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Correlation between changes of business processes and organizational performances

Ivan Peronja¹
Ivana Plazibat²

University of Split, Department of Professional Studies
Kopilica 5, 21000 Split, Croatia
e-mail: ¹iperonja@oss.unist.hr ²iplazibat@oss.unist.hr

Abstract:

The main aim of this study was to determine whether a higher level of business process and process orientation lead to improved organizational performances. The companies observed for the research were subjected to rigorous statistical analysis and processing, in order to justify the model presented in the paper. The observed companies employ more than 250 employees and do the business in the Republic of Croatia whose economy is in transition. The research presented in this paper sets a model that statistically confirms strong and significant impact of business processes and process organization on financial and non-financial performances. It has been proven that process organization has a significant indirect impact on financial operations through non-financial performances.

Keywords: Business processes; organizational performance; financial and non-financial performance
JEL codes: L22, M11

1. INTRODUCTION

The contribution of this research has a twofold effect. It primarily expands the scope of the original study by (McCormack & Johnson, 2001) that closely monitors the effects of process organization on overall organizational performances. Secondly, this research has contributed to the involvement of key stakeholders (customers, employees, suppliers) in the assessment of non-financial performances and their impact on financial, as well as on overall organizational performances. This approach has demonstrated and proven the benefits of impact of process organization on organizational performances and detection of a deeper structural relationship between these variables. Another important feature of this research is that it was applied on companies in the transition economy. The research results confirm many implications and benefits for the managers in process organizations, as well as for the other stakeholders such as customers, employees or suppliers, all in order to create the useful business environment. (Hernaus, Pejić Bach, Bosilj Vukšić, 2012, p. 376-396.) in their research in 2008 talk about the importance of choosing the optimal strategy for

achieving organizational goals. The strategy should be tightly integrated with business processes (Spanyi, 2003, 2005; Ndede-Amadi, 2004; Brocke & Rosemann, 2010; Kohlbacher & Gruenwald, 2011). The strategic goals are achieved by using business processes which as their feedback create a new value for the company. The implementation and operational execution of the strategy inevitably depend on the processes and their interactions with other elements of the organization.

The form and the type of organization are defined by business processes, which can be a significant source of competitive advantage. Business Process Management (BPM) has become a concept that can be used to improve the entire range of organizational activities. Therefore, BPM represents a set of methods, techniques and tools that include analysis and improvement of business processes (Melao & Pidd, 2008). By implementing BPM, the managers try to harmonize the process activities with the strategic goals of the organization, design a flexible organization and implement procedures to establish a system for measuring, training and organization of the employees responsible for the effective process management (Chaffey & Wood, 2005).

2. DETERMINING ORGANIZATIONAL CHANGES AND CHANGE MANAGEMENT

In the context of organizational changes and change management in organizations there are many authors who have studied this particular issue, but more recently the ones that particularly stand out are (Burnes, 2009), (Carnall, 2007), (Luecke, 2003) and others. Changes as a management method can be classified into several categories. There are two approaches that encourage change. These two approaches are (fast) economic development or improving organizational skills. (Beer & Nohria, 2007, p. 69) Harvard University have created the terms "Theory E" and "Theory O" to more closely describe these approaches. In Theory E the explicit goal of changes is dramatic and quick increase of shareholder value, as measured by improving the circulation of money and the stock price. Proponents of the Theory E largely rely on mechanisms that are likely to increase short-term monetary circulation and share prices. These are: performance bonuses, reducing the number of employees, sales of assets, and strategic realignment of business units. This theory is basically committed to cutting costs, reducing organizational resources and in its reach it is short term oriented.

The goal of "Theory O" is the emergence of changes that encourage the development of a culture within the organization that supports learning and high performances of workers. Business organizations that follow this approach are trying to strengthen the culture and skills of their organizations through individual and organizational learning. This requires a high proportion of participation of employees, simpler organizational structure, as well as a strong link between the organization and the employee, because the employee commitment to changes and their participation in them is considered extremely important, since they represent a factor of continuity for the organization. Therefore, the "Theory O" is deemed a theory aimed at long-term goals.

Characteristics and factors that characterize an organization that is willing to change are reflected through the leadership, employees and teamwork. The first characteristic is the leaders (leadership) as well as effective employees who respect the leaders. It is known that leaders who no one respects, nor considers as valuable, can and will be hazardous to the business of an organization.

The other characteristic describes employees who are personally motivated to change. They are dissatisfied with standstill, but at the same time afraid of losing their job due to the inefficiency of the business process. Many changes have occurred in periods of crisis, but according to Beer it is not necessary to wait for the crises to occur. For him it is enough to have the so called complacency within the company, i.e. that there is a belief about its own size, success and importance. He believes that leaders of changes must ask questions among the employees about the existing and possible problems. It is often not clear to the managers how the employees do not care about the costs, while employees cannot understand how managers are not familiar with the problems they face every day during the performance of their tasks. It is therefore necessary to enable communication between both parties and the exchange of data. It is necessary to set goals and enable employees to achieve them.

The third organizational characteristic refers to an organization that is not only a hierarchical creation, but it represents certain achievements in organizational culture. Therefore, employees with individual work and assigned personal responsibility, in many cases favor teamwork as an organizational advantage.

