

## **BUSINESS PROCESS MANAGEMENT IDENTIFICATION AND OPTIMIZATION**

**Juraj KOPČÁNI**

Ing. Juraj Kopčáni, Department of Management, Faculty of Business Management  
Brno University of Technology, Kolejní 2906/4, 612 00 Brno, Czech Republic  
e-mail: j.kopcani@seznam.cz

### **Abstract**

*Nowadays, companies increasingly prefer to deliver goods on time, in high quality, quickly and at an optimal price to the customer. The company that is able to clearly define these processes has an easier path to success. At the same time, it has better conditions compared to the competitors to overcome any economic difficulties and market disturbances without major problems. However, to be able to "seamlessly" work and meet customer needs, the company must know all the ongoing processes in the company from the receipt of an order up to shipping goods to the customer. The aim of the research was to identify the knowledge of the course of processes and activities in companies and assess the needs for business process optimization.*

### **Key words**

*process, business process, process management, optimization*

## **INTRODUCTION**

*"The oft-quoted "If I cannot measure it, I cannot optimize it" applies equally to processes. It is therefore essential for companies to formulate their process objective related to time, cost, and quality in terms of specific measurable performance indicators. The latent synergies in the company can be exploited to the full with benchmarking and process comparisons and best practices can be identified."*

*(Prof. A. W. Scheer – Corporate Performance Management, Preface)*

The above quoted vision emphasizes the aim and issue of this paper, focused on a description of the results of research leading to business process optimization. The basis of a healthy and prosperous company is to manage the various processes and operations leading to the ultimate goal of profit. At present, companies must cope with much more demanding activities that constitute individual processes, when compared to ten or fifteen years ago. One of these is the new opportunities posed by information technologies as well as the implementation of these technologies into business processes. A negative element for the implementation of information technologies into the process is the cost and personnel intensity, as well as the speed of implementation and alignment of various successive processes in response to these technologies. When a company wants to succeed, and customer satisfaction is increasingly demanding, it cannot be done without information technologies and continuous progress.

Modern concepts of management in various forms are defined by a number of authors. Turneček (2003) defines it on the basis of the following three characteristics:

- The prominent role is attributed to information technologies and enterprise information systems,
- Emphasis is put on the role of the human factor, the requirement of the art to lead people (leadership), teamwork, learning organization, etc.,
- Accent is put on the need for a process orientation.

Generally, processes can be defined as a set of tasks and activities that together transform inputs into outputs (Garvin, 1998).

However, definition of business processes may differ according to various authors:<sup>1</sup>

Hammer - Champy (2000): "The process is a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer."

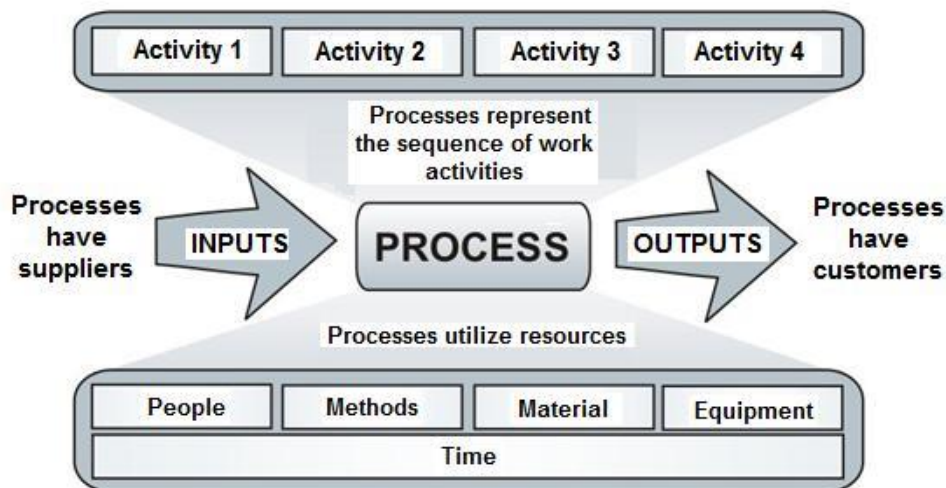
Davenport - Short (1990): "The process is a set of logically related tasks performed to achieve a defined business outcome."

Řepa (2006): "Business process is a sum of activities, transforming the sum of inputs into the sum of outputs (goods or services) for other people or processes using for it people and tools."

Fiala - Ministr (2003): "The process is a logical or chronological set of activities with defined inputs and outputs to create an integrated value for the customer of the process."

From the above definitions, other characteristics of processes can be derived (Hromková, 2005):

- its functionality depends on its procedures and resources,
- it has internal or external inputs or suppliers and internal and external customers,
- it is carried out repeatedly and sequentially,
- it can be further broken down into the sub-processes and activities,
- its outputs are definable and predictable.
- it has a linear and logical sequence.

