

UDK: 368.032.1:60:35.073.511:011.92:621-34/-38:681.322:368.025.6:  
681.322.2(913.0)  
doi: 10.5937/tokosig1903035L

**Andela D. Lazarević, PhD<sup>1 2</sup>**

## KNOWLEDGE MANAGEMENT IN INSURANCE COMPANIES

REVIEW ARTICLE

### Summary

Modern business imposes the need for permanent improvement and enlargement of organizational knowledge, which results in a need to adopt formal mechanisms and tools to facilitate this process and make it efficient. As knowledge plays a decisive role in achieving the business goals in insurance companies, establishing adequate knowledge management can positively affect people, services, procedures and overall organizational functions. This paper shows a global research tendency of the introduction of knowledge management into insurance companies, but also points to the importance and role that insurance companies should dedicate to such knowledge in order to transform further the wealth of data and information they possess into applicable knowledge. The paper presents the basic knowledge management procedures, such as knowledge discovery, capture, storage, share and application that, together with appropriate knowledge management mechanisms and technologies, lead to long-term and systematic business improvements, prevent the loss of organizational knowledge and reduce work time. In these activities, support and active involvement of top-level management is a prerequisite for success.

**Key words:** *Organizational knowledge, knowledge management, knowledge management procedures, intellectual capital*

### I. Introduction

Risks can slow down or hinder a company from achieving its business goals. They are inevitable – it is not possible to make any profit without entering into a

<sup>1</sup> Senior Specialist for Standard and Quality, Quality Management System Service, Internal Audit, Internal Control and Compliance Function, Dunav Insurance Company,  
E-mail: andjela.lazarevic@dunav.com

<sup>2</sup> Associate Professor, Faculty of Mechanical Engineering, University of Niš,  
E-mail: andjela.lazarevic@masfak.ni.ac.rs

Paper received on: June 7 2019

Paper admitted on: July 24 2019

particular risk zone. Numerous multi-dimensional factors affect the risks and they change over time. They may be classified in different ways - there are financial and non-financial risks, internal and external, strategic, operational, market, political etc. Some risks can be managed, while others go beyond the framework in which strategic planning and adequate organizational management can prevent an adverse outcome.

During the eighties of the last century, Alvin Toffler pointed to a new, the third wave of significant civilization changes, defining a new era based on information and/or knowledge. We are in this era now. The era logically ensued from three waves that marked the transitions between nomadic and agricultural, agricultural and industrial and industrial and informational, respectively.<sup>3</sup> This indicates that the modern world changed the attitude towards knowledge; accordingly, there was a change in the decisions making and planning new business steps. The new era of knowledge brought about a need to manage new risk classes, shifting the focus from tangible to intangible assets or intangible capital management.

Insurance is an industry where knowledge plays a crucial role in achieving the business goals. Therefore, adopting a specific knowledge management strategy can be crucial for achieving and retaining the competitive edge of an insurance company over its competitors. On the other hand, improper knowledge management in insurance companies can lead to significant business losses, the consequences of which could pertain for years. Sometimes, such losses are irrecoverable.

Knowledge in insurance companies should be valued in order to get the most out of the existing one and/or allow for capturing new and enhancing the existing. Knowledge needs to be continually adapted to insurance needs, so the learning component must be integrated into systems of all insurance companies to ensure high service quality. Insurance is considered a most knowledge-based sector compared to all other financial services.<sup>4</sup> In this context, knowledge management is well on its way to become one of the integral business functions of a company, adding a new dimension to the company management.<sup>5</sup>

This paper shows the possibilities of introducing knowledge management into insurance companies, which calls for a preliminary understanding of its importance and a necessary role in any insurance company. In addition to reviewing the global tendencies of researching the knowledge management in insurance companies, the paper presents one of possible approaches to introducing knowledge management by defining and setting the basic processes: knowledge discovery, capture, storage, share and application. These procedures are then assigned appropriate knowledge management mechanisms and

<sup>3</sup> Alvin Toffler, *The third wave – the classic study of tomorrow*, Bantam Books, USA, 1980

<sup>4</sup> Vani N. Laturkar, Kulbir Singh, „Knowledge management in life insurance industry – evidence from India“, *International Research Journal of Agricultural Economics and Statistics*, Vol. 3, Issue 2, 2012, pp. 213-218

<sup>5</sup> Varun Grover, Thomas Davenport, „General perspectives on knowledge management: Fostering a research agenda“, *Journal: Management Information System*, Vol.18, Issue 1, 2001, pp. 5-21

technologies, the combination of which should lead to long-term and systemic business enhancement, prevent loss of organizational knowledge and reduce time for fulfilling the business tasks.

## **II. Earlier Research on Implementation and Use of Knowledge Management in Insurance**

Knowledge management possesses a credibility as both a scientific discipline and a professional practice, owing to well-developed theoretical and conceptual models.<sup>6</sup> A number of authors deal with knowledge management in insurance companies on the basis of preparation and completion, followed by analysis of specially structured questionnaires, in line with the purpose of the research. It is also important to note that studies of this type are mainly related to the insurance sector in Asia (India, in particular), as their insurance market has increased significantly in the recent decades, followed by an increased number of participants and, accordingly, an increased competitiveness. It is typical for most insurance companies in this territory to face a very low level of awareness of policyholders and potential policyholders on the importance of different types of insurance, as well as unsystematic approach to the introduction of knowledge management and monitoring the effects thereof. This is added to by a low level of employee awareness on the importance of knowledge and necessity of its management.

