



DEVELOPMENT OF HUMAN RESOURCES AS THE BASE OF INTELLECTUAL CAPITAL IN THE CZECH COMPANIES

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Abstract. If we understand abilities and skills of employees as a part of intellectual capital of company, it is evident that their development cannot be separate. Many other questions should be considered with respect to competitiveness. Intellectual capital, skills and abilities of employees represent, of course, important factors developing competitiveness of company. Nevertheless this simple statement does not solve anything. Discussions about this topic very often fall through even in the beginning when we try to find definition of intellectual capital, skills and abilities or competitiveness. Many theoretical conceptions offer a lot of interesting ideas. Companies try to find own way how to use and develop potential of their employees as effectively as possible. This paper offers possible evaluation of these questions considering situation in selected mechanical and electrotechnical engineering companies. The objective is to identify barriers of development of employees potential and its influence on competitiveness of company in context of intellectual capital of companies.

JEL Classification: J440, O150.

Keywords: Competitiveness, competitive advantage, employees potential, intellectual capital.

Reikšminiai žodžiai: konkurencingumas, konkurenciniai pranašumai, darbuotojų potencialas, intelektinis kapitalas.

1. Introduction

It is certainly possible to find a whole range of good reasons why to link the development of competitiveness with the development of a company's intellectual potential and this then with the development of employees' abilities. This approach needn't necessarily be presented as a new discovery when developing competitive advantages. Rather what should be new are methods how to develop this "triangle". Both theory and practice try to define intellectual capital in some way. For example, the working definition of intellectual capital of the Swedish financial group, Skandia, reads "*Intellectual capital includes knowledge, applied experience, organizational technology, customer relations and professional experience which enable Skandia to cope with the competitive pressure on the market.*" [1]. This general definition

is in some way supplemented by a schematic definition specifying the relationship between the individual components and their content (1):

- *Intellectual capital = Human capital + Structural capital*
- *Human capital = Abilities + Relations + Values*
- *Structural capital = Customer capital + Organizational capital*

Abilities – companies must recruit the right people and provide them with an opportunity to learn so that they can gain knowledge necessary for the given area of business. The value is hidden directly in the employees' knowledge and, therefore, it is essential that they are involved in the creation of value within the company.

Relations – successful companies have a tendency to create networks of external relations which

contribute to the value creation. The value may be financial but it can also be knowledge and professional experience subsequently generating the value.

Value – there must exist mutual understanding and agreement in regarding what is value and how it is generated. It means that if a company wants to be successful, it needs appropriate culture and, therefore, also values.

Customer capital - customer base, customer relations and customer potential.

Organizational capital - procedural capital, culture, innovation capital etc. Skandia defines Organizational Capital as “Everything which stays in the company after the employees have gone home, that is, for example, the information system, customer database etc.”

It is clear even from such simple “working” definition that the development of employees’ abilities can be regarded as the base. Without mastering this development the pursuit of any successful and controlled development of intellectual potential is probably rather premature. As part of the research “The Possible Trends of the Development of Mechanical and Electrical Engineering Companies with Emphasis on the South Moravia Region“ an investigation focusing primarily on the area of innovation potential of selected companies was carried out in 2002. From the 147 companies which were approached 79 replied to the forwarded questionnaire (which represents return rate of approximately 54%). With regard to the limited scope of the questionnaire it certainly was not possible to address the issues of employee ability development in all circumstances. But this was not the goal anyway. With respect to the link between the development of companies’ intellectual capital and their competitiveness the following two perspectives were important:

- definition of barriers of human potential development
- evaluation of the importance of human potential as a competitive advantage, particularly from the point of view of potential change as compared with the results achieved in years 1999–2000 [14]

