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Business process performance management principles used in Slovak enterprises

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Abstract

The actual trend in business management is the transfer from functional to process approach. Process approach is considered as a key tool for improvement of business processes. Implementation of process principles into management brings a lot of changes with positive effects as higher competitiveness, productivity and performance of enterprise are. The paper deals with results of performed quantitative research focused on analysis of principles, methods and tools of process management used in Slovak enterprises in wood-processing branch. The aim of the paper is to determine the current status of using process management principles in Slovak enterprises.

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1. Introduction

Traditional way of business performance comes out from evaluation of achieved financial indicators: profit, turnover, market share. A modern way of performance evaluation is based on measurement of business processes performance and it is known as Performance Management. Process performance management is a systematic identification, visualization, measurement, evaluation and permanent improvement of company processes using methods and principles based on process approach [9, 12]. Main features of process management are process orientation, horizontal management, considering the enterprise as a system of processes and activities and philosophy of knowledge man [1, 10]. Increasing process performance with aim to increase an added value for customers belong among basic strategic goals in modern enterprises.

2. Methods and resources

The basis for creation of questionnaire in performed quantitative research was study and collection of theoretical knowledge from area of process management and its principles, methods and tools. Information resources have been mostly foreign authors of scientific publications. Among the most important authors with contribution to

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development of process management theory and practise belong: G. R. Lee and G. B. Dale, H. Fayol, A. Sloan, M. Zairi and D. Sinclair, D. P. Norton and Kaplan and their system Balanced Scorecard, M. Hammer and J. Champy with methodology of business process reengineering.

Quantitative research has been performed through questionnaire. The research subjects were industrial enterprises from wood processing branch in Slovakia. The aim of research was to find out the level of using process management principles, methods and tools. The first step was a creation of database of all existing wood processing enterprises in Slovakia mostly from internet databases. The second step was a creation of questionnaire consisting of ten questions. Questions include all principles, methods and tools of process management known from theory and scientific publications. Through internet application there was created on-line questionnaire distributed to all enterprises in database and on-line database for data collection. The size of research sample was 78 Slovak enterprises. Answers in questionnaires were processed and evaluated by chosen statistical methods.

3. Results and discussion

3.1. Results of theoretical knowledge study

Study of theoretical knowledge has brought many definitions of process management from many authors. Meritorious work was performed by G. B. Lee a G. R. Dale (1998) who collected all definitions. All definitions have one common feature: orientation to action and activity flow. Some definitions are oriented on principles [6, 7, 11], some on methods [2, 4, 10] but the most of them are oriented on process management contents [3, 9, 12]. In summary the process management can be defined as a systematic identification, visualization, measurement, evaluation and permanent improvement of company processes using methods and principles based on process approach.

Process management contains three basic components:

- Methods and conceptions respecting principles of process management: project management and its networking analysis method, activity based costing method arisen in eighty years of twenty century, Japanese philosophy Kaizen, business process reengineering, system Balanced Scorecard formed in ninety years of twenty century. Furthermore there exist very specific techniques referring to particular process attribute as process benchmarking and process structural analysis.
- Contents (life cycle) of process management: 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 as a conception oriented on continual process improvement).
- Principles of process management: authors define different principles. For example G. R. Lee a G. B. Dale (1998) talk about principles such integrity (substance of process management understood in whole enterprise) ownership (each process has an owner responsible for performance and permanent improvement), documentation (all processes are identified, visualized and noticed in a company documentation joining to standards and regulations concerning suppliers and customers), measurement (each process is measurable in three basic parameters: time, costs and quality) and control (process owners should control a process flow, detect depletion and to eliminate it). Essentially process management principles can be divided into three groups [8, 11, 12]: principles fixed to work (integration and compression, delinearization, the most appropriate realization place), to process (team work, process oriented motivation, responsibility for process, process variant understanding, 3S: self-management, self-organization, self-management) and to enterprise (flexible autonomy of process teams, knowledge and information without barriers).

3.2. Results of quantitative research: Results of research have been processed on the basis of reached data from on-line results database. Results showed that 85% of researched enterprises are small and medium sized. As for production type in 50% enterprises is job-order production and 20 % perform batch production. Only 22%

enterprises perform mass production. Results in question relating to principles, methods and tools of process management are shown in the table 1.