The hierarchical structure of the organization tells people about the hierarchical relationships between employees, about the relationship between the superior and subordinate, individual responsibility for work, and in a number of examples of good practice we see neglect of the role of team and teamwork. The main "enemies" of changes lie in the hierarchy, such as bureaucracy and the tendency of employees to identify with the organization. Hierarchical structure can be overcome in two ways. The first is to give greater autonomy to individual small groups within the organization, and the second to encourage cooperation among employees from various departments at different levels.

If these three preconditions for change do not exist, proposed are the following four steps that will lead to the readiness of the organization to change. They are manifested by:

- making assessment of readiness to change for each part of the organization individually,
- developing an approach that allows everyone an insight into how business is done on a daily basis,
- giving employees a say in the matters,
- eradicating the fear among employees.

Organizational changes are difficult, because during change we need to deal with issues related to employees and uncertain future. The consequences of implementing changes are difficult to predict, and sometimes difficult to monitor and represent a dynamics of their own. The fact is that more and more changes are being

carried out. Organizations are oriented towards higher productivity, a higher level of activity and improving customer satisfaction. But that does not mean that all is well, or that all organizations are successful. Instead, it should be remembered that the organizations have increased in volume, activity and profits during the period in which they have more complex requirements (customer satisfaction and business ethics) in increasingly complex and more diverse environments in which they operate.

Resistance to change is actually often only resistance to uncertainty that a change could bring. So resistance comes from the process of management and change management, rather than from the change itself. If the reason for the change and what can be achieved by it is explained to the employees, it is very likely that their resistance will be reduced. In the context of the ambitions of the owners and stakeholders of business organizations, it is clear that the priority in the conduct of business is to improve the competitiveness as a key activity, but the understanding of the value of assets on which to build competitiveness is also clear. If the business orientation is such that we decided to focus on one factor, then one can expect immediate success and long-term failure. (Kay, 2007, p. 5) says that market forces are based on the term known as “distinctive capabilities”. Distinctive capabilities are based on:

- reputation, which helps us to know how the market perceives the basis of presentation of products/ services in terms of material properties,
- architecture of the organization that includes the ratio of resources (including knowledge and flexibility), internal and external stakeholders, from which we learn how an organization can bear the “burden” of changes and how it can contribute to the changes itself,
- innovations from which the capacity for change can be recognized.

To be able to characterize recognizable abilities as a source of competitive advantage, they must be sustainable. Success will come to those whose strategic architecture continuously aligns the vision, mission, values, strategy and structure. Markides (2000) agrees with such ideas and reflections. He believes that the competitive advantage is achieved by organizing various activities into “tight” systems, which support and restrain each other. In fact, the advantage is continuous, because imitators can take a variety of ideas and techniques, but not the ability to manage, as they cannot copy the atmosphere of culture and relations among employees within the organization. He further believes that at the present time success comes from the originality, and not from copying.

3. EVOLUTION OF THE CHANGE MANAGEMENT OF BUSINESS PROCESSES

During the nineties of the twentieth century, (Beer, Eisenstat & Spector, 1988) have identified a number of steps that management in business units and at the level of production uses to create real change. These steps encouraged the strengthening of the circle of commitment, coordination and competence of employees, which combines all the columns representing the holder’s fundamental changes. Today, despite the

passage of time and the creation of new business practices, steps that mark the course of achieving the changes have not lost any of their power, and they are reflected in the launch of energy and commitment to work with the aim of establishing common business problems and their solutions. The starting point for any effective change is a clear definition of business problems. Identification of the problem corresponds to the most important question that employees ask: "*Why must we do it?*" The answer to this question can be the basis for motivation, and therefore the answer must be convincing. To answer "why" is important not only because of the motivational potential, but also because it creates a sense of urgency, without which changes do not happen. Also, it is important to know who, how and by what means did identify the problem. The motivation and commitment of employees are the biggest change when employees are the ones who will identify the problem and help solve it because finally they are the ones who will have to participate in change and to live with it. After defining the business problem, potential solutions to the problem are developed.

Persons responsible for the implementation of changes must clearly set out the vision of changed and improved future of the organization, you also need to clearly explain it to other employees. They have to be very exact in the interpretation of the effects of changes when thinking about how the change will: a) improve the business (through higher customer satisfaction, product quality, sales, and productivity), and b) what benefits will the employees have (higher salaries, bigger bonuses, new opportunities for advancement and greater job security). The vision has to be tempting and may contribute to the inclination of workers towards such changes, but the vision must correspond to the objective goals of the organization, and must be achievable. This is helped by the identification of management, whose role is to adjust all vital parts of the environment to the possibility of implementing the changes. In other words, leadership is the one that should, on the basis of their own knowledge, experience and universal competence, introduce other employees in the organization to the importance of rejecting the general resistance to change. This brings new flexibility to the organization that will significantly help in the process of organizational transformation.

Focus on results, not on activities, means to start the change at a peripheral unit, from where it will be extended to other units, and not to begin the change from the top. It is not necessary to change the entire organization at once, because it creates a large degree of uncertainty and inefficiency, but if employees realize positive results after the introduction of changes in a small, almost autonomous unit, they will then agree to the change of the general framework of management. The changes are to be implemented in order to see clear advantages over the status quo, that there is compatibility with the values of employees, experiences and needs. Requests for changes should be easy to understand, so that the employees who want it, are allowed experimentation with the model of changes on small-scale, and provide an opportunity for the rest of the internal environment to freely observe the results of the changes. It is necessary to institutionalize success through formal rules, systems and structures so that the future business activities may take place in

accordance with the formal rules, have a support system with implemented approach to change management, and develop the structure as a skeleton for internal and external process improvement of overall business activities.

