

Process Approach as a Basis for BSC Implementation and Improving of Organizational Performance

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The implementation of process approach as a method of managing organization is sometimes a needed and sometimes a necessary condition for the implementation of BSC which is a complex concept of measurement of organizational performance. The organization's focus on its key processes enables their permanent improvement. This process improvement is in the function of satisfying the requirements and desires of its customers. This paper gives an account on the impact of the process approach on the implementation of the BSC concept. In addition to theoretical presentation, this paper presents a case study of the Toyota company.

Introduction

The traditional organizations, that is, the organizations that operated or are still operating in the conditions of a relatively steady and predictable environment, did not need to monitor the events in the environment on a permanent basis, nor did they need to implement frequent changes in their strategy, processes and structure. Due to such conditions they were able to grow and develop to a great extent, assuming that size is a characteristic that guarantees success in the market.

However, a new business era began, an era in which large companies find it ever more difficult to maintain their competitive position and to defend themselves from smaller, far more flexible organizations which can adapt to the changing requirements of the environment in a relatively short period of time.

1. The process approach implementation

It is obvious that traditional organizations encounter numerous problems stemming from their bulky structure intersected by functional barriers. Modern theory and practice, however, offer solutions to this problem. We are talking about the organizations that are able to minimize these flaws, actually, about the organizations that adjusted their structure and work methodology to the requirements of the modern environment. These organizations are not oriented towards their functions, they are directed exclusively towards their customers, by focusing upon their own processes which in turn create value for them. In order that these organizations be in a position to respond promptly and to adapt to different situations, their structures are characterised by a minimum number of hierarchical levels. These are the organizations that have implemented the process approach into all the aspects of their operations, these are process organizations.

The process organization is one whose entire operation is established in such a way that it can be viewed as a process or part to the process. The process organizations are managed through their basic processes. In other words, the changes in the processes result in changes across the organization. Literature lists these organizations also as "horizontal organizations" or "flat organizations".

The process approach, i.e., the process oriented organization, means that attention is shifted from end output (products and services) to the activity chain that shapes this output. The basic idea is that, since the process (with an active human participation) is responsible for the output creation, the organizational processes should be managed and continually improved [11, pp. 17-18]. The orientation towards processes results in shortening the process total flow time, as well as in an increased flexibility that allows for a prompt response to the variations in market demand [2, p. 115]. On the other hand, the most important characteristic of the process is its easy decomposition (fragmentation), but also an easy way of making it into a momentuous process. Processes are identified by an anatomy approach to organizational systems, starting from the material/ object of work specified for the purposes of an easy identification of the process [10, p. 13]. This facilitates permanent monitoring, analysis and improvement of processes, allowing for the organization to continually increase its own efficiency and effectiveness, and hence its competitiveness in the target markets.

A research conducted in autumn 2005 on the sample of 1267 Slovenian companies of over 50 employees each (small and medium-sized enterprises) has revealed that the process orientation has significant positive effects

on the overall organizational performance. This research verified the following three hypotheses [14, pp. 171-185]:

1. The increase in the process orientation results in the improvement of the organization's financial performances;
2. The increase in the process orientation results in the improvement of non-financial performances, in terms of the increase in the customers', the employees', and the suppliers' satisfaction;
3. The improvement of non-financial performances results in the improvement of the organization's financial performances.

This research supports the already adopted hypothesis that the process oriented organizations generally achieve higher performances compared to the traditionally designed (functional) organizations.

2. The BSC concept and organizational performances measurement

The creation of the BSC (Balanced Scorecard) concept was initiated by the attitude that the existing approaches to organizational performances measurement based primarily on the financial and accounting indicators have long become obsolete [7, p. 143]. The BSC is a system that translates the organization's mission and strategy into measurable goals and indicators in four basic fields: finances, internal processes, customers and learning and growth. Thus the BSC concept, as a measurement method, means the indicators among which there is a balance between the external indicators that refer to shareholders and customers and internal indicators of critical processes, innovations as well as learning and growth; however, simultaneously, the balance between the indicators of the results achieved (lagging indicators) and the indicators of future performances (leading indicators) is also achieved [4, p. 10]. More precisely, the BSC means a balanced system of organizational performances measurement, one that means a balance between the short-term and the long-term goals, between financial and non-financial indicators, between lagging and leading indicators, as well as between internal and external perspectives of organizational performance [7, p. 144].

