

HOW TO SELECT APPROPRIATE HUMAN RESOURCE CONTROLLING INDICATORS

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Abstract: Human resource controlling represents a company's strategic method to support its role in planning, checking, and managing—including information supplement for human resources department. Human resource controlling helps with optimization and transformation of human resource functions and with general human resource management. Our survey deals with the implementation of human resource controlling in information technology companies. The selection of appropriate human resource controlling tools is the most important part of implementation. This article deals with the problem of human resource indicators selection as the most frequently used human resource controlling tool. Many international authors have solved the problem of performance appraisal measurement, and there are numerous demonstrations on how to choose key performance indicators. Our motivation to draft the complex methodology of human resource indicators selection is based on non-existing solution among the authors. To solve the problem and find appropriate methodology, we use the methods comparison, abstraction, and concretization. The result is a creation of the right human resource indicators selection in line with human resource controlling aim. We use the Balanced Scorecard, Deloitte human resource strategy framework, and partial solution of Kleinhempel (2010). These results constitute the basis for our future research and for drafting the whole methodology of human resource controlling implementation in information technology companies.

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Introduction

Companies all over the world must cope with crisis and its impact. Many top managers and owners solve the problem with redundancies and salary cuts. In 2009, 40% of European organizations reduced their HR budget, while only 4.9% increased it. The companies and HR managers are searching for new methods and practices to cope with these changing circumstances. We have conducted a study of human resource controlling, as a method of human resource optimization, for period of one year. We consider the human resource indicators as the most preferred and important human resource controlling tool. Every company with successfully implemented HR controlling, according to our study, uses human resource indicators. This HR controlling tool allows an analysis of current situation and predictions to the future (Caplan, 2009).

In this article, we describe the theory behind human resource controlling and human resource indicators. In the subsequent section, we analyze the approaches to selecting human resource indicators and obtaining possible solutions. In the primary research, we apply these approaches to Slovak IT companies and evaluate the pros and cons of different solutions. In the end, we analyse the results and generalize acquired knowledge for the whole ICT sector.

Theoretical basis

Human resource controlling represents the application of controlling conception on the level of human resource management (HRM) as a company strategy. In general, controlling can be defined as a basic management function of establishing benchmarks or standards, comparing actual performance against them, and taking corrective action if required. Mann & Meyer (2004) characterized controlling as a control of planning, an analysis of deviations from plan, and a creation of operational plans, budgets, and calculations.

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According to the definition of controlling, Chodasova (2012) defines the controlling philosophy as a complex function of: management, coordination planning, control, and information flow—all in the dimension of achieving the aim.

Human resource controlling is the controlling of functional area, and its role is planning, checking, and managing—including information supplement for selected functional area. It also deals with concretization of short-term and long-term objectives of HRM, along with the assessment of achievement (Majtan, 2007)

Olexova (2011) defines human resource controlling as a company strategic tool. It is important to set the objectives, to obtain information about planned and actual level of human resource processes, to find the deviations, and to design measures to eliminate shortcomings. Its implementation can also prove the contribution of human resources to business success.

The main controller's task is to manage the process of human resource activities with human resource indicators, monitor, evaluate them, and take corrective actions based on deviations found. According to Potkany (2007), this process can be divided into three activities:

- definition of HR objectives,
- monitoring and evaluation of their achievement,
- transparency in human resource function and its approach to customer's requirements.

Human resource controlling tools

Monitoring and evaluation of HR objectives achievement are accomplished through controlling tools; human resource controlling utilizes multiple tools. These tools can be classified based on strategic/operational view and qualitative/quantitative aspects. Olexova (2011) defined the most popular tools, including HR audit, HR indicators, HR standards, HR statistics and costs, and qualitative survey of employees' opinion.

Jungmeister (2005) also promoted other tools. In quantitative tools, he includes: key personnel indicators, score cards, and initiatives to decrease personnel costs. In qualitative indicators, he includes: assessment of employees personal development, personnel surveys, SWOT analyses, and development scenarios.

Olexova (2011) adds other less frequently used tools: HR benchmarking, model excellence EFQM, methodology Process Survey Tools, the concept of indicators (KPI – key performance indicators, PI – performance indicators, KRI – key result indicators), and Balanced Scorecard.

