

CHARACTERISTICS OF THE RELATIONSHIP BETWEEN COMPETENCE MANAGEMENT SYSTEM AND ENTERPRISE INTELLECTUAL CAPITAL

PRUSAK Rafał.(PL)

Częstochowa University of Technology, Poland

ABSTRACT

Human capital is a collection of attributes and skills that can be used to create future income both for the company and the employee. It should be mentioned that the owner of this capital is always employee because his knowledge, experience and skills are the foundation. In this context, the process of appropriate development of competences of employees and the use of appropriate motivational techniques to enable the activation of this potential gains minor importance. In the wider context human capital is part of the intellectual capital which also covers structural capital and capital market companies. The article presents the results of research concerning the relationship between functioning of a competence management system and the value of human and intellectual capital of enterprise. At the same time an attempt to characterize the most important elements of a competence management system which have greatest impact on the increase in value of intellectual capital was made to.

KEY WORDS: human resource management, intellectual capital, competencies

INTRODUCTION

Intellectual capital is a relatively new concept. Wider work on this issue started only in the nineties of the twentieth century. Intellectual capital is widely defined in literature. Some authors said that it is the knowledge that allows to transform raw materials into more valuable, capable of achieving a specific financial value (Stewart T.A., 2001). Other authors perceive intellectual capital as the relationship between human capital, customer capital and organizational capital, which maximizes the organization's potential for creating a value (Bukowitz, Williams 2000). There is also approach stating that intellectual capital is created by knowledge and skills that individual employees contribute to the enterprise (Olsson 1998) Also there are no consensus on the elements of the maintenance of intellectual capital. In one view as intellectual capital components is mentioned knowledge, experience, organizational technology, good relations with customers and any skills that may be used to build competitive advantage. There is also another view distinguishing such components of the capital as human capital (talents), structural capital (methodology, intellectual property, software, documentation, etc.) and customer capital (client relationships).

According to the common view, intellectual capital becomes a priority productive factor and an important determinant of technological progress. This view is confirmed, for instance, by the successes of the knowledge-based economy, where (Garbryś 2001: 73): knowledge constitutes the most valuable resource, the highest competitive potential is possessed by products whose main component is knowledge, from among all production factors, human capital undergoes the largest changes. So it is important to get properly deep knowledge of the problem and the relationship between it and other components and systems in the enterprise. However, this causes many problems to researchers. The difficulties in examining intellectual capital are associated with the features that characterize it. As Rowińska-Fronczek states (Rowińska – Frączek 2003: 129) intellectual capital is characterized by an immaterial form, non-measurability, uncountability, not allowing itself to be subjected to accounting

appraisal, not undergoing wear, possible to be simultaneously used at many places and for different purposes.

The recognition of intellectual capital and knowledge as a primary enterprise resources must involve the introduction of a completely new approach to business management. Traditional organizational structures and the related division of duties and responsibilities does not properly support the of pro-innovation activities. In these models, expertise, and particularly the manner of its use, are reserved for managers. An employee may participate in the decision making process, but always the final sentence belongs to superior, which give instructions through the prism of knowledge and experience. Worker's role is thus largely passive, lack of mechanisms for encouraging him to greater openness, courage in analyzing problems and finding solutions. Leader (supervisor) should act as a partner, advisor, to motivate the employee to release the potential. The employee should, therefore, not only take a ready-made solutions, but rather actively participate in developing them. An interesting view on this subject has Hedlund, who stated that the hierarchical form is inefficient due to the fact that its construction of the branches. This design makes it easy to carry of internal controls and regulations, but does not provide an adequate level of integration between different units. Top-down financial discipline can result in the rivalry between the branches, creating additional levels of hierarchy, and ultimately short-sightedness and opportunism. Hedlund's proposed structure of "N - form" assumed the support of the parallel channels of communication, and temporary and easily create groups, so as it lead to the effective combine of knowledge, rather than its further division. In this structure the leadership has to play a catalytic role for lower and middle level personnel.

MATERIAL AND METHODS

The research was carried out on a sample of several dozen enterprises representing different technological areas, conducting either production or service activity. The analysis was made in two stages. At the first stage, a questionnaire survey was done, which includes 24 questions concerning the spheres of competency and intellectual capital management. The questions were of a close or semi-open nature. At the second stage, after making the preliminary analysis of the acquired data, interviews with selected managerial staff members were carried out in order to qualify the obtained responses and clarify any ambiguities arisen. This research scheme allowed higher credibility of the results to be achieved and provided an adequately large information set that enabled the problem under study to be examined in detail.