Organizations respond to a variety of challenges with changes. None of the programs of change is easy, nor guarantees success. Changes may fall into the following categories (Carnall, 2007, p. 7):

- Structural changes in the organization are viewed as a machine or a set of functional parts. During structural changes, top management in cooperation with consultants is trying to change parts of the organization in order to achieve better overall performance. Mergers, acquisitions, consolidation and revocation of operating units are all examples of attempts at structural changes.
- Changes to the process by means of various programs direct the changes of the way in which things are done. Examples are, like, improving the process of loan approval or decision-making. Changes to the process are usually aimed at the processes to be faster, more efficient, more reliable and less expensive.
- Cultural changes have focused on changes related to employees. One such change is the transition from the management that supervises and commands to the management involved in the process.

Previously are described structural, cultural and institutional conditions for finding optimal solutions in the implementation of changes. The simplest definition of implementation of changes can be described as a process required for designing and organizing the process of change in order to improve efficiency. The question of diversity of success in implementing changes in the organization arises. In some organizations, certain changes succeed with a clear positive progress, and in some organizations progress is absent. The answer is found in the diversity and specific architecture of changes. We have only recently begun to observe the structure changes through the architecture of changes. (Jacobs, 1994) identifies three successive processes required to achieve a strategic change:

- construction of a common database,
- detection of the future in a variety of perspectives,
- creation of commitment plans.

The processes described in b) and c) require dialogue and involvement of all stakeholders of the change. Here processes are important for dialogue, as well as a good knowledge of them.

Architecture of changes does not imply a set of assertions, systems, resources and processes, through which we engage people in “productive thinking” aimed at creating a new future. It implies the principles through which the different techniques (forums, conferences communication, municipal meetings, 'open-space events') are designed to jointly clarify the management and responsibility for strategic change, and in an appropriate manner contribute to the affirmation of key stakeholders of change. Required are effective, credible and accessible measures of performance on a relatively transparent basis. It is necessary to acquire or develop new skills and

abilities of employees and trigger their commitment. Results of applied techniques need to be measured, i.e. strategic changes should be used as a learning process.

The formula by which to acts in the course of diagnosis and planning of radical changes, is expressed as a multiple of discontent, vision and the first step of the procedure, the result of which must be greater than the resistance to the implementation of changes:

$$\text{Change} = (\text{dissatisfaction}) \times (\text{vision}) \times (\text{first steps}) > \text{resistance}$$

Changes occur when three elements have both a synergistic effect in one place, such as dissatisfaction with the current situation, convincing and clear vision of what kind of a change we want to make for a better future, and the first steps towards achieving the vision. If any of these elements are missing organization creates greater resistance and reduces the power of organizational resistance to change, and thus the effect of changes is marginalized. All activities must be seamlessly linked and there must be a continuous flow of results between the activities for the process of implementation and evolution of organizational changes to achieve the desired effects.

4. CONCEPT AND TYPES OF ORGANIZATIONAL PERFORMANCE

Literature lists different definitions of organizational performance, but it can be said that the performance improvement is the purpose of the transformation of business processes. The goal of the promotion of a process is to determine its economic sense, and it is necessary to determine the effect that is thus produced, which is not possible without performance measurements. Most companies have no developed system of performance measurements, although we often encounter companies that measure financial performance, sales volume and customer satisfaction. (Darryl, 2007, p. 3) says that a large number of definitions of organizational performance are based on financial indicators such as profit margin, etc. Lack of access in which organizational performance is defined solely by financial performance is in the question: "What we need to do to achieve the desired profit, revenue or margin?"

To paraphrase this question, P. Drucker argues: "*See what your job is, do it well and the money will come.*" The realization of revenue is important to the success and survival of the organization in the market, and even non-profit organizations such as universities or cultural associations. The development of an organization is focused on improving organizational performance; successful organizations should solve their own problems and achieve key objectives. Known are many ways to measure performance which are used in process-oriented organizations. Here are separated two ways to measuring performance. The first method describes the measurement of performance on the principle of "end-to-end", from beginning to the end of the business processes and measuring the connections of people, teams or parts of the organization with the quality of the final result.

Performance measures can be defined as parameters in which to express the efficiency of realization of the chosen strategy. Since the chosen strategy is implemented and all levels of the organization are treated according to it therefore the

performance measures will also be established for each individual level of achieved performance within the organization -network goals (Buble, 2006) Therefore, the division to corporate performance, divisional performance, the performance of functional units and individual performance is a logical division with regard to the organizational unit and the goals that the unit wants to achieve (Buble, 2005, p. 256). Different performance measurements are carried out at different times, have different complexity and their value is measured at different times. Some measurements can be performed only after achieving a certain goal where it is necessary to take account of the relevance of the results in continuity. When discussing performance measures then we primarily, but not exclusively, refer to those criteria related to corporate performance. Corporate performance is the measure of success of the organization as a whole in relation to the target size. There are a number of indicators that are considered in the corporation, but there is no uniform classification, therefore, we usually considered indicators such as (Buble, 2005, p. 257):

- ROI – return on investment,
- ROE – return on equity,
- EPS – earnings per share,
- DPS – dividend per share.