HR indicators are used for the analysis of the current situation. The process of their use for HR controlling consists of the following parts: indicators identification, target results identification, and regular monitoring of deviations. HR indicators are included between operational tools, but they reflect strategic aspects and quality of human resource management (Olexova, 2011). The resources of HR indicators data are personnel administration and payroll accounting. Properly chosen personnel indicators can be used in benchmarking, and they show the long-term development of the company.

Literature Review

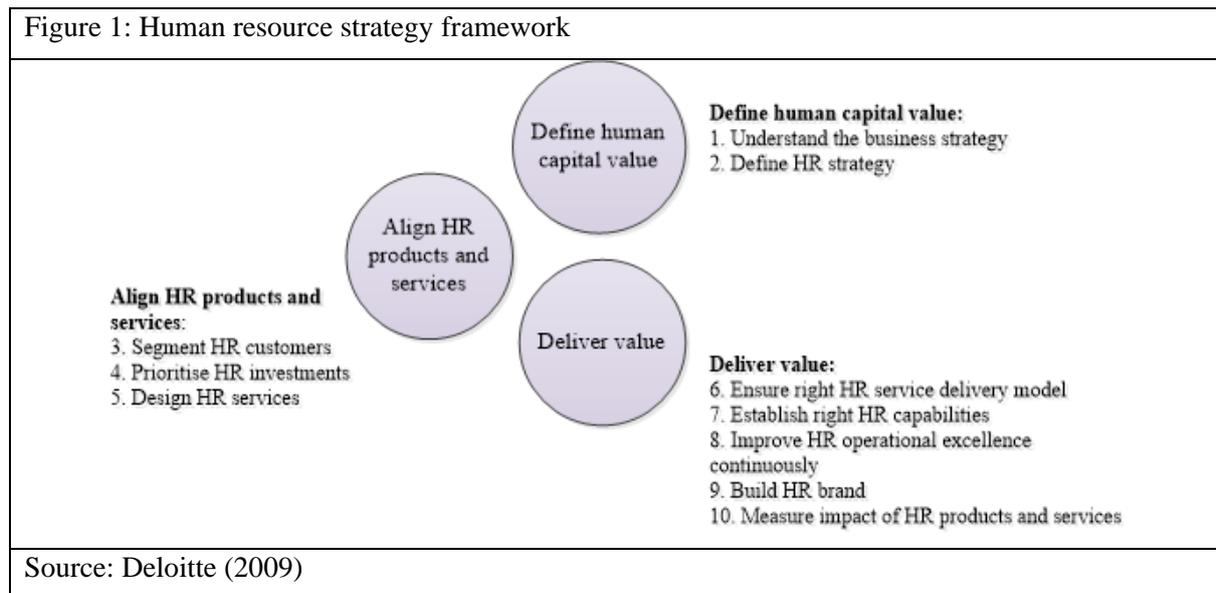
Surveyed company analyzes and evaluates indicators, which can be divided into seven groups: corporate results, remuneration and employee benefits, organizational behavior, recruitment and selection, talent management, training and development, and organizational structure—44 indicators altogether. The main problems in the company are:

- too many HR indicators;

- HR indicators are not monitored periodically;
- the results are available only during the meetings and upon request from HR manager;
- there is no methodology for utilizing HR indicators in obtaining, monitoring, and taking corrective actions based on the deviations found.

Company needs to take into account its vision, aim, and the whole strategy to find appropriate HR indicators. Human resource management strategy needs to be based on the overall company strategy and to complete other departments' strategies.

The first possible solution is from the consulting company, Deloitte. Its employees created a 10-step approach to help companies define and executive an effective HR strategy. This HR strategy is based on HR strategy framework (see Figure 1).



HR strategy framework is divided into three parts: define human capital value, align HR products and services, and deliver value. The last and very important step of human resource strategy framework is to “measure impact of HR products and services,” which means to identify key performance measures.

Deloitte consultants recommend HR Scorecard and HR roadmap as tools for measuring the impact of HR products and services. HR Scorecard consists of human resource key performance indicators divided into five parts: headcount, recruitment, training and development, succession planning, and performance management. HR Scorecard represents the selection of the most important HR indicators. These indicators help company to gain strategic aims and to optimize HR functions. Because of that, HR indicators represent a wider definition and contain indicators indirectly contributing to the strategic aim. The indicators in HR Scorecard contain results for the reporting period, planned target, and also variance to target. The target value represents value expected after developing strategic aim.

