sector employees is necessary for developing environment. There should be training programmes especially for public sector institutions’ employees from new European Union (EU) countries. In 2012 public administration and defence, compulsory social security amounted to 5.9% of Latvian gross domestic product (GDP) by Central Statistic Administration data (2014). This is relatively small part of the Latvian economy in general, but it is a part of knowledge-based economy, therefore, knowledge management should be performed as good as possible to regulate the gross of the economy at many other aspects and areas.

The problem posed in this paper is connected to the assumed to work in public administration employees that do not have relevant education to fill appropriately opened vacancies in the market. The aim of the study is to define the areas of a group the most required occupations on Latvian labour market in December 2013 in public administration and propose the justified ways of professional development of current and future employees in public administration.

For this study authors make the assumption that public sector employees are all officials, civil servants, staff and employees engaged in public sector organisation activities and employed by these organisations.

This paper presents the results of the research on knowledge management and professional development particularly in public sector. The objective of the authors is to present the historical overview on knowledge management and learning concepts applying monographic research. One more objective of the paper is to compare and generalise the definitions of the terms ‘knowledge economy’ and ‘knowledge management’. As the result the job standards and requirements for the public sector employees particularly in Latvia are analysed. This comparison helps to identify the gaps in existed education programmes for public sector employees in Latvia. Authors also made a research on lifelong education possibilities for public service servants and employees based on case of Latvia.

Based on the research authors describe the most suitable set of subjects, which could be proposed for further professional development in public sector. There are possibilities proposed for public sector employees for their further professional development.

Terms ‘knowledge economy’ and ‘knowledge management’

The development of terms ‘knowledge economy’ (KE) and ‘knowledge management’ shows the importance of some HRM activities for organisation. ‘The 20th century was defined as a century of the industrial society, the end of the 20th century as a century of the information society, and the early 21st century has become a century of the knowledge society, where knowledge is a significant resource of manufacturing and an essential factor of individual well-being. One of the components of the knowledge society is the knowledge economy.’ (Lapiņa, I. et al., 2013)

Drucker (1969) apparently was the founder of the term ‘the knowledge economy’ writing about it in his book *The Age of Discontinuity*. Later on Drucker wrote for the November edition of *The Economist* (2001) that ‘the next society will be a knowledge society. Knowledge will be its key resource, and knowledge workers will be the dominant group in its workforce.’ (Lingenfelter, P. E., 2012) Education is one of the values of nowadays people. ‘Employment in the knowledge-based economy is characterised by increasing demand for more highly-skilled workers.’ (OECD, 1996)

As Powell and Snellman (2004) define ‘knowledge economy as production and services based on knowledge-intensive activities that contribute to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence’. The production of services is growing in some countries. There is a transition to the ‘knowledge-based economies – economies which are directly based on the production, distribution and use of knowledge and information’ (OECD, 1996) happening. According to White et al. (2012) knowledge-based economy is based on:

- Open Innovation
- Education
- Knowledge Management
- Creativity

that are set on information and communications technology infrastructure. ‘The term ‘knowledge-based economy’ results from a fuller recognition of the role of knowledge and technology in economic growth. Knowledge, as embodied in human beings (as ‘human capital’) and in technology, has always been central to economic development.’ (OECD, 1996)

In country and organisational level ‘knowledge’ has not the direct connection with something ‘intellectual’ (Drucker, P. F., 1992) rather with ‘capital’ that can be managed. ‘The most important step toward the ‘knowledge economy’ was, however, scientific management – that is, the systematic application of analysis and study to manual work, first pioneered by Frederick W. Taylor (1856–1915) in the last decade of the nineteenth century.’ (Drucker, P. F., 1992) So, then the term of ‘knowledge management’ appeared about one hundred years later. Authors summarised some definitions in the chronological sequence as they appeared in publications (Table 1). ‘The definitions and activities involved depend largely on which they are intended for, and every firm has different approach to their knowledge management practices.

In the literature, knowledge management is concerned with capturing a firm’s stock of expertise through creation,

collection, storage and application’ (Bollinger, A. S. & Smith, R. D., 2001; Ishak, N. B. et al., 2010).