All these indicators are among the category of accounting indicators, however, in recent times we are increasingly using new measures such as (Buble, 2005, p. 257):

- value added, ROVA, ROVA/ROI,
- MVA, EVA (market value added, economic value added),
- shareholder wealth.

All these indicators are among the performance measures from the standpoint of owners- shareholders.

Pressures on managers to take account of the value system of stakeholders without jeopardizing the interests of shareholders are more frequent, so it is necessary to coordinate the general interests of the organization with the interests and values of individual stakeholders in order to find in this conglomerate of desires a way to all human, organizational and intellectual resources in the service of creating new value (Sisek & Režek, 2007).

In addition to the measures that are of interest to the owners there are also performance measurements that are used by top management in order to fulfill its primary role, ensure growth and development of the company as a whole. In achieving progress of the company, qualitative and quantitative indicators are of interest for the management, where part of the indicators that are interesting to the owner are of particular interest for management because it is these indicators that will decide the fate of management. When talking about the success of the organization then there are a number of interested individuals or groups that fall into the category “*other interested parties*” such as, customers, suppliers, stakeholders, governments and other organizations. Each group has its own criteria for determining the desired

performance of the organization whereby these criteria are linked to direct or indirect influence of the company's activities on their interests. It is imperative that top management establishes a control system which will be formed by one or more measures for each of the stakeholders when it comes to the success of business organizations. The criteria can be divided into short-term and long-term measures by categories of customers, suppliers, employees, the financial community, congress, advocates of customers. Organizations whose structure is designed by the divisional principle form organizational units with the status of quasi-corporations whereby within these units they form different forms of immediate responsibility centers, such as (Buble, 2005, p. 261):

- cost centers,
- revenue centers,
- profit centers,
- investment centers.

The purpose of the establishment of centers under the divisional organization is the separation of parts of the organization in order to evaluate the performance of each department and see their real success and contribution to the corporation as a whole.

When it comes to measuring the performance of functional units then it is referred to parts of the organization that are carrying out similar or same operations that are classified as units of production, purchasing, sales, finance, human resources and so on. When you want to create a system of measurement in functional organizations then the choices of performance measure are great, but you should always choose those performances that the line managers can influence. If you are looking at production, then consider the measurement of the production effect, the effect of the employee, cost of processing, material utilization, capacity utilization, overhaul effect, etc. If we watch procurement measures, then we measure turnover, development of prices, dispersion range of procurement, storage use, etc. If we watch measures of financial impact, then we measure current ratio, quick ratio, the level of indebtedness, cash flow, level of coverage of foreign capital etc. All these indicators represent only a landmark in the choice of appropriate functional performance measures in the observed organization with respect to its specificity.

When we approach the measuring of individual performance, then the goal is to determine the contribution of the individual in the performance of assigned tasks that contributes to the performance of the overall task of the organization. Since different tasks are performed in an organization, the most common division is into three types of tasks including (Buble, 2005, p. 266):

- tasks for processing materials,
- tasks for processing information,
- managerial tasks.

When measuring individual performance the effect of an individual can be quantitatively unequivocally determined by determining the norms and standards. *Norms may be temporal and quantitative and standards quantitative and qualitative.*

According to (Darryl, 2007, p. 5) organizational performance is an indicator and accomplishment of visible, specific, measurable, valuable and personally measurable success. According to (Parmenter, 2010, p. 4-39) measuring organizational performance is done through indicators, which management chooses for the purpose of reporting and performance improvements. The measures of organizational performance are classified as *Key Performance Indicators (KPI)*. Parmenter has four measures of performance that include *Key Result Indicators, Result Indicators, Performance Indicators, Key Performance Indicators*:

- *Key Result Indicators (KRI)* determine how a task is carried out taking into account the critical success factors,
- *Result Indicators (RI)* determine what has been done,
- *Performance Indicators (PI)* determine what to do,
- *Key Performance Indicators (KPI)* determine what needs to be done in order to increase performance.

In practice, key result indicators are often substituted with key performance indicators. Critical results of success are customer satisfaction, profits before taxes, employee satisfaction, earnings of end users, return on investment, etc. The common characteristic of the key result indicators is that they represent the result of a series of activities that determine whether work is performed properly or not, but do not offer guidelines that do to improve results. Key results indicators are observed over a longer period of time, usually on a monthly and annual basis, while key performance indicators are observed on a daily and weekly basis. Performance indicators and outcome indicators are measures of performance that are located between the key result indicators and key performance indicators. Performance indicators are important for the overall course of business activities, however, they do not represent the key prerequisites for business. Their role is reflected in connecting teams to organizational strategy, complementing the key performance indicators and does not relate to finance. They are displayed on a scorecard in conjunction with key performance indicators and individually for every organization, part or team in that organization. They may include indicators such as the percentage increase in sales, number of proposals for improving the business received from employees in the last 30 days, user complaints, calls for sales in the coming period, delay in delivery to key customers and the like.

Result Indicators (RI) provide a brief overview of the activities, and all the financial performance measures are also indicators of results. Week's sales analysis is taken as an example of good practice. Result indicators include profit from core product lines, current sales in a given time interval and the objections of key users.