Laturkar and Singh<sup>7</sup> compare the knowledge management in the practice of private and state-owned insurance companies in India. Private companies, whose establishment at the beginning of this century discontinued the monopoly of state-owned companies, have shown greater flexibility in adopting knowledge management practices than the state-owned companies. The data obtained from the questionnaires filled in by employees of different insurance companies were analysed using statistical methods. They came up with the conclusion that both private and state-owned insurance companies assigned employees to collect and store data and information and update electronic databases. However, they noticed a lack of discovering and capturing new knowledge. Moreover, while they observed that state-owned insurance companies employ a large number of experts and possess significant, accumulated and accessible knowledge in the relevant area, there was no culture of sharing such knowledge. Private insurance companies encourage the knowledge share, in direct communication rather than through particular information and communication channels.

To address these issues, Garg and Punia<sup>8</sup> proposed to introduce High

---

<sup>6</sup> Bernard Marr, Oliver Gupta, Steven Pike, Goran Roos, "Intellectual capital and knowledge management", *Management decision*, Vol. 41, Issue 8, 2003

<sup>7</sup> V. N. Laturkar, K. Singh

<sup>8</sup> Naval Garg, Bijender Kumar Punia, „Developing high performance work system for Indian insurance industry“, *International Journal of Productivity and Performance Management*, Vol. 66 Issue: 3, 2017, pp.320-337

Performance Work Systems (HPWP) into insurance companies in India. The introduction of high performance systems is characterized by applying various management tactics to increase company's productivity and profit, enhance employee engagement, strengthen the trust of the Insured and their loyalty and/or increase the company's flexibility. Based on the collected data, the authors of this paper statistically select appropriate practices in order to investigate the components of model proposed for high performance system in the insurance sector. The final model consists of 17 practices that should help insurance companies achieve best performance of their employees. Applying these practices affects employee commitment, job satisfaction and satisfaction with the work-life balance, ensuring that employees understand their work is valued accordingly, which additionally motivates them.

Joshi et al<sup>9</sup> have further developed ways of potential introduction of knowledge management to gain a competitive edge in an example of Indian life insurance company. Two basic challenges facing insurance companies have been identified - the efforts to retain existing policyholders and the need to prevent employees from leaving for competing companies. As the observed company was aware that the management of knowledge about insured persons and employees is essential for the development of new services and the survival of the company, they found the way to integrate in into other systems of the company, as presented in the paper. Precisely, the paper presented systematic planning and implementation of knowledge management in the insurance company, showing the basic steps and examples of successful knowledge management for business improvement, with measurable results. It also presented the critical success factors of the implementation of knowledge management using additional data collected from various sources, irrespective of this case study.

In his research, Sun<sup>10</sup> tries to answer how organizational routines affect three knowledge management procedures: knowledge capture, share and application. The answer comes through a literature review and two separate case studies, one of which relates to a large insurance company. Organizational routines that affect the three knowledge management processes are systematized and placed in five different organizational contexts: systemic knowledge, strategic engagement, social networks (internal and external), cultural contexts and procedures and structural context. It was concluded that all these contexts together have a positive effect on the efficiency of knowledge in an organization.

Rashidi<sup>11</sup> deals with the management of knowledge on the Insured in Iran. Knowledge on the Insured is extremely important for insurance companies and

---

<sup>9</sup> Himanshu Joshi, Jamal A. Farooque, Deepak Chawla, „Use of Knowledge Management for Competitive Advantage: The Case Study of Max Life Insurance“, *Global Business Review*, Vol. 7, Issue 2, 2016, pp. 450-469

<sup>10</sup> Peter Sun, „Five critical knowledge management organizational themes“, *Journal of Knowledge Management*, Vol. 14, Issue 4, 2010, pp.507-523

<sup>11</sup> Maryam Rashidi, „Customer Knowledge Management in the Insurance Industry“, *Journal of Applied Environmental and Biological Sciences*, Vol. 5, Issue 10S, 2015, pp. 788-793

it comprises the understanding of the Insured, their needs, wishes and goals, essential for aligning the business processes, products and services. Managing knowledge on the insured is of strategic importance for the insurance companies that collect, create, share, understand and apply knowledge on the Insured to create value and profit for end users of services. The author states that managing knowledge on the Insured is one of the factors that enables insurance companies to stay competitive, so it is important to investigate its mechanisms. He notes that, while there is an awareness of the importance of managing knowledge on the Insured and their role, this is not usually covered by the business strategy of an insurance company. The activities related to the management of knowledge on the insured can hardly be characterized as planned, but rather deal with the resolution of current situations and problems. The websites of various insurance companies were monitored and analysed, and it was showed that these sites are not dynamic and do not provide companies with effective collection of information on the Insured. The paper provides a tool for determining the strengths and weaknesses of developing management of knowledge on the Insured in insurance companies.

Rad Aboyassin et al<sup>12</sup> investigate the advantages of the implementation of knowledge management principle for achieving the total quality management in the insurance sector in Jordan. They established a statistical model, analysing the data from the questionnaires by setting the factors related to knowledge management as independent variable and the factors related to total quality management as dependent variables. Correlation test, hypothesis test and analysis of variance (ANOVA) have shown that there is a significant influence of knowledge management factors on total quality management in the insurance sector, which means that insurance companies cannot expect to achieve a high level of service quality without adequate knowledge. The paper gave recommendations to that effect for further improvement.

Grant<sup>13</sup> specifically deals with employee networking and considers the behaviour and/or willingness of employees to accept social networking throughout the process related to insurance activities, with the aim of sharing knowledge and identifying current practices for implementing employee networking tools. To this end, data were collected through a social networking platform of an insurance company. An empirical analysis of these data has shown that the platform is used in different ways, either to create new knowledge or to use the existing one with different motives for making the choice. Discussions were often initiated or answers sought, but the communication was short, dynamic and informal, with different levels of detail, which again indicated a bit of reluctance to share the knowledge since individuals feared to lose their competitive advantage by so doing.