2. Barriers of Development of Human Potential in the Czech Companies

If we speak about human potential development, then we have to put utmost emphasis on the area of education. Traditionally the matter of efficient cooperation between educational institutions and com-

panies comes up in this context. A lot of time has been dedicated to discussions on the topic of the roles of these “two parties” in education. Unfortunately, quite a few of them end with an ineffective search for the culprit of potential problems. From the point of view of barriers of human potential development, understandably, it is possible to look for mistakes on both sides. Often the quite surprising conclusion of such discussions may be the frequent demand from companies for greater emphasis on a wider profile of graduates rather than on their narrow specialization [14]. Here, however, in my opinion there is a risk of different understanding of the term “wider profile”. In my opinion it is not so much about more general theoretical knowledge from many fields – which seems to be the attitude characteristic of a lot of educational institutions, but rather about expanding the profile of graduates from the point of view which we may call, for example, procedural. That means to expand the graduate’s profile by the knowledge of connections both between the individual parts of the processes as well as between the processes themselves. The wider profile then does not mean more knowledge from the area of production management, marketing, macro-economy etc. but understanding of connections between these areas, for example, within the production process. However, it entails one important aspect which must be understood on the side of both schools and companies. It is not possible for educational institutions to offer graduates who have all necessary knowledge which in other words means that it is not possible for companies to expect that graduates will be hundred percent prepared exactly for their specific needs. On general level it is no doubt possible to reach agreement, but not in particulars forming the specialization of employees. Then the demand for companies to get involved in the educational process and first and foremost for development and education in one’s own company is only a logical consequence. On the other hand it is necessary to point out that this does not make it any easier for the educational institutions and we cannot at all speak about any getting rid of responsibilities while saying – “And this now is companies’ work!” The contrary is true. It is much more difficult to educate a graduate who will be able and willing to continue his/her education and who will be usable in companies which will require this.

If we move within the discussion to the barriers and problems which may occur in the area of education and development of human potential which takes place “under the auspices” of companies, the content of such questions becomes rather different. General barriers which may disrupt this process of

development and which were used within the investigation of the situation in the mechanical and electrical engineering companies in the South Moravian region [15] are the following:

- Insufficient time
- Insufficient finances
- Unwillingness of employees to be educated
- Unclear strategy of education
- Insufficient knowledge
- Insufficient number of courses
- Insufficient existing knowledge
- Management's attitude

Table 1: **Barriers of education in the company [15]**

Factor impeding education	% of companies which rank it as the most significant
Insufficient time	46
Insufficient finances	44
Unwillingness of employees to be educated	27
Unclear strategy of education	19
Insufficient knowledge	16
Insufficient offer of suitable courses	9
Insufficient existing knowledge	8
Management's attitude	6
Other	11

The situation which exists in the companies which underwent the investigation is summarized in table 1. It is clear that insufficient time (46%) and finances (44%) are regarded as the most significant barrier in the area of education. This finding could probably be expected. Nevertheless, we can make an assumption that it is a cliché in many cases behind which companies hide. The main problem may more likely be hidden in the area of unclear or incorrect strategy of education. However, strategy of education is considered to be crucial by "only" less than 20% of companies. The strategy in the area of education should however include both the matter of time as well as the matter of finances. And if almost half of the companies have a problem with these areas, then it is likely that their strategy for education is not optimal either.

Based on the survey more than a quarter (27%) of employees are not willing to continue their education. This number is quite high and the question is how much it reflects the reality. Basically there are

two possibilities. The first is a real lack of interest of a large number of employees in further education. Many reasons explaining why this is so could be found, such as that lifelong education has not yet become a standard. On the other hand we could ask whether employees are really not interested or whether this is only an opinion of those who filled in the questionnaire. However, then there must be questions such as:

- *How often do you ask employees whether they are interested in further development?*
- *How often do you offer them the option to participate in courses?*
- *In your opinion, is the possibility of education in your company attractive for employees? Is it accessible?*

If this data is real and people are really not willing to continue education, then the reason most decidedly is not that they would really be strictly against it and would refuse the possibility of further development. More likely the reason is that they do not have enough attractive opportunities and that they do not feel that it is required or appreciated by anyone.

