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# Business Process Performance Management – A Modern Approach to Corporate Performance Management

## Abstract

Since the end of the last century the pressure of globalization and internationalization on worldwide market has been rapidly increasing. Together with this trend innovation pressure has become stronger. Business competitiveness is conditioned by the innovation ability not only of products but also of processes. Enterprises therefore have started to move attention from product quality to effectiveness of internal business processes. Increased emphasis is laid on the performance management of internal processes. Shareholders and managers are more oriented on the long term development and prosperity instead of orientation on short term revenues achievement. When talking about managerial decisions we can even often hear terms such as strategic system of corporate performance management and process approach to management. These modern concepts for corporate performance measurement and management include not only financial dimension but also non financial indicators such as customers, internal processes, learning and growth and customer satisfaction. The object of interest in this paper is a modern management approach based on corporate performance measurement through internal business processes performance measurement. The paper deals with fundamentals of process management and process performance. It is focused on modern concepts, methods and tools for business process performance management. The attention in the paper is paid also to research results focused on using modern methods of business process management in Slovak industrial enterprises from selected branches. The aim of the research was testing the hypothesis: enterprises using process performance management and its methods have been reaching more positive values of indicator ROE representing a basic indicator of corporate performance. Our findings regarding influence of using process performance management methods on corporate performance are presented in the paper.

## Key Words

*corporate performance management, process approach, business process, business process performance management*

**JEL Classification: M19, L25, D22**

## Introduction

Corporate performance is an object of interest not only of owners (shareholders) but also of other interested subjects such as managers, employees, creditors, customers, suppliers, municipality and state. According to economic theory a corporate performance is determined by the level of transformation process – process of inputs to

outputs change and their correlation reflect a level of appreciation of inserted means and reproduction process effectiveness. In our opinion the corporate performance can be defined as an ability to reach required effects and outputs in measurable units, to evaluate spent resources and to create a profit. Management of corporate performance presents a way of motivation and management by objectives characterized on the base of quantitative performance indicators. [1] Successful economic development and market environment development require besides the application of traditional methods in business also the application of new modern methods adapted to the contemporary market needs, requirements and conditions. In the present new approaches to corporate performance monitoring are winning their recognition. They are based on traditional systems of financial indicators and are completed by time and qualitative indicators. One of modern approaches is based on corporate performance measurement by means of internal processes performance measurement. Business internal processes are objects of process approach to management that has been formed during this century. Principles and methods of process management enable continual measurement and improvement of business processes performance and thereby corporate performance.

## **1. Business Process Management**

Under the term process we understand activity set creating a final value for customers. The process can be featured as a complex of exactly defined activities that have to be accomplished in certain order keeping ordered quality in effort to achieve specified goal. Business process can be characterized as a complex of activities which due to one or more inputs creates output bringing a value for internal or external customer. [5] If we want a business process to have required quality, implied controls of process inputs and outputs operations are needed.

Business processes are objects of process approach to management based on enterprise search and analysis from the view of business activities and activities performed by managing staff. Basic idea of process approach is that reasons of low business performance are ineffective internal processes which should be changed towards efficiency increase and the highest added value for customer. Process management presents systems, procedures, methods and tools for sustainable securing maximal performance and continual improvement of business processes with aim to fulfil determined strategic goals. [4, 12]

Performance of business processes presents a rate of required results achievement in the process, its size is expressed by the gap between existing and required result. [11] The result presents a goal and its measure is an indicator. To achieve an effective management of process performance it is needed to draw clear organizational and individual goals based on financial and other non-financial indicators. Term business process performance is closely connected with the terms quality and productivity. Quality presents a complex of own product features able to satisfy customer requirements. Productivity presents a ratio between inputs and outputs. Productivity relates especially to effective resources and inputs utilization needed for running of

specific process. The better the input utilization is the higher the process productivity is. [12]

Contents (life cycle) of process performance management includes following phases: process identification (process map assembly, determination of process parameters and internal structure), process measurement (setting indicator of process performance, determination of desired indicator value, measurement of reaching values), process improvement (process reengineering presents a radical process change and Kaizen a conception oriented on continual process improvement). [8]

## **2. Methods and Tools of Business Process Performance Management**

At present a number of methods and tools focused on corporate performance measurement and management exist in enterprise environment. Defaults of traditional performance management and measurement systems have been solved through additional methods focused on business processes. To the best known concepts and methods belong: Balanced Scorecard (BSC), Six Sigma, Activity Based Costing (ABC), European Foundation for Quality Management (EFQM), Total Quality Management (TQM), Total productive maintenance (TPM), Kaizen, Method 5S, ISO Norms, Benchmarking, Process controlling.