---

<sup>12</sup> Naser A. Aboyassin, Marwan Alnsour, Moayyad Alkloub, „Achieving total quality management using knowledge management practices: A field study at the Jordanian insurance sector“, *International Journal of Commerce and Management*, Vol. 21, Issue 4, 2011, pp. 394-409

<sup>13</sup> Susan B. Grant, „Classifying emerging knowledge sharing practices and some insights into antecedents to social networking: a case in insurance“, *Journal of Knowledge Management*, Vol. 20, Issue 5, 2016, pp. 898-917

### **III. The Importance of Knowledge, Learning and Intellectual Assets in Insurance Companies - How to Become a Learning Company?**

We can define knowledge in various ways, but it is most simple to say that it has a greater degree of complexity and significance than data and information. Knowledge is the information that is complex, relevant and placed into a context, can produce some action or lead to making a significant decision. Companies can categorize knowledge in different ways: explicit and tacit, declarative and procedural and general, technical-specific and context-specific knowledge.<sup>14</sup> Each of these classifications is independent so that, for example, some knowledge can be explicit declarative and technical-specific at the same time.

To understand the knowledge management process, it is most important to distinguish between explicit and tacit knowledge that Michael Polanyi first identified as a way of splitting the knowledge. Explicit knowledge is rational and can be expressed and explained in words and numbers. Unlike explicit, tacit knowledge is personal, subjective and difficult to formalize and communicate to others, but deeply rooted in the activities and commitment of individuals to a specific context.

Since knowledge plays a decisive role in achieving the set business goals of insurance companies, these companies seek to translate, in various ways, the wealth of data and information they possess into useful knowledge. Such knowledge need to be organized and accessible, whether or not the company will need it at some point. In any case, it represents a part of intangible assets of a company and may include, among other things, various information, trade secrets, software codes, brands, expertise, confidential information, patents, licenses, etc. Unfortunately, companies are often not enough aware of knowledge as their key resource, so sometimes they overlook some significant opportunities or risks.<sup>15</sup> Although the value created by intangible assets is often not represented in financial statements, the understanding thereof is important for the value creation process in insurance companies.

The term intellectual capital facilitates the connection between these valuable non-material resources gained through experience and learning and the acquisition of a specific benefit for the organization. The term became globally popular in the 1990s, when Thomas Stewart published a series of papers in the *Fortuna Magazine*, starting with *The Power of the Brain: How Intellectual Capital Becomes America's Greatest Value*. It is considered that this paper helped increase a number of directors who organized themselves to compete and create value for the organization. Stewart explains intellectual capital as a set of all the knowledge in an organization that provides the organization with a competitive edge in the market.

---

<sup>14</sup> Anđela Lazarević, Nebojša Dabić, Knowledge Management, Faculty of Mechanical Engineering, University of Niš, Niš, 2018no

<sup>15</sup> M. Bernard, O. Gupta, S. Pike, G. Roos

The term intellectual capital facilitates the connection between these valuable non-material resources captured through experience and learning, and the creation of a specific benefit to the organization. This term has gained a widespread popularity in the 1990s, when Thomas Stewart published a series of papers in the *Fortuna Magazine*, starting with the paper titled: *The Power of the Brain: How Intellectual Capital Becomes America's Greatest Value*. This paper is thought to have helped to increase the number of executives organized to compete and create value for the organization. Stewart explains the intellectual capital as a set of all the knowledge in an organization that provides a competitive edge in the market.<sup>16</sup>

Successful management of intellectual capital closely relates to the processes of knowledge management in an organization, so successful implementation and use of knowledge management ensures the identification and growth of intellectual capital. Management of intellectual capital comprises<sup>17 18</sup> the following:

- Identification of key sources of intellectual capital that affect the strategic performance of the organization;
- Understanding the value creation processes in the organization that leads to increased satisfaction of users of services and products, employees and other stakeholders;
- Establishing indicators and measuring performance to determine whether the organization is successful in achieving its goals;
- Nurturing the current intellectual capital through the knowledge management process;
- Internal and external reporting on achieved improvements in the business reached through managing intellectual capital:

The above shows that the ability of an organization to reach a particular degree of performance depends on both the knowledge of individuals and organization. Therefore, an organization that has a dynamic relation with its ever-changing environment should not only process information effectively, but generate new information and knowledge,<sup>19 20 21</sup> that is, become a learning organization. For a learning organization, knowledge has become the primary means of development and competitiveness in the market, affirming the importance and need of continuing professional learning, which can only lead to continuous improvement

The organizational performance is improved by understanding, forecasting and directing people's behaviour in organizations. This is the subject of applied

---

<sup>16</sup> A. Lazarević, N. Dabić

<sup>17</sup> M. Bernard, O. Gupta, S. Pike, G. Roos

<sup>18</sup> Ikujiro Nonaka, Hirotaka Takeuchi, *The Knowledge Creating Company*, Oxford University Press, New York, 1995

<sup>19</sup> Irma B. Fernandez, Rajiv Sabherwal, *Knowledge Management Systems and Processes*, M.E. Sharpe Inc., New York, 2010

<sup>20</sup> Andrew N. K. Chen, Theresa M. Edgington, „Assessing Value in Organizational Knowledge Creation: Considerations for Knowledge Workers“, *MIS Quarterly*, Vol. 29, Issue 2, 2005, pp. 279-309

<sup>21</sup> Štefan Ivanko, *Modern theory of organization*, Faculty of public administration, University of Ljubljana, 2013

scientific discipline of organizational behaviour. The term organizational behaviour links to the famous Hawthorne trial and the focus is on how individual, group and organizational factors influence human behaviour to improve organizational efficiency and employee satisfaction.<sup>22 23 24</sup> Namely, a person responds to the environment by certain behaviour and the task of the manager is to direct this behaviour so as to ensure the achievement of goals of the organization as well as the individual goals of the employees, in order to repeat the desired behaviour in the future. Studying organizational behaviour allows people gain competencies they need to be successful workers, team leaders or executives, depending on their role in the organization. It provides an opportunity to understand human nature and predict employee behaviour in particular situations, but also provides insight into the way the organizational environment affects the employee behaviour. We can monitor the effects of employee behaviour through their satisfaction, productivity, absenteeism and fluctuations.<sup>25 26</sup>