It should be mentioned that the four above quoted fields in which the organizational performance is measured need not be understood as imperative. They are proposed as most desirable to be measured since they are the basis of development and work of any organization. Of course, an organization may add (or even subtract) certain areas the management finds to be of cru-

cial importance for the organization, i.e., for the achievement of the organizational goals and the operationalization of formulated strategies. It is, however, necessary that one should be very cautious in selecting the areas of crucial importance for the organization's work, in which the performances will be monitored. The selection of each area means the identification of a certain number of indicators on the basis of which the organizational performances will be monitored. The larger number of areas to be monitored, the more numerous the indicators. Normally, a larger number of indicators increases a total amount of information to be processed in the formal managerial decision-making mechanism, which may affect its efficiency and eventually cause the "paralysis of the analysis". On the other hand, a small number of key areas or indicators will certainly increase the decision-making efficiency, however, it may hinder the effectiveness of measuring and monitoring of the overall organizational performance. Therefore it is the responsibility of every organization management to, aware of both the positive and the negative effects of a small or of a large number of indicators (or areas), determine the areas of crucial importance for the work of the organization they manage, and then define an optimal number of indicators that will allow for a comprehensive insight into the work of the organization.

After the organization has decided upon the areas in which the performance is to be measured (these may be the areas other than the four mentioned), it has to define the key organizational performance indicators (KPI) in them. Then comes the definition of the result planned to achieve in the chosen areas (to be measured via the defined indicators), as well as the method to be used in measuring [13, pp. 197-204].

The BSC (Balanced Scorecard) should be implemented as an adequate system of measuring and improving the overall organizational performance in all organizations, since it is in this way that the organization (with an implemented BSC), on the basis of a set of different indicators referring to finances, customers, internal processes and the organizational learning and growth, could at any moment find out its standing as regards its goals [3, pp. 41-46]. Hence the BSC can be said to represent the essential tool of the strategic management system. It harmonizes, supports and provides for the inter-correlation of the key processes of management, guiding them towards the defined strategy. The BSC allows for the strategic goals to be transparent and translated into the goals of each of the organizational segments/processes, and of all the employees. The strategy has to be defined in such a way that each organizational unit, each process owner, and even each employee,

can and must recognize their role in the defined strategic goals and hence set their individual goals and activities to accomplish them [1, pp. 75-78].

3. The process approach impact upon the BSC concept and organizational performance

A successful implementation of the BSC concept as an organizational performance measuring system means that a number of conditions have to be satisfied beforehand. One is the process approach implementation. In other words, it is desirable, if not necessary that the BSC implementation be preceded by the process approach implementation in the organizational management.

The BSC concept was already said to observe the performance indicators (leading and lagging) in four key areas (there may be more than four), one of which refers to internal processes. If we observe only the internal processes area, we can easily conclude that there is a large number of indicators that can be monitored there. Let us list only some of them [7, pp. 193-194]:

- administrative expenses/total income (%);
- production process period (number);
- timely deliveries (%);
- average leading time (number);
- leading time, product development (number);
- leading time, from order to delivery (number);
- leading time, suppliers (number);
- leading time, manufacturing (number);
- decision making average time (number);
- supplies turnover (number);
- productivity improvement (%);
- IT capacity in the company (number);
- IT capacity/number of employees (number);
- changes in IT supplies (in currency units or %);
- IT costs/administrative expenses (%);
- manufacturing process impact upon environment (number);
- the product use impact upon environment (number);
- costs of wrong decision making/management income (%);
- flawlessly fulfilled contracts (number);
- administrative expenses/number of employed (in currency units), etc.