The basis for HR Scorecard is HR roadmap, which introduces visual description of causes and impacts. HR Roadmap provides a practical guide for the transformation and optimization of HR functions, including HR strategy development.

The second solution is based on Balanced Scorecard as a multidimensional performance evaluation system and strategy management system. Balanced Scorecard works with four perspectives: financial results, customer satisfaction, business process, and learning and growth. Jandzikova & Stenitzerova (2010) drafted the using of Balanced Scorecard in Slovak post to define key HR indicators intended for the evaluation of HR department work. They chose the following workflow (Jandzikova & Strenitzerova, 2010):

1. Definition of human resource management strategic aim.
2. Division of HR strategic aim into four perspectives.
3. The creation of Balanced Scorecard Roadmap.
4. Definition of key HR indicators for all HR strategic aims.

Yin (2011) transforms traditional BSC system for knowledge workers. He creates four perspectives and linkages to strategic activities:

1. Achievement perspective – or financial results measured in budgets and costs.
2. Communication perspective – communication with customers and effective CRM (Customer relationship management) are the most important factors to improve company's performance. The knowledge worker is easier to teach and learn how to do well with the customers.
3. Team work perspective – is related to the internal business processes and to the managers' knowledge of working effectiveness for their working team. The authors suppose the team based on BSC will perform work more properly to meet the customer requirements and will connect easily with other teams.
4. Knowledge perspective – this perspective includes employee learning, worker training, and corporate culture, not only for individual growth but also for corporate self-improvement.

The third solution is from Romanian authors. Kleinhempel (2010) implemented Barseghyan (2009) approach for human effort dynamics and schedule risk. They use a business model as a managerial conceptual tool that contains a set of elements and relationship, and allows expressing the business logic of a specific firm. The basic elements of business model are processes. Anupindi, Chopra, Deshmukh, Mieghem, & Zemel (1999) identified four essentials process competencies: process cost, process flow time, process flexibility, and process quality. Quality of business process is decomposed in four dimensions: function, input/output, non-human performance and human resource. Heravizadeh (2009) decomposed human resource dimension into: domain knowledge, qualification, certification, experience, time management, and communication skills.

Kleinhempel (2010) classified two abilities that involve all human resource dimension characteristics and described the work of call center employees: minimum abilities and transfer abilities. The minimum abilities contain more general abilities needed for all job positions; the transfer abilities contain abilities specific for the work of call center employee. Minimum abilities are: punctuality, schedule time, subordination, compliance to instructions, ability to work with minimal supervision, cooperation, positive attitude, trustworthiness, initiative, courtesy, patience, ability to allow contradictory discussions, rationale, acceptance of suggestions to improve work, active listening to supervisor, self-evaluation, and team spirit. Transfer abilities are: interactive problem solving, proper decision-making, timeliness, responsibility, motivation, verbal expression, appropriate tone call, appropriate volume call, expression of positive feeling through conversation, condescendence toward the interlocutor, capacity for obtaining acceptances, change in negative-rate call, adaptability according to the call, and new ideas for improving the test script.

Methodology

In order to achieve this article's objective, which aims "to draft the complex methodology of human resource indicators selection in an IT company," we have conducted a survey in one Slovak ITC company. The survey was conducted from June to December, 2014. The company did not wish to publish its name. The company provides services in the Information and Communication sector, and it has over 400 employees. To cope with the problems of inadequate literature and other authors' solutions, we chose the following methods:

- comparison of human resource indicators (as human resource controlling tool used in all selected companies);
- abstraction and concretization to generalize obtained results and to propose appropriate solutions.

Results and discussion

To achieve our objective in which “to draft the complex methodology of human resource indicators selection in an Information Technology company,” we have compared all three solutions described previously.

Human resource strategy framework

Deloitte methodology is based on human resource strategy framework. Company defined human resource vision and objectives a year earlier, and now we can use them to identify HR indicators. Company’s human resource vision is: “the human resource management’s vision in our company is focused on a long-term development of current human resource capital and the recruitment of new employees with high potential and talent. The talent is necessary for the fulfilment of obligations arising from the job position.” This vision was categorized into four objectives:

1. To identify and recruit the talented employees.
2. To recognize and identify the future leaders.
3. To recognize the using of employees talent.
4. To use the educational and training costs in the most effective way.