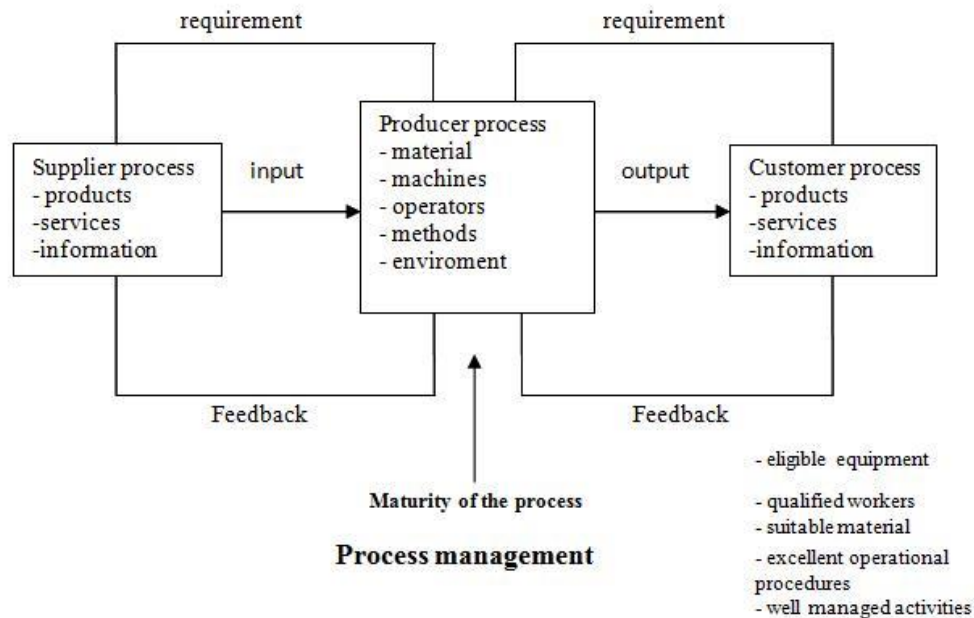


**Fig. 1. Business process** (Source: *Process View of Work*, 2005)

Processes are identifiable at all levels of the plant. However, all processes must have their boundaries: clearly defined beginning and clearly defined end with a clearly defined number of steps.

<sup>1</sup> In the English literature, the process that goes through several organizational units (end-to-end process), e.g. complete order fulfilment, is referred to as the "Business Process".

Processes at the macro level include, for example, purchasing, distribution, billing, claims, tracking, etc. These processes defined at the macro level, can be further broken down into sub-processes and activities, such as preparing a purchase contract, delivery of material, keeping personal records, etc. The activity therefore represents a partial activity carried out by a certain worker (Drahotský, 2003).



**Fig. 2. Process management (Drahotský, 2003, p. 37)**

The process must be efficient and economical. They should primarily serve the customers, not the company. Therefore, it is necessary to constantly wonder how processes contribute to the result - customer satisfaction. The thinking process is making efforts for integrity in relation to the contractor - manufacturer (process) - customer.

The individual processes can identify:

- Its "value", i.e. its contribution to the benefit of customers;
- Process costs;
- Process owner;
- The time required for completing the process;
- The internal layout (organization) of the process.

For effective process control, you need to have them accurately and clearly mapped. Implementation of each process requires a suitable combination and timing of multiple activities - transformation, information, managerial, administrative, and the like. Some activities in the process can be run simultaneously. Through the process of analysis, it is possible to understand it as a whole, not just its parts. At the same time, it is necessary to uncover obstacles to the effective operation of the process. Analysis of the process structure describes the processes occurring in a company with various degrees of detail.

As seen from the above definitions and current practice, the optimum definition of the business process overlaps the sum of activities on the part of the input and a set of activities on the part of the output with the purpose of satisfying the customer.

Based on the above theory and the author's practical experience, the process has been defined as follows: "Business process is a set of consecutive operations of the company with a purpose

*to satisfy the customer and to make profit for the company. In this case, customer satisfaction is sometimes more important than the minimum short-term profit or loss."*

## **MATERIAL AND METHODS**

For this research, an empirical method, which is based on the immediate live image of reality, was chosen. This method can detect the specific and unique characteristics (Hamplová, 2006).

Quantitative research is based on the foundations of the knowledge obtained empirically (through observation) and verification (anyone in the same position observing the same thing or situation). The conditions of the quantitative research are based on the assumption that the objects are measurable, classifiable or can be organized, and they can therefore be obtained in quantifiable form, in the form of statistical data. The collection of data is carried out using standardized interview techniques, questionnaires or observations (Šíroký, 2011).