Key Performance Indicators (KPI) represent a set of measures oriented to those aspects of organizational performance that are most critical to current and future approach to the organization. Their seven characteristics include non-financial measures, measures on a daily or weekly basis, CEOs act because of them, they clearly show which actions should be taken by employees, they attribute the responsibility to the team and have a significant impact on other success factors, and

encourage the necessary business actions. Key performance indicators need to be continuously monitored and, when a synergistic effect between managers and employees is reached then comes to the achievement of objectives at all levels. The successful development and use of key performance indicators is determined by the presence or absence of these four basic things (Parmenter, 2010, p. 24):

- partnership with employees, unions, suppliers and key customers,
- transfer of power to employees,
- measuring and reporting on what is important,
- connection of measures of performance with strategy through critical success factors.

Partnership with the aforementioned implies perception that organizational and cultural changes complement, understand and accept each other. In the context described above, there is a need to transfer power to employees which means that the employees get to know what the critical success factors are, and that they can make decisions about situations that could have a negative impact on key performance indicators, and that they need to constantly be informed about critical success factors and key performance indicators. Managers should measure the indicators and report on them in such a way that each report requires a specific action. Each report should include a review of certain critical success factor, making sure that the content is short, precise and focused on the adoption of certain decisions.

Key success factors are the number of measures or aspects of organizational performance that determine the continuing vitality and good business results of an organization. There are usually five to seven critical success factors within an organization. The task of the critical success factors and performance measures that are within them are to connect daily activities with organizational strategies. There are known cases of many organizations that have been using key performance indicators for years to unsuccessfully try to make a profit and to adapt to the market, but to no avail. The reason lies in the poorly marked and thought out, and wrongly selected indicators, all as a result of ignorance of the critical success factors. Although most organizations know their success factors, not many organizations have clearly described and properly selected key success factors, which is consequently linked to not clarifying the factors to their employees properly and essential departure from the strategic objectives. In conclusion, without a clear definition and knowledge of critical success factors, performance management cannot function. The benefits that the knowledge of critical success factors yields are reflected in the selection of winning key performance indicators, elimination of measures that are not based on critical success factors, employees know the priorities and thus their daily activities are associated with organizational strategy, and the number of unnecessary reports is reduced. Critical success factors are focused on specific areas and are precisely defined in contrast to the strategic objectives that may be of a more general content. Critical success factors are defined as key areas that need to function in order for the businesses to progress. In identifying the critical success factors used are three basic theories (Škrinjar & Trkman, 2013, p. 50):

- contingency theory,

- dynamic capabilities theory,
- task technology fit theory.

These three basic theories indicate the need for harmony between the business environment and business processes. Organizational strategy and structure must be in accordance with its competitive environment. Dynamic capabilities can be defined as a set of specific and easily visible process, and there should be harmony between the tasks of business processes and IT. CSF approach hides a few drawbacks such as its acceptance at the higher management levels, and it's lowering of the level of analytical sensitivity from top to bottom, but also the fact that in identifying the key factors it does not offer any further instructions on how to create excellence. Thus, CSFs have a good theoretical basis, but they can hardly be separated from their research context, nor can they be immediately applied directly in practice, and this leads to the need of application of good practices.

The main success factors are lists of problems or aspects of organizational performance, which indicate the vitality of the organization, state of the organization and success of the organization. Five to eight key success factors are usually considered. The program can be any activity, project, function or law that has a purpose or represents a set of goals. Performance measures are tools that help to understand, manage and improve the activities of the organization. According to (Buble *et al.*, 2010, p. 265) consideration of the effects of performance represents the beginning of the transformation of business processes. One of the goals of improving business processes is to determine the economic sense that the changes will produce, but this is not possible without performance measurements. It is indicative that most organizations have still not developed a system for measuring performance, although many organizations measure financial performance. Such partial measurements and comparisons with competitors are not sufficient to develop the image of a business process, and in particular to gain access to its improvement, therefore it is necessary to measure three key performances: efficiency, effectiveness and results (Buble, 2005, p. 60).

Table 1 illustrates different definitions of business processes by authors who deal with these issues as well as their contribution when business processes are in question.

5. MODEL OF IMPACT OF CHANGES IN BUSINESS PROCESSES ON ORGANIZATIONAL PERFORMANCE

The starting point for formulating the model of the impact of changing business processes on organizational performance is found in the results of previous theoretical and empirical research, and organizational needs of the observed companies. During the formulation of the model of impact of changes in business processes on organizational performance, the author's research was based on the idea of linking indicators of critical success factors of changes of business processes with the performance of business processes that is expressed by internal and external standards, which has been proven in a number of researches. Previous empirical studies have

found differences in the selection of critical success factors that are associated with process performance. Figure 1 shows operationalized model.

Table 1. Basic definitions of organizational performance

Author	Definition	Contribution:
Enos (2007)	Organizational performance is an indicator and accomplishment of visible, specific, measurable, valuable and personally measurable success.	Definition and selection of quantitative indicators
Drucker (1977)	Development of an organization is focused on improving organizational performance; successful organizations should solve their own problems and achieve key objectives. This definition can be considered the beginning of the definition of performance, but it assumes that the goals of the organization are clearly defined.	Improving organizational performance in order to achieve key objectives
Parmenter (2010)	Organizational performance is marked and classified as key result indicators of success through success indicators, performance indicators or key performance indicators - KPI. The main success factors are lists of problems or aspects of organizational performance, which indicate the vitality of the organization, state of the organization and success of the organization.	Key indicators of organizational performance
Franceschini, Galetto, & Maisano (2002)	Measuring organizational performance is about the process of long-term and continuous monitoring and reporting on achievements, especially of the pre-defined objectives. Measures of organizational performance can be related to the type and level of the process, direct outputs and the results of these outputs.	Observe all that measures of organizational performance can relate to
Buble (2005)	According to Buble, consideration of the effects of performance represents the beginning of the transformation of business processes. One of the goals of improving business processes is to determine the economic sense that the changes will produce, but this is not possible without performance measurements.	Quantifying the economic sense of changes
Jeston & Nelis (2008)	If business performance is not measured, then you do not manage your business. To measure performance is to know and be able to make a decisions in certain circumstances.	The importance of measuring performance in the context of making a good business decision
Davenport (2004)	Operations/actions are important, but they are not going to happen if all is not aimed at improving the process. Many take this for granted and don't care because they know that there are primitives who will with a snap of a whip respond to the performance problems.	Problematiszes performance issues

Source: own study.