RESULTS AND DISCUSSION

The first element subjected to analysis was the dependence of the degree of utilization of an enterprise's competency management system on the enterprise's size. The survey, whose results are presented in Figure 1, has allowed differences in the system's utilization to be observed between individual groups of enterprises. The intensive use of the system, manifesting itself in its influence on strategic decisions, was declared most often by large enterprises (8 out of 20), whereas in small- and medium-sized enterprises this did not occur almost at all (3 responses for each group). Examination done using the chi squared independency test (at a significance level of 0.01) did not show any significant relationships between the enterprise size and the extent of use of the competency management system.

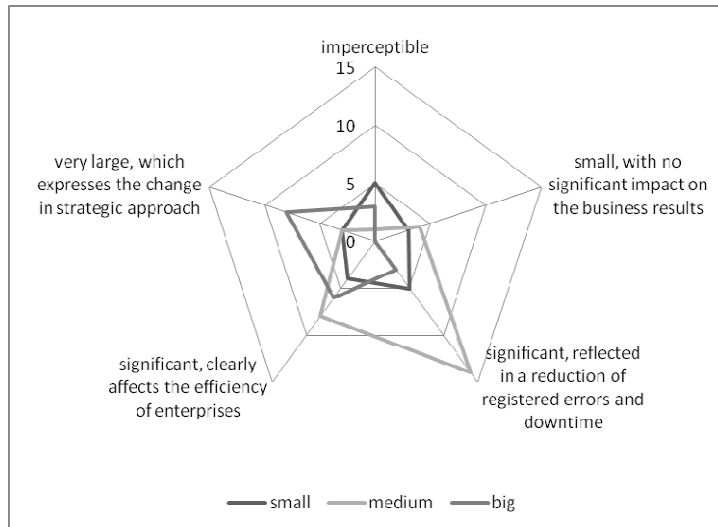


Figure 1. Characteristics of relations between the size of the company and the role played by the competence management system

Depending on the type of conducted activity, the scope of required competencies may significantly differ. Normally, production enterprises are characterized by a considerable larger number of technical competencies, which are either directly or indirectly connected with conducted work processes. Therefore, they require a competency management approach that will be much stronger correlated with the manufacturing technique and technology in use. The survey showed that a vast majority of enterprises conducting service activity reported either low or considerable use of the system (78.8%), while in the production enterprise group, a much greater fraction of extreme responses were found, namely: an insignificant role (19%) and a very high role (24%). However, the relationships found were too weak to allow one to identify a correlation between the type of conducted activity and the extent of utilization of the competence management system.

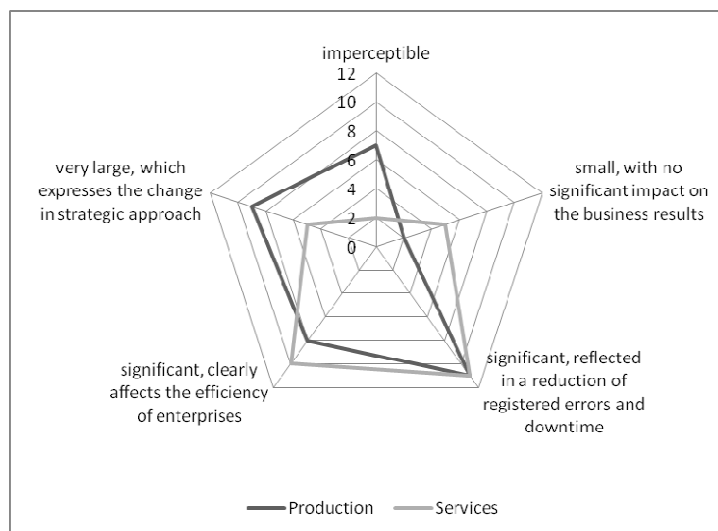


Figure 2. Characteristics of relations between the nature of the activities carried out by the company and the role played by the competence management system

Competency management plays a particularly important role in highly diversified enterprises. In order to properly fulfil the goals, the organization's efforts oriented towards expanding its sphere of activity – by extending the product range, acquiring new suppliers and customers,

implementing production methods different from those used so far, etc., require that the organization has employees who are distinguished by high skills. An interesting aspect of the research was, therefore, to determine the potential relationships between the degree of an enterprise's diversification and the extent of its utilization of the competency management system. The data in Figure 3 shows some differences to occur between individual groups of enterprises; however, it does not allow the occurrence of any significant correlations to be found.