From the standpoint of the process approach, where all the processes can be classed as either basic or subsidiary processes, however, a logical conclusion can be inferred that the performance indicators will not be used in measuring all, but only basic processes, which can further be divided into three basic process groups: innovations, operations (manufacturing process) and post-

sales services [5, p.91]. These three groups of processes can be understood as sub-areas of the internal processes area and each can be appointed performance indicators. For example, in the sub-area of operations (manufacturing process) three groups of indicators can be set: process duration indicators, process quality indicators and process costs indicators [7, pp. 175-176].

Indicators are then defined for each of the groups. For the process quality level, for example, indicators can be established to measure the quality level achieved, knowing there are four basic levels of process quality definition. These are [6]:

1. Spontaneity level. This is a primitive process level. Its structure and dynamics are insufficiently well planned. On this level the process is usually approached ad hoc. This level is characterised by:

- absence of clear procedures and defined execution standards;
- absence of adequate documentation;
- unequal knowledge and skills of employees;
- the process success depends exclusively upon the experience of the manager and the process team.

2. Initialization level. This is the level on which initial attempts in a systematic approach to processes occur. Its main features are the mistakes made in the initial attempts to organize and run-in the process. It is characterised by:

- non-standard approaches in implementation and gradual running-up of the system;
- documenting certain parts of procedures and data (on this level it is usually said what should be done, not how it should be performed);
- all processes are structured according to the basic manner of functioning.

3. Formalization level is one on which the overall process becomes completely harmonized. This level is characterised by the presence of precise standards and procedures in the process execution, in the course of which the process loses its adjustment capability, i.e., it becomes rigid. This level is characterized by:

- standards and procedures institutionalization;
- presence of accompanying documentation for all major processes;
- consistent data collection and reporting throughout the organization;
- a developed process management training system.

4. Optimization level. This is the highest quality level of the process organization. On this level, the process has precise standards, clearly defined procedures in certain parts, and acquires a capacity of adjusting to changing circumstances. This level is characterised by:

- data collection and storage in integrated databases;
- establishment of mechanisms for permanent process improvement;
- continual enhancement of inventiveness in all members of the organization, for the purpose of process development;
- abandoned attitudes on the process success; the stress is on the success of the people and the system.

The analysis of the above classification leads to the conclusion that the last two levels of quality definition of the process are those which the organization of all processes should seek to achieve. To which of the two levels it will be directed in particular will depend on the nature of the process itself. In modern business conditions, the organization of a majority of processes should lead to the optimization level, a consequence of the impact of frequent changes in the environment. There are, however, processes whose nature does not allow them to be executed on a level on which major deviations from the execution method defined by precise standards and procedures are possible. Such examples may be the processes in chemical and base industries. The hydrochloric acid or pyrolytic oil production processes require a very precise production technology and clearly defined standards of execution. It is for this reason that in the production of these it is necessary that the manufacturing processes should be brought to the formalization level. Changes in this production are possible only on condition a new technology has been adopted, more effective than the present one [12, p. 41].

The implementation of the process approach as a basic strategic management concept, that is, as the basis for the management of the entire organization, largely facilitates the introduction of the BSC concept, as well as measuring, or monitoring, various organizational performance indicators (primarily in the area of internal processes, and then in all the other areas). The logic is the following: since the main purpose of the existence of a market oriented company is to meet the needs and desires of its customers, all its processes should be oriented towards fulfilling this goal. This means that all the processes in the organization are carried out for the purpose of achieving the customers's satisfaction with the products or services of the organization, which will (in case these needs are satisfied successfully) result in improving the organization's financial performance. On the other hand, the efficient execution of all the organizational processes requires appropriately trained executives, ones who will use knowledge and skills to permanently monitor any possible changes in the processes, as well as an adequate remuneration system. Thus all the four areas of organizational operations consid-

ered to be crucial in the basic BSC concept are embraced: processes, customers, finances and employee learning. It only remains to identify an optimum number of indicators and the performance monitoring may start. In other words, the process approach implementation into the organization management system allows for a solid basis to be formed for processes monitoring and measuring, which will eventually result into an easier measuring and monitoring of indicators related to customers, finances and employee learning. It will only be necessary that the indicators in these areas be defined and the BSC concept is complete.

