

## HUMAN CAPITAL EFFICIENCY IN TRADING COMPANY

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### Abstract

Human capital plays a crucial role in increasing the productivity and output of an organization. It is involved in the creation of the market value of the company and also represents the most valuable source of company. Human capital management represents a strategic approach to the management of the most valuable what organizations have - people who are participating in the implementation of organizational goals. Human capital management system helps to achieve organizational goals using effective use of human capital. For this reason it is essential to measure the value and efficiency in the use of human capital and consequently know the ways of its development. There are several approaches for measuring the value and efficiency of human capital. However unified methodology has not yet been accepted. The difficulty of determining the single universal methodology is due to the fact that every company is unique and has set specific requirements for the production inputs and processes. The aim of article is to explain the results of research about using the metrics of human capital efficiency in district of Žilina in Slovakia and to show some metrics for measurement the human capital value and human capital efficiency in trading company.

**Key words:** human capital efficiency, human capital management, value, measuring

**JEL Code:** J24, M12

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### Introduction

The supreme aim of the enterprise is long-term development and business growth. Part of his achievement forms the efficient allocation of financial resources, which is reacting to meet the needs and wishes of our customers. The human capital includes the natural ability, innate and acquired skills, knowledge, experience, talent, inventiveness. All these characteristics are components of the human capital. The essence of creation, increasing the value and effectiveness of human capital, is spending money now but expected benefits will flow in future. Forms of increasing the value of human capital are expenditure oriented for example to health, safety, science, research and education.

Human capital is regarded to be one of the major sources of economic growth and also as one of important determinants of national and regional differences (Ćadil & Petková & Kaplanová, 2013). Employees' abilities (knowledge and skills to perform agreed work), motivation (willingness to perform agreed work) and performance (working results and behavior) enable organizations to produce and distribute demanded products and services, gain and maintain regular and satisfied customers and achieve expected outputs or results (Šikýř & Serbusová, 2013). Performance, its measurement and management is a fundamental definition of enterprise success, because only enterprises which are able to achieve their defined objectives can be successful (Tokarčíková & Poniščiaková & Litvaj, 2014). The economic recession has revealed many findings in terms of factors of production enterprises. A range of businesses during the crisis realized the importance of loyal employees (Scholleova, 2012). The global economy has built many business in a position in which it is asked to effectively manage liquidity and funding, due to the current crisis. Without knowledge about good financial management a company will hardly survive in heavy competition (Chodasová&Tekulová, 2014). Companies, which support the development and personal growth of human capital their workers, contribute to improving the quality of production, increasing efficiency of internal processes and development of the company as a whole. In this way, company education also becomes a decisive factor in increasing the competitiveness of companies in today's markets (Kucharčíková, 2014).

Human capital management refers to managing an organization's employees for them to contribute significantly in the overall productivity of organization. Accordingly human capital management is defined as the process of acquiring, training, managing, retaining employees for them to contribute effectively in the processes of the organization. The essence is to focus on is upgrading the existing skills of an employee and extracting the best out of him. In human capital management, organizations treat their employees as important resources that play an instrumental role in productivity of the organization.

Efficient system of personality diversity management in an organization enables managers to effectively achieve expected employees' results and behaviour by better use of employees' abilities and motivation (Fučíková & Šikýř, 2013).

## **1 Measuring the efficiency of the human capital**

Efficiency is defined as the correlation between the achieved outputs and inputs used, where the inputs and outputs can be interpreted differently. The efficiency of human capital (HC) is then calculated as a proportion of output and HC, where specific quantification of HC and output depend on the conditions of a particular company. When choosing the input and output, there

must be chosen such variables, which are related with each other, are essential for the performance, while their values are known.

While measuring the productivity of HC, the output may be the level of achievement of objective (increase customer satisfaction, increase revenues, reduce spoilage rate, shorten time for complaint handling etc.), quantification of company savings, the number of registered patents and inventions, volume of performance per employee etc. The decisive factors for the effectiveness of human capital are not just abilities, knowledge, skills, but also attitudes of people in the company and the level of company management.

