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EVALUATION OF THE FACTORS AFFECTING THE KNOWLEDGE APPLIANCE PROCESS EFFICIENCY

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ОЦІНКА ФАКТОРІВ, ЩО ВПЛИВАЮТЬ НА ЕФЕКТИВНІСТЬ ЗАСТОСУВАННЯ ЗНАНЬ

Purpose. To determine the factors affecting the efficiency of knowledge appliance process which can serve as a basis for evaluation and improvement of knowledge appliance process in an organisation.

Methodology. To determine the factors being of importance for evaluation and problems of the efficiency of knowledge appliance process and to systematise the factors we have used theoretical analysis, comparison and generalisation methods and applied multiply assessment methods.

Findings. The scientists, who analyse factors of knowledge appliance process efficiency, interpret them differently. This makes it difficult to decide, which view reflects the reality of knowledge appliance process and makes its evaluation more accurate and comprehensive. As a result of scientific literature analysis the primary list of factors affecting the efficiency of knowledge appliance process was made for the further evaluation to solve the mentioned problem.

Originality. Organisations often face the problem of knowledge value loss when existing knowledge is not used in work or its implementation is not effective. The effective knowledge appliance process should be ensured by making the microclimate of organisation and its infrastructure suitable for using existing or new knowledge. To start the process of implementation of new knowledge at an enterprise effectively the most important factors affecting the efficiency of knowledge appliance process should be determined by the new methods of complex evaluation of factors and the process improvement suggested in this article.

Practical value. The factors affecting the efficiency of knowledge appliance process were identified based on scientific literature analysis. The evaluation of the factors allows us to identify the problematical areas of knowledge appliance process and to make the decisions to improve it.

Keywords: *knowledge, knowledge use, evaluation, motivation, competence*

Introduction. The knowledge need and satisfying organisation and its customers is growing especially fast under conditions of globalisations. The knowledge becomes the essential source of exclusivity and uniqueness. Each organisation tries to apply the necessary knowledge on the suitable time and in the most convenient way that it could satisfy needs of customers of organisation more effectively and create value of organisation. So the importance of knowledge appliance process is based on effective existing knowledge use to solve problems, to manage processed organisations and to create appropriate work environment for knowledge use.

The knowledge appliance process is described as a stage of knowledge management realisation when the knowledge is transformed into the specific results of organisations.

The organisations which seek to implement and coordinate the knowledge appliance process effectively often face psychological and functional problems.

Psychological problems are connected with employees who block the application process of new knowledge, because they are scared to show the existing extinctions of knowledge, to lose their position, as a specialist of definite area. As well organisation's employees often express the

distrust about external knowledge, so they are not motivated to apply such knowledge in their work environment.

Functional problems are connected with employees (while accomplishing casual routine functions under usual (automatic) way), who are sure that there's no more efficient way to accomplish some function or procedure, so they pay almost no attention to the new procedures.

To solve such problems is to apply the knowledge appliance process for which it is important not only as to know what kind of internal and external knowledge existing, where they are, who has that knowledge, but at the same time to apply existing knowledge to accomplish work functions and to create organisation value.

Scientists have analysed the factors of the efficiency of knowledge appliance process for decades, but still there is no common objective way of determination of the factors having the biggest effect on the efficiency of this process.

The knowledge appliance process has complicated and ambiguous objective of research, so scientific literature submits different positions of scientists how to identify and evaluate essential factors.

The objective of research is to determine the factors of the efficiency of knowledge appliance process, which makes assumptions to evaluate and improve the knowledge appliance process in organisation.

To submit the meaning of factors evaluations and problems of the efficiency of knowledge appliance process and to systematise the factors, which affect this process, the theoretical analysis, comparison and generalisation methods in this research were used. To identify and evaluate factors we suggest applying multiply assessment methods.

