

Information technology in Knowledge Management as a facilitator for enhancing potential of the enterprise

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Abstract In this paper it is defined the place of information technologies in knowledge management process, analyzed the concept of information potential problems in the light of knowledge management, formed the relationship between location, accumulation and exchange of knowledge and the growth of the potential of the company.

Keywords - Potential, information potential, knowledge, knowledge management, information technologies.

Information potential as an element of accumulation of knowledge and its subsequent use, was observed by Ukrainian scientists O.S. Fedonina, I. Repin, O. Oleksiuk, O. Kuntsevych and others. It should be noted that the question of impact of information potential and gained knowledge on the economic potential of enterprises, haven't received an adequate coverage and require further research.

I INTRODUCTION

Today's economic realities are characterized by rapid changes in demand, supply, dynamic market environment, high competition and accelerated globalization. It occurs indirectly through the freedom of information society, access to quality information and knowledge. At the same time the company must be ready to accept a large array of knowledge, their conversion and use for the purpose of ensuring sustainable competitive advantage in the market. The knowledge becomes the driving force behind the development of the enterprise and its stability under high dynamic market environment and allows to get unique features for consumers. Therefore, capability in the light of heritage preservation, processing and sharing information, knowledge becomes an important step in achieving and enhancing competitiveness. It is no doubt that the acquisition of knowledge in the volume and quality that the market demands, impossible without the use of information technologies in every aspect of business.

Scientists, among which should be marked out I. Ansoff, P.F. Drucker, P.H.J. Hendriks, D.J. Vriens, C.W. Holsapple, K.D. Joshi, F.J. Mata, W.L. Fuerst, J. Barney, W. Dehning, T. Stratopoulos, A. Bharadwaj, JW Ross, C. Mathis Beath, D. Goodhue, M. Dale Stoel, Waleed A. Muhanna and others., define information and knowledge as factors improving efficiency of the enterprise and the foundation to achieve its sustainable competitive advantage.

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II RESEARCH RESULTS

In post-industrial world, knowledge becomes an important source of competitive advantage. For Ukraine, the importance of quality and reliable information and quality of knowledge management is becoming more necessary due to rapid scientific and technological progress, market saturation and increased competition. The need to obtain, store and transfer of knowledge has become an activator of information technologies. From the other side development of information technologies has led to the availability of different types of information and knowledge and increased the possibilities of joint work units, workgroups, online communications, development of databases, internal networks, allowing companies provide products and services of better quality and thus achieve competitive advantage and improve profitability. Therefore, information and knowledge that are available through information systems become the resources and factors of production.

The process of creating knowledge, their accumulation and management, were highlighted in the specific function of the company – management knowledge. The main activities of knowledge management: knowledge creation, accumulation of large arrays of knowledge exchange and sharing of knowledge [6]. Each of the aspects requires the development of information technologies, intellectual abilities as a resource for quality work with knowledge. The development, update and prospects of information systems usage, innovative technologies, different types of information, useful to separate out into information potential of enterprise that is based on IT assets (resources, intellectual abilities, connections).

In the Ukrainian scientific journals there are several approaches to defining the essence of a category information potential. O.S. Fedonin defines it as the unity of organizational and technical capabilities and information, providing admission and acceptance of administrative decisions affecting the character of the production through the collection, accumulation, processing and dissemination of information resources [4]. According to another source, the

information potential is defined as an access to an adequate amount of information that affects management decisions [3].

According to M. Dale Stoel, Waleed A. Muhanna, IT potential can be defined as a set of IT resources, skills and knowledge that are used in business processes and allow the company to coordinate and effectively use IT tools for achieving desired goals [5].

From our point of view, it is more appropriate determination of information potential, based on the determination of the overall capabilities as a set of resources for businesses and complex features for their transformation to achieve the goal and objectives of the enterprise [2]. Therefore, the information potential is a set of enterprise information resources and possibilities of its using for quick, fast and reliable storage, transmission, processing and protection of data.

Information potential is appropriate to separate for internal and external according to the orientation of the external environment and internal business interactions. In this perspective, Internet technologies are external information resource potential and Intranet is internal. External potential lies in the utility of enterprise to feel and respond to the changing external environment, the expectations of customers and suppliers, and internal - the ability of the company to offer a quality product with reduced overhead costs, improving internal communication.

In the perspective of knowledge management, the sharing on the external and internal information potential is appropriate because the development and maximum use of external information and intellectual capacity provide access to the knowledge of higher quality. The internal information potential allows the quality dissemination of knowledge between the units of the enterprise, conservation and protection. It is necessary to emphasize that the growth of requirements for information and knowledge leading to necessity of development of information and intellectual potentials. These requirements are typical for industries with highly competitive, dynamic and aggressive market.