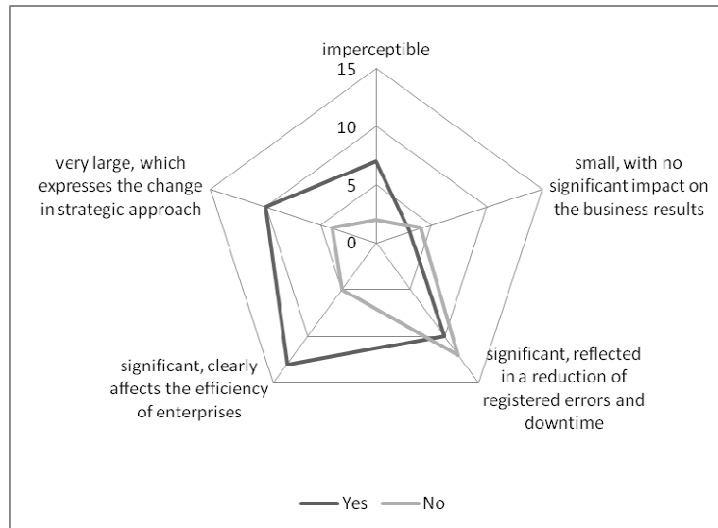


Figure 3. Characteristics of relations between the scope of diversification of the company and the role played by the competence management system

The process of building intellectual capital and developing competencies usually requires time and considerable patience. Processing of knowledge and experience acquired by an enterprise during the course of its activity is initially a slow process. Only developing appropriate mechanisms and implementing proper knowledge acquisition, processing and dissemination methods and techniques will enable the intensification of the intellectual capital growth. The survey results shown in Figure 4 indicate the existence of some regularities. Enterprises at a better development level, thanks to a more complete understanding of the specificity of their activity and a fuller identification of the market requirements, would usually declare a wider use of the competency management system. The knowledge acquired from their previous activity enabled them to understand the importance of continuous development and seeking to adjust themselves to the market needs. The competency management system was regarded in those enterprises as an essential element allowing the needs of the customers to be better fulfilled, thus increasing the level of their satisfaction and loyalty to the enterprise. However, the identified relationships proved to be too weak to enable one to determine the existence of a significant correlation between the enterprise's age and the extent of use of the competency management system.

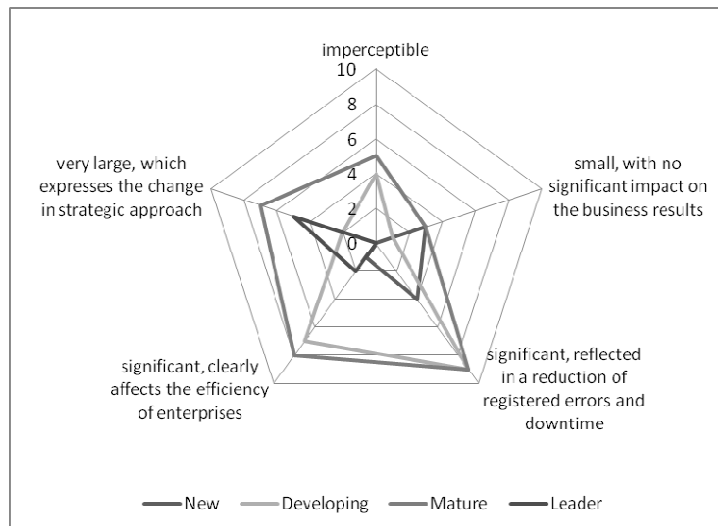


Figure 4. Characteristics of relations between the age of the company and the role played by the competence management system

An important aspect of the research was the attempt to determine the relationship between the development level of the competency management system and the role that it plays in an enterprise and the concept of intellectual capital. Examination made using the chi squared independence test (at a significance level of 0.01) revealed a relationship (the Pearson index at a level of 0.39) occurring between the extent of the competence management system's use and the enterprises' attitude to the intellectual capital concept. The data represented in Figure 5 allows one to observe an increase in the awareness level in respect of the intellectual capital notion in those enterprises that are more strongly geared towards developing their employees' competencies. This is an expression of grater opening of these enterprises to the importance of intangible assets and the methods of their use for increasing the overall performance.