To follow the human resource strategy framework, we need to identify individual characteristics:

- HR customers are developers, testers, architects, and employees with the highest utilization. Their work is based on motivation, work conditions, and team work. HR department needs to focus on fluctuation, manager’s work, training, and talent management.
- The most important of all HR projects is training, education, and corresponding costs.
- HR services can be divided into seven parts according to the known processes: recruitment, selection, orientation, remuneration, training, talent management, and employee satisfaction.
- HR department employees’ skills and abilities are not relevant.

Then key performance indicators are dividing into five dimensions according to HR services and HR customers: recruitment, selection, and orientation; fluctuation; remuneration; training and education; talent management and employee satisfaction. The indicators are focused on HR customers and their team work.

Balanced Scorecard

Yin (2011) inspired us with modified four perspective matrix, and we use very similar perspectives: talent perspective, communication perspective, team work perspective, and educational perspective. These modified perspectives include all strategic goals and vision. Talent perspective helps to measure the efficiency of talent management and the skills and competencies of employees. Communication perspective includes internal communication within the company, especially the communication between the manager and his subordinates. Team work effectiveness is related to the manager’s knowledge of working team effectiveness (the same as Yin, 2011) and the team’s abilities to work together. Educational perspective includes all employees’ training and learning.

According to workflow from Jandzikova & Strenitzerova (2010), we assign strategic goals to Balanced Scorecard perspectives:

- Talent perspective:
 - To identify and recruit the talented employees.
 - To recognize the use of employees talent.
- Communication perspective:
 - To increase internal communication.
 - To increase communication in project teams.
- Team work perspective:
 - To use team members' potential in the most effective way.
 - To minimise employee's fluctuation between teams.
- Educational perspective:
 - To use the educational and training costs in the most effective way.

Quality of business process

As we mentioned, the human resource dimension contains six parts: domain knowledge, qualification, certification, experience, time management, and communication skills. Domain knowledge presents the knowledge on a specific domain that employee needs to acquire. In an IT company, it is programming and program architecture. Qualification is what an employee needs in order to perform his or her function (in an IT company, it is university education or completion of a course). Certification, in the form of a certificate, is what a person should obtain to certify his or her qualification toward such function. Experience is what a person has acquired that is relevant to the function (in an IT company, experience differs according to position). Time management and communication skills are desirable traits that an employee needs to possess to be able to perform the function.

The comparison of the proposed human resource indicators according to three selected solutions is shown in Table 1. Current state and human resource indicators measured in company are displayed in the first column. In the second column, human resource indicators according to human resource strategy framework, are displayed. Human resource indicators according Balanced Scorecard are in the third column, and HR indicators according to business process quality method are in the fourth column.

Personnel indicator	Current state	HR Scorecard	Balanced Scorecard	Business process quality
Asset returns to FTE	☑			
Total costs to FTE	☑			
Pre-tax profit to FTE	☑			
Personnel costs / Revenue	☑			
Personnel costs / Total costs	☑			
Average personnel costs	☑			
Personnel costs to employee	☑			
Average labour costs	☑			

Average salary		<input checked="" type="checkbox"/>		
Average salary by occupation		<input checked="" type="checkbox"/>		
Salary structure forms		<input checked="" type="checkbox"/>		
Performance part of salary	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Labour costs / Personnel costs	<input checked="" type="checkbox"/>			
Level of satisfaction with remuneration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Fluctuation rate	<input checked="" type="checkbox"/>			
Total external fluctuation	<input checked="" type="checkbox"/>			
Fluctuation in project team		<input checked="" type="checkbox"/>		
Fluctuation of talented employees		<input checked="" type="checkbox"/>		
Fluctuation between teams			<input checked="" type="checkbox"/>	
Employee satisfaction	<input checked="" type="checkbox"/>			
Reasons for leaving a job	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
External recruitment rate	<input checked="" type="checkbox"/>			
New occupation rate	<input checked="" type="checkbox"/>			
Team's new occupation rate			<input checked="" type="checkbox"/>	
Occupation replacement rate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Occupation rate in team			<input checked="" type="checkbox"/>	
Recruitment costs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Time of offer acceptance	<input checked="" type="checkbox"/>			
Average number of applicants with university education for one free position				<input checked="" type="checkbox"/>
Internal recruitment rate	<input checked="" type="checkbox"/>			
Career development rate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Number of interviews with applicants	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Number of identified talented employees during recruitment		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Number of job position offered especially for talented employees			<input checked="" type="checkbox"/>	
Investment in training and development of talent employees	<input checked="" type="checkbox"/>			
Training hours of talented employees		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Training hours of future leaders		<input checked="" type="checkbox"/>		
Training costs to talented employees			<input checked="" type="checkbox"/>	
Training costs to future leaders		<input checked="" type="checkbox"/>		
Total costs to training and development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Training costs / Labour costs	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