Balanced Scorecard is a conception for performance measurement and evaluation that transforms a business strategy into a form of balanced indicators crucial for its implementation. Goals and measures of BSC come out of corporate vision and strategy and monitor its performance in four perspectives: financial, customer, internal processes and learning and growth. The goal of BSC is achieving the balance between neutral and value indicators, external and internal performance factors, moving powers and overdue indicators and especially between long-term and short-term goals. Balanced Scorecard is a method enabling to transfer corporate vision and strategy to a complex set measures of process performance. [3] In the internal process perspective managers find out crucial internal processes wherein excellent results have to be achieved. These processes enable to provide valueable advantages interesting for customers and help keep them. BSC uncovers fully new processes important for customer needs fulfilment and financial goals achievement. This BSC perspective emphasizes processes which do not have to exist and run but are indispensable and important for corporate operation and success. Measures of internal processes deal with approaches that have the largest influence on customer satisfaction and financial goals achieve. Enterprises develop goals and measures for internal process perspective usually after determination of goals and measures from the customer and financial point of view.

Six Sigma is a complex methodology involving vision and philosophy focused on process effectiveness increase through output quality improvement. At once the methodology includes management system leading improvement teams in projects of scanning, suggestion and implementation of process changes. Six Sigma presents a systematic

approach to quality using directed search of reserves in business processes. Methodology Six Sigma has been used in processes that need to decrease a variability of output features and error rate. Tools used by this method are focused on minimizing the common reasons for error rise, improvement of process output quality, lowering operation costs, process performance increase and eliminations of errors caused by other influences. Six Sigma is based on structural approach to improving activities by cycle DMAIC: Define – Measure – Analyze – Improve – Control. [6]

TQM is an open system able to involve everything that can help a maximal customer satisfaction, trust and minimizing sources spent on defaults and errors. Thereby the prerequisites for profit maximizing, competitiveness increase and minimizing the costs on non-quality have been created. The conception is considered a management philosophy not bounded with norms and rules but as an open system able to absorb all positive for corporate development. TQM as a complex approach to quality provides to the enterprise a big competitive advantage because of its focus on employee motivation and continuous improvement of process quality. It enables also flexibility in reaction to customer requirements not only in their fulfilment but also in creation of new features. [4, 7]

Model EFQM emphasizes the role of leadership in an enterprise, used strategy and planning, impact on employees, utilized sources and partnerships, basic prerequisites of smooth process running. The essence of EFQM model is formed by logics RADAR including five elements: Results, Approach, Development, Assessment and Review. [2] Model EFQM has 9 main and 32 particular evaluative criteria. One of the criteria is the processes criterion that is the most important for process management. It is focused on evaluation of how the organization proposes, manages and improves its processes in regard to its policy and strategy and on the satisfaction of customer and other interested subjects requirements.

Total productive maintenance (TPM) represents the interconnection of production and maintenance with technical provision of technology and construction. TPM is an activity set covering all enterprise departments with following aims: to create structure providing for a maximal effectiveness of production systems, to provide for a decrease of failure rate, errors and other loss on equipment, to increase equipment effectiveness, to create ideal working conditions, to motivate and connect all employees to improvement process, to reach zero loss and create a profit. [10] In the practise this system is based on principle of early detected abnormalities rising accidentally by machine operation and on their professional elimination. One of the progressive elements of TPM is a transfer of responsibility for machine directly to machine operator, based on fact that operators are in permanent contact with machine so they can as the first ones detect rising abnormality as a potential basis of error or breakdown rise.