Table 1. Analysis of questionnaire results

| Question | Answer option | Percent occurrence |
|--|---|--------------------|
| What management system is set up in your company management: | a) Functional (traditional) | 80 |
| | b) Process | 20 |
| What from named methods are used in management of your company: | a) Benchmarking | 8 |
| | b) TQM (total quality management) | 23 |
| | c) KAIZEN | 5 |
| | d) JIT (just in time) | 13 |
| | e) Model EFQM | 0 |
| | f) Method ABC (Activity Based Costing) | 40 |
| | g) BSC (Balanced Scorecard) | 0 |
| | h) Business process structural analyses | 0 |
| | i) Financial management methods – financial indicators analysis | 45 |
| | j) Knowledge management | 13 |
| Is Deming cycle used in your company? | a) Yes | 28 |
| | b) No | 72 |
| What from named principles are used in your company? | a) Activities and goals of company are oriented on customer and added value for customer | 45 |
| | b) Work is performed on the most suitable place without consideration organizational borders | 17 |
| | c) Work sequence is in accordance with order of activities in process | 23 |
| | d) Variations of the same process or product are created according to market and customer needs | 8 |
| | e) Systematic elimination of knowledge and information barriers in a company | 0 |
| | f) The owner of each process responsible for process running and result is determined | 9 |
| | g) Team work – activities of process teams by process realization | 20 |
| | h) Motivation and responsibility of employees is bound to a process result | 8 |
| | i) Self-management, self-control and self-organization of process team members | 5 |
| | j) Flexibility in process team creation in accordance with market and customer needs | 25 |
| Processes in your company are performed on the level: | a) Accidental – processes are running accidentally according to need | 22 |
| | b) Repeated – basics of business processes are written, it is possible talk about process planning | 18 |
| | c) Defined – business processes are defined and implemented into all connections and documentation; process costs are monitored | 20 |
| | d) Managed – a company has defined measurable goals and indicators; it is possible to measure process quality, processes are full managed | 13 |
| | e) Optimized – a company permanently analyses and improves processes | 27 |
| Is the process map elaborated and used by business and process management in your company? | a) yes | 17 |
| | b) yes but it is not used for management | 23 |
| | c) no | 60 |
| What indicators are used for measurement of production and non-production processes? | a) Process duration period | 20 |
| | b) Process costs | 50 |
| | c) Quality | 29 |
| | d) Added value | 10 |
| | e) Productivity | 45 |
| | f) Knowledge | 5 |
| | g) Number of innovations | 0 |

Achieved results in questionnaire research were consequently processed in purpose to find out relations and connections between questions answers. Relations were verified through statistical methods of covariance and correlation analyses. We came to following findings:

Results of quantitative research showed that in the most of enterprises a functional, traditional management system exists. This fact is confirmed by answers in further connecting questions:

- the most frequent method by management is financial analysis and financial indicators,
- the most of enterprises don't use the Deming cycle,
- a process map isn't elaborated or isn't used by management in 82 % enterprises,
- processes are realized on three lower levels in 60 % enterprises,
- The most monitored indicators in processes are financial: process costs and productivity.

For interesting findings we consider the fact that 20 % functional managed enterprises claim having performed processes on the managed and optimized level what is typical for process management. The second interesting finding is that enterprises with functional management system use some principles and methods of process management.

Process management system is used only in 20 % enterprises where the business processes are realized on the highest fifth level: optimized with permanent process analysis and improvement. Principles of process management relatively most applied in enterprise relate to orientation on customer and market needs as for company activities, goals and process team creation and also work sequence in accordance with order and the most suitable place for realization. However, principles the most typical for process management as 3S elements (self-management, self-control and self-organization), responsibility for process running and result, team work, variant process understanding, motivation bounded to process result are applied only in few enterprises.

As for managerial methods, in process managed enterprises are used especially activity based costing method, total quality management and system just in time. Model EFQM, Balanced Scorecard and structural process analyses are not used in enterprises at all. Kaizen and Benchmarking are used only little. These results showed using mostly traditional methods of process management.

Business process performance is measured mostly by indicators: process costs, productivity, output quality and process duration period. The least used indicators are knowledge, innovation number and added value.

4. Conclusions

The best-known worldwide and domestic experts in management agree on fact that each enterprise should have qualified strategy and created its effective way of realization based on the latest management approach. Business practise, consultant companies and the best-prestige universities confirmed that the down-to-date management approach is a process management. Process management brings the enterprise improvement in ability to adapt to customer individual needs and to market changes, evidence about objective exploitation of enterprise sources, insuring the measurement and evaluation of customer, products and market segments profitability, measurement of results in relation to business, effective cost reduce (on right places, in right scale).

The presented quantitative research showed that only few Slovak wood processing enterprises have implemented a process management. Forasmuch as the most of researched enterprises perform a job-order manufacture they should implement conceptions such Kaizen, Total quality management and just in time and Balanced Scorecard. By implementation of process management principles in enterprises successfully should be performed several changes: change of working units from functional to process teams, change of working activities from simple to multilateral, change to job roles with wider competences and creativity, change of managers from controllers to consultants, change in thinking from functional to process. The named changes can help integrate process management better and faster in researched enterprises.

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