Table 1. Definitions of the term ‘knowledge management’

Author (year)	Definition
Hedlund (1994)	‘addresses the generation, representation, storage, transfer, transformation, application, embedding, and protecting of organisational knowledge’
Pettrash (1996)	‘getting the right knowledge to the right people at the right time so they can make the best decision’
Laudon and Laudon (1998)	‘the process of systematically and actively managing and leveraging the stores of knowledge in an organisation’
O’dell and Grayson (1998)	‘managing the organization’s knowledge by creating, structuring, dissemination and applying it to enhance organizational performance’ ‘conscious strategy of getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that strive to improve organizational performance’
Brooking (1999)	‘the process by which we manage human centred assets’ ‘the function of knowledge management is to guard and grow knowledge owned by individuals, and where possible, transfer the asset into a form where it can be more readily shared by other employees in the company’
Alavi and Leidner (1999)	‘process to acquire, organize, and communicate knowledge of employees so others may be more effective in their work’
Hubert (2000)	‘conscious strategy of putting both tacit and explicit knowledge into action by creating context, infrastructure, and learning cycles that enable people to find and use the collective knowledge of the enterprise’
Groff and Jones (2003)	‘the tools, techniques, and strategies to retain, analyse, organize, improve, and share business expertise’
Andriessen (2004)	‘organizing and optimizing knowledge processes’
Frappaolo (2006)	‘the leveraging of collective wisdom to increase responsiveness and innovation’
Jennex (2007)	‘the practice of selectively applying knowledge from previous experiences of decision making to current and future decision-making activities with the express purpose of improving the organization’s effectiveness’
Firestone (2008)	‘KM refers to activities aimed at enhancing knowledge processing. These activities are interventions designed to affect how knowledge processing is done’
Stankosky (2011)	‘leveraging relevant knowledge assets to improve organization performance, with emphasis on improving efficiency, effectiveness, and innovation’

Source: Authors’.

The development of term’s KM definition is summarised in Table 1. At the end of 20th century defining KM authors make focus on the result. Reach the best possible organisation performance is the goal of usage of employees’ knowledge. Definitions of the 21st century seek the same goal; however, such words as ‘innovation’, ‘strategy’, ‘tool’, and ‘collective

wisdom’ appear. Knowledge should be improved, employee need to know, why they are the part of the organisation, what kind of value they bring by their knowledge. Now it is clear that the most important is not having a good performance, it is important to develop, innovate, and be different and knowledgeable. People responsible for KM in the organization will identify who and how can help to reach the targeted performance, what should be done to maintain the same level of performance of the organisation.

According to Truneček, J. (2004) ‘Knowledge management is the process of managing knowledge (both explicit knowledge and tacit knowledge) in the organization. The objective is to improve storing, creation, sharing and use of knowledge in the organization and so improve performance of individual workers and the organization as a whole. Knowledge Management is concerned with the state of knowledge and with the flow of knowledge’. (Šikýř, M., 2008)

Benjamins (2001) sorted KM definitions into three groups according to the focus of management activities:

- Process-oriented
- Results-oriented
- Technology oriented

as it was discussed before. Authors have noticed the same sequence. Some KM definitions are describing the plan of activities that should be done in order to realize knowledge management (e.g., Hedlund’s, Alavi’s and Leidner’s definitions); some KM definitions are oriented on result: ‘best decision’ (Pettrash, G., 1996) and ‘organizational performance’ (O’dell, C. and Grayson, J., 1998); others are focusing on technology, ‘conscious strategy of putting both tacit and explicit knowledge into action by creating context, infrastructure, and learning cycles that enable people to find and use the collective knowledge of the enterprise’ (Hubert, C., 2000) or ‘the tools, techniques, and strategies to retain, analyse, organize, improve, and share business expertise’ (Groff, T. and Jones, T., 2003).

Analysing definitions, authors have used the tool from the WEB site www.wordcounter.net to enquire the keyword density of all summarised definitions. As the result the rating of the common words from the definitions was set:

- 15 (9%) – knowledge
- 4 (3%) – people
- 3 (2%) – decision
- 3 (2%) – process
- 3 (2%) – leveraging
- 3 (2%) – organization
- 3 (2%) – performance
- 3 (2%) – improve
- 3 (2%) – activities
- 2 (1%) – transfer.

The most popular word that was used 15 times (9% of the text) is of course ‘knowledge’. Other words reflect the core meaning of the term. For example, it is possible to consider that ‘knowledge management’ is a process of making decisions connected to the activities for leveraging knowledge of people in the organisation, to improve their performance. This can be a new definition of the term based on quantitative approach for definition analysis.

‘The broad field of KM introduces new options, capabilities, and practices to assist public administration to

great advantage. It becomes a new responsibility to manage knowledge to strengthen public service effectiveness and improve the society it serves.’ (Wiig, K.M., 2002) Therefore it is important to realize the broad possibilities of KM and the main concept of it.

Knowledge management concept and models

Knowledge management is a set of management activities that objective is to organize knowledge creation, development, sharing, evaluation and sustainability within organisation. KM concept could be explained based on knowledge concept. ‘Knowledge is a much broader concept than information, which is generally *know-what* and *know-why* components of knowledge.’ ‘Other types of knowledge – particularly *know-how* and *know-who* – are more *tacit knowledge* [see next section] and are more difficult to codify and measure.’ (Lundvall, B.A. and Johnson, B.H., 1994) Lundvall and Johanson (1994) created the taxonomy of knowledge (Figure 1).