The method 5S belongs to the typical tools used in process improvement based on wastage elimination on workplaces. Everything increasing products or service costs without increasing the value is considered wastage. The method 5S reduces and visualizes wastage and achieves simplification and improvement of material flow, material, stocks and equipment allocation. [4, 12] The name 5S comes from Japanese

words: Seiri (sort), Seiton (straighten), Seiso (shine), Seiketsu (standardize), Shitsuke (self-discipline, sustain). Among main advantages of this method we can assign stock reduction, corporate culture improvement, working space reduction and quality improvement.

Substance of term Kaizen consists in continual improvement and innovating. The matter of this concept is statement: no one day without any improvement. Kaizen is a thinking source focused on process, people and their work effort. The conception emphasizes management support and stimulation of employee's effort to improve a production process in small steps. The goal of system Kaizen is to manage processes in the way that effects in the form of higher performance, shorter delivery periods and lower costs are achieved gradually and automatically. [7]

Activity Based Costing is a method measuring costs and performance of cost objects, activities and sources. Basic principles of the method are an assignment of spent sources to activities and follow assignment of activities to cost objects (products, customers, markets). It is a method providing true information about real costs of running processes. It enables to determine, measure, plan and control process costs. [8]

Benchmarking is a process of systematic and permanent comparison of reached indicators value with the best enterprises active in the same branch. It represents a tool for effectiveness and performance increase of an enterprise. There are several types of benchmarking. Internal benchmarking is focused on comparison within an enterprise. [2, 4] External or competitive benchmarking is focused on comparison of similar or same activities with competitive enterprises. Functional or branch benchmarking compares processes or functions within different industrial sectors. Generic or process benchmarking deals with process of product creation. It compares searches and analyses process performance and functioning with the best enterprises in implementing the same processes. Its task is to find out the best practices of particular processes that lead to excellent performance. Process benchmarking answers the question: how is the enterprise reaching excellent performance.

### **3. Level of Process Performance Management in Slovak Enterprises – Primary Quantitative Research Results**

Current situation in the area of performance management has been analyzed through primary quantitative research in Slovak enterprises using a method of questionnaire.

#### **3.1 Research Design**

The research objective was the analysis of using the traditional and modern methods and tools for process performance management and measurement in Slovak enterprises from selected industrial branches. An integral part of research objective was the

verification of the hypothesis: enterprises using process performance management and its methods have been reaching more positive values of indicator ROE.

In the first step a database of enterprises data has been created. The information sources came mostly from the Internet databases and Statistical Bureau. The database size was 2,235 enterprises from branches of engineering, construction, automotive and wood-processing industries. By means of Internet applications an on-line questionnaire has been created and distributed to enterprises. Data collection was carried out in the first quarter of 2013 and an on-line database for data collection was created. Number of returned filled in questionnaires was 156 that is a representative sample in the research.

Questionnaire questions were divided into three areas: common characteristics (branch, region, ownership, number of employees, activity orientation, type of production organization), financial results (turnover, indicator ROE) and area of internal processes. Questions concerning internal processes were as follows:

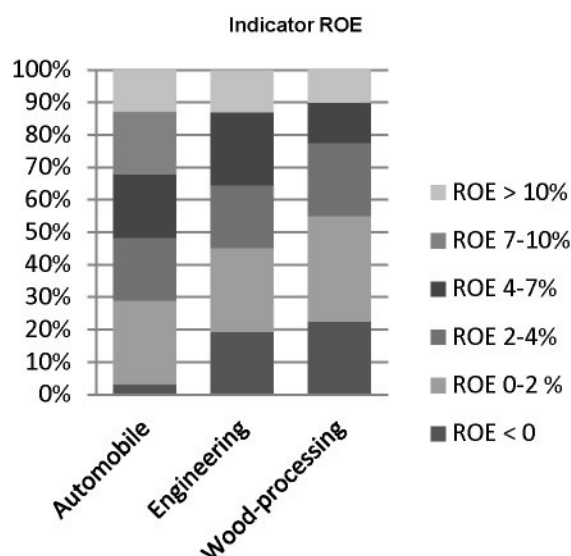
- What qualitative level corresponds with implementation of processes in your company?
- What level of elaborated process map does your company have?
- What methods are used in process management in your company?
- What indicators for production process performance measurement are used in your company?
- What indicators for evaluation of employee performance in processes are used in your company?
- What internal processes and their indicators are regularly measured and evaluated in your company?