The importance of knowledge management to increase the efficiency of the activity of organisations. The conception of the knowledge management in the academic society has been started analysing since the end of 1980 and there are submitting opinions of various scientists about the start of knowledge management's discipline. Some scientists have stated that knowledge management is not a new concept – just systematised newly and is supporting by new methods, measures, technologies. Authors, who accept this opinion, say that the knowledge management history starts in the ancient civilisations – the first manifestations of knowledge management, such as knowledge notation, saving and using, appeared 3 thousand years ago when the cuneiform came into use.

Despite the long history of the development of knowledge management, the knowledge management is the science and training discipline which is still in the formation process, is the inter-dimensional and multidisciplinary concept, involving the most activities of organisation.

Wilson (2012), Jashapara (2005) evaluate concept of knowledge management critically and say that knowledge management is more pretentious synonym of information management, the discipline characterizing by fragmentation, which doesn't have theoretical substantiation [1].

The other scientists have pointed out that the concept of knowledge management appeared in the last decade of previous century in large companies in which the problems of processing of information became critical. It is obvious that the weakest point is the adaptation of knowledge, which was saved by employees of an organisation, and that knowledge gives advantage against other organisations [1].

McInerney, Koenig (2011) have distinguished four stages of knowledge management development [1]. The first stage is connected with information technologies when large international consulting companies understood that trading of securities was information and knowledge. There were orienting for the job with new technologies (e.g. internet, extranet, intranet) implementing the purposes of information spread, in this stage.

The second stage of knowledge management is connected with the recognition of the human and cultural factors, knowledge creation and dissemination (e.g. the scientific researches of Nonaka and Takeuchi (1995) are connected with tacit and explicit knowledge and its development).

The third stage is oriented into the knowledge content's importance, definitions, structures, aspects of classification.

The fourth stage, according scientists, should be connected with the accessibility of organisation information and knowledge outside, the development of their content, seeking to develop competence of organisation more effective.

The scientists have stated that knowledge management integrating such disciplines as business, strategic,

changes management, human resources management, organisation learning, communication, document management, information management, information technologies, sociology, psychology.

The most scientists have stressed that knowledge management, as a separate theoretic conception, is one of the newest management paradigms and researches objectives. The knowledge management is very relevant for the knowledge economy which becomes prevalent and dictates new rules to organisations.

It's not enough to manage internal and external data flow in organisations, seeking to create uniqueness of organisation and purchase long-lasting advantage. The knowledge can't be treated in the same way as the information, as well as it is impossible to re-form information systems into the knowledge system. The organisation's learning and knowledge management are the most important factors in the effective strategies forming process.

Scientists, such as Becerra-Fernandez *et al.* (2004), Chen *et al.* (2005), Ruževičius (2005), Probst *et al.* (2006), Mačiuitis *et al.* (2008), Kebede (2010), Morkvėnas (2010), give various definitions of knowledge management:

- some scientists have pointed the human resources in the definitions of knowledge management (“intellectual capital”, person abilities management, accent of learning importance and conception “life-long learning” in organisation);

- other scientists have pointed the importance of the strategic management of knowledge management (effective knowledge management depends on the unit of human factor, technologies and methods and it's coordination) [1].

But the most scientists have pointed that knowledge management is effective means to increase the efficiency of organisation activity especially in the transformation context.

The knowledge management is purposeful and systematic management of knowledge processes, methods and means, using versatile knowledge potential, seeking the purpose, solving problems and creating effective decisions.

It is important to compare the difference between traditional organisation and organisations which are oriented into knowledge management according their stock, investment, value in the analysing the meaning of knowledge management.

According to the resources the traditional organisation is oriented to material, classical factors of production (work, capital, territory) and organisations of knowledge are oriented to the not material resources (image of the organisation, patents, licenses, loyalty of customers).

According to the investments the traditional organisation is oriented to the increase of material property (industrial, administrative buildings, equipment) and organisations of knowledge are oriented to the knowledge base, employees with specific competencies, motivation systems, learning, innovations, knowledge management system and technologies, support of the communication between partners and customers.

According to the value the traditional organisations are oriented to the increase of the material property value and organisations of knowledge – to the intellectual capital value.