For public sector administrative employees are essential *know-what* and *know-why* knowledge as it is a gerund of knowledge that helps make knowledge-based and analytical work. Organisations need to be sure that their employees will fulfil their job tasks efficiently. Based on this assumption it is possible to consider that the job descriptions are made based on such a motive as well as job standards. So, organisations need also control the knowledge level of their current employees as in the changing and developing environment the need of specific and new knowledge is required.

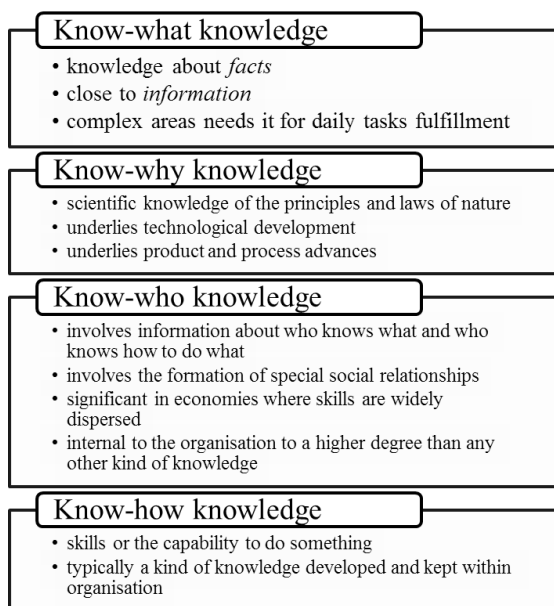


Figure 1. Concept of knowledge (Adapted from Lundvall, B. A. and Johnson, B. H., 1994)

Organisations may require manage the process of control the knowledge need, spread, transition, sharing and implementation for the work. Therefore KM models might be a practical tool in this case. According to Butler (2000) KM models are depending on motives of the organisation. For the public sector these motives could be following (Butler, Y., 2000):

- Controlled innovation and change

- Cost focused
- Cost reduction
- Do more with less
- Funding constraints
- Productivity focused
- Public service
- Staff reductions
- Strict reward regimes.

So, the concept of KM (Figure 2) is based on some activities related to the knowledge within organisation (knowledge of people employed for the organisation) that are made to reach the exact objectives/ goals, i.e., have exact motives. These motives can be related to financial performance, development of the organisation, employees’ performance, motivation of employees, etc.

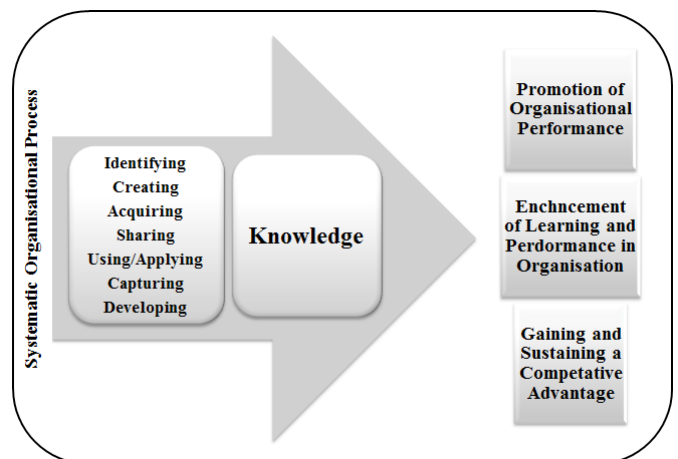


Figure 2. Concept of knowledge management (Adapted from Lapiņa I., 2013)

The first part of knowledge management process is connected to some activities. Different authors outline different activities (Table 2).

Table 2. Knowledge Management process models/ framework

Author (year)	Elements
Wiig (1993)	Creation and sourcing Compilation and transformation Dissemination Application and value realization
Marquardt (1996)	Acquisitions Creation Transfer & Utilization Storage
DiBella and Nevis (1998)	Acquire Disseminate Utilize
Davenport and Prusak (2000)	Generation Codification and coordination Transfer

Source: Authors’.

Mostly all of them have the beginning part of generating, storing, sharing knowledge and the end part, when used, irrelevant, outdated knowledge are utilized.

The most important detail of KM process that is not reflected, e.g., in Figure 2, is feedback. The process should

be systematic. At the end of the process the evaluation of objectives accomplishment need to be fulfilled. If the needed goal is not reached, a new set of activities can be designed. In case to identify the best set of the exact activities these possible actions with knowledge should be discussed.