Basic research was conducted by the method of observation, but also through questionnaires and interviews with operators and management at the companies. The research concerning the ongoing processes in the companies and the process management was carried out in the first half of 2016.

For the selection criterion, a sample of companies with the following parameters were selected:

- company size max. 50 employees<sup>2</sup>,
- the vehicle fleet size (including goods vehicles over 3.5 tons) - max. 30 pieces<sup>3</sup>

The research was carried out personally in companies in South Moravia in the Czech Republic. We addressed 20 companies according to the above criteria. The workers of these companies - and in most cases the owners, keep the questions referred to the ongoing processes in the company and with it related process management. The questionnaire included 5 questions from this area.

Questions were formulated as closed with specific choice questions made from a list of possible options (answers to the questions: yes, no, and I do not know). The last question was formulated as an open-ended with the possibility to formulate the personal opinion.

## **RESEARCH RESULTS**

As it is mentioned above, companies were addressed in South Moravia according to the selected criteria. Based on the responses in the questionnaires and interviews we drew the following conclusions:

- Companies and their owners are aware of the individual processes and activities associated with them that must take place for the successful implementation of the contract and customer satisfaction.
- In small companies, owners or responsible managers have knowledge and understanding of the contract development and from their position monitor its course. Individual employees responsible for certain parts of the contract execution control their responsibilities resulted from their work positions. They also possess knowledge about the processes that precede the carried out activity and about the following process performed after completing the activity.
- Any of the small business does not have elaborated guidelines on the executed processes and activities together with established responsibilities for particular activities performed.

---

<sup>2</sup> Annex I to Regulation No. 800/2008 for the division of the undertakings into categories by size uses parameters of the number of employees, annual turnover, annual balance sheet. Small enterprise is an enterprise, which employs fewer than 50 people and has an annual turnover or annual balance sheet does not exceed EUR 10 million.

<sup>3</sup> Author's parameter based on the size of the company.

Generally, the performance of activities is managed by a contract of employment and instructions of business owners and responsible managers.

- A few companies analyse processes. At the need for cost reduction, analysis of processes is in the last place.
- Only a few companies innovate existing processes or introduce new ones. Most companies are afraid of any innovation as it does not bring quick results, and effectiveness of the innovation is not guaranteed.
- Just a few employees in lower working positions have the opportunity to comment on other activities than on those performed by them, or express their opinion of the process for potential improvement.

## **DISCUSSION**

The research results confirm that the owners and managers of small businesses are aware of the individual activities to be carried out for the successful operation of the company and for making profit. The problem arises when they have to identify new opportunities and identify potential reserves to make changes for the advancement of the company, or keeping a step ahead of the competitors.

Many owners and managers, but also the employees themselves do not want to go into often necessary analysis of individual processes with the possibility of finding weakness and its elimination, also they are not ready to search and identify unnecessary costs. Another negative approach is also the reluctance to overcome stereotypes in the spirit of "we do it this way for many years and it works." However, they do not realize that times are changing and individual activities in the company with the emergence of new technologies are accelerating. At the same time, the processes are improved so that the final customer would be fully satisfied.

Many of the processes and technologies that from the perspective of the small business owners require extensive knowledge, from both a professional and technical point of view tend to be financially demanding, and are usually available only to large companies. Small companies have a much more difficult position to maintain their position in the market in competition with large companies - financial sharks that do not have problems to compensate possible deficiencies in personnel, financial, technological or production activities from other sources.

Based on field research, we analyzed the possibilities of how even small businesses can afford to correctly identify the ongoing processes in the company and propose possible options for improvements to increase the quality of work, better customer satisfaction and ultimately increase profits of the company.

In accordance with Scheer (2005), in our research we came to the results that it is the process management that has become an important control instrument in many companies, because optimizing a company's capacity to create value in the form of processes has a direct and immediate effect on the bottom line. Our approach was to enhance an organization's effectiveness and efficiency in achieving its defined objectives. However, it is upon the individual companies to analyze which management methods and tools can be useful for process optimization. We identified that the company owners and managers should focus on planning, setting up, and managing the foundation of organizational procedures. The above mentioned analysis based upon the research and survey results offers knowledge and methods to managers to improve the efficiency of their business processes, and carry out necessary changes in business process management and optimization, including:

- Identify and analyse organizational procedures;
- Improve management of organization processes;
- Process design and optimization;



- Writing policy and procedure manuals;
- Designing an organizational structure to fit the organization's business needs;
- Improve processes in specific organizational units;
- Cost and process time reduction;
- Focus on diagnostics of processes.