The negative evaluation of employees' attitude is in contrast with the positive attitude of the management which is regarded as the barrier of development only in 6% of the cases. I certainly do not want to say that managers on principle refuse education but neither do I regard this number as too realistic. The reason is simple. Who develops the company strategy? Who develops the strategy for the area of education? The management. If then 20% of strategies are unsuitable or problematic, we need to realize that these strategies were developed by the management.

Evaluation of the existing knowledge is relatively positive. Especially, as far as evaluation of the knowledge of existing employees is concerned. However, one fact has to be emphasized again. Further development towards higher quality level is not possible without mastering the lower level. Investment into a new information system will be ineffective if the operator has problems with switching on the computer. We need to be aware of this connection, and not only when purchasing new software. From this point of view evaluation of the existing knowledge as a barrier only in 8% of the cases is probably overly optimistic. In 16% of the cases companies are missing new knowledge. That means that they feel that necessary knowledge is not available. This number does not allow a statement that only less than 20% of companies feel that the knowledge which they would need is not available. Rather the contrary

– almost 20 % of companies have this problem. There are several possible reasons:

- *First of all it may be the fact that the company is not informed about the available knowledge.*
- *The second reason may be real absence of the given knowledge on the knowledge market.*
- *The last reason may be the attitude characteristic of those companies which do not know what to do and keep trying new and new methods in such frequency that none of them can bring absolutely any effect.*

3. Human Potential as a Competitive Advantage

In 1999–2000, as part of the research “The Possible Trends of the Development of Mechanical and Electrical Engineering Companies with Emphasis on the South Moravia Region“ an investigation was made as to which competitive advantages are regarded as the most significant [14]. Understandably, both management’s abilities and employees’ abilities and qualifications in general proved to have a prominent place in the competitive profile of companies – see table 2.

In comparison with these results several interesting differences can be noted in the current results.

There has probably been an increase in the emphasis placed in general on the importance of employees’ abilities as a competitive advantage. Approximately 80% of the companies regard employees’ abilities as the most significant or a very significant competitive advantage – see chart no. 1. However overly optimistic this data may be, it is evident that there has been a clear shift. A positive thing is also the 10% of companies which realize that the area of employees’ abilities

utilization is a problematic area for them which they need to deal with.

For more detailed investigation this part of the research used the concept of expertise as a sum of abilities and skills, experience, knowledge and a certain way of thinking. This concept proposed for definition of the management’s expertise (17) can equally well be applied for definition of an employee’s expertise in general. This classification was therefore applied generally in this part of the research. There thus proved to be different understanding of the meaning of abilities, knowledge and experience on different levels. As for worker professions the greatest emphasis is put on abilities and experience. These are regarded as significant or crucial by 60 up to 70% of the companies. Experience is then considered to be relatively the most significant. Considerably lower importance is attached to knowledge. Practically a half of the companies attach partial and lower importance to it. The explanation could be in the companies’ attitude to innovations – effort to enforce innovations more from above – and also in lower demands put on workers’ qualification. There is probably a hidden risk in that, because in general these demands are no doubt more likely growing. That is, of course, if we do not speak about series production or assembly work.

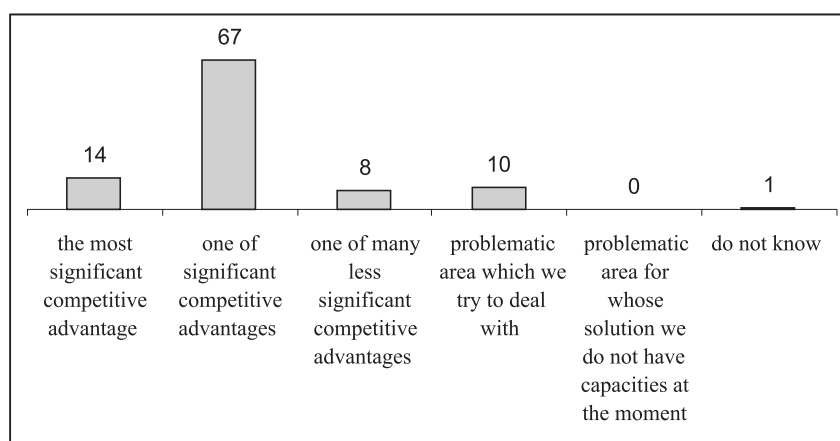


Chart 1: How employees’ abilities are generally evaluated in a company [15]