5. Case study: process approach implementation in the „Toyota“ company

The modern environment is extremely dynamic, hence unpredictable, which requires that all the organizations doing business in the area should achieve a satisfactory level of flexibility. One example is that customers have become considerably choosier. They demand specific products, both in functionality and in design [8]. Such tendencies create a demand for the implementation of flexible production systems, where flexibility is above all mirrored in the production of a large number of small series, with a wide range of products [9].

Such tendencies in the environment development have timely been identified by the management of the Toyota company, the result being that Toyota is today a modern process oriented company, based on flexible production systems. The philosophy that has for years been prevailing in Toyota, and which is customer and employee oriented is called the Toyota production system (TPS). The TPS has three desirable outputs [17]:

- to supply the client with a highest quality vehicle, at a lowest possible price, and in reasonable time;
- to secure the employees' satisfaction at work, safe work place and correct work relations;
- to ensure that the company is flexible enough to respond to the market needs, earn profits through the activities of reducing the costs and secure a long term prosperity.

The basics of the TPS are built on the standardization for the purpose of securing a steady method of work and a consistent quality. The members of Toyota tend to continually improve their standardized processes and procedures in order to ensure the best quality, improve efficiency and eliminate costs. This is known as Kaizen and is implemented in each area of the company's operations.

The basis of the Toyota system is made up of the Toyota production system and the TSM (Toyota Service Marketing). The Toyota production system is the world's most famous modular programme. It tends to [17]:

- reduce redundancies of any kind, such as unnecessary motions, tools, etc;
- achieve a balanced work load in order to avoid peak burdens and idle motion by planning every minute, by a constant visual control and by a strict adherence to the piece-by-piece production;
- control and maintain a balanced time dynamics: standardization of production process and each individual step within this process;
- identify latent problems, find counter-measures and thus prevent their repetition from the start.

The above quoted characteristics of the Toyota production system lead to the practice of a just in time (JIT) delivery of goods (and services) where they are needed and when they are needed.

To make its concern with the customers more complete, Toyota developed the so-called Toyota Service Marketing (TSM) programme that deals with the post-sales activities. The TSM is one of the Toyota's strengths worldwide that guarantees the customers' satisfaction and a high quality of repairs. The challenge today is the TSM implementation throughout the Toyota's repair net and creating a highest quality network operated by the manufacturer.

Concern about the customer makes the basis of the Toyota's TSM programme. The entire philosophy of this post-sales programme can be observed through a presentation on Figure 1. In the centre (area 1) are the so-called Toyota's customer oriented processes. The employees, the objects and all the internal procedures that represent the operations elements (area 2) are focused upon the execution of the core processes. The business management in the post-sales operations sector pays due attention to the aspect of operations management (area 3). The achieved outputs here are measured via respective performance, primarily the profit.