In the operationalization of the first construct of the model, indicators are chosen that can be considered stable and unique in each business organization. The other construct of the proposed model represents the mediating variable that through internal and external measures describes the performance of business processes (Baron & Kenny, 1986, p. 1173-1186).

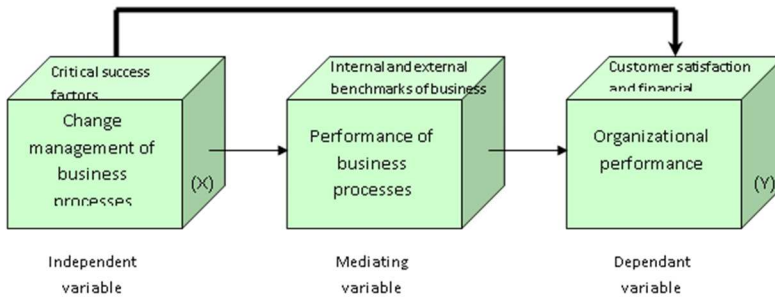


Figure 1. Theoretical model of the impact of business processes on organizational performance

Source: own study.

Mediation helps to find a response how the independent variable affects the dependent one, whereby there are two mechanisms of influence: direct path X-Y (changes of business processes, operationalized through critical factors of BPM, in relation to the performance of the company) and indirect path X – mediating variable (process performance) – Y. Analysis of the path models implies a valuation method for the coefficients in the structural model, which was originally proposed by Wright (MacKinnon, 2008, p. 130). In the concerned theoretical model only one mediating variable will be used, which is why it is not necessary to use the method of structural modeling, but the estimate of coefficients can be done through simple assessment of partial effects, with the help of linear regression equations.

The third construct describes the indicators of organizational performance representing the dependent variable of the proposed model. The third construct includes indicators for measuring customer satisfaction and financial performance, whereby these indicators are under indirect impact of indicators that describe the performance of business processes, and direct impact is reflected by indicators that have been selected as key indicators of success of a business organization.

Mediating variable of analyzed model represents a methodological innovation. In conclusion, the theoretical model of the impact of business processes on organizational performance consists of three constructs that are individually defined as dependent, independent and mediating variables, which are connected to two indirect connections and one direct connection. Each construct is described and defined by means of selected indicators that are part of the empirical analysis statistically analyzed by individually and mutually different statistical methods.

6. OPERATIONALIZATION OF RESEARCH VARIABLES

The indicators for both variables are derived on the basis of theoretical considerations and offered models that are presented by (Buble *et al.*, 2010, p. 235). This paper sets the independent variable that is defined by indicators of change of business processes,

which is operationalized on the basis of previously empirically verified critical success factors of business process changes, as defined by (Jeston & Nelis, 2006, p. 34-38). The dependent variable is defined by indicators of organizational performance. Third, the mediating variable consists of indicators that describe the performance of business processes by using internally and externally oriented indicators.

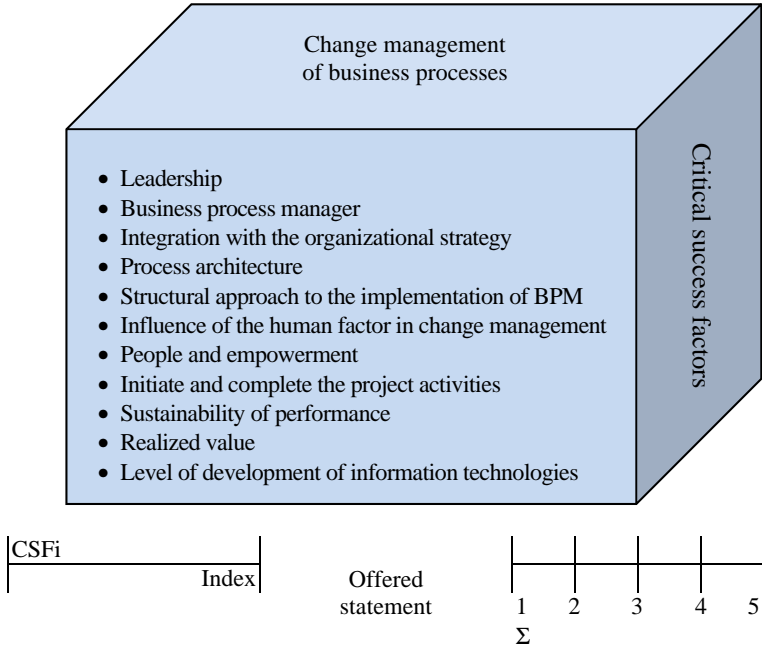


Figure 2. Shows the critical success factors that are stable and exist in every business organization. Persistence of statements is measured at point Likert scale from 1 to 5
Source: own study.