The scientific literature contains quite a lot of scientific works which develop knowledge management influence to various levels of organisation: employees, processes, products (services) and to all activity of organisation and the increase of its value [2].

The influence of the knowledge management on the level of employees can ease their learning processes in the organisation (internal learning), either out of it (external learning) and form the conditions to adapt to the dynamically changing environment, changes of demands of customers and, under such circumstances, realise the acquired knowledge gained by learning. For this reason employees are better prepared for the probable changes and can use the acquired knowledge during the activity of organisations and it creates assumptions to be motivated seeking objectives of organisation and feel satisfaction of performed work. This creates assumptions for the organisation to change the structure of knowledge base and to manage internal processes efficiently and create more unique products (services).

The influence of knowledge management in the process level increases efficiency of processes (less mistakes, adaptation according changed conditions), productivity (speed, cost reduction), innovation (innovations, creativity, better use of new ideas). It improves existing and creating innovative products (services) in the organisation.

The influence of knowledge management on the product (service) level is connected with the creation of added value and knowledge products. The organisation is able to offer new or improved products.

The influence of knowledge management in the whole activity level of organisation is connected with a direct (return of investments) or indirect (economy of scale and scale, long-lasting advantages) effect. The direct effect is with the help of using knowledge to create innovative products and it is connected with a profit or with organisation strategy when the strategy of knowledge management is matched. The indirect effect could be connected with the intellectual leadership in the market, knowledge use by keeping relations with partners and customers, which is strengthen their loyalty for the organisation.

Summarising opinions of various scientists, it is possible to point out that knowledge management conception was developed from the knowledge management identification with information and information technologies management till integration of social, managerial, technological factors.

The basis of the knowledge management is knowledge potential management, individual and collective competency, abilities and skills.

The knowledge management is connected with ideas, creativity, knowledge creation, applying and spread. The technologies of knowledge management are just a measure to create, use and spread the existing knowledge, because the main source of creating new knowledge is a man.

The knowledge management essentials are impalpable, intellectual capital which form assumptions to use existing knowledge efficiently and create new ones under minimal input data.

The scientists have emphasized that knowledge management, as a discipline, is not limited by the perception “tacit–explicit”. The knowledge management is not management of just individual knowledge. It is a management and based activities of organisation, focused on the unique ability, connected with realisation of knowledge potential for needs of organisation, as well for satisfaction of demands of customers.

The knowledge management as a discipline satisfies challenges of knowledge economy: knowledge creation, use and dissemination. The effective knowledge use becomes relevant in the dynamic environment of the economic, social development, when it is important to make adjusted decisions connected with knowledge and creation of its products, effective development to create and safe the uniqueness of organisation’s implemental activity.

The purpose of knowledge appliance process. Seeking to manage knowledge efficiently, it is necessary to know very well the essential components of management: processes, factors, methods, measures and their features. Scientists analyse such problems as how to manage existing knowledge efficiently, create new ones, what kind of barriers, difficulties are faced, what kind of management’s methods, factors, evaluating criteria are used, under systematic view and applied under procedural knowledge management model (knowledge management processes) which creates cycle of processes and forms the chain of knowledge value creation.

The knowledge management processes are investigated differently. Some scientists offered four knowledge management processes, and others proposed extended cycle of knowledge management.

For example, Becerra-Fernandez, Gonzalez, Sabherwal distinguish the complex spectrum of knowledge management components, determining effective knowledge management decisions, as the knowledge management processes and subprocesses, systems, mechanisms and technologies, infrastructure. The knowledge management processes are described as processes which help to find out, identify, share, apply knowledge and these processes are divided into new knowledge acquisition, existing knowledge identification, sharing, knowledge applying processes [2].

Submitted processes and subprocesses by Becerra-Fernandez, Gonzalez, Sabherwal were distinguished as integrating the results of such scientists as Nonaka (1994) (four ways to manage knowledge – socialization, externalization, internalization, combination) and Grant (1996), Nahapiet ir Ghoshal (1998) (changing, management, routine).