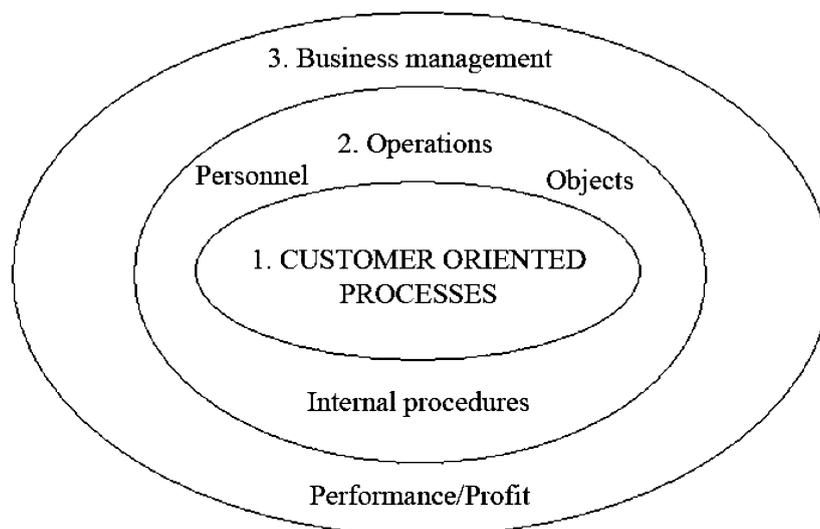


Figure 1. *Customer oriented activity circles*

In the post sales activities, the importance of the "Toyota Customer oriented processes" notion (Figure 1) is seen in the defining of the processes such as: the contact with clients procedure, motor failure repair procedures, claim resolving procedure, administrative work, maintenance and repairs, clients, etc. In the TSM manual each process is presented by a respective flow chart and a textual description of this same process. A description of a documented claim resolving procedure can be presented in the following way [16]:

1. The serviceman should maintain an open line for contacts with the client.

2. The receptionist should answer the call politely, identify the name of the serviceman, introduce himself and ask questions in order to encourage the client to explain what he needs.
3. The receptionist should direct the client to the person in charge of clients' complaints resolving (CRE - Customer Relationship Executive). To find out what the client's problem is, the CRE should listen to the client attentively and make necessary notes.
4. The CRE should search for the solutions to propose to the client.

5. The repair takes place.
6. The CRE in the service makes a questionnaire to check whether the client is satisfied and sends it by post or calls the client on the phone.

There is a documented procedure for every work activity connected to servicing the automobile. Figure 2 presents such a procedure related to making an appointment for a repair. The ultimate goal is to improve the appointment rate.

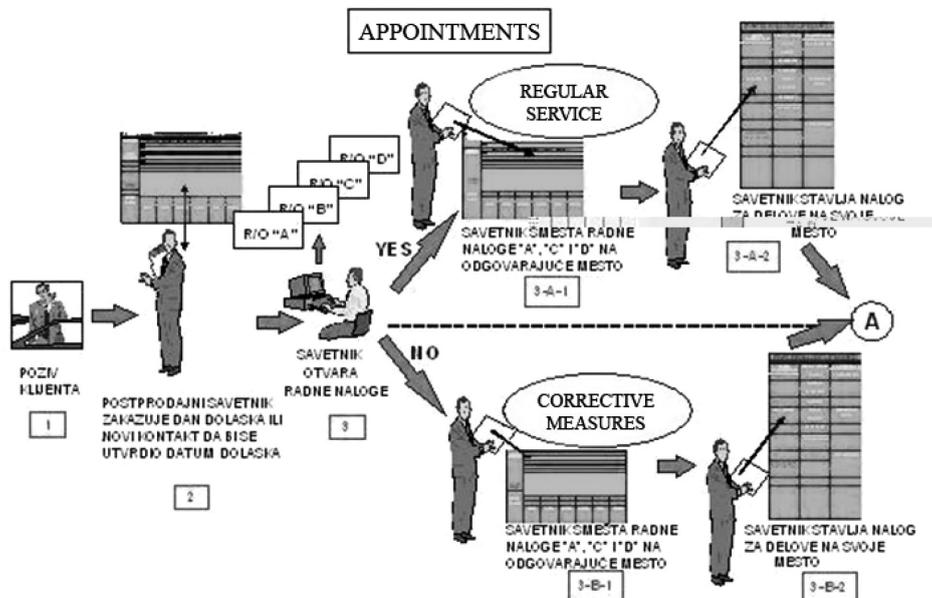


Figure 2. The repair appointment making procedure

All the processes in Toyota are, of course, defined in detail, in order that their performance should be monitored more easily. Monitoring is achieved by appropriate measurements. The measurements, however, are not carried out just for the sake of monitoring performance, but rather for the purpose of getting new knowledge of the extent to which the previously set goals are achieved.

To monitor the efficiency of business operations and the extent to which the goals are achieved Toyota uses the key performance indicators (KPI). The implementation of these indicators helps the management guide and improve their business. In the automobile post-sales processes these indicators are classed as: a)

the client turnover indicators (number of visits of clients, number of repair orders, serviced cars at the expense of the client, etc.), b) post-sales success indicators and c) financial indicators.