Leadership may be regarded as an activity that is often not in line with the strategic guidelines of the CEO and where leaders tend to experiment with the importance of the process in the organization. Leadership in this context means to have attention, support, funding and time of the leaders involved in the BPM project. Of course, the representation of each of these will vary with regard to BPM maturity of the organization and leaders.

Business process manager is considered to be the leader of the team, employees, stakeholders and all activities. He must possess certain skills for human resources management and stakeholders, therefore must have a higher level of knowledge than its predecessors.

Connection with organizational strategy aims to add value to the implementation of organizational strategies and goals. If the project does not achieve the stated goal then it is meaningless unless it is tactically planned as a short-term solution, but such solutions can hide great dangers. The organizational strategy is a common work area where all present are focused on the same goals. To achieve long-term

success BPM must be linked to organizational strategy, otherwise this can represent the main reason for the failure (Trkman, 2010, p. 125-134).

In terms of process architecture it discusses the importance of the adoption of the BPM concept and the existence within an organization in which the BPM can simultaneously work on multiple projects. Then it considers the existence or non-existence and intensity of synergistic approach to consistency within the organization to ensure the maximum benefit. Within the organization there must be a set of agreed guidelines and instructions for processes, otherwise each part of the organization could act as an independent, which would lead to organizational inconsistency. Process architecture is much more than a series of procedural guidelines, it describes the basic process principles within the organization and a reference to any changes in the organization that happen due to BPM.

The structural approach to the implementation of business process management without an agreed structured and systematic approach to the implementation of BPM, which takes into account the organizational strategy and how to carry out the important aspects of behavior could jeopardize the project, increase the chaos and increase the probability of impacts of associated risks. Often in practice we encounter a traditional execution of BPM projects arising from traditional management i.e. the logic of "common sense". By the development and progress of the process, there is an increase in pressure whereat "logical" steps lose their systemic and structural approach which is needed at all stages of the process. The influence of the human factor in the management of change is characterized by people who execute / implement processes or implement technologies that are managed by people. People who are in the process concept should be viewed as owners or accomplices in the process activities and they are the ones who realize the implementation of BPM projects. Considering the human resources management and people change management, the question is whether employees will be specialized in one thing or generally informed about all activities. The first ones quickly react in a particular field of their specialization, while the second ones provide greater flexibility to the organization as one of the main objectives of process-oriented organization. Current studies have shown that it is best to have optimized relationship between these two components. Human resources management in the process concept of organization takes 25 to 30% of project time, but in reality, in practice, real time invested into managing human resources is only 1% despite the fact that it is often said that people are the greatest asset of the organization.

People and the organizational empowerment determines process activities that significantly affect employees. Their roles can vary significantly with changes of tasks and activities. Looking at this dimension of CSF it is possible to assign roles to the part of the available human resources in order for the first time to be truly able to manage processes entrusted to them. To make managing the entrusted processes effective, this personnel should receive support through traditional training, but also directed and thought one on one. People are truly the greatest treasure of the organization and implementation of their activities should not be assessed until the system

and file structure are not adapted in such a way to support the BPM projects. Only then can we perform a quality assessment of employees. Once the processes, roles of employees, structure and performance measures reshape, employees can be trusted to do their creative work. Initiation and completion of project activities – all BPM initiatives within an organization must be linked to each other and once the process activity comes to an end it is necessary to make a review to ensure that the newly gained knowledge and experience from one project can be transferred to another project. We can learn a lot about the lifespan of a project, especially where and how to start, how to justify a particular business situation and to engage stakeholders. Business situation should not be regarded as a cover for getting finance, but the main guideline for the implementation of all the inputs in the project. It is necessary to ensure such business climate and the sequence of activities to ensure that the knowledge and experience is not “lost” within the organization.

Sustainability of performance is determined by the project, which has a certain life span, while the processes, if they are appropriately managed, will continue to exist within the business environment even after the termination of process activities. The task of the project is to “deliver” and “forward” the processes of the business environment in a way that is understandable and easy to treat. The organization should establish a process structure that will with its internal capacity support the productivity of the process.

Earned value is described by processes that are established in order to create value that contributes to organizational strategy. The project is completed only when the targeted value is achieved, and when the value is forwarded to the business environment so that business can support business results. The task of a project manager and project sponsor is reflected in ensuring the existence of management structures for monitoring the value arising from the project. Also, it is important to provide as many of the so-called “quick wins” in the process as possible. They should be rational and sensitive, and should be evaluated and implemented, and all stakeholders need to be familiar with the benefits obtained from the “short-lived victory.”

The degree of development of information technologies describes the degree of development of information technologies that affect the capacity of the process and determine the level of development and maturity of the very process of the organization. IT can have positive and negative effects on the processes and process organization. IT is considered an essential factor in the process of streamlining management costs, including time, especially in changing times.

Figure 3. shows the mediating variable that helps determine the existence of indirect links between the structural elements of the theoretical model. The construct contains particles which measures the performance of business processes by using internal and external benchmarks.

Persistence of statements is measured at point Likert scale from 1 to 5.

By analyzing the performance indicators of business processes and grouping them into two groups, internal standards and external standards, we can learn about the entity's ability and the ability of management. Construct performance of business processes represent the mediating variables of the proposed model.