Table 2: Management’s abilities and qualified work force as a company’s competitive advantage [14]

Competitive advantage	% of companies stating the given competitive advantage as the most significant			
	Unclassified group	Small companies	Medium-size companies	Large companies
qualified work force	50%	18%	61%	63%
management’s abilities	29%	14%	37%	32%

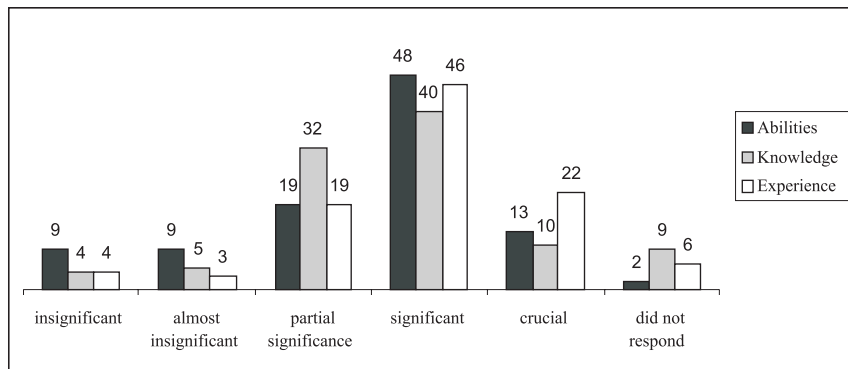


Chart 2: Evaluation of abilities, knowledge and experience of workers as a competitive advantage [15]

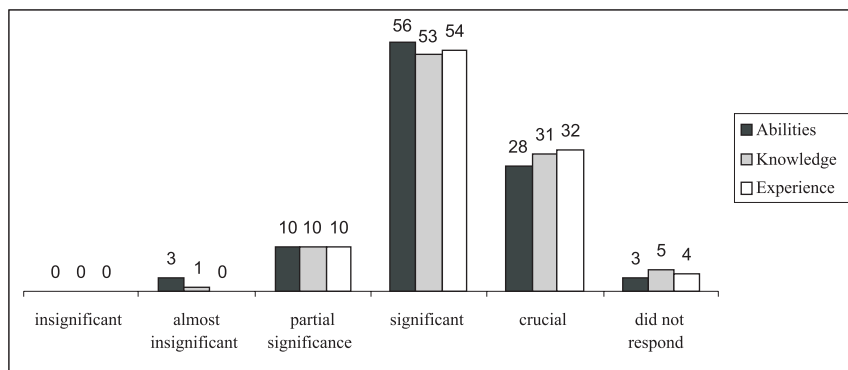


Chart 3: Evaluation of abilities, knowledge and experience of salaried employees as a competitive advantage [15]

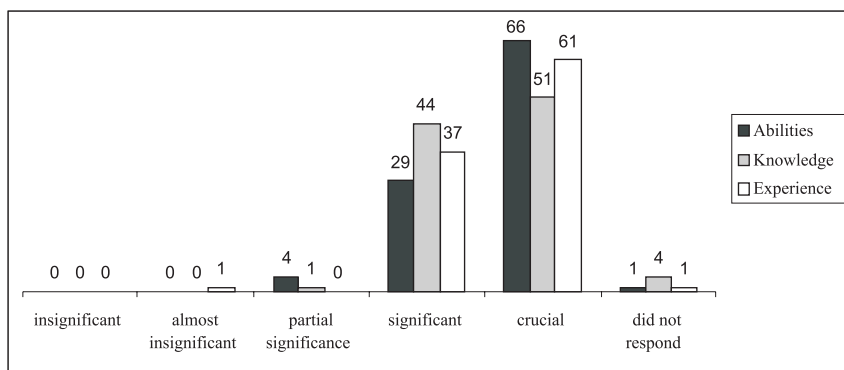


Chart 4: Evaluation of abilities, knowledge and experience of the management as a competitive advantage [15]