The KPI examples that refer to the post-sales service success indicators are: spare parts sales indicators, client turnover indicators, delivery indicators, the repair specialist capacity indicators, etc. All the above mentioned parts and indicators of the service success indicators are important in monitoring the execution of the set goals, but also for the future planning. The method of monitoring the planned and the realized values of spare parts sales, as one success indicator, are shown in Figure 3.

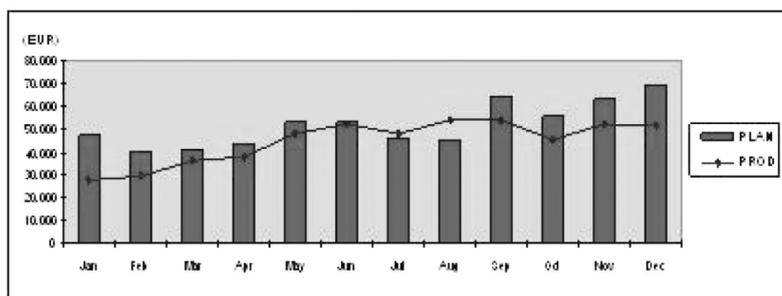


Figure 3. Chart of spare parts sales results

This example clearly shows that Toyota pays a lot of attention to its processes, especially to those directly related to customers. It is important to point out that Toyota allocates large funds in the development of its employees. All the activities Toyota undertakes resulted in a continual growth in sales on the global lev-

el as well as in the satisfactory levels of financial performance. We can only stress that the earned income of the Toyota company in the last three years records a continual growth (including the year 2008 when the recession was global). The data on the earned income are illustrated in Figure 4 [15].

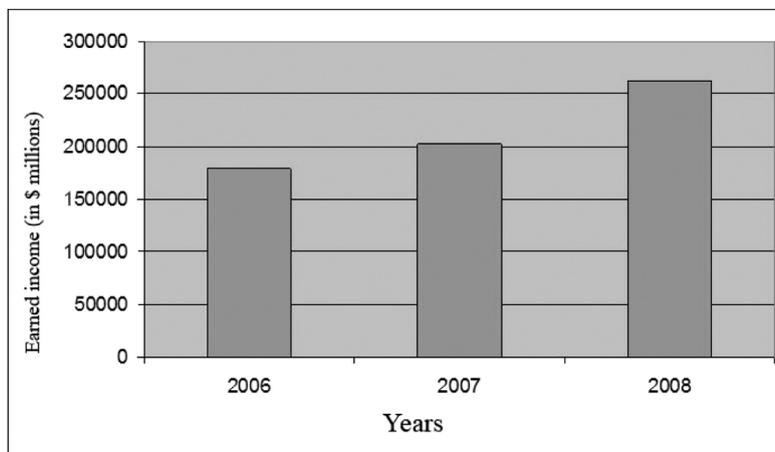


Figure 4. *The Toyota company income in the last three years*

On the basis on the above, we can draw a conclusion that Toyota implements the process approach in organizational management simultaneously, and that this type of management is supported by a developed BSC system used to monitor all the important performance indicators of this large company. Naturally, establishing these and many other management and organizational systems resulted in Toyota becoming a leader on a global automobile market.

Conclusion

The process oriented organizations can manage these processes in an easier way. Naturally, in marketing oriented organizations, where the basic (key) processes are customer oriented, this means that organizations focus upon meeting the needs and desires of their customers. On the other hand, occasional changes in the processes will require that all the employees permanently learn and improve so that they should, using their knowledge and skills, efficiently adapt to the changes within organizational processes. Such a method of work will most probably have a positive effect upon the financial aspects of organizational activities. All this will in turn make it necessary that a specific system of performance measuring be implemented in all the areas of crucial importance for the organizational activities. Therefore we can conclude that the process orienta-

tion really facilitates the implementation of a complex system used to measure the overall organizational performance, such as the BSC (in certain cases the process orientation is a necessary condition for the BSC implementation).

The Toyota example, presented in this paper, is an attempt to introduce the readers to the importance of the process approach. On the other hand, it highlights the importance of the BSC concept implementation, as well as the important relationships between the process approach and the BSC.

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