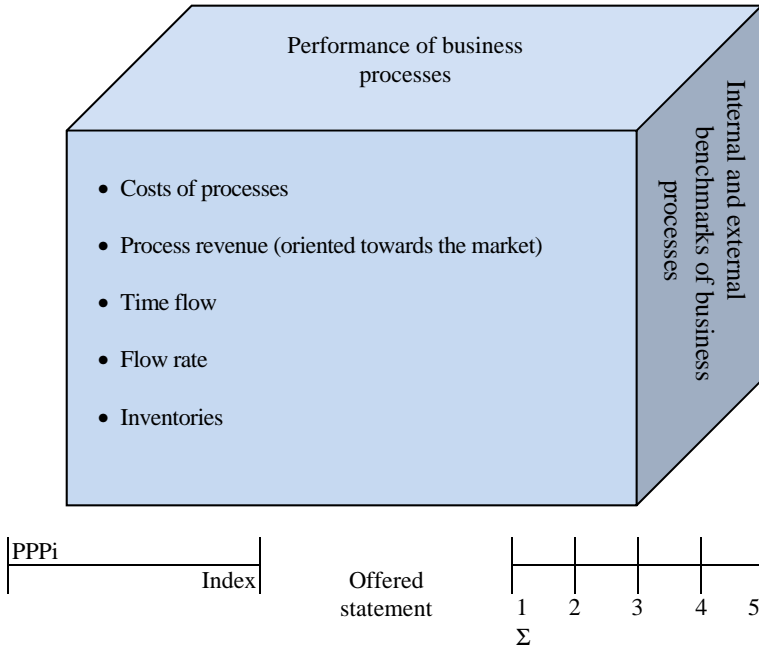


Figure 3. Mediating variable construct

Source: own study.

When considering indicators of the dependent variable, we focused on measuring customer satisfaction using the model mentioned by (Szwarc, 2005, p. 28) and it is based on three key elements taking into account the perception of product quality, service, the way of managing customer complaints and customer satisfaction in recent points of contact with the company.

Figure 4 shows the model construct containing particles organizational performance. The construct contains particles that measure organizational performance of customer satisfaction and financial performance. Persistence of statements is measured at point Likert scale from 1 to 5.

Although commonly used are instruments by Servqual from 22 standardized points to measure user satisfaction, service quality and loyalty indicators in this construct the emphasis is on managerial perception that will get answers to the perception of product quality, service, way of managing customer complaints and customer satisfaction in recent points of contact with the company. Indicators of financial performance will include the results of the overall operations of the organization, which are available from publicly available data on the operations of large enterprises. Financial performance of the organization will be analyzed using standardized indicators in the financial statements, such as liquidity ratios, rates of return, asset management indicators, indicators of debt management, profitability and market indicators.

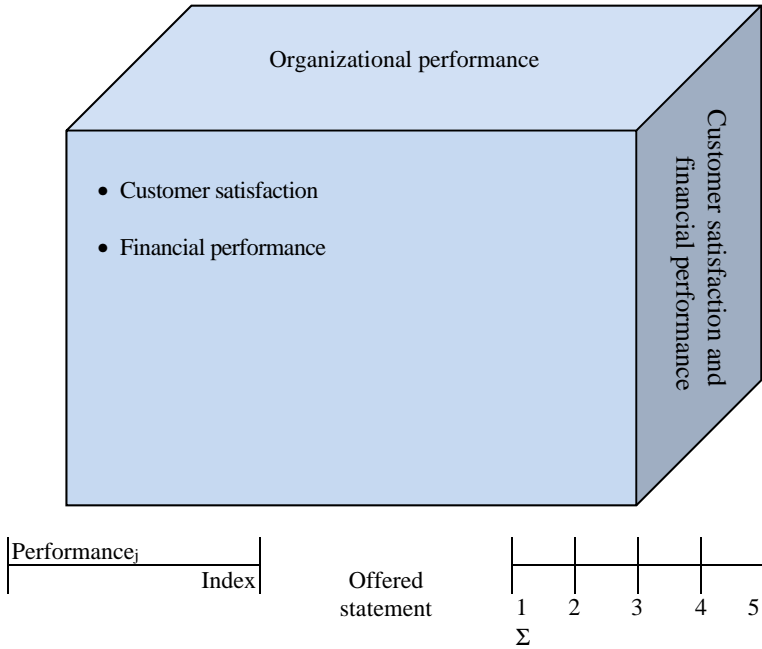


Figure 4. Dependent variable construct
 Source: own study.

7. CONCLUSIONS

During the effective BPM, the performance indicators which are consistent with the process goals are selected so that business processes help in thinking how to articulate in a simple way by using measurable results the strategic goals that organization should achieve. The key to improving organizational performances lies in the selection of financial and non-financial measures that should be treated as mutually complementary values. Instead of choosing only one type of measures (Kihn, 2010, p. 92-468), considers that financial and non-financial measures should be observed as complementary values. Although some authors (Amaratunga *et al.*, 2001; Škrinjar *et al.*, 2007; 2008; Kumar *et al.*, 2008) proved positive relationship between process orientation and non-financial performances, different levels and models of BPM show that process measures and models of BPM have greater impact on higher levels of process maturity.

So far, nearly all empirical studies prove the thesis that process-oriented organizations achieve better non-financial performances, and then indirectly, better financial performances too. The practical implications of previous research generally confirm that the process-oriented organization achieves an advantage over the competitive organizations, which confirms better organizational performances.

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