Concept of learning: knowledge and learning

It is useful to consider the learning principles to understand how knowledge can be managed. There are some terms associated to the learning process such as memory and knowledge.

According to Gale Encyclopedia of Psychology (2001) Hermann Ebbinghaus (1850-1909) worked on psychological researches on memory and one of the researches results was the *forgetting curve* development. Studying human memory ability, he identified how people remember information during the period of time. People usually remember new information for a short period of time.

Table 3. Use of the explicit knowledge in the workplace

Condition	Explicit knowledge
Work process	Organized tasks Routine Orchestrated Assumes a predictable environment Linear Reuse codified knowledge Create knowledge objects
Learn	On the job Trial-and-error Self-directed in areas of greatest expertise Meet work goals and objectives set by organization
Teach	Trainer designed using syllabus Uses formats selected by organization Based on goals and needs of the organization May be outsourced
Share knowledge	Extract knowledge from person Code Store and reuse as needed for customers E-mail Electronic discussions Forums
Type of thinking	Logical Based on facts Use proven methods Primarily convergent thinking
Evaluation	Based on tangible work accomplishments Not necessarily on creativity and knowledge sharing

Source: Smith (2001).

Forgetting curve is moving up after the next memorization, i.e., a person remember the same information for the longer period of time after each next memorization. So, to remember things for the longer time, people should repeat this information for the several times.

Each person has each own better approach to learn things. It depends on the type of knowledge and the style of learning. Classically knowledge is split to two types: tacit and explicit knowledge. 'Tacit knowledge is practical, action-oriented knowledge of 'know-how' based on practice, acquired by

personal experience, seldom expressed openly, often resembles intuition', when 'explicit knowledge is academic knowledge or 'know-what' that is described in formal language, print or electronic media, often based on established work processes, use people-to-documents approach.' Both are important for a work. (Smith, E. A., 2001) However, explicit knowledge seems to be more important for public sector administrative employees, because of the characteristic of the job. Explicit knowledge type usage on work place is described in Table 3. Explicit knowledge is base for public sector employees as it is characterised by strict organisation, formal approaches, clear logic and concreteness. Explicit knowledge is associated with written communication. Therefore explicit knowledge is more oriented on sustainable knowledge transition.

Each person can have or try to implement defined learning style that depends on many aspects (type of thinking, way of preferred knowledge sharing and information perception type. According to the mentioned and many other aspects there are some different learning styles have been developed. Authors paid attention on cognitive approach to learning styles that characterise people learning preferences depending on their attitude to the collaboration with other people during learning process. These *Grasha-Reichmann Students Learning Styles* are (Grasha, A. F., 2002):

- Avoidant style
- Participative style
- Competitive style
- Collaborative style
- Dependent style
- Independent style.

Another set of people learning style that should be considered is Fleming's VARK model that is based on the people perception of the 'world'. Each person is batter perceiving information from the external environment by one or various senses. There are 4 learning styles based on senses (Fleming, N. D., 2001):

- Visual (by seeing)
- Auditory (by listening to)
- Reading-writing preference (by characterized in written form information; logical understanding and language)
- Kinesthetic (by touching, smells, movements, taste).

Education programmes should consist of a set of different learning methods to be able to provide learning materials for all four people groups according to their learning styles. Of course each person use more than one learning style that most probably could also influence on new information remembering.

As it was mentioned in spite of knowledge type people can learn something and remember for a long period of time by repeating things to remember.

Remembering however is not the main activity during learning process as gained from the learning knowledge is different. In mid of the last century Benjamin Bloom considered to split thinking behaviours to the three domains: cognitive (based on knowledge), affective (based on attitude) and psychomotor (based on skills). (Anderson, L. W. and Krathwohl D. R., 2001) Authors are focusing only on cognitive domain for this study. *Cognitive* is a knowledge based domain, consisting of six levels. According to the revised Bloom's Taxonomy these six domains are summarized from

lower to higher order thinking skills (Anderson, L. W. and Krathwohl D. R, 2001) in Table 4.

Table 4. The Cognitive Processes dimension

Categories	Cognitive processes
Remembering	Recognizing Recalling relevant knowledge from <i>long-term memory</i>
Understanding	Constructing meaning from oral, written, and graphic messages through: Interpreting Illustrating Classifying Summarizing Concluding Comparing Explaining
Applying	Carrying out or using a procedure through: Executing Implementing
Analyzing	Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through: Differentiating Organizing Attributing
Evaluating	Making judgments based on criteria and standards through: Checking critiquing
Creating	Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through: Generating Planning Producing

Source: Anderson and Krathwohl (2001).