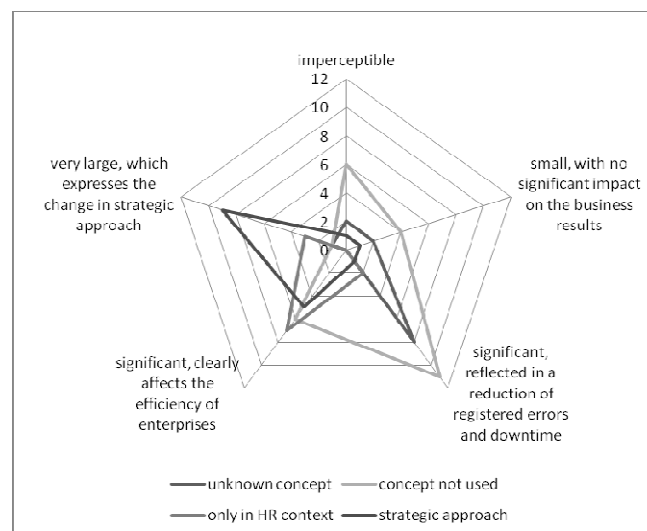


Figure 5. Characteristics of relations between the role played by intellectual capital in the company and the role played by the competence management system

The way of approaching the competency management system in enterprises was also reflected in the nature of the decision about the implementation of the intellectual capital management system. A relationship occurring in this context was found, as expressed by the Pearson correlation index at a level of 0.31. From the data in Figure 6, a clear difference in attitude can

be observed between individual enterprise groups. The percentage of intellectual capital management system implementations in enterprises with highly developed competency management was definitely greater. Eleven of fourteen firms declaring the strategic importance of the competency management system had implemented an intellectual capital management system (at the same time, they constituted nearly 46% of the whole of firms with a positive decision about the system's implementation).

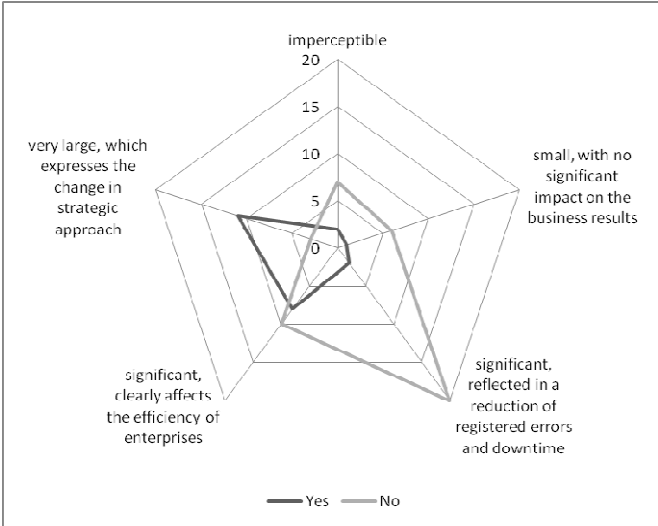


Figure 6. Characteristics of relations between the nature of the decision of the implementation intellectual capital management system and the role played by the competence management system

A confirmation of these findings are the results of the analysis of the relationships occurring between the nature of the decision about the intellectual capital management system implementation and the declared magnitude of the effect of the competency management system on the enterprise's performance. From the data shown in Figure 7, a distinct tendency to increasing the percentage of those firms that have implemented the intellectual capital management system as the declared effect of the competency management system on the enterprise's effectiveness increases.