There are many authors who are devoted to the area of the measurement of the human capital value and human capital efficiency, for example Bontis&Fitz-enz (2002), Mayo (2001), Nalbantien (2010), Baron&Armstrong (2007). Despite the fact that there is no single methodology for measuring the efficiency of HC, there is a set of several recommendations that each company should follow when measuring the efficiency of its own HC used: 1. identify basic indicators measuring human capital, which have a clear connection with company performance, 2. use simple measurements and indicators and focus on easily accessible and reliable quantitative information, 3. compare indicators set to the required level, which may be created by company standards, comparing on the basis of benchmarking with companies from the same industry, rate of achievement of the objectives etc., 4. identify particular specifications of HC that are necessary for the performance of the position and evaluate objectively whether employees really have them, or whether they have been trained, 5. keep in mind that the measurement of HC is carried out in order to increase its effectiveness in relation to company performance, and therefore, it is necessary not only to do measurement, but also identify deficiencies and problem areas and take measures to improve, 6. all measures to increase the efficiency of HC are considered investment in HC and they need to be evaluated.

Those recommendations and theoretical basis have been implemented to results of our research: to design indicator measuring the value of HC and indicator measuring effective use of HC in organization whose activity is focused on the sale of sportswear and needs.

## **2 Research results about human capital efficiency**

The Faculty of Management and Informatics University of Zilina was in April-June 2014 conducted a research among 31 companies from the district of Zilina, providing services. The aim of the survey was to determine whether firms pursue value and effectiveness of human capital, what metrics are used in this area and whether firms have introduced human capital management, which would support measures to increase the efficiency of human capital, which

is considered as an asset of the company. Positive finding is that 23 (74%) of the companies indicated that investing in human capital, the most common form of training and organizing actions to improve relationships in the workplace. 15 businesses, said that while pursuing the benefits of investment in human capital. 20 (64.5%) of the companies said that as a result of investment in human capital to increase productivity, increased sales, but did not change the staff turnover. 11 (35.5%) of the companies indicated that follows the effective use of human capital, of which 7 uses the management of human capital, but only 2 (6.5%) firms have in place a comprehensive system management and measurement of human capital. Also positive is the finding that it is these two companies with a comprehensive human capital management most favourable quantify the positive impact of investment in human capital on productivity, revenues and fluctuation. The most frequent answer to the question of how firms pursue efficiency of human capital, are listed in table 1.

**Tab. 1: Metrics of the human capital efficiency according to research**

|   |
|---|
| Control of fulfilling the objectives  |
| Monitoring fulfillment standards  |
| Evaluating employee productivity, total and average productivity                |
| Monitoring performance of individual employees                                  |
| Monitoring ratio of the cost of employee turnover                               |
| Monitoring relationship: turnover - profit - wage                               |
| Monitoring sales for the product group  |
| Monitoring of the number of new projects  |
| Monitoring selected key performance parameters (for each position is different) |

Source: own research

Monitoring of the human capital effectiveness surveyed companies implemented the most common form of regular monthly and annual reports with the use of statistics, graphs and information systems. However, at first glance it is clear that managers in most cases do not distinguish the area of labour productivity (as efficiency of the production factor labour) and the efficiency of human capital. We can assume that the concepts of human resources and human capital in their practice identify. For this reason, we see a large scope just for training in implementing human capital management, with which is associated a set of indicators for measuring the value and effectiveness of human capital (Kucharčíková & Ďurišová, 2014).

In framework of our research in 2014 we dealt with measuring the value of human capital and its effective use in trading company. The main activity of the INTERSPORT company is the sale of sportswear and customer needs. The most important elements of the sales process in the personal sales (retail shop) are just employees who come into personal communication with

customers. Customer decision to buy largely depends on their access, education, skill, motivation, expertise and sales skills. Employees affect buyers in the purchasing decision process, gives information about the product towards from the producer to the customer, provide service, train buyer on how to operate and care products, provide additional services connected with the sale of products etc. Employees play a key role in personal sales and are able to influence company results. The most important company results observed in the case of INTERSPORT shop are just financial performance, which in the case of retail shop (non-productive company) is understandable.