Each cognitive process can be realised depending on the *knowledge dimension*. There are four types of knowledge dimension in the sequence from concrete to abstract knowledge (Anderson, L. W. and Krathwohl D. R, 2001):

- Factual
 - knowledge of terminology
 - knowledge of specific details and elements
- Conceptual
 - knowledge of classifications and categories
 - knowledge of principles and generalizations
 - knowledge of theories, models and structures
- Procedural
 - knowledge of subject-specific skills and algorithms
 - knowledge of subject-specific techniques and methods
 - knowledge of criteria for determining when to use appropriate procedures
- Metacognitive (“knowledge of [one’s own] cognition and about oneself in relation to various subject matters”)
 - strategic knowledge
 - knowledge about cognitive tasks,
 - including appropriate contextual and conditional knowledge
 - self-knowledge.

Explicit knowledge is cognitive one, thus factual, conceptual, procedural and metacognitive knowledge is

essential for public sector employees and they need to be developed through the learning process. This knowledge is important to fulfil public sector employees’ daily tasks which they can manage through the cognitive processes. All these knowledge should be gained already from the first years of personality development. It is important to develop knowledge and people ability to go through the cognitive processes in the work place gaining the professional education, especially at the administrative field.

Summing up the whole concept of learning it is possible to conclude that employees from public sector need preferably lifelong education to gain explicit knowledge using appropriate tools in case to cover their relevant learning styles. This assumption is also supported by the further research described below.

Education requirements for public sector organisations’ employees

The example of transition to the knowledge-based economy can be demonstrated on case of Latvia. The number of highly-educated people employed in Latvia has been increased for 12 years (Figure 3).

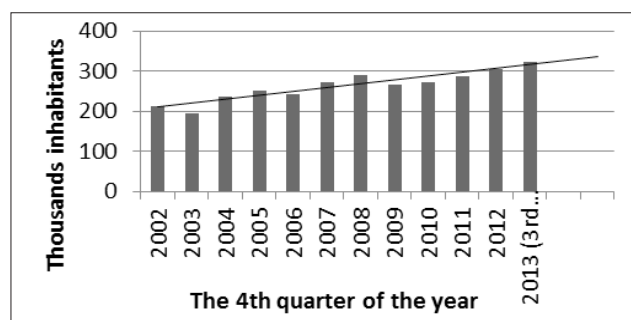


Figure 3. Number of employed people with higher education in Latvia at the last quarter of a year (2002 – 2013), thousands (LR Centrālā statistikas pārvalde, 2014b)

Even number of Latvian highly educated inhabitants searching for job had increased (Figure 4). The edge of 2009 and 2010 is related to the recession and critical circumstances in Latvian economy. Relatively the percent of highly educated job seekers has also increased from 9.3% in 2002 till 18.4% in the 3rd quarter, 2013.

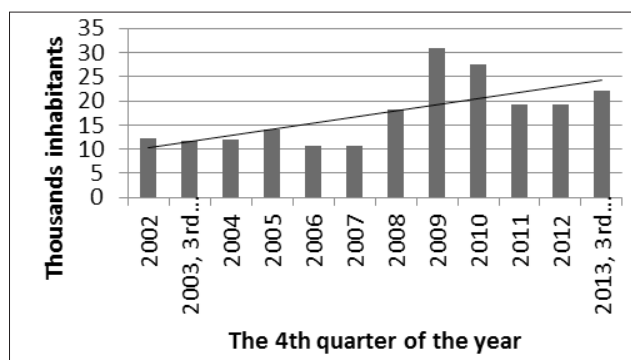


Figure 4. Number of people with higher education searching for job in Latvia at the last quarter of a year (2002 – 2013), thousands (LR Centrālā statistikas pārvalde, 2014a)

This group is not the first places among other Latvian job seekers; however the number has increased for 12 years. The reason of this tendency could be the increase of opened positions on labour market that requires the higher education to fulfil daily tasks. This is a smooth transition to the knowledge – based economy. More employers require for the highly educated employees, more people get the higher education to be competitive on the labour market.

There are some occupations' or professional standards that include qualification education skills and ability requirements for the exact profession. There are international standards as well as standards that are adapted for some countries' legislation.

Authors has analysed few standards to identify what kind of education and skills are important for public administration employees. International Standard classification of Occupation (ISCO) Occupational Standards (OS) in Latvia and United Kingdom (UK) Standard Occupational Classification (SOC) were used as resources by convenience sample as they include needed for the analysis information and are available on English or Latvian language. They were also chosen to have broader view at the general occupational standardisation local (Latvian) and other European country case. The occupations analysed (see Table 5) are the object of another further study on HR selection therefore these specific occupations were chosen for this study as well. These occupations can be grouped into major groups:

- Communications (customer service specialist)
- Economics and Finance (accountant economist financial analyst)
- Law (lawyer legal assistant legal counsel)
- Management (organisation manager/ managing director project manager).