Targeted improvement of business processes in an organization leads to the development of organizational knowledge. In this regard, various process improvement techniques and methodologies are applied to maximize organizational performance, such as Six Sigma, lean, total quality management and business process reengineering.<sup>27</sup> Six Sigma and lean are different methodologies for process improvement, one focused on reducing statistical indicators such as error and variance and the other on eliminating activities that do not contribute to end-user value creation. Total quality management should also contribute to the improvement of the process by establishing internal guidelines and standards that reduce the possibility of error. Business process reengineering, unlike others, is a methodology that needs to change business processes fundamentally to make them more efficient and modern.

We should distinguish between the meaning of the learning organization and organizational learning, since the concept of learning organization is far broader than organizational learning. Specifically, while organizational learning deals with learning processes in an organization, the learning organization is focused on how the organization learns. In such organization, employees are constantly expanding their capacities to generate knowledge and achieve desired results, different ways of thinking are supported, employees learn how to work and learn together and the organization increases their innovation and problem solving capacity.<sup>28</sup>

---

<sup>22</sup> Nebojša Janićijević, *Organizaciono ponašanje*, Data Status, 2008

<sup>23</sup> Melissa M. Appleyard, „How does knowledge flow? Interfirm patterns in the semiconductor industry”, *Strategic Management Journal*, Issue 17 (Winter Special Issue), 1996, pp. 137-154

<sup>24</sup> Haridimos Tsukas, „The firm as a distributed knowledge system: A constructionist approach”, *Strategic Management Journal*, Issue 17 (Winter), 1996, pp. 11-25

<sup>25</sup> Nebojša Janićijević, *Organizaciono ponašanje*, (Organizational Behaviour) Data Status, 2008

<sup>26</sup> Melissa M. Appleyard, „How does knowledge flow? Interfirm patterns in the semiconductor industry”, *Strategic Management Journal*, Issue 17 (Winter Special Issue), 1996, pp. 137-154

<sup>27</sup> Kevin Linderman, Roger G. Schroeder, Janine Sanders, „A Knowledge Framework Underlying Process Management”, *Decision Sciences*, Vol. 41, Issue 4, 2010, pp. 689-719

<sup>28</sup> Olav Sorenson, „Interdependence and Adaptability: Organizational Learning and the Long-Term Effect of Integration”, *Management Science*, Vol. 49, Issue 4, 2003, pp. 446-463



A problem that insurance companies often face is ineffective and inadequate training programs for larger groups of employees, which causes insufficient application of the new captured knowledge, in spite of a need for it. In such situations, an individualized approach allows each individual to access a wide range of educational and learning opportunities in the organization and thus, with their knowledge, affects the organization.<sup>29 30</sup> In addition to the tailor-made and planned development programs/trainings for employees in an organization, learning can take place through self-directed and group activities. We found that as much as 90% of organizational learning activities do not take place deliberately but randomly, providing the employees who perform similar jobs with different opinions and practices.<sup>31</sup> This is why a successful learning organization is deemed the one that can attract and retain the most talented individuals and motivate them to capture and share knowledge in order to gain and keep professional skills. In this case, the employees create value for the organization through their ideas and analyse or contribute to the organization with their knowledge in a specific area.

It is very difficult to capture and systematize the characteristics of a learning organization, especially in the case of insurance companies, where knowledge is essential for maintaining competitive edge and surviving in the insurance market; however, it is possible to distinguish the following characteristics:<sup>32</sup>

- The ability of the insurance company to adapt to a dynamic environment;
- A sense of belonging and/or personal and collective responsibility;
- Acceptance of the inevitability of change;
- Understanding and acceptance of individual and collective mistakes and success;
- Fostering interpersonal relationships with prevailing dialogue and mutual respect and trust;
- Dealing with problems with a responsible approach, analysing the situation and finding the adequate solutions;
- Greater focus on organizational than individual learning processes;
- Mechanism that is formalized and functionally embedded in the hierarchical structure, that deals with learning problems of the insurance company as a whole and its individual parts in a systematic and continuous way;
- Valuing self-learning skills as key personal skills.

Executives are responsible for creating learning opportunities throughout the organization, because it is not enough only to recognize the value of the accumulated knowledge, but manage it accordingly. Knowledge management involves establishing a learning culture where employees systematically capture and share knowledge with others to achieve better performance and results.

---

<sup>29</sup> Kristinka Ovesni, *Organizacija koja uči: andragoška perspektiva*, Institute of Pedagogy and Andragogy, Belgrade, 2014.

<sup>30</sup> Judith Matthews, Philip Candy, *New dimensions in the dynamics of learning and knowledge, Understanding learning at work*, Routledge, London, 1983.

<sup>31</sup> Radivoje Kulić, Miomir Despotović, *Uvod u andragogiju*, Svet knjige, Beograd 2005.

<sup>32</sup> Ibid.