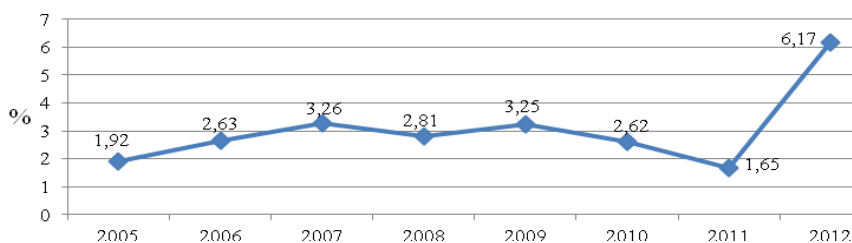
### **Indicator of HC value - fluctuation rate**

To measure the value of HC in INTERSPORT and its comparison with other shops, there was chosen indicator of employee fluctuation in the field of behaviour in the organization. Although the fluctuation rate cannot measure the amount of HC in the company, but it has important explanatory value of employee behaviour and can be used as an indicator of the value of human capital in the organization. Optimum amount of fluctuation is difficult to determine because it depends on the individual company, the profession, the qualifications required, the length of the adaptation process etc. Some degree of fluctuation is positive phenomenon for the company and fluctuation rate to about 5% is generally considered acceptable. Each company should follow its long-term development of fluctuation and take action in marked fluctuations. Increasing fluctuation indicates dissatisfaction of employees and dissatisfied employees give lower performance. Increasing fluctuation also reduces the value of HC, because new employees usually give lower performance and some time passes when the employee is trained, adapts and begins to perform the required performance. In addition, the company incurred costs of adoption and adaptation, and often leads to overloading of other employees who must carry out the work for colleagues who left until a replacement is found. If the fluctuation is high, it also threatens the return of investment in HC.

$$\text{annual fluctuation rate} = \frac{\text{total number of released per month}}{\text{average number of employee per month}} \cdot 100 \quad (1)$$

There is shown the evolution of annual fluctuation rate for INTERSPORT OC Dubeň in fig.1. It is evident from the comparison of the annual fluctuation rate (2012) in individual INTERSPORT shops that OC Dubeň shop has one of the highest values. Despite the fluctuation value 6,17 % is only slightly above the generally acceptable rate of fluctuation (to 5 %), while monitoring the development of annual fluctuation rate, this value means a sharp increase from the previous development (Kucharčíková&Tokarčíková&Blašková, 2014).

**Fig. 1: Development of annual fluctuation rate for INTERSPORT OC Dubeň**



Source: Processed according to internal documents

### Indicator of the efficiency of HC - index of customer service success

As an indicator to evaluate the efficiency of HC in relation to company performance there has been designed so called index of customer service success, which is calculated as follows:

$$\text{index of customer service success (t)} = \frac{\text{number of shopping blocks given (t)}}{\text{number of visitors}} \quad (2)$$

where: t ... reporting period (day, month, year, etc.).

It is useful to use index for comparing its development within the same shop (preferably monthly development for sale) or as a comparison with other shops (benchmarking). Index of customer service success can take values from the open interval (0,1). Index would acquire the value 0 in the case that there would not be given any shopping block during the reporting period (usually monthly). Index value equal to 1 would occur in the event that every single customer, who walks into the shop, buys something. Considering the reporting period, both cases very unlikely, therefore, there is an open interval. It is obvious that the larger the index value, the higher is the efficiency of human capital. It happens many times that the customer comes into the shop and wants to buy something, but if no one pays him attention, he leaves angry. Also, the right communication approach and expert advice often decide what to buy. Therefore, it is necessary that the staff try to make every visitor of the shop purchaser and again-returning-customer. The following table shows the development of index of the customer service success in each month of 2012 for INTERSPORT OC Dubeň.