Considering the information potential in the task of knowledge management can provide specific software products that are also the resources for this type of potential: externally oriented systems (CRM (Client relationship management), e-commerce, market research), whose main task is gathering specific information and forming knowledge about certain segments of the market environment and internally oriented enterprise systems (these include: ERP (Enterprise Resource Planning), APS (Advanced Planning & Scheduling), Accounting support), allowing the distribution and use of information and knowledge.

For Ukraine, in terms of information potential and knowledge management can determine that the development of the Internet-technologies in business processes and speed of digitization of information of the situation has the potential to improve with good prospects and performance, while opportunities to obtain new telecommunication channels as phone lines are complicated and the only direction substantially improve the situation for business needs may be, for example, the development of wireless communication.

In 2009, the State Statistics Committee of Ukraine was conducted statistical surveys of 7639 enterprises of all legal forms of management, who performed in the field of processing industry (regardless of main activity) [2]. Based on this research we selected those information technology, implementation of which is directly connected with the functions of knowledge management by increasing the information potential of the enterprise (Table 1).

TABLE 1
IMPLEMENTATION OF INFORMATION TECHNOLOGIES, WHICH DIRECTLY AFFECT THE KNOWLEDGE MANAGEMENT, IN THE WORK-PROCESS OF INDUSTRIAL ENTERPRISES

Name of technology	Number of companies
Corporate computer networks	79
Supervisory control and data acquisition	68
Software for work with databases	66
Automated storage and retrieval	32
Intercompany computer networks	28

Source: compiled from [1].

Therefore, only about 3.6% of industrial enterprises are adopting information technologies that improve knowledge management. This figure is very low and shows small information potential and poor quality of work with the knowledge and information. Most technologies, that were implemented, increase enterprises internal information potential. The external potential development is given very little attention. This can be explained by statistical sample of companies in the research under the direction of their activities, because most of them operating in relatively stable areas with low dynamics. At the same time, for the firms managers it is necessary to understand that the access to information and effective management based on the use of advanced information technologies increase profitability in the long term and improves the competitive position in the market. At the same time transformation of the enterprise in terms of knowledge management requires early decisions on the formation and development of certain necessary components of economic potential, as well as willingness to accept the quality of their knowledge and use is based on the level of potential of enterprise.

Thus, the impact of knowledge on the perspective of business and its position does not doubt, but we need to clarify the relationship between them and the general growth of the economic potential of the enterprise. The information and knowledge can be obtained from the external environment by information channels, which are provided and supported directly by means of information technology. These funds are a resource base of information potential. Also, the knowledge can be obtained by means of external communications, and interactions of employees, which in turn requires a high level of employment potential, namely, its intellectual component. Intellectual abilities can not only find the information and knowledge, but also to choose the most relevant and promising ones.

Then, the knowledge must be communicated to management personnel of the enterprise. Perception and rational usage of knowledge by managers is the basis of a long and effective functioning of the enterprise. Thus, this process requires high management potential as a condition for the correct perception and adaptation to the received information. At the same time work with the knowledge contributes to further enhance the management potential. Next rethinking and usage of knowledge can make adjustments to the resourcing of the enterprise (formal administrative aspect) and routine tasks (may occur as an individual initiative of some workers to improve their operations and directive from the management staff). Such changes will inevitably lead to an increase in other types of potential: innovation, production, marketing, financial, investment, etc.

Synergetic effect from increasing in certain components of the potential of the company, along with breach of peace inside of the enterprise, leading to the generation of new, unique knowledge and based on these new opportunities of development - increasing the economic potential of the enterprise. This provides us more opportunities to react to market changes and be more dynamic and flexible and is a prerequisite for its competitiveness.

In turn, the role of internal information capacity is to ensure the quality of transmission, storage, access and protection of knowledge, which tend to become more extensive, profound and vital, and that necessitates its growth. Thus, the problem of knowledge and management requires information, labor and management potential as a key element of their perception and implementation. Next, based on changes in resource provision and standard operations it is increasing all types of potential, which subsequently gives the synergetic effect of increasing the overall economic potential of the enterprise on the basis of a new and unique knowledge and unique capacities.

IV CONCLUSION

In the paper it is shown that the improvement of the process of knowledge management require the development of the IT, labour and management potential as the basis for creation, accumulation, storage and sharing of knowledge; in the market condition of dynamic environment and high level of competition the requirements to information and knowledge have to be more serious and respectively, it needs the high level of potentials; the raise of quality of knowledge and information leads to increase of economic potential of the enterprise and provides a unique competitive advantage.

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