## **IV. Knowledge Management in Contemporary Organizations**

Davenport and Prusak found that introduction of most knowledge management activities are driven by one of three goals: to make knowledge visible and understand its role in the organization, to develop a culture that encourages knowledge share in the organization and build a proper infrastructure that supports knowledge, not only as a technical system but as a network connecting people at a particular moment at a particular location, which should foster their interaction and cooperation.<sup>33</sup> Although all three goals are significant, the third one is crucial for insurance companies, because without channelling interactions at all levels it is not possible to integrate knowledge management into a number of functions of an insurance company. Although the use of the term knowledge management began only in the late 1960s and early 1970s, the concept associated with that term has been present for a long time, through a number of fields and disciplines dealing with knowledge, intelligence, innovation, change and learning in organizations and organizational memory. Different management approaches and scientific disciplines have been involved in the development of knowledge management, so that in addition to appearing in considerations of psychology, pedagogy, andragogy and sociology, its most significant effects and achievements have been determined in organizational sciences, human resources management, computer science and information systems management.<sup>34 35</sup>

Knowledge management is an area that relies on practice, so it focuses on the business problems of a particular organization, regardless of its activity. However, because of the position of knowledge in insurance companies, it can be the key to their success and survival. Moreover, the technology advancements gave insurance companies the opportunity to use a large number of tools that rely on different information and communication technologies to successfully implement knowledge management into their processes.

However, despite the great importance of information and communication technologies, the challenges of knowledge management are generally non-technical. Among them, the following circumstances may act as a destimulating to knowledge management in an insurance company:<sup>36</sup>

- Employees do not have time to manage knowledge;
- Organizational culture does not encourage knowledge share;
- Inadequate understanding of knowledge management and the benefits it brings to the organization;
- Inability to measure financial gain from knowledge management.

In the context of intellectual capital, knowledge management can also be defined as a set of procedures and practices that organizations use to increase value through the more effective generation and use of intellectual capital. However, the

---

<sup>33</sup> Maryam Alavi, Dorothy Leidner, „Knowledge management and knowledge management systems: Conceptual foundations and research issues“, *MIS Quarterly*, Vol. 25, Issue 1, 2001, pp. 107–136

<sup>34</sup> A. Lazarević, N. Dabić

<sup>35</sup> Nedeljko Trnavac, Jovan Đorđević, *Pedagogija*, Naučna knjiga, Beograd, 1998

<sup>36</sup> I. B. Fernandez, R. Sabherwal

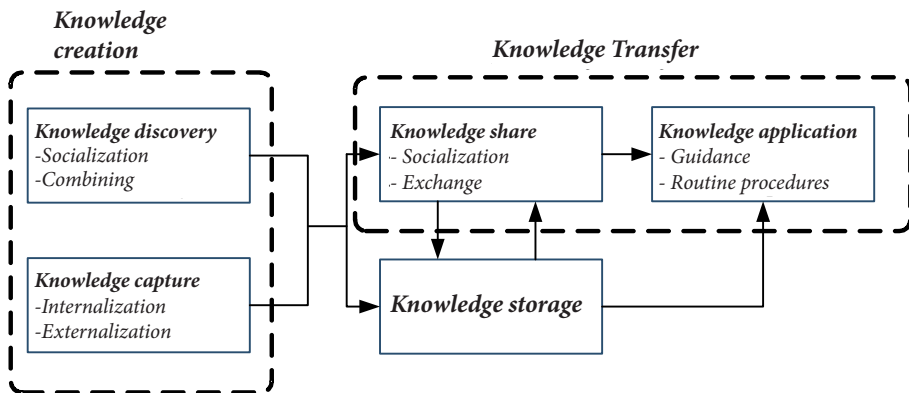
organizations invest in knowledge management either to acquire a temporary advantage in terms of enhancing their efficiency or effectiveness, or to reduce the competitive edge of other organizations.<sup>37</sup>

A more general definition of knowledge management refers to knowledge as a key business resource in an organization. Since managing any resource involves doing whatever it takes to get the most out of it, knowledge management can be defined as carrying out activities to strengthen, in a cost-effective way, the impact of knowledge on fulfilling the goals of the organization.<sup>38</sup>

### 1. Knowledge Management Processes in Insurance Company

Many authors dealing with knowledge management theory study organizational knowledge by developing practical models to support and manage the processes of knowledge capture, storage and transfer with a special accent on the basic concepts of organizational knowledge creation theory, given by Nonaka (theory of organizational knowledge creation).<sup>39</sup> Figure 1 shows the basic knowledge management processes and sub processes, that base upon on a modified knowledge management concept established by Becerra-Fernandez and Sabherwal.<sup>40</sup>

Figure 1. Knowledge management processes and sub-processes



The figure shows that knowledge creation involves two knowledge management processes: knowledge discovery and knowledge capture.<sup>41</sup> The sub-processes of knowledge discovery comprise socialization and combining while the

<sup>37</sup> M. Bernard, O. Gupta, S. Pike, G. Roos

<sup>38</sup> I. B. Fernandez, R. Sabherwal

<sup>39</sup> I. Nonaka, H. Takeuchi

<sup>40</sup> I. B. Fernandez, R. Sabherwal

<sup>41</sup> I. Nonaka, H. Takeuchi

sub-processes of knowledge capture comprise internalization and externalization.<sup>42</sup> Knowledge storage is a key process that enables knowledge management in the sense that only knowledge that is appropriately maintained and stored can be transferred, when needed, and reused and enlarged. Knowledge transfer involves two processes of knowledge management: knowledge share and knowledge application.<sup>44 45 46</sup> The knowledge share involves socialization and exchange, while the knowledge application relates to guidance and routine procedures.

Knowledge creation can be seen as the first step in a knowledge management cycle, during which certain approaches, techniques and tools are most commonly used to master tacit knowledge and initiate the creation of new content or replacing the existing (explicit) and then organize (codify) this content in a systematic way. In learning organizations, knowledge creation is continuous and at all organizational levels.

In the process of knowledge creation, a distinction should be made between discovering new and capturing existing knowledge. In most organizations, explicit or already identified, organized and coded knowledge typically represents only 5% of the total organizational knowledge.<sup>47</sup> Some knowledge is known to exist in an organization and can be captured, some have yet to be discovered, and some are known to be in the organization.