**Tab. 2: Calculation of the index of the success of customer service INTERSPORT OC Dubeň, 2012**

| Month | Number of shopping | Number of visitors | Index of customer |
|-------|--------------------|--------------------|-------------------|
|-------|--------------------|--------------------|-------------------|

|                  | <b>blocks given<br/>A</b> | <b>B</b>       | <b>service success<br/>I= A/B</b> |
|------------------|---------------------------|----------------|-----------------------------------|
| 1.               | 4 186                     | 35 981         | 0,116                             |
| 2.               | 3 402                     | 25 916         | 0,131                             |
| 3.               | 4 806                     | 36 280         | 0,132                             |
| 4.               | 3 275                     | 30 371         | 0,108                             |
| 5.               | 3 714                     | 29 650         | 0,125                             |
| 6.               | 3 728                     | 31 116         | 0,120                             |
| 7.               | 4 029                     | 30 928         | 0,130                             |
| 8.               | 3 712                     | 32 876         | 0,113                             |
| 9.               | 3 241                     | 28 654         | 0,113                             |
| 10.              | 4 161                     | 29 876         | 0,139                             |
| 11.              | 3 547                     | 31 345         | 0,113                             |
| 12.              | 4 943                     | 39 986         | 0,124                             |
| <b>Total sum</b> | <b>46 744</b>             | <b>382 979</b> | <b>0,122</b>                      |

Source: Processed according to internal documents

In order to compare the value of index of customer service success to other shops within benchmarking, it is necessary to calculate this indicator in total for a shop in a particular period (in our case in 2012). There was calculated index of success service in previous table individually for each month of 2012. In the last row of the table, this index is calculated in total for the year 2012 for the shop INTERSPORT OC Dubeň. The index was calculated in the same way for all the other shops (only shops open before 2012 were considered, opening up to the year 2011).

Growing index of customer service success also increases the efficiency of human capital. In the context of comparison of individual shops, INTERSPORT OC Dubeň in Žilina took seventh place. The best results are obtained by Bratislava shops in Aupark and Avion, what means that there is potential for improvement. Increasing the index of the success of customer service should grow proportionally with increasing reader, which represents the number of shopping blocks given per year (Tab.3).

In terms of theory it is noted that the measurement of HC is carried out in order to increase its effectiveness in relation to company performance, and therefore, it is necessary not only to provide measurement, but also to identify weaknesses and problem areas and take measures to improve the situation found. There is a similarity with personnel controlling (Němec& Surynek, 2014; Bušina, 2014). This action would follow as the next step in the process of effective management using human capital in the company. In this case there would be proposals in the field such as: increase employee motivation, increase their knowledge and business skills through company education (business and communication skills, teamwork, etc.), changes in the field of remuneration system and the like.

**Tab. 3: Values of the index of customer service success in a variety of INTERSPORT shops in Slovakia in 2012**

| Shop/town                             | index of customer service success |
|---------------------------------------|-----------------------------------|
| INTERSPORT Bratislava Avion           | 0,152                             |
| INTERSPORT Bratislava Aupark          | 0,149                             |
| INTERSPORT Trenčín                    | 0,132                             |
| INTERSPORT Považská Bystrica          | 0,131                             |
| INTERSPORT Prievidza                  | 0,124                             |
| INTERSPORT Košice                     | 0,123                             |
| INTERSPORT Žilina Dubeň               | 0,122                             |
| INTERSPORT Martin                     | 0,119                             |
| INTERSPORT Prešov                     | 0,117                             |
| INTERSPORT Michalovce                 | 0,113                             |
| INTERSPORT Bratislava Shopping Palace | 0,111                             |
| INTERSPORT Bratislava Lamač           | 0,108                             |
| INTERSPORT Žilina Mirage              | 0,107                             |
| INTERSPORT Spišská Nová Ves           | 0,099                             |
| INTERSPORT Zvolen                     | 0,097                             |
| INTERSPORT Nitra                      | 0,093                             |
| INTERSPORT Dolný Kubín                | 0,091                             |
| INTERSPORT Dunajská Streda            | 0,082                             |