Last but not least, we should take into account the transition from traditional internal business process management optimization, to the new concept of Enterprise Information System which is open for all partners operating in common business interests instead of traditional internal business process management optimization. At present, business technologies, along with ICT, overlap more and more closely. In the Czech Republic, as well as worldwide, IT has become a critical element of the chain of business and profit. Earnings of companies are growing not only due to significant cost reduction and management optimization, but also due to the implementation of modern information technologies and systems.

## **CONCLUSION**

As has been mentioned many times, the task of each company is to satisfy the customer while satisfying the expectations of business owners and shareholders to make a profit. To operate properly, the company has to have good management, professionally trained staff and properly identified and established processes. Only then these processes can be continuously optimized and upgraded.

The research results confirm that the owners and managers of companies are aware of the individual processes, but do not give them adequate importance. They underestimate the permanent need to optimize the cost analysis and the possible adaptation to innovation and new trends. In this area, many companies have still to learn how to manage business processes. This area also provides many opportunities for the companies that can move them significantly ahead of the competitors.

## **References:**

1. DRAHOTSKÝ, I., ŘEZNÍČEK, B. 2003. *Logistika - Procesy a jejich řízení. (Logistics - Processes and their management.)* Brno: Computer Press. ISBN 80-7226-521-0.
2. DAVENPORT, T. H., SHORT, J. E. 1990. The New Industrial Engineering: Information Technology And Business Process Redesign. *Sloan Management Review*, 31(4), s. 11-28. [online]. [cit. 2007-04-20]. Available from database: <ProQuest 5000>. ISSN 0019-848X.
3. FIALA, J., MINISTR, J. 2003. *Průvodce analýzou a modelováním procesů. (Guide to analysis and process modelling.)* Ostrava: VŠB, Technická univerzita Ostrava, 110 s. ISBN 20-248-0500-6.
4. GARVIN, D. A. 1998. The Processes of Organization and Management. *Sloan Management Review*, 39(4), s. 33-51. [online]. [cit. 2007-04-20]. Available from database: <ProQuest 5000>. ISSN 0019-848X.
5. HAMMER, M., CHAMPY, J. *Reengineering – radikální proměna firmy. Manifest revoluce v podnikání. (Reengineering - the radical transformation of the company. Manifesto of revolution in business.)* Přel. L. Vodáček, 2000. 3. vyd. Praha: Management Press, 212 s. ISBN 80-7261-028-7.
6. HAMPLOVÁ, P. 2006. *Zvyšování výkonnosti podniků s využitím SCM. Pojednání o disertační práci. (Business performance improvement with the use of SCM. A treatise on the dissertation.)* Brno: VUT Brno, Fakulta podnikatelská, 52 s.

7. HROMKOVÁ, L., HOLOČIOVÁ, Z. 2005. *Teorie průmyslových podnikatelských systémů I. : Studijní pomůcka pro distanční studium. (Theory of industrial enterprising systems I. : Study tool for distance learning.)* Zlín: Univerzita Tomáše Bati ve Zlíně, 112 s. ISBN 80-7318-270-X.
8. Portál [www.strukturalni-fondy.cz](http://www.strukturalni-fondy.cz), *Pomůcka pro určení velikosti podniku (Aid for determining size of the business.)* [online]. [cit.02-06-2016] Available from [www: <http://www.strukturalni-fondy.cz/cs/Fondy-EU/Programove-obdobi-2007-2013/Programy-2007-2013/Operacni-programy-Praha/OP-Praha-Adaptabilita/Novinky/Pomucka-pro-urceni-velikosti-podniku>](http://www.strukturalni-fondy.cz/cs/Fondy-EU/Programove-obdobi-2007-2013/Programy-2007-2013/Operacni-programy-Praha/OP-Praha-Adaptabilita/Novinky/Pomucka-pro-urceni-velikosti-podniku)
9. ŘEPA, V. 2006. *Podnikové procesy : Procesní řízení a modelování. (Business processes: Process management, and modelling.)* 1. vyd. Praha: Grada Publishing, 268 s. ISBN 80-247-1281-4.
10. SCHEER, A. W., JOST, W., HESS, H., KRONY, A. 2005. *Corporate Performance Management, ARIS in Practice*. Berlin, Springer.
11. ŠIROKÝ, J. a kol. 2011. *Tvoříme a publikujeme odborné texty nejen pro ekonomy a manžery. (We create and publish professional texts not only for economists and managers.)* Computer Press. ISBN 978-80-251-3510-5.
12. TUPA, J., BASL, J. 2006. Implementation of the CQT methodology for business process optimization. *Applied Computer Science*, **2**(2), pp. 73-92. ISSN: 1214-4029.
13. TURNEČEK, J. 2003. *Znalostní podnik ve znalostní společnosti. (Knowledge enterprise in the knowledge society.)* Professional Publishing, 312 s. ISBN 80-86419-35-5.