With the knowledge creation process, one should distinguish between the discovery of new and capture of existing knowledge. The discovery of new explicit knowledge relies mainly on combining, while the discovery of new tacit knowledge takes place through socialization. In both cases, new knowledge is acquired by the synthesis of knowledge, with explicit knowledge from two or more areas synthesized through combining and tacit knowledge from two or more areas synthesized through socialization.<sup>48</sup> By this combinations, employees of insurance company prepare an annual report based on quarterly reports. A brief consultation through an informal interview with a colleague in the corridor about a problem related to the application of a tariff that led to the solution of the problem is an example of the actual socialization.

Sometimes, an individual can possess a particular knowledge but is not aware of it, in the sense that he can recognize and share it with others. Moreover, knowledge can exist in an explicit form without individuals being aware of it. The knowledge capture is the process of retrieving any explicit or tacit knowledge that already exists in individuals, documents, or organizational units. Moreover, this kind

---

<sup>42</sup> Ibid.

<sup>43</sup> I. B. Fernandez, R. Sabherwal

<sup>44</sup> Ibid.

<sup>45</sup> A. Lazarević, N. Dabić

<sup>46</sup> Sheng Nian Wang, Raymond A. Noe, „Knowledge sharing: a review and directions for future research”, *Human Resource Management Review*, Vol. 20 No. 2, 2010, pp. 115-131

<sup>47</sup> Kamiz Dalkir, *Knowledge management in theory and practice*, Elsevier, USA, 2005

<sup>48</sup> I. B. Fernandez, R. Sabherwal

of knowledge may exist beyond the organizational boundaries, with consultants, competitors, policyholders and former employees.<sup>49</sup>

The simplest example of internalization is learning about a process in an insurance company by reading the instructions from the documents of quality management system that relate to this process. Individuals also share perceptions and together interpret the information, events and experience, so that at one point they create a knowledge transcending individuals and is encoded in organizational memory.

Externalization can be considered the most challenging sub-process of knowledge management, because it refers to the process of gaining experience and expertise of individuals by their conversion into explicit knowledge. When knowledge becomes explicit, it should be organized in a structured way to be suitable for multi-purpose use. The ways in which tacit knowledge can be outsourced range from simple graphical representation to sophisticated mathematical models. When employees of an insurance company who participated in a project, upon completion of the project, discuss and write down the lessons learned during the project implementation, this is exactly the said sub-process of knowledge management.

The next process of knowledge management is knowledge storage i.e. the formation of organizational memory whereby knowledge is formally stored, using different conceptual models, in the physical memory of the system, and informally retained in the form of values, rules and beliefs that are linked to the organizational culture and structure.<sup>50 51</sup>

To understand the data storage procedure, one needs to understand the concept of organizational memory that each organization possesses. Organizational memory is a depot of knowledge and skills that keeps perceptions and experience over a long period, so that they can be retrieved later at any time. In this way, knowledge is made available to other employees of the organization without interacting with the person who initially possessed that knowledge. Organizational memory should be large enough to prevent the knowledge and expertise disappearing from the organization. It is also very important to decide what knowledge and how to store as well as update regularly.<sup>52</sup> The insurance companies always have knowledge depots and various corporate portals and precisely their updates, upgrades and developments are the precondition for ability of the organization to retain knowledge that significantly affects their results and/or the ability to protect effectively the organization from the side effects of employees leaving the company. However, organizations lose much of their knowledge on a daily basis due to the lack of maintenance mechanisms

---

<sup>49</sup> I. B. Fernandez, R. Sabherwal

<sup>50</sup> Dominguez Gonzalez, Manoel Fernando Martins, „Knowledge Management Process: a theoretical-conceptual research“, *Gest. Prod., São Carlos*, Vol. 24, No. 2, 2017, pp. 248-265

<sup>51</sup> Atreyi Kankanhalli, Boon Yeow Tan, Kwok Kee Wei, “Contributing Knowledge to Electronic Knowledge Repositories: An Empirical Investigation“, *MIS Quarterly*, Vol. 29, Issue 1, 2005, pp. 113-143

<sup>52</sup> A. Lazarević, N. Dabić

and much of this knowledge is maintained only at the level of individuals. For rich and functional organizational memory, it is necessary to install a link between the individuals who create knowledge and knowledge depots in the organization.

The central activity of any successful knowledge-creating organization is to make the knowledge of the individual or group accessible, so organizations must consider how to transfer expertise and knowledge from experts to those who need such knowledge, when necessary. In spite of the fact that the employees are very often reluctant to make their knowledge accessible to others, the knowledge that is shared between employees is more useful to the organization than those remaining at the individual level.<sup>53</sup> Therefore, one of the biggest challenges of non-technical knowledge management is how to make people participate in the knowledge share, because individuals are afraid that if they share their knowledge, others will benefit from it and they will harm themselves. This is primarily due to an inadequate understanding of knowledge management and its importance for the organization, when the existing organizational culture does not support the knowledge share and employees do not have time to devote to it.<sup>54</sup>

A knowledge resource that exists in an organization but at a location other than needed can be used by sharing or using without share. Knowledge share is the procedure where knowledge in various forms is shared amongst individuals, groups or organizations. Through this procedure, explicit or tacit knowledge is made available to other employees of the organization and it is very important to preserve its heritage, learn new techniques, solve problems, develop key competencies and ultimately achieve competitive edge. Knowledge share refers to the effective knowledge transfer, so the recipient can understand it well enough to use it. What is shared in this procedure is knowledge, not the use recommendations. Knowledge share is a procedure significant for the innovation and work performance of an organization and is supported by the sub-processes of socialization and exchange.<sup>55</sup> Socialization is a sub-process common to the knowledge discovery and knowledge share. Knowledge exchange, as opposed to socialization, focuses on the share of explicit knowledge. In essence, the procedure of explicit knowledge share is not much different from the procedure by which information and knowledge are shared in communication.<sup>56</sup>

When applying knowledge, the party who uses it does not necessarily need to understand it. All that is needed is to apply the knowledge in such a way that it gives useful instructions for decision-making and taking actions in a specific context.<sup>57</sup> <sup>58</sup> The application of knowledge is supported by two sub-processes:

---

<sup>53</sup> Sajjad. M. Jasimuddin, „An Integration of Knowledge Transfer and Knowledge Storage: An Holistic Approach“, *GESTS Int'l Trans. Computer Science and Engr.*, Vol.18, No.1 37, 2005

<sup>54</sup> A. N. K. Chen, T. M. Edgington

<sup>55</sup> A. Lazarević, N. Dabić

<sup>56</sup> I. B. Fernandez, R. Sabherwal

<sup>57</sup> Ibid.