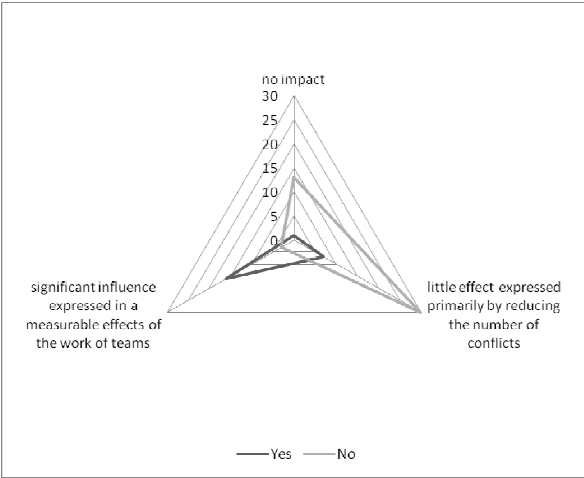


Figure 7. Characteristics of relations between the nature of the decision of the implementation intellectual capital management system and the size of the impact of a competence management system for business performance

CONCLUSION

The proper utilization of employees' competencies will bring about a series of potential chances and opportunities - especially in the sphere of intellectual capital. It allows fuller identification and understanding market mechanisms and relations occurring in the market (employees with a larger store of knowledge more consciously and analytically perceive phenomena in their working and social environments. It enables better understanding and fulfilling the customers' needs and, as a result, a more personalized approach to strategic customers. It ensures a better knowledge of products and service, increasing thereby the chance of improvements and innovations coming into being. It also allows a more professional approach to contractors, which could contribute to the increase in the level of their confidence and loyalty to the enterprise. In each of the aforementioned areas, the employees have the capability not only to use the already possesses competencies, but also to extend them or acquire new ones. By properly managing and disseminating the acquired information and knowledge, the enterprise can drive the intensification of the positive behaviours of its employed people and the continuous enhancement of their competencies. The effect of this process can be the emergence of new strategic solutions not identified previously or impossible to be used

At the same time, the enterprise's management should clearly identify the reasons behind the implementation of the competency management system, so as to obtain the complete certainty about the justification for this action, and thus to proceed with developing the system's bases with full confidence. Obtaining answers to some basic questions will be helpful here:

- why does the enterprise wish to execute this process? (the reasons for commencing the work may be either internal or external in character; the first group can include, above all, elements related to the market position, image, bargaining strength, the customer service level, the effectiveness of acquiring new customers, or the effectiveness of activities in marketing in its broad sense; in the second group, the key role is played by factors, such as the effective use of accumulated human capital, increasing the degree of employee integration with the enterprise's goals, improving the economic results, and the increase in the number of innovations);
- will the system implementation contribute to gaining economic or non-financial benefits by the enterprise? (expected benefits should be easily identifiable, clear, and – preferably – easily measurable, so as to allow the subsequent verification of achieved goals against the original assumptions);
- what specific effects, and in what areas of functioning and on what scale, are expected by the management? (attaining a high level of credibility of prepared forecasts is of key importance, because of not only the proper allocation of resources, but also employee morale - too low actual effects compared to the planned ones might discourage part of the people from further active participation in initiatives of a similar nature); and
- what is the level of enterprise preparedness for commencing the work (the realistic and objective assessment of the enterprise's capabilities is essential, as it influences, for example, the date of starting the work, the work scope, or the participation of external entities, as necessary).

REFERENCES

1. STEWART T.A., *The Wealth of Knowledge – Intellectual Capital and the Twenty-First Century Organization*, Nicholas Brealey Publishing, London 2001.
2. BUKOWITZ W.R., WILLIAMS R.L., , *The Knowledge Management Fieldbook*, Financial Time, Prentice Hall, London, 2000,p. 22.

3. OLSSON B., Staff Training and Further Development in Place of Redundancies: A Swedish Example, *Journal of Human Resources Costing and Accounting*, no 1., 1998.
4. GABRYŚ K., Wiedza i szkolnictwo wyższe obszarem wyzwań współczesnego procesu internacjonalizacji, [in:] F. Bylok, A. Słocińska, *Współczesne oblicza kapitału ludzkiego i intelektualnego*, Wydawnictwo Politechniki Częstochowskiej, Częstochowa, 2010, p. 73.
5. ROWIŃSKA – FRONCZEK M., Kapitał intelektualny przedsiębiorstwa, [in:] J. Lichtarski, *Podstawy nauki o przedsiębiorstwie*, Wydawnictwo Akademii Ekonomicznej we Wrocławiu, Wrocław, 2003, p. 129.

CONTACT ADDRESS

Rafał Prusak, Częstochowa University of Technology, Faculty of Process & Material Engineering and Applied Physics, Department of Production Management and Logistics, Poland, Armii Krajowej 19, 42 – 200 Częstochowa, prusak@wip.pcz.pl