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ESTIMATION OF FUNCTIONING OF THE COMPANY BENCHMARKING BASED ON THE ORIGINAL MODEL

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ABSTRACT

The article presents the author's universal method in the form of a Self-Evaluation Questionnaire of the Enterprise, which makes possible an evaluation of functioning of quality control systems as well as the effectiveness of management processes and areas requiring improvement in a dairy enterprise as well as an analysis of its strong sides. The conducted audit shows the full possibility for implementing the method in national dairying.

Key words: benchmarking, self-evaluation model, quality control systems, continuous improvement, management process.

INTRODUCTION

In meeting the demands expressed by the management of the studied enterprises, the article proposes a self-evaluation model, as a tool for evaluating management quality control systems as well as the role of these systems play in improving the management process. During a trial evaluation of the enterprise based on benchmarking (particularly external benchmarking), a barrier may often be encountered in the form of a lack or insufficient amount of data for comparisons. Self-evaluation gives the organization the occasion to analyze its work, an analysis of its strong points and those areas requiring improvement. This allows for an understanding of how far an organization has moved on the way of introducing management systems of quality control and what yet remains to be done to achieve success.

The author proposes that interested businessmen fill out the questionnaire and state their position with relation to the principle of norms regulating quality control systems as well as a model enterprise in the dairy industry, as proposed by the author.

THE ESSENCE OF BENCHMARKING

Benchmarking is a modern method for managing an organization, which is based on the choice of a model competitor; comparing ones own organization to him and tailoring analyzed solutions to it. A model organization is considered to be one, which achieves much better results than the analyzed organization, where the essence is based not on finding and transferring ready-made models, but on the means of achieving the best solutions [2].

According to A. Wegrzyn "benchmarking is a continuous and systematic process of identifying, analyzing, designing and as a consequence introducing better solutions within the scope of processes, products as well as means of solving problems and the realization of aims, making use of recognized and tried internal models and/or external organizations, whose result should be an increase in their effectiveness [8].

W. M. Grudzewski and K. Hejduk write: Comparing oneself with others and copying their models may appear unethical, and may even thought to be a "stealing" of ideas. It is easy to find a sense of guilt with respect to such "theft" of others' solutions. However, the basis of benchmarking is in the very human idea sharing with others and helping others in need. The success of this process depends to a large degree on basic human qualities, such as humility (the admission that help from the outside is needed), sincerity (required during the search for help) and compassion (necessary on the part of those, who offer the help).identifying strong and weak points of the company as the result of evaluation of various aspects of processes in relation to best practice – the analysis could supply the information what it is necessary to change an also what is not necessary to change. It is necessary to remember, that even organizations that achieved success the hidden ineffective processes could occur, and from the other hand in smaller organizations that do not achieve particular success there is possible to find very well functioning high efficiency processes [2].

The aims of benchmarking are:

- identifying the strong and weak points of an enterprise as the result of confrontation this analysis provides pointers as to what should be changed, but also what should not be changed. It should be remembered that even in businesses, which have achieved success, there are hidden elements of ineffective actions, and in organizations meeting with a lesser measure of success, there can be found units conducting functions and processes with considerable effectiveness,
- change in hitherto held interests,
- changes in the active practice of the organization, concentration of attention of the management staff on the essence of the enterprise's activity,
- development of its talent the method of comparing oneself to the best initiates the process of learning.

Realization of the aims of benchmarking leads to increased effectiveness, reaching the desired level of active aims, allowing for arriving at a level of the model company in the course of achieving the key factor of success, which allows for increased client satisfaction. Nonetheless, along with the aims, very beautiful and simple in themselves, one must see the varied limitations of their realization. These are barriers connected with the mentality and habits of employees. Sometimes people fully realize the differences between enterprises; nonetheless, awareness of this fact doesn't lead to undertaking activities on the part of those enterprises that lag behind [9].

KINDS OF BENCHMARKING

The literature on this subject classifies benchmarking on the basis of two criteria: the object, with relation to which a given organization is being compared (model criteria) and the subject, which is being compared by a given organization. The division of benchmarking on specific kinds has been presented in Fig.1.

Pattern criteria

Subject criteria

Internal

External

Competitive

Results

General

Process es

Fig. 1. Kinds of benchmarking

Source: [2].

Benchmarking is an extensive enough method, which permits auditing of whole organizations, services which they offer, individual positions or particular processes.

The literature recommends, in the case of thorough and broadly conceived benchmarking activities, to begin with internal benchmarking, through external benchmarking, and finishing with functional benchmarking [3].

The object of comparison can be every process and function in the organization, of goods and service, managerial personnel, capital and also perceived customer values.

Particularly this last aspect is important, because every company aims to satisfy the customer's needs and to fulfil his expectations. For systematizing purposes, two criteria of benchmarking may be chosen: objective and subjective.