As for salaried employees the emphasis put on abilities, knowledge and experience is very even. All of these three components of expertise are considered to be significant or crucial by approximately 85% of the companies. However, this among other things means that the problem of work efficiency of salaried employees cannot be resolved by restructuring measures based in principle only on redundancies. If their expertise has such importance as is attributed to it by the companies, then this emphasis must be reflected in the area of education and development.

The importance attached to the management’s expertise is similarly high – 95 up to 98 % regard it as significant to crucial. The difference is that it is not as even as for salaried employees. What is particularly interesting is the relatively lower importance attached to knowledge which is regarded as crucial by 51% of the companies. To the contrary it is 66% of the companies for abilities and 61% of the companies for experience.

Whereas in the results from the first year management’s abilities were a competitive advantage on average in 30% of the companies, the emphasis put on the management is now evidently much greater. In addition to this, as indicated by the previous three charts, the importance attached to the individual areas practically copies the classic pyramidal structure. That means that the higher the level, the greater emphasis is put on the importance of expertise as a competitive advantage. This is clearly evident from looking at the evaluation of the individual parts of expertise, specifically in relation to employee classification. A positive thing is the confirmation of the growth of importance of the management as a factor influencing competitiveness. Therefore, we can basically say:

- *the importance attached to the management as a factor developing competitiveness is growing;*
- *there are differences evident in the importance of the individual components of expertise on different levels of the company;*
- *these conclusions should be the basis for creation of strategies of a company’s human potential development.*

4. Possibilities of Development of Intellectual Capital

Development of intellectual capital may therefore undoubtedly strengthen the company’s compe-

titiveness. Even though the theory remains quite undeveloped in this area, naturally there are procedures emerging how to deal with this matter. They even talk about “management of intellectual capital development”. In the offers of many consulting companies “complex solutions for knowledge management” are starting to appear (for example [8; 9]). Although to a certain extent this is more an advertising slogan rather than reality, it is possible to find many inspiring and probably also generally applicable guidelines in the proposed procedures.

Strengthening of competitiveness resulting from controlled development of intellectual capital is even more significant because it develops and enhances:

- *competitive advantages of functional type*
- *factors of successfulness which the company is able to influence;*
- *factors reducing the risk that the competition will be able to copy the competitive strategy;*
- *advantages which increase the value for the customer;*
- *company's innovation potential;*
- *company's own management;*
- *factors increasing efficiency of all processes etc.*

Admittedly, on the other hand, development of intellectual capital and the related development of human potential are faced with many difficulties. It is because it is based on somewhat different principles than the so far proposed approaches. But above all it focuses on intangible resources. That itself brings a huge problem not only when evaluating the benefits but also during the actual implementation of procedures which operate with intellectual capital. I believe that first of all it is necessary to use the com-

pany’s needs as a basis. The main principle which then can be used as a basis is the fact that there is a large amount of knowledge and abilities in each company which are continuously in use. The problem is that there is not such access to them which would allow their immediate utilization. Therefore, what often happens is that a lot of information is looked up again and again and that the same mistakes keep repeating. Realizing this problem is the first and at the same time the necessary precondition for potential change.

From this point of view it would be suitable to distinguish several levels of knowledge and abilities. The criterion is how clearly they are defined and how well they are known in a company. This is extremely important if a company decides that it is going to create a system which should develop the so far isolated knowledge and abilities within the whole company. If it does not do this it may easily happen that this effort will end in failure. It is because the base of knowledge and abilities is usually filled only with generally familiar things which have so far been processed, for example, in the form of various instructions. Therefore, it is necessary to expand the perception of knowledge by another level. And that is by knowledge and abilities which have not been defined yet and whose utilization, however effective it may be, is rather only intuitive.