All of them are essential for public servants especially on the public administration field. The occupations representatives were demanded on public sector labour market in December 2013.

Analysing the standards it was clear that OS in Latvia was created based on ISCO as they have common occupations codes. ISCO document includes the description and tasks of the occupational groups as well as examples of the occupations classified in ISCO or elsewhere. UK SOC document also has general information on each group of occupations additionally providing typical entry routes and associated qualifications. Latvian OS document is more detailed as it also includes the list of necessary skills abilities and knowledge to fulfil exact tasks and to be qualified representative of occupation according to the standard.

Using the WEB sites www.writewords.org.uk and www.wordcounter.net authors identify what phrases and words are the mostly used in descriptions of requirements for the chosen occupations. This analysis helps to identify what kind of common requirements in knowledge and education are essential for representatives of the chosen occupations. In general the main stress according to the analysed occupational standards is maid for such fields as:

- Communication
- Country language and foreign languages
- Finance
- Labour relations
- Law

- Legislation
- Occupational health and safety
- Professional terms
- Professional ethics
- Project management
- Record keeping.

Table 5. List of analysed occupations according to ISCO OS in Latvia and UK SOC

Standard	Code	Occupation
ISCO	42 (4222)	Customer Services Clerks (Contact centre information clerks)
OS in Latvia	422207	Customer Service Specialist
UK SOC	7219	Customer Service Occupations
ISCO	3313	Accounting Associate Professionals
OS in Latvia	3313 01	Accountant (the 4 th level of qualification)
UK SOC	2421	Chartered and Certified Accountants Accountant (qualified)
ISCO	2631	Economists Economist
OS in Latvia	263102	Economist
UK SOC	2425	Actuaries Economists and Statisticians Economist
ISCO	2413	Financial analyst
OS in Latvia	241302	Financial analyst
UK SOC	3534	Finance and Investment Analysts and Advisers Financial analyst
ISCO	2611	Lawyers Lawyer
OS in Latvia	261101	Lawyer
UK SOC	2419	Legal Professionals Lawyer
ISCO	3411	Legal and Related Associate Professionals Legal Assistant
OS in Latvia	341102	Legal Assistant
UK SOC	2419	Legal Professionals
ISCO	2619	Legal Professionals Not Elsewhere Classified Legal counsel
OS in Latvia	261901	Legal Professionals
UK SOC	2419	Legal counsel
ISCO	1120	Managing Directors and Chief Executives
OS in Latvia	e.g. 112001	Organisation manager
UK SOC	e.g. 1139	Functional managers and directors
OS in Latvia	242201	Project manager
UK SOC	2424	Business and Financial Project management Professionals Project manager

Source: International Labour Office (2012) Latvian Cabinet of Ministers' Regulations (2010) Office for National Statistics (2010).

Results show that for administrative employees of public sector the most important field of knowledge are connected to the humanities and social sciences as well as some practical

and linguistic skills. Conclusions are based on inductive analysis and small range of sample.

Job descriptions are usually developed based on these requirements and standards. Employers are expecting to have defined proficiency at exact fields because exact skills set and knowledge will help to fulfil daily job tasks. If person is not able to do his/her work there are two certain and contrast decisions could be made: find new person for the positions or assess the gaps in knowledge and select the most suitable option for further employee education and professional development.

Education possibilities for public sector organisations

Education public administration programs are created according to the occupation standards and actualities – social and technological development. There are a lot of possibilities to earn for instance Master degree in Public Administration or Management or take courses of other related programmes. Public Administration programmes are developed in many schools in Europe. Baltic States, UK, the Netherlands, Italy, Greece, Germany, France, Scandinavian countries' etc. schools and universities offer different Bachelor Master and Doctoral programmes on the field.

The attention of authors is focused on the content of the Master programmes. Do the requirements of occupational standards match the offer of the educational institutions? For this purpose the authors used convenience sample of European schools and universities that offer public administration or management master programmes and publish a list of courses in English or Latvian on their WEB sites. Eight this kind of programmes was chosen for the further analysis of the programmes' content (

Table 6). The compulsory and optional courses are taken in the range.

Table 6. List of Public Administration / Management programmes

Country	School	Program
Finland	University of Vaasa	Master of Administrative Sciences
France	A school for government service (École nationale d'administration)	Public Service and Applied Education
Germany	Hertie School of Governance	Executive Master of Public Management
Ireland	Institute of Public Administration	Master of Arts – Public Management
Latvia	University of Latvia	Public Administration
Romania	University Babes-Bolyai	Master Public Administration
Spain	Universitat Autònoma de Barcelona	Master Public Administration
The Netherlands	Radboud University Nijmegen	COMPASS: Comparative Public Administration

Source: WEB sites of University of Vaasa École nationale d'administration Hertie School of Governance Institute of Public Administration University of Latvia University Babes-Bolyai Universitat Autònoma de Barcelona and Radboud University Nijmegen.