The objective criterion defines those areas using methods of comparing with the best. Here it is possible to distinguish:

- **Strategic Benchmarking** depending on the comparison of different approaches, missions and of strategies of market leaders, so as to identify the key factors of their success.
- **Processes benchmarking** based on examining the market leaders' processes with relation to cost efficiency as well as ways of creating value for the customer. This is unusually important with regard to the fact that processes are the source of competitive superiority. Comparisons viewed from this angle within the model company should therefore raise the following questions:
 - how a given process is being realized,
 - how it is being realized in just such a way,
 - what are examples of these types of standard processes,
 - how, in relation to the model, this process should be improved (i.e. what solutions to apply, techniques, technologies etc.) [5].
- **Products benchmarking** concentrates on an analysis of products, services in the area of satisfying customers' needs as well as innovative solutions in the range of, e.g., construction and technology.
- **Benchmarking of the management methods** depends on comparing the management system, accepted by the model company, and in particular, the planning, decision making, organization of human resources, monitoring i.e., company actions oriented towards human, financial, factual and information based resources [4].

The subjective criterion defines where the organizational pattern was chosen from. The way of searching for the pattern of perfection depends on the aim, which the enterprise wants to reach. If what is required is to be "best in the class," which is what the company in question considers, what should then be applied is:

- Internal benchmarking because comparisons have an internal character and concern, analogous functions in a given enterprise or multinational enterprise, i.e., one that has branches throughout different countries. The advantage of this method is the ease of access to data and ease of access to a quick display of internal differences. On the other hand, however, this method has defects, among which are:
 - A narrowed scope of action this is when we limit our orientation to inside the organization and hence to only our own solutions.
 - Prejudices in the company it is very hard to convince workers that they should copy, or initiate solutions towards which they hold some prejudice or with which they have to compete, which they do not trust.

It should be noted, however, that it is this internal benchmarking that should be the starting point for applying methods, comparing oneself to the best, and permits the finding of individuals, who can serve as so-called "benchmarkers." This is the basis for applying external benchmarking. A comparison, of the customer service process among two companies can deliver, among other data about the structure of costs of leadership activity, average time for realization of an order, the structure and number of complaints, and the percentage of steady customers.

• Competitive or external benchmarking – this depends on comparison of oneself with the best apart from the organization, within the same sector of products and processes. This information makes possible the exact qualification of ones competitive position. It is not an easy form to realize with respect to the personal nature of the data, therefore the enterprise often makes use of the services of a consulting company. The basic defect of these methods is the danger of duplicating narrow trade practices in a given

- branch. Very often in a given industry, one solution is very often used in that given branch, e.g., the form of payment for products or services, which is not at all is the best both as regards the company, as well as the suppliers and or the customers. It is therefore worthwhile to seek for solutions from outside the branch, which could really improve the work of the company.
- Functional benchmarking this depends on comparing oneself with regard to functional criteria, i.e., within the framework of procedures and functions. Therefore, also the model companies in this case will be from outside the sector, e.g., if the company has problems with logistics, it will then look for the best pattern in this regard, paying attention, that the object of supply is analogous with relation to sizes, form and weight. The advantage of this method is that information is relatively readily accessible, because the model companies are not part of the competition. Thanks to this, the enterprise can initiate more innovative solutions. On the other hand, it is a time-consuming method, showing results only after several years. This is connected with difficulties in finding a proper partner and in initiating this form of benchmarking. One thus has to adapt innovative solutions from outside the company to businesses of a completely different character and profile, so that the innovative solutions can meet our needs and possibilities. For the purpose of shortening the time, information agencies have come into being, possessing suitable databases, used in searches for comparisons with appropriate leaders. One of the companies with such an activity profile of has been created in the United States, the International Benchmarking Clearinghouse. It primarily fulfils the role of an adviser and is a source of information for the company.
- General benchmarking is a special case of functional benchmarking. This concerns those procedures and functions, which run in an identical way, independent of the enterprise's trade branch membership, or even independent of the character of the institution in which they are being realized. The advantage of this method is to obtain relatively easy access to information, because the model company does not make up the competition. Thanks to this, the enterprise can initiate more innovative solutions. The defect, however, like in the case of functional benchmarking, are difficulties in initiating it [7].

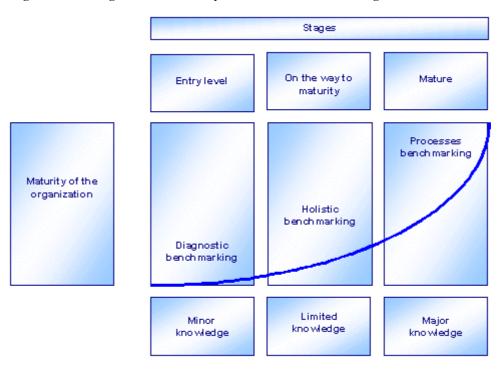


Fig. 2. Phases of organizational maturity in the course of benchmarking

Source: [6].