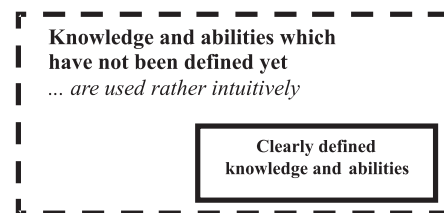


Fig 1: Differentiation of two levels of knowledge and abilities based on how they are defined

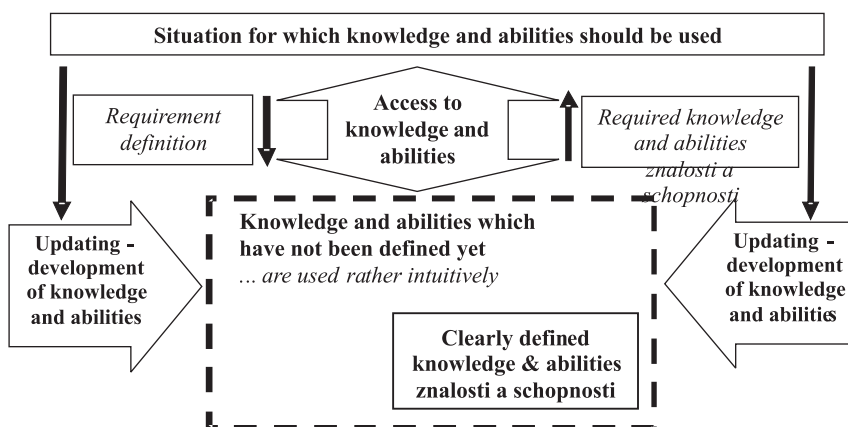


Fig. 2: Basic areas of functioning of the system utilizing and developing knowledge and abilities

While identification of clearly defined knowledge and abilities may be quite easy, there might be considerable problems when identifying the second level. Another area which is very complicated is ensuring the opportunity to use knowledge. There are basically three questions:

- *What is usable from the given knowledge and abilities?*
- *How to ensure access to knowledge and abilities?*

- *How to ensure updating – development of knowledge and abilities?*

Conclusion

Potential of a system which would coherently develop the company's intellectual capital based on human potential development and manage to ensure development of necessary knowledge is considerable. An example could be its utilization in project management. In each project stage beginning with an offer and ending with work hand-over the knowledge base would significantly increase efficiency of the project team's work. In the area of offer preparation it would be possible to identify basic requirements from a customer and compare those with already completed projects. These procedures are already applied in principle but their utilization is usually limited by the fact that knowledge is spread out among individual employees. Another benefit in this stage is the possibility to respond better to inaccurately defined customer's requirements which clearly prevail in preliminary discussions about an order.

The possibilities for development of knowledge utilization are markedly tied to the emphasis put on the company's intellectual capital. They require intense emphasis on utilization and development of all components of expertise, on all levels of the company. Knowledge management cannot be applied in a company with an unclear or incorrect employee development strategy. On the other hand, it is necessary to be aware of the limits of the effort to collect and make accessible all usable knowledge. Expertise consisting of experience, knowledge, abilities and the corresponding way of thinking cannot be 100% mapped out and recorded. Especially the area of thinking is and will always remain distinctly related to an individual's personality.

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ŽMOGIŠKŲJŲ IŠTEKLIŲ PLĖTRA KAIP INTELEKTINIO KAPITALO PAGRINDAS
ČEKIJOS BENDROVĖSE

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Santrauka. Straipsnyje nagrinėjami darbuotojų gebėjimai ir įgūdžiai kaip bendrovės intelektualio kapitalo sudedamoji dalis ir svarbus jos konkurencingumo veiksnys. Diskutuojama, kaip tiksliau vertinti bendrovės intelektinį kapitalą reimiantis Čekijos mechanikos ir elektrotechnikos mašinų gamybos bendrovių pavyzdžiu.

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