## **3.2 Results**

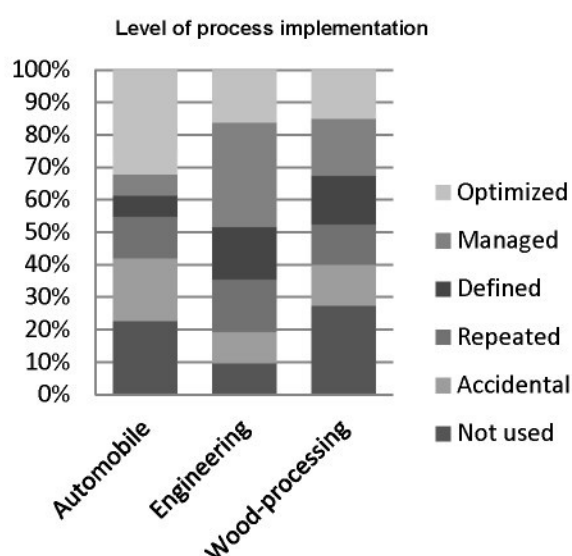
In this part of paper we will show selected research results that present a level of business process performance management in Slovak enterprises and enable the verification of the stated hypothesis through the existence of connections between an effective process performance management and reached value of ROE indicator as a representative indicator of corporate performance.

The research results showed in Figures 1 and 2 indicate that enterprises with management of process on the highest level (optimized) reached the highest values of ROE indicator. In automobile industry 33 % of enterprises implemented processes on the highest qualitative level and reached indicator ROE in the value over 7 % and in 13 % enterprises it is more than 10 %. In engineering industry 18 % of enterprises have the highest level of process management but only 12 % reach the highest values of ROE indicator. In wood-processing industry 15 % of enterprises present process implementation on the highest qualitative level but only half of them reached also the highest value of ROE indicator, the rest reached ROE in the scale of 4 – 7 %.

**Fig. 1 Reached value of indicator ROE**



**Fig. 2 Quantitative level of process implementation**



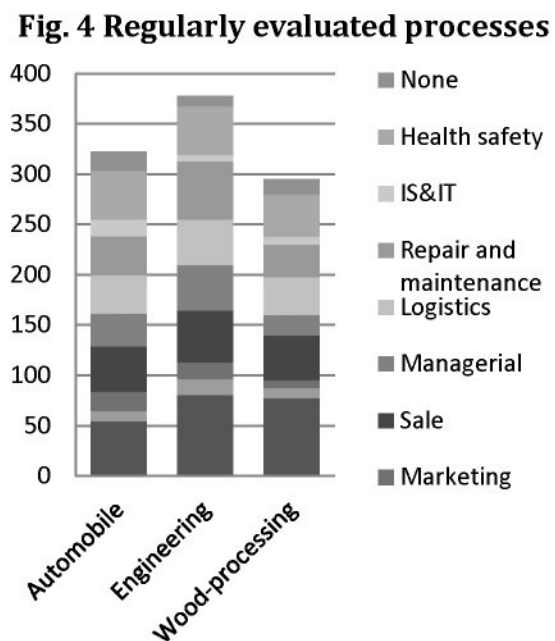
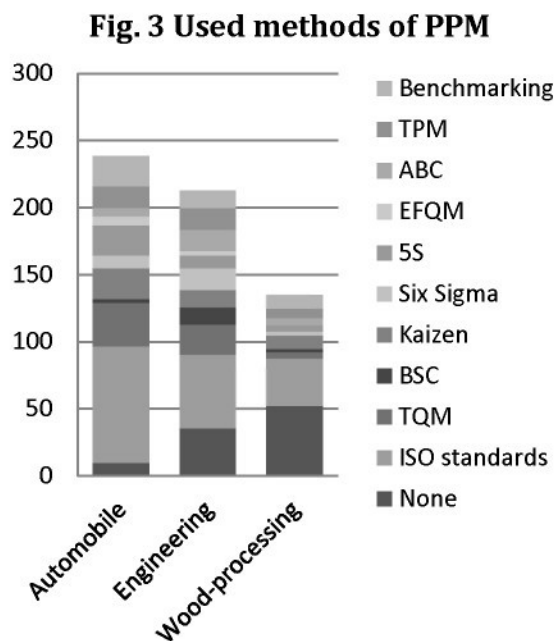
*Source: Own primary research*