The knowledge use is defined as the using process of appropriated (actual) knowledge (which was found, set, and shared) seeking to make solutions and tasks, by Becerra-Fernandez, Gonzalez, Sabherwal (2004). This process is created from management (diversion) and routine subprocesses. Person (in the management (diversion) subprocess)

uses knowledge directly collected by other person for the action and during this subprocess the difficulties, connected with transfer of tacit knowledge, are avoided, e.g. The organisation's employee asking for the expert for the solution of appeared problem and managing instruction by the expert. But when such kind of problem appears the employee is not able to solve the problem without instructions of expert, because in this subprocess the knowledge is not adopted from expert. The subprocess of routine contains knowledge established in procedures, rules, rates under which are managed.

Probst, Raub, Romhardt (2006) offered integrated knowledge management system for managing knowledge resources and based on knowledge management processes: determination of knowledge goals, knowledge identification, acquisition and development, knowledge sharing, distribution and use, as well as preserving, measuring.

According to Probst, Raub, Romhardt (2006) knowledge use is a process connected with effective application of "operative" knowledge to solve problems, to manage processes and to create suitable working environment to apply knowledge (the importance of motivation, work environment).

O'Dell, Hubert (2011) have submitted APQS (in English *American Productivity and Quality Center*) process of knowledge shift, which has such components as human resources, processes, content and technologies. The essence of this process is to realise how the process of knowledge shift should function in organisation, what kind of critical knowledge, neglected or problematic areas exist and effect negatively proceeding of knowledge shift process. When the problematic area of knowledge shift is identified, authors suggest choosing another stage – the strategy of knowledge management forming to remove identified weaknesses [1].

According to O'Dell, Hubert (2011) the knowledge appliance process (transfer, re-use, adaptation or interception) is such a process when knowledge is designated in special form and adapted for solving problems, to improve the process or decision-making. The problematic area in this process is that employee's technical knowledge or knowledge creation could be more value comparing with knowledge sharing. If organisation pays more attention to the process of invention, employees face more difficulties in extracting knowledge from new resources [1].

Maryam, Denford (Smith *et al.* 2011) have pointed out four knowledge management processes: knowledge creation, knowledge accumulation and searching, knowledge transmission and sharing, knowledge use. Maryam, Denford have stated that knowledge is used to make decisions, to solve problems and coordinate people and groups in organisation [1].

Scientists offer various ways and measures how to use knowledge [1]:

- information centres where information is submitted in one place and in various forms, employee has the access to participate actively in the creation and managing of the information centre;

- in-service training, as employees use new knowledge easily, which can be directly applied in work activity;

- documents with visual aids and interesting content (e. g. diagrams, summary, etc.);

- working conditions as workplace is supplied by necessary facilities to use the knowledge and it has easy-to-use and operable space to necessary knowledge sources.

Sandkuhl (2009) has stated that organisations often face success when using the network method. The meaning of this method is that the more employees will be included in the process, the more knowledge will be valued and employees by themselves will be motivated to use and share existing knowledge.

It is possible to state that knowledge appliance process is connected with knowledge management realisation by summarising opinions of various scientists. Because the process of use is applied after the objectives of knowledge are formed in the organisation, the knowledge voids are identified and decisions of knowledge acquisition and development are made. So the knowledge appliance process is one of the most important of all knowledge management processes, because employees operation efficiency depends on its appropriateness, fluency of internal processes, the satisfaction quality of demand of customers, the surplus value and uniqueness of organisation.

Most of scientific researches pointed out that the main motive for employees to use knowledge is knowledge value (expecting benefit of knowledge) and knowledge acquisition and access, infrastructure, which is simple to use when there is possibility in the applied knowledge process to create it as the same time and it saves costs, time and avoid stress.

The integral factors of knowledge appliance process efficiency. The factors of knowledge appliance process efficiency are variously divided and classified according to their content in the scientific literature, such as psychological, functional and social aspects according to resource groups (human, information, technological, information and knowledge resources), etc. (table).