<sup>58</sup> Robin S. Poston, Cheri Speier, „Effective Use of Knowledge Management Systems: A Process Model of Content Ratings and Credibility Indicators“, *MIS Quarterly*, Vol. 29, Issue 2, 2005, pp. 221-244

guidance and routine processes. Guidance is the process during which an individual who possesses the knowledge provides guidance on how to act in a particular situation without transferring his knowledge through which the guidelines were created, so there are no problems that arise when sharing tacit knowledge. The application of knowledge contained in procedures, rules, norms and technologies that determine future behaviour is reflected in routine procedures. The availability of knowledge included in routines is greater and simpler, but it takes considerably longer to develop and produce. A significant advantage of implementing routines is that they can be easily automated using the information technologies. An example of routine processes in an insurance company might be all processes defined by binding internal procedures, such as selling a policy of an insurance line.

In modern technological environment, knowledge management systems mainly rest upon information and communication technologies and are developed to support organizational knowledge management processes.<sup>59 60</sup> Along with development of information technology, significant changes occurred in the field of knowledge management. Information technologies accelerate the creation of knowledge and facilitate its share and application, that is, they represent a significant catalyst in this innovative field. They allow the circulation of information at increased speed and efficiency and are a major driver of establishing and implementing knowledge management system. With knowledge in the field of social and structural mechanisms increasing over time, it became possible to develop knowledge management systems that make best use of these advanced mechanisms with the help of sophisticated technologies.

However, in addition to technologies, knowledge management mechanisms are necessary for the effective and efficient implementation of the knowledge management procedure. Knowledge management mechanisms include a kind of organizational arrangement or social or structural means that facilitate knowledge management, and may, but not necessarily, include the use of technologies. For example, organizing meetings, various trainings and debates, as well as establishing professional communities are widely present knowledge management mechanisms.

For the proper use of knowledge management mechanisms and technologies, it is important to recognize how they affect each other and achieve an appropriate balance between technologies and social or structural mechanisms. Knowledge management systems are in fact the integration of knowledge management mechanisms and technologies in a way that supports knowledge management processes. Namely, they use a combination of different knowledge management mechanisms and technologies, whereby the same mechanisms and technologies, under different circumstances, can support a number of different knowledge management systems.<sup>61</sup> Development and creation of new knowledge

---

<sup>59</sup> A. Lazarević, N. Dabić

<sup>60</sup> I. B. Fernandez, R. Sabherwal

<sup>61</sup> I. B. Fernandez, R. Sabherwal

management mechanisms and technologies should be consistent with the processes most adequate for the organizational environment.

We should view the processes and systems bearing in mind their interactions / in this way, the organization can develop a portfolio of complementary processes and knowledge management systems over time. This requires the involvement of top-level management, the existence of a long-term knowledge management strategy in an insurance company, an understanding of synergy as well as common functions in different knowledge management procedures and systems.

## **V. Conclusion**

In order to survive in a knowledge-based society, insurance companies must strive to become learning organizations and follow the goals of continuous development and enhancement of the knowledge they possess. In this sense, knowledge management is a tool that enables organizations to systematically store, maintain and enhance organizational knowledge. Knowledge management is precisely the answer to the question how organizational knowledge develops, moving from the individual knowledge to collective consciousness, what it comprises and how this knowledge is valued. Finding an adequate way to measure knowledge in a company represents a special challenge, as well as monitoring its improvement and enhancement, that is, developing in quantitative and qualitative terms. In insurance companies, there is often resistance to the introduction of knowledge management, so it is first necessary to clearly communicate the motive and needs of knowledge management in the organization and then identify the main constraints and bottlenecks that impede the effective share and application of knowledge.

It is well known that knowledge directly contributes to the performance of an organization, when used to make meaningful decisions and fulfil tasks. This process depends on the availability and usability of knowledge and knowledge alone depends on the process of knowledge discovery, capture and share. The more effective these processes are, the more likely it is that the required knowledge will be available for adequate application in decision-making and task fulfilment. Finally, it is important how the knowledge is allied as this saves time and minimizes the possibility of making an error, the process usually being routine.

The advancement of technologies and availability of information and communication channels and tools are of utmost importance for knowledge management and although their implementation is not necessary, they make an integral part of any modern and effective knowledge management system. IT is a part of the knowledge management infrastructure that provides direct support to various mechanisms and technologies that further support some of



the knowledge management processes through the formation of knowledge management systems. The choice of mechanisms and technologies to be applied in a knowledge management system depends on appropriate infrastructure available to the organization. It is up to the organization, in accordance with its needs and capabilities, to choose which knowledge management processes to implement, which to prioritize and where to allocate resources to establish a particular knowledge management system faster and more effectively. It should be borne in mind that while different knowledge management procedures may be considered appropriate for particular organizational business strategies, focusing on only one process is not desirable, as different knowledge management processes often serve complementary goals.

Knowledge management can be facilitated by the introduction of specialized structures or the assignment of roles in an insurance company. It is possible to include into the job specification a position that will be in charge only of knowledge management tasks and everything related to organizational knowledge (Chief Knowledge Officer), even create a knowledge management service or the entire department. It is also possible to include into traditional organizational units, such as the R&D department, a unit with knowledge management responsibilities of the insurance company.