Internal training costs	☑			
External training costs	☑			
Specialized training costs	☑			☑
Specialized training hours				☑
Developmental training costs	☑			
Total training hours		☑	☑	
Average training hours to one employee	☑		☑	
Return on investment to employee training		☑		
Training hours for HR employees to identify the talent			☑	
Training costs to getting a certificate				☑
Total costs to getting a certificate				☑
Number of employees with acquired certificate				☑
Number of employees with language certificate				☑
Number of position with compulsory certificate				☑
Number of employees	☑			
Number of key employees	☑			
Number of employees identified as talented			☑	
Number of employees with university education				☑
HR department costs to FTE	☑			
HR department costs / Total costs	☑			
Average salary of one HR department employee	☑			
Average job tenure in company				☑
Average job tenure in one position				☑
Average job tenure in company before promotion				☑
Range of control	☑			
Employee utilisation	☑			
Employee use of working time ratio	☑			☑
Average overtime hours	☑	☑		☑
The volume of work / working time	☑			☑
Participation of employees in outcomes	☑			
Level of satisfaction with company's development		☑		
Level of satisfaction with company's management		☑		
Level of satisfaction with employee's self-		☑		

development and performance				
The employees' awareness of internal problems			☑	☑
Satisfaction with the level of internal communication			☑	☑
Level of satisfaction with communication between employees in one team			☑	☑
Level of satisfaction with communication between employees and managers			☑	☑
Communication training hours			☑	☑
Level of team performance			☑	
Number of team's finished projects			☑	☑
Number of team's finished projects in time				☑
Source: Authors				

From Table 1, we can see the differences among the solutions. While current measured indicators are mostly economic and cost-related, other solutions indicators are mostly qualitative. Common human resource indicators, which are present in two or more solutions or in one solution and in current state are:

- Recruitment, selection, and orientation
 - recruitment costs, number of interviews with applicants,
- Fluctuation
 - reasons for leaving a job, occupation replacement rate,
- Remuneration and salary
 - level of satisfaction with remuneration,
- Training and education
 - average training hours to one employee, training costs/labor costs, total costs to training and development, specialized training costs , total training hours,
- Communication
 - level of satisfaction with communication between employees in one team, level of satisfaction with communication between employees and managers, communication training hours, the employees' awareness of internal problems, satisfaction with the level of internal communication,
- Talent management
 - number of identified talented employees during recruitment, training hours of talented employees,
- Work organization
 - employee's use of working time ratio, the volume of work/working time, career development rate, average overtime hours, number of team's finished projects.

Conclusion and recommendations

The problem of appropriate human resource controlling indicators selection and measurement is very complex in nature. According to various authors, we have analyzed and practically applied three different solutions in one company. The first solution is based on the published work from a consulting group, Deloitte, which describes the framework of human resource strategy. During our practical survey, we drafted 23 human resource indicators. The second solution is based on modified Balanced Scorecard. We drafted new perspectives: talent perspective, communication perspective, team work perspective, and educational perspective. Within these perspectives, we identified 20 indicators. The last solution is very specific and based on business process quality. These indicators are oriented on some specific function, and we identified 22 HR indicators.

As the best methodology for human resource indicators selection, we recommend human resource strategy framework or modified Balanced Scorecard. Both solutions build on human resource strategy goals not the quality. Other advantages are: HR indicators can be changed or deleted in case of changed human resource strategy and objectives. The communication with management about the selected indicators is easier and defensible. Top management and HR department understand the importance of the company's aim, and they also better at understanding HR indicators and their purpose. The disadvantages of the solutions are: the lack of focus to economic indicators and influence of trends to HR strategy. Therefore, our survey may be useful for companies by starting with HR indicators and HR controlling.

Future work may investigate measures in more companies and put our proposal into practice. In a future study with the same companies, we will investigate the importance of the right HR indicators and the relationship between HR indicators and other tools. Another study can also focus on the possibility of more detailed use of business process quality in human resource management.

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