Summarised results of researches made by scientists [1, 4–8] offer the factors of knowledge appliance process efficiency group by content of resource groups of organisation as the factors are used to motivate the employees and enable them to use information and knowledge, management, technological and financial rational infrastructure for knowledge use in the work activity.

This division of group factors is based on such logical-causal sequence: the main objective of organisation is the motivation of the long-lasting economic profit and surplus creation, which depends on motivation of organisation employees in knowledge use for more effective working performance (it is directly connected with managing, content and technological aspects which create assumptions to coordinate the knowledge appliance process fluently and financial resources which ensure financial side of important knowledge use). So the authors of research formulate the assumption that the knowledge appliance process could function properly only when organisation has employees who are motivated and prepared to take advantage from application of organisational, knowledge content, technological, financial infrastructure.

The factors of knowledge appliance process efficiency by the psychological and functional aspects
(source: compiled by authors)

Context	The factors of knowledge appliance process efficiency
Dividing by the psychological, functional and social aspects (Poonkundran 2009; Sandkuhl 2009; Evangelista <i>et al.</i> 2010; Shijaku 2010; Turner, Minonne 2010; Woolliscroft 2012; Hasanzadeh, Mahaleh 2013)	
Psychological factors	The collaboration of members of organization, training, motivation of members, suitable work conditions, the evaluation of members importance
Functional factors	The implementation of innovations and novelties, technological and technical resources, possibilities for external collaboration, computer system
Social factors	The intensity of employees trainings, communication, management of documents important for the work
Dividing by the resource groups (Chlivickas <i>et al.</i> 2007; Chlivickas <i>et al.</i> 2008; Chlivickas <i>et al.</i> 2011; Raudeliūnienė 2012; Raudeliūnienė <i>et al.</i> 2012(a); Raudeliūnienė <i>et al.</i> 2012(b); Raudeliūnienė <i>et al.</i> 2014)	
Factors associated with the target orientation	The organizational management structure, objectives, culture, networks
Factors of human resources	The motivation of employees to use knowledge (material factors, factors of acceptance, expression, social, security factors), the knowledge value, the approach of employees to the innovations, competence
Factors of knowledge-content evaluation	Quality of knowledge, knowledge value, the level of knowledge application, the form of knowledge submission, the period and place of knowledge use
Factors of technological resources evaluation	The infrastructure of technologies and base for knowledge use, methods, means and measures of the knowledge use
Factors of the financial resources evaluation	The profitability of activity, the level of investment costs, the profitability net sales, the cost of knowledge and technologies use, financial sources and ways

The factors of knowledge appliance process efficiency are associated with such resource groups of organisation as:

- factors associated with the target orientation: organizational structure, objectives, culture, networks;
- human resources evaluation factors: motivation of employees, competence;
- factors of knowledge-content evaluation: quality of knowledge, knowledge value, the level of knowledge application, the form of knowledge submission, the period and place of knowledge use;
- factors of technological resources evaluation: infrastructure of technologies and facilities for knowledge use, methods and means;
- factors of the financial resources evaluation: profitability of performance, the level of investment costs, the profitability net sales, the cost of knowledge and technologies use, financial sources, ways, etc.

The most controversial factors of human resources evaluation are their motivation and competence.

Summarising the factors of motivation of employees analysed by various scientists (such as Palidauškaitė (2007), Palidauškaitė, Segalovičienė (2008), Worthley *et al.* (2009), Anderfuhren-Biget *et al.* (2010), Merkys, Brazienė (2010), Palidauškaitė, Vaisvalavičiūtė (2011), Andersen, Pedersen (2012), Chen, Bozeman (2012), Park, Rainey (2012), Andersen, Kjeldsen (2013), Jin (2013), Pedersen (2013)) was carried out in five factor groups systematized by taking content influencing the motivation as the principle one: material, comprehension, self-expression, social and security factors [8].