### **Literature**

- Toffler, A., *The third wave – the classic study of tomorrow*, Bantam Books, USA, 1980, ISBN-10: 9780553246988
- Laturkar, V. N., Singh, K., „Knowledge management in life insurance industry – evidence from India“, *International Research Journal of Agricultural Economics and Statistics*, Vol. 3, Issue 2, 2012, pp. 213-218
- Grover, V., Davenport, T., „General perspectives on knowledge management: Fostering a research agenda“, *Journal: Management Information System*, Vol.18, Issue 1, 2001, pp. 5-21
- Marr, B., Gupta, O., Pike, S., Roos, G., „Intellectual capital and knowledge management“, *Management decision*, Vol. 41, Issue 8, 2003
- Garg, N., Punia, B. K., „Developing high performance work system for Indian insurance industry“, *International Journal of Productivity and Performance Management*, Vol. 66 Issue: 3, 2017, pp.320-337
- Joshi, H., Farooque, J. A., Chawla, D., „Use of Knowledge Management for Competitive Advantage: The Case Study of Max Life Insurance“, *Global Business Review*, Vol. 7, Issue 2, 2016, pp. 450-469
- Sun, P., „Five critical knowledge management organizational themes“, *Journal of Knowledge Management*, Vol. 14, Issue 4, 2010, pp.507-523
- Rashidi, M., „Customer Knowledge Management in the Insurance Industry“, *Journal of Applied Environmental and Biological Sciences*, Vol. 5, Issue 105, 2015, pp. 788-793

- Aboyyassin, N. A., Alnsour, M., Alkloub, M., „Achieving total quality management using knowledge management practices: A field study at the Jordanian insurance sector“, *International Journal of Commerce and Management*, Vol. 21, Issue 4, 2011, pp.394-409
- Grant, S. B., „Classifying emerging knowledge sharing practices and some insights into antecedents to social networking: a case in insurance“, *Journal of Knowledge Management*, Vol. 20, Issue 5, 2016, pp.898-917
- Lazarević, A., Dabić, N., *Menadžment znanja*, Faculty of Mechanical Engineering, University of Niš, Niš, 2018
- Nonaka, I., Takeuchi, H., *The Knowledge Creating Company*, Oxford University Press, New York, 1995
- Fernandez, I. B., Sabherwal, R., *Knowledge Management Systems and Processes*, M.E. Sharpe Inc., New York, 2010
- Chen, A. N. K., Edgington, T. M., „Assessing Value in Organizational Knowledge Creation: Considerations for Knowledge Workers“, *MIS Quarterly*, Vol. 29, Issue 2, 2005, pp. 279-309
- Ivanko, Š., *Modern theory of organization*, Faculty of public administration, University of Ljubljana, 2013
- Barnett, W. P., Greve, H. R., Park, D. Y., „An evolutionary model of organizational performance“, *Strategic Management Journal*, Issue 15 (Winter), 1994, pp. 11-28
- Tsukas, H., „The firm as a distributed knowledge system: A constructionist approach“, *Strategic Management Journal*, Issue 17 (Winter), 1996, pp. 11-25
- Jančićević, N., *Organizaciono ponašanje*, Data Status, 2008
- Appleyard, M. M., „How does knowledge flow? Interfirm patterns in the semiconductor industry“, *Strategic Management Journal*, Issue 17 (Winter Special Issue), 1996, pp. 137-154
- Linderman, K., Schroeder, R. G., Sanders, J., „A Knowledge Framework Underlying Process Management“, *Decision Sciences*, Vol. 41, Issue 4, 2010, pp. 689–719
- Sorenson, O., „Interdependence and Adaptability: Organizational Learning and the Long-Term Effect of Integration“, *Management Science*, Vol. 49, Issue 4, 2003, pp. 446–463
- Ovesni, K., *Organizacija koja uči: andragoška perspektiva*, Institute of Pedagogy and Andragogy, Belgrade, 2014
- Matthews, J., Candy, P., *New dimensions in the dynamics of learning and knowledge, Understanding learning at work*, Routledge, London, 1983
- Kulić, R., Despotović, M., *Uvod u andragogiju*, Svet knjige, Beograd 2005.
- Alavi, M., Leidner, D., „Knowledge management and knowledge management systems: Conceptual foundations and research issues“, *MIS Quarterly*, Vol. 25, Issue 1, 2001, pp. 107–136
- Trnavac, N., Đorđević, J., *Pedagogija*, Naučna knjiga, Beograd, 1998
- Wang, S., Noe, M. M., „Knowledge sharing: a review and directions for future research“, *Human Resource Management Review*, Vol. 20 No. 2, 2010, pp. 115-131
- Dalkir, K., *Knowledge management in theory and practice*, Elsevier, USA, 2005
- Gonzalez, D., Martins, M. F., „Knowledge Management Process: a theoretical-conceptual research“, *Gest. Prod., São Carlos*, Vol. 24, No. 2, 2017, pp. 248-265
- Kankanhalli, A., Tan, B. Y., Wei, B. Y., „Contributing Knowledge to Electronic Knowledge Repositories: An Empirical Investigation“, *MIS Quarterly*, Vol. 29, Issue 1, 2005, pp. 113-143

- Jasimuddin, S. M., „An Integration of Knowledge Transfer and Knowledge Storage: An Holistic Approach”, *GESTS Int'l Trans. Computer Science and Engr.*, Vol.18, No.1 37, 2005
- Poston, R. S., Speier, C., „Effective Use of Knowledge Management Systems: A Process Model of Content Ratings and Credibility Indicators”, *MIS Quarterly*, Vol. 29, Issue 2, 2005, pp. 221-244.

*Translated by: **Bojana Papović***