Source: Processed on the basis of the outputs of the internal IS

## Conclusion

Human capital represents one of the enterprise inputs. Measuring the value of human capital, measurement and management of its effective use is a basic idea on which companies should build their performance and competitiveness. However, HC metrics must necessarily be based and also follow key indicators of company performance. It follows that the metrics of HC effectiveness are different in different companies. However, these activities take human resources managers a lot of professional knowledge, experience and creativity. In the context of our research, we found that companies rarely use metrics for the human capital efficiency management. Therefore, we have designed and implemented metrics for calculating the value and effectiveness of human capital in the trading company.

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## References

- Baron, A., Armstrong, M. (2007). *Human Capital Management: Achieving Added Value Through People*. Kogan Page Limited, 2007.
- Bontis, N., Fitz-enz, J. (2002). Intellectual Capital ROI: a Causal Map of Human Capital Antecedents and Consequents. *Journal of Intellectual Capital*, Vol. 3 Iss: 3, pp. 223 – 247.
- Bušina, F. (2014). *Personnel Management in the Construction Industry - the Problem of Human in the Construction Industry*. Praha: Wolters Kluwer, 2014, 320 p. ISBN 978-80-7478-455-2.
- Čadil, J., Petková, L., Kaplanová, V. (2013). Human Capital and Regional Development – Structural Analysis. *The 7th International Days of Statistics and Economics*, Prague, September 19-21, 2013, pp. 225-233.
- Fučíková, J., Šikýř, M. (2013). Diversity Management with Focus on Personality: The Experience from the Czech Republic. *The 7th International Days of Statistics and Economics*, Prague, September 19-21, 2013, pp. 408-416.
- Chodasová, Z., Tekulová, Z. (2014). Monitoring of Indicators of Competitiveness to Improve the Business Strategy. *Proceedings of the international scientific conference Controlling in SMEs – beyond numbers*. University of Finance and Administration, Prague, 24.4.2014. ISBN 978-80-7408-086-9. pp. 92-102.
- Kucharčíková, A. (2014). The Importance of Identification and Analysis of Educational Needs for Investment in Human Capital. *Communications*, Vol. 16, No.3/2014, pp. 86-92, ISSN 1335-4205.
- Kucharčíková, A., Ďurišová, M. (2014). Human Capital Efficiency in Transport Enterprise. *18th International Conference Transport Means*. Lithuania Oct. 23-24, 2014, pp. 239-243.
- Kucharčíková, A., Tokarčíková, E., Blašková, M. (2014) Human Capital Management – Aspect of the HC Efficiency in University Education. *Global Conference on Contemporary Issues in Education, GLOBE-EDU 2014*, 12-14 July 2014, Las Vegas
- Mayo, A. (2001). *The Human Value of the Enterprise*. London: Nicholas Brealey Publishing. 2001, 307 p., ISBN 1857882814.

Nalbantian, H. R. (2010). Optimizing Rewards: Applying the New Science of HC Measurement and Management. *10th ASHRM conference, Bahrain*, March 2010.

Němec, O., Surynek, A. (2014). Job Satisfaction and Personnel Controlling. In Kubíčková: D. *Controlling in SME's: Beyond Numbers*. Praha: University of Finance and Administration, 2014, pp. 307-314, ISBN 978-80-7408-086-9.

Scholleová, H. (2012). Cost optimalization of Education in Relation to Output Efficiency. *9th International Conference on Efficiency and Responsibility in Education Location: Prague, Czech Republic*. Jun, 07-08, 2012, pp. 526-534.

Šikýř, M., Serbusová, P. (2013). The Organization of Human Resource Management at Czech Primary Schools. *The 7th International Days of Statistics and Economics, Prague, September 19-21, 2013*, pp. 1381-1389.

Tokarčíková, E., Poniščiaková, O., Litvaj, I. (2014). Performance Indicators and their Exploitation in Decision-Making Process. *18th International Conference Transport Means*. Lithuania Oct. 23-24 2014, pp. 372-375.

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