The groups of motivation factors were identified on the basis of the results of empirical research which took place in 2011 [6, 8] which aim was to analyse the functions and procedures of the Lithuanian personnel administration offices and personnel administration specialists. Research was accompanied by the questionnaire survey. The questionnaire was formed with 65 closed type questions. The

survey was carried out online. The questionnaire was processed by more than 87 percent of respondents (218 respondents). Besides, in order to clarify the personalised responses in-depth interviews were additionally carried out, which included 27 open questions. The answers of questionnaire and in-depth interview are reliable and represent a summary of the opinion of the heads of budget office (Lithuanian state and municipal institutions and agencies) personnel departments [6].

During the survey respondents were asked to assess measures of motivation in such rating scale: negatively assessed measure of motivation, not enough motivating measure of motivation, medium, well and very well motivating measure of motivation. The results of research showed that the most effective measures of motivation in the public sector are social security, insurance (70.6 percent), suitable work conditions, the availability of premises (69.7 percent), the possibility for long-termed professional development (60.1 percent). It is possible to form the assumption that for the employees of the public sector their social security is crucial, conditions of decent work and professional development, but it's not always implementing because of existing financial sources. The least effective measures of motivation in the public sector is one-off cash benefit under the Government regulation procedure (31.2 percent), State awards (29.8 percent.), bonuses (28 percent), rated gift (23.4 percent). One of the main reasons why these measures of motivation in the public sector are less efficient is the fact that they are used very rare [8].

It is offered for the evaluation of knowledge appliance process to use factors (which are given below) which were formed on base of empirical researches:

- material factors: salary, bonuses, benefits;
- factors of acceptance: gratitude, rated gift, concession of more responsibility and mandates, involvement in the process of decisions making, career opportunities;
- factors of expression: the opportunity to do an interesting and responsible work, the ability of constant pro-

fessional growth (trainings, courses of raising of the qualification, rotation, apprenticeships, secondments);

- social factors: good psychological microclimate, acceptable managing style, leisure and recreational activities, the attention of the leader, informal conversations, work in groups;

- security factors: suitable work conditions, the provision of work space, social guarantees.

Another important factor of knowledge appliance process efficiency is competence of employees. A lot of scientists analysed the concept of competence and had stated that the competence of human resources is difficult and complex phenomenon.

Together knowledge and human abilities with the experience consist of competence which is understandable as the entire of knowledge, abilities and skills.

Summarising factors of competence which were analysed by various scientists and used the results of empirical research which took place in 2012 [9], which aim was to form conceptual complex evaluation model of competences of professional military service in Lithuanian armed forces. To evaluate the competence was selected 26 of the 98 factors, which were grouped in four ranges:

- factors of personal competence: duty, professionalism, flexibility of mind, emotional stability, efficiency, knowledge, empathy;

- factors of moral competence: honesty, responsibility, respect, honour, influence on others, being the example, tolerance;

- factors of management competence: decisions making, planning, leadership, teamwork, analytical thinking, initiative, creativity;

- factors of profession competence: professional knowledge, knowledge integrity, military state, modern warfare basics, physical preparation.

The authors of the research evaluated the factors of knowledge appliance process efficiency and suggest such factors as duty, professionalism, emotional stability, efficiency and knowledge for the further evaluation of experts in the range of factors of personal competence.

It is important to evaluate such factors as honesty, responsibility, respect, honour, influence to others, being the example, tolerance in the group of factors of moral competence.

The attention should be paid to the abilities and skills to plan the knowledge appliance process, management abilities, the abilities to use knowledge in the teamwork, analytical thinking, initiative and creativity in the factors group of management competence.

It needs to evaluate professional knowledge, the level of knowledge integrity, the qualification of employees, experience, area (to evaluate in which area employee has the competence) and quality (to evaluate activity efficiency according to specific scale) in the factors group of profession competence.

Summarising the results of empirical researches it is possible to state that the knowledge appliance process has the complexity of evaluation and variety of the factors, so seeking to evaluate efficiency of knowledge use complexly it is suggesting to evaluate it by the resources

organisation groups when the factors are divided in five ranges: factors associated with the target orientation, factors of human resources, factors of knowledge-content evaluation, factors of technological resources evaluation, factors of the financial resources evaluation.