According to the analysis there are three groups of related and common courses that are the most popular at the range:

- *Public Administration/* Comparative Public Administration/ Research Traditions in Public Administration/ Public Administration and Management Tools/ Communication in the Public Administration/ Contemporary Public Management/ Public Management Risks and Accountability/ Public Sector Management/ Public Management and Ethics/ Methodological Seminar of Public Management
- *Project Management/* Project Assessment
- *Human Resource Management/* Public Human Resource Management/ Organisation Human Resources and Management/ Managing Human Resources/ Personnel Management.

Each of these subjects is included in three or more programmes out of eight. Other courses could be grouped to the groups by the key words 'Analysis' 'Communication & Information' 'Development' 'Economics & Finance' 'Ethics' 'Government/ Governance' 'History and Culture' 'Law' 'Management' 'Methods' 'Organisations' 'Planning' 'Policies' 'Research' and other. Therefore master programmes analysed can cover quite all public sector occupations standards analysed (see Table 7). Professional terms and record keeping requirements could not be covered by offered courses within master programmes analysed.

Mentioned groups of courses exists because they are actual it is also proved by occupational standards. These courses will help to gain knowledge on exact and social sciences through the formal education. Unfortunately not all public sector current employees will be able to start study at University to broaden lack of knowledge in some fields that has been developed for the last time.

Besides formal education the population of informal online education is increasing nowadays. There are a lot of courses free of charge and for pay offered by different universities around the world. These courses are usually called as 'Massive Open Online Courses' (MOOCs). For instance the education company *Coursera* offers 585 (on January 21 2014) different MOOCs from 108 partner institutions in English Chinese French Russian Spanish Portuguese Turkish Ukrainian German Arabic Italian and Japanese. Authors have checked what courses are offered for public sector professionals.

There are some MOOCs provided by *Coursera* connected to the public disciplines e.g.:

- Introduction to Public Speaking
- Public Economics
- Introduction to Environmental Law and Policy
- Constitutional Law
- Property and Liability: An Introduction to Law and Economics
- Introduction to International Criminal Law
- The Law of the European Union: An Introduction
- Law and Society
- Law and the Entrepreneur
- English Common Law: Structure and Principles
- Technology and Ethics
- Understanding Russians: Contexts of Intercultural Communication
- Globalization and You
- Logic: Language and Information

- Practical Ethics
- Citizenship and U.S. Immigration
- Introduction to Philosophy
- Making Better Group Decisions: Voting Judgement Aggregation and Fair Division etc.

Table 7. Courses matched the requirements

Required field	Name of course/subject
Communication	Communication and Public Relations Organisations Introduction to Intercultural Communication
Finance	<i>Economics Finances and Methods</i> Decentralisation and Local Financial Autonomy Economics and Public Finances Finance Public finance Public Sector Budgeting and Accounting
Professional ethics	Ethics Public Ethics
Law and Legislation	Budgetary Law European and Comparative Administrative Law Law Public International Law Public Law Urbanism Law Actors Institutions Policies Environmental Policies Financial Policy of the Public Sector and Local Governments Public Policies Regional and Community Policies Territorialisation of public policy
Project management	Project Management Project Assessment
Country language and foreign languages	Semiotics Writing Academic English
Labour relations and Occupational health and safety	Human Resource Management Public Human Resource Management Organisation Human Resources and Management Managing Human Resources Personnel Management

Source: WEB sites of University of Vaasa École nationale d'administration Hertie School of Governance Institute of Public Administration University of Latvia University Babes-Bolyai Universitat Autònoma de Barcelona and Radboud University Nijmegen.

The MOOCs can also help to gain knowledge at the areas which are vital for some public sector occupations.

Also there are a lot of additional possibilities to educate HR. Internal informal education experience sharing external educative events trainings and lifelong education programmes. Latvian public sector employees can use European lifelong learning programmes possibilities. For example International formal and informal adult education can be realized through the *Grundtvig* lifelong education program. Locally National Employment Agency (NEA) in Latvia realizes European Social Fund's (ESF) project „Lifelong learning activities for employees”. Public institutions should only assess knowledge of their employees or identify the need of exact

their skills development. Afterwards employees can receive ESF resources to cover part of expenses on education. ESF resources can get all employed people in Latvia (except civil servants) at the age of 25 or older; who have received the last formal or informal education at least one year before.