Interesting is a finding that 40 % of automobile enterprises do not manage processes however most of them reach low but plus values of ROE. In engineering industry 20 % of enterprises do not manage processes and present minus values of ROE indicator. The worst results are in wood-processing industry where in 50 % of enterprises the processes are implemented without existing system of process management and these enterprises reached minus value or low plus value (up to 3 %) of indicator ROE. In enterprises of all industries the fact that processes management on the medium level brings medium values of ROE indicator (2 – 7 %) is valid.

Answers to question concerning the use of methods of process performance management (see Figure 3) brought following findings: Wood-processing enterprises in 50 % do not use any modern method; the rest applies only one method: traditional ISO standards (35 %) or Kaizen (10 %) or benchmarking (10 %). Enterprises in automobile industry use 2 – 3 methods together; almost all enterprises manage processes according to ISO standards. As for modern methods the most used are the conceptions TQM (32 %), Kaizen (23 %), 5S (23 %), TPM (16 %) and Benchmarking (23 %) and the least used are BSC (3 %), EFQM, ABC (6 %) and Six Sigma (10 %). Engineering enterprises use 2 methods together, 35 % of enterprises do not use any method and 55 % use traditional method – ISO standards. As for modern methods the most used are TQM in 23 %, Six Sigma, ABC and TPM in 16 % and BSC, Kaizen, Benchmarking in 13 %. The least used methods are EFQM (3 %) and 5S (9 %).

As for regularly measured and evaluated processes (see Figure 4), the most processes are evaluated regularly in engineering enterprises: 3 – 4 processes, especially production process in 80 % of the enterprises, process of repair and maintenance in 58 %, sale process in 52 %, health and safety process in 48 % and logistic process in 45 %. In automobile industry the enterprises evaluate regularly maximally 3 processes: production (55 %), sale (45 %), health and safety (48 %), logistic process, repair and

maintenance in 39 %, marketing in 20 %. In 20 % of enterprises the processes are not regularly evaluated. Wood-processing enterprises evaluate less than 3 processes. In 77 % enterprises it is production process, health and safety in 42 %, sale in 45 % and logistics in 38 %. Processes are not regularly evaluated in 15 % wood-processing enterprises. In all three branches the least attention is paid to innovation and marketing processes.



Source: Own primary research

The found out results in primary research show that enterprises with process implementation on the highest qualitative level (optimized) use modern methods and concepts of process performance management, especially TQM, Kaizen, TPM and reach the highest values of ROE indicator. The best results are achieved in enterprises from automobile industry that is in Slovakia represented by international corporations with 100% foreign capital.

## Conclusion

Results of primary quantitative research in Slovak industrial enterprises confirm hypothesis that enterprises using modern methods of business process performance management have reached the best results of corporate performance. We can state that business processes are a basic source of corporate performance evaluation. Important is to know the process improving the total performance the most so that attention of manager can be focused on critical (key) areas. Business process performance constitutes one unit with total corporate performance. There is a direct and strong connection between them. That is why some authors consider also strategic system of performance measurement (BSC or Zairi and Sinclair model) to be a system of business process performance measurement. Activity based costing method can be considered an intersection between controlling and management of process performance. Using



mentioned method and indicator EVA a company can calculate a real profit that leads to correct economic decisions. In spite of this, in the Slovak enterprises the method ABC and indicator EVA are used in a small rate. Slovak enterprises should pay an increased attention to regular evaluation and improvement of innovation processes and marketing process. Innovations are a basic prerequisite to keep and increase competitiveness. An effective management of innovation processes can contribute to corporate performance growth the most.

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