The selection of the method to evaluate efficiency of knowledge appliance process. The knowledge appliance process has the complexity of evaluation and variety of the factors, so to do research it is suggested to apply multiply assessment methods, which belong to group of decision-making and create assumptions to evaluate knowledge appliance process complexly and make decisions of the process improvement. It is possible to evaluate any sophisticated phenomenon, made of plenty indicators, quantitatively applying multiple assessment methods.

Ginevicius and Podvezko (2005) indicate that the complex and sophisticated assessment of phenomena begin with the formulation of the research problem and identification of the subject and objectives, and end with the decisions making on improving the state of the phenomenon.

The evaluation of complex and complicated phenomena usually are consisted of such stages of multiply assessment: formulation of the research problem and identification of the subject and objectives; formulation of the factors of studied phenomenon lists; formulation of the factors of studied phenomenon the systems; the establishment of the quantitative expression (rates); the studied phenomenon of factors formalization, indices and values for normalization; the studied phenomenon of factors determining the significance of choosing model and significance of factors; selection of the way of connection of the factors of studied phenomenon into generalised size; connection of the factors of studied phenomenon into generalised size; decision-making about the studied phenomenon status improvement [10].

Summarising the results of scientific researches it is possible to state that the factors of knowledge appliance process efficiency are complicated and complex. A complex multiply assessment is appropriate to evaluate the factors of knowledge appliance process efficiency, because it is impossible to express the factors by one criterion, so applying this methods there is no limits of factors and criteria quantity and it makes assumptions to determine the importance of separate factors to the evaluations' results, to compare factors between each other and to form suggestions for process improvement.

Conclusions and recommendations for further research in this area. The knowledge appliance process is connected with implementation of knowledge management and it is one of the most important processes of knowledge management, because from its efficiency employees effectiveness of work activity, fluency of internal processes, the satisfaction quality of demands of customers, the created value and uniqueness of organisation depends.

The knowledge appliance process has the complexity of evaluation and variety of the factors, so seeking to evaluate efficiency of knowledge use complexly it is suggested to evaluate it by the groups of resources of the organisations when the factors are divided in five ranges: factors associated with the target orientation, factors of

human resources, factors of knowledge-content evaluation, factors of technological resources evaluation, factors of the financial resources evaluation.

The factors of knowledge appliance process efficiency are complicated and complex, so it is suggesting that to apply complex multiply assessment it is appropriate to evaluate the factors of knowledge appliance process efficiency, because it is impossible to express the factors by one criterion, so applying this methods there is no limits of factors and criteria quantity and it makes assumptions to determine the importance of separate factors to the results of evaluations, to compare factors between each other and to form suggestions for process improvement.

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Мета. Оцінити фактори, що впливають на ефективність застосування отриманих знань на практиці.

Результати. Провівши аналіз літературних джерел та наукових досліджень, отримані висновки про те, що вчені, які займаються вивченням впливу факторів на ефективність освітнього процесу, інтерпретують їх по-різному. Також різною у всіх дослідженнях є й група факторів, що впливає у цій сфері. У зв'язку з цим постає

питання, яка група факторів є найбільш точною та насправді впливає на ефективність освітнього процесу. Проведено аналіз усіх груп факторів, що є в наявності на сьогоднішній день у наукових дослідженнях по цій темі. На основі проведеного аналізу оцінені, узагальнені та виділені в нову групу фактори, що впливають на ефективність освітнього процесу.

Наукова новизна. Головні особливості оригінальності та новизни наукових досліджень полягають у тому, що організації часто стикаються з проблемою втрати цінності знань, коли наявні знання не використовуються у процесі роботи або використовуються неефективно. Для вирішення цієї проблеми та забезпечення ефективного застосування знов набутих і вже існуючих знань у робочому процесі необхідно звернути увагу на відповідність структури та мікроклімату підприємства успішності використання знань. Для того, щоб процес використання знань на підприємстві почався плавно й ефективно, запропоновано виявити фактори, що мають найбільш сильний вплив на впровадження та використання нових знань. З цією метою в дослідженні використані нові методи складної оцінки факторів і сформована нова група.