Employees can use received ESF resources for example at Professional Education further training and examination centre (*PITEC*) having choosing different kind of programmes:

- Accounting – skills development
- Basics of Social Care
- Business etiquette
- Computer Science
- Computerised Accounting
- Development of Communication skills
- Fundamentals of Business
- Project Management
- Record-keeping etc.

These courses can fill the gap in formal education programmes complementing them.

There are a lot of possibilities to gain knowledge in many areas using different tools and approaches from internal specially designed trainings till formal education at high schools. Based on the analysis there are some important areas of explicit knowledge that public sector employees should have:

- Communication (record-keeping, ethics, public speaking etc.)
- Computer Science
- Finance and Economics
- Professional ethics and Business etiquette
- Law and Legislation
- Project management
- Country language and foreign languages
- Labour relations and Occupational health and safety.

Knowledge in those areas can be improved constantly; however it needs to have gotten knowledge in long term memory gotten knowledge need to be used. Thus organisation knowledge managers should identify relevance of the exact knowledge and plan professional development of the employees taking in account personal learning style and experience of the employees as well as organisational goals and needs.

Porter (1998) mentioned that ‘old notion of comparative advantage less relevant. Instead competitive advantage rests on making more productive use of inputs which requires continual innovation.’ In terms of public sector this idea can be interpreted as a need of continues development, of lifelong learning of organisations’ employees to create competitive advantage for the organisation. Becker et al. (2001) considered the employer’s investment in staff training and development is not just a profit-making tool but also a recruitment and retention tool. This is especially important because the *human capital* as opposed to other types of capital doesn’t belong to the organization but to the employees themselves.

Discussion

On the 22nd Network of Institutes and Schools of Public Administration in Central and Eastern Europe (NISPAcee) Annual Conference (2014) there was a discussion on need Public Administration (PA) programs development as well as special PA faculties development. PA should be separate

discipline that should be based on relevant general subjects and adapted to the local peculiarities. For instance some program developers are strongly against such an approach when PA program students' main subjects are Law or economics.

Authors agree that public sector employees that work in public administration need to have PA education, besides, afterwards there are a lot of possibilities to use for further professional development that are adapted to the newest tendencies (training programs, courses, etc.). Professional development asks the basic knowledge of professionals. The idea of the professional development lies in the most appropriate approach for gaining new professional knowledge, skills and experience for each individual professional or a group of professionals. Knowledge society is frequently developing and asks for the better and more adaptive specific education for the concrete field of work.

Educational institutions should cover specially designed PA programs based on market requirements and tendencies. However, thinking about actuality of the subjects it is essential to update programmes thing on it strategically.

Conclusions

KM process has holistic essence. KM is a part of human resource management. KM activities depend on exact motives and goals that sometimes might be caused by factors outside the organisational environment, e.g., technological development, legislative, political or economic changes. According to these factors and general organisational objectives the plan of management activities connected to the human capital can be established. These activities need to be connected to HRM principles and other HRM activities. Outcomes of these activities' fulfilment should be assessed in case to check if objectives were reached. So, the process needs to be circulated.

Knowledge management is connected to some knowledge and learning processes. Taking in the account aging society of the Europe and understanding the learning process of average person it is possible to develop education programme for adults which will combine formal and informal education.

Based on practical research the following authors concluded that if school has public administration or other public sciences related program only for locals in local language than it could include different specific subjects actual for the country. In general the result of the study shows that for the specific public service occupations is need the special set of courses to help further public service specialists gain the basic knowledge and skills to fulfil their specific tasks according the job description and occupation standards.

After employees' knowledge evaluation and definition of knowledge types and areas that should be gained or improved planning of some education activities comes. The choice of the tool should be chosen not only by availability of the needed programme, but also taking into account learning specialities of each employee. Sometimes it is possible to improve tacit knowledge by socialisation processes, i.e., informal education, when some explicit knowledge could be gained only by formal approaches in education (visiting courses or studying, e.g., at university).

Knowledge in public administration or other public discipline is applied; therefore it is important to have more practical experience in real life. Public sector employees

could take trainees – students from public administration programmes more often. This exchange with knowledge and ideas is important for both – knowledge management and human resources attraction/recruitment. Public organisations could bring fresh ideas of young specialists to the routine work attract new employees and participate in new specialists' education. It would increase a chance that these students would come for a work in public organisations and would be competitive and qualified new employees.

Conclusions mainly are based on the quantitative data and the pilot small range studies. Applicable conclusions are made using inductive method.

Further on it would be relevant to identify the best set of public organisations' knowledge evaluation tools and approaches. For example, organisations could adapt some existed methods of human capital measurement, Knowledge Assessment Methodology, Balanced Scorecard or performance appraisal methods.

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