Практична значимість. У ході проведення наукового дослідження були виявлені фактори, що впливають на ефективність освітнього процесу. Також була проведена оцінка цих факторів, що послужило основою для ідентифікації проблемних ділянок на підприємстві в галузі ефективного використання знань. Це дозволить приймати ефективні управлінські рішення та поліпшити процес використання знань на підприємствах.

Ключові слова: знання, застосування знань, оцінка, мотивація, компетентність

Цель. Оценить факторы, влияющие на эффективность применения полученных знаний на практике.

Результаты. Проведя анализ литературных источников и научных исследований, получены выводы о том, что ученые, занимающиеся изучением влияния факторов на эффективность образовательного процесса, интерпретируют их по-разному. Также разной во всех исследованиях является и группа факторов, которая оказывает влияние в этой сфере. В этой связи возникает вопрос, какая группа факторов является наиболее точной и в действительности оказывает влияние на эффективность образовательного процесса. Проведен анализ всех групп факторов, представленных в имеющихся на сегодняшний день научных исследованиях по этой теме. На основе проведенного анализа оценены, обобщены и выделены в новую группу факторы, которые оказывают влияние на эффективность образовательного процесса.

Научная новизна. Главные особенности оригинальности и новизны научных исследований заключаются в том, что организации часто сталкиваются с проблемой потери ценности знаний, когда имеющиеся знания не используются в процессе работы или используются неэффективно. Для решения этой пробле-

мы и обеспечения эффективного применения вновь приобретенных и уже существующих знаний в рабочем процессе необходимо обратить внимание на соответствие структуры и микроклимата предприятия успешности использования знаний. Для того, чтобы процесс использования знаний на предприятии начался плавно и эффективно, предложено выявить факторы, имеющие наиболее сильное влияние на внедрение и использование новых знаний. С этой целью в исследовании использованы новые методы сложной оценки факторов и сформирована новая группа.

Практическая значимость. В ходе проведения научного исследования были выявлены факторы, кото-

рые оказывают влияние на эффективность образовательного процесса. Также была проведена оценка этих факторов, которая послужила основой для идентификации проблемных участков на предприятии в области эффективного использования знаний. Это позволит принимать эффективные управленческие решения и улучшить процесс использования знаний на предприятиях.

Ключевые слова: знания, применение знаний, оценка, мотивация, компетентность

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STUDY OF SOCIAL MEDIA IMPLEMENTATION FOR TRANSFER OF KNOWLEDGE WITHIN EDUCATIONAL MILIEU

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ДОСЛІДЖЕННЯ ВИКОРИСТАННЯ СОЦІАЛЬНИХ МЕДІА-ЗАСОБІВ ДЛЯ ПЕРЕДАЧІ ЗНАНЬ В ОСВІТНЬОМУ СЕРЕДОВИЩІ

Purpose. To determine the ways of knowledge transfer within the educational milieu, and the influence of social media (social networks, wikis, blogs) on knowledge flow within students and lecturers, including peer to peer communication.

Methodology. We have carried out case analysis of knowledge transfer between students and faculty. The authors designed the profiles for the lecturers and students to explore the different ways of communications in modern educational environment and different ways of searching information.

Findings. The results show new ways of delivering knowledge to students as well as improving knowledge management tools and methodology. There appeared new tools to search and share knowledge thanks to web 2.0. Students as the advanced users of social media sometimes prefer to use this channel to get important information. There are new task for lecturer to support their students in social media.

Originality. We gave an adequate description of the phenomenon of modern development of information and communication technology in the educational milieu.

Practical value. The research results will be of a certain interest for the educational community all over the world and allow designing a new educational model.

Keywords: *academic knowledge, information and communications technology (ICT), knowledge communications, knowledge management*

Statement of the problem. It is well known that now we live in the information society. The main value

of which is information. All the processes in the information society are connected with information technologies. Communications technology has acquired a specific role in this type of the society. To live in a