The European Commission elaborated a so-called model of European benchmarking (Fig. 2), presenting its three stages of development, which the organization purchases together with the obtained experience and knowledge. The first trials of these methods have been called diagnostic benchmarking, which should be extended by holistic benchmarking, depending on internal analysis of organizational activity, so that benchmarking can, as a result, reach the level of process benchmarking on a world level.

There exist many methodical conceptions of subsequent stages of the benchmarking realization process. The number of stages can be different, which depends on the needs and aims of the enterprise. It is possible to distinguish five main stages of this process:

- 1. Planning phase
- 2. Search phase
- 3. Observation phase4. Analysis phase
- 5. Adaptation phase. [9]

In the first phase, one should make the decision regarding the object of testing, calling up a team for conducting the research, standardizing coefficients and ways of assembling the information. At this stage, the team acquaints itself with the degree to which the enterprise has been organized as well as its internal and external aims, it carries out a strategic analysis (the SWOT analysis and various other methods) and the operational one (an analysis of financial, indicatory reporting). The object of benchmarking can be the whole enterprise, its individual departments, work sites, its processes as well as products. A suitably well-chosen team whose size should be dependent on the size of the enterprise as well as the scope of planned activities should prepare all marketing activities. J. Bramham claims, "The chief manager at the highest management rung should be the leader of such group and even the executive manager, who is engaged in the execution of the project. The rest of the members of this assembly should reflect the power structure within the framework of the organization" [1]. Factors having key meaning for enterprise's activity are defined in the first stage, and then those that have influence on its development are distinguished from them. These factors should be ranked according to the degree, to which they influence the priority tasks being realized by the enterprise.

After singling out the object for testing, it is subjected to a detailed analysis. For the analysis, one should prepare and compile detailed records and prepare indispensable materials (dependable descriptions, block patterns etc.).

The search stage includes: the creation of a list of criteria, identification of potential partners and the choice of a partner as well as making contact with the partner (or partners). The list of criteria that a partner should meet should include benchmarking of: geographical location, enterprise size, organizational structure, products, technological processes etc. A seemingly ideal benchmarking partner may turn out to be unsuitable, however. The list of criteria serves to verify the partners chosen earlier.

The observation stage includes the following actions: preparing suitable questionnaires, obtaining data from the partner, relating to the object of testing, collecting information from various sources and their study, checking and verifying the information possessed.

Making up the analysis stage are the following actions: data standardization, identification of differences as well as the elimination of causes leading to differences. Standardization of data is conducted with the aim of eliminating the influence of factors causing the existence of irregularities in the comparison process. The data are transformed to a suitable coefficient file characterizing the solution applied in the model enterprise. The subsequent actions of this stage aim to determine negative deviations demonstrating differences in efficiency levels between the model and the realization of the benchmarking project as well as the qualification of enterprise methods permitting correct identification of the causes for the formation of these differences.

Adaptation stage. In this stage, it has been possible to distinguish the following groups of actions: the choice of preferred elements of the best methods for process realization, which it is intended to initiate; the qualification of the aim, which the enterprise aims to introduce as improvements; the process of introducing improvements.

THE ESSENCE AND MEANING OF A MODEL OF SELF-EVALUATION

The model of evaluation based on benchmarking is a test of creating a universal instrument of evaluation of management quality in a dairy enterprise, in the form of a Self-evaluation Questionnaire for a Dairy Enterprise.

This model contains a description of a model enterprise, which serves as a point of reference for making the selfevaluation. The model also reflects a larger concern of enterprises about their trade secrets.

This is why the author of this paper considers it appropriate to propose universal methods in the form of a Selfevaluation Questionnaire for the enterprise, which allows one to make an evaluation of the functioning of quality control systems as well as the effectiveness of the process of managing dairy enterprises.

It may be employed under conditions, where it is not possible to make direct comparisons between enterprises for various reasons.

The evaluation model may have a practical application and may serve to diagnose the effectiveness of businesses functioning in the dairy industry, which contain introduced quality control systems as well as those companies that do not have such systems.

The technique of self-evaluation, from the point of view of quality, is very useful for every organization wanting to develop and monitor introduction of systems of quality control management.

The self-evaluation process gives the organization the chance to analyze its work, to analyze its strong points and areas requiring improvement. This allows one to find out how far the organization has moved on the way towards introducing systems of quality control management and what is yet to be done, to achieve success.

The self-evaluation process allows the organization a precise description of its strong points and areas requiring improvement. This process should cause the elaboration of planned activities for improving work organization and its systematic monitoring.

Self-evaluation thus allows an understanding of the causes of the critical state and formulation of conclusions, serving to introduce necessary changes in managing the organization.

ADVANTAGES OF SELF-EVALUATION

Employing the self-evaluation process, in the practical activity of the enterprise, brings about a number of significant advantages. To these advantages, the following may be included:

- disciplining and systematizing the approach to problems of improving (rationalization) activity,
- an evaluation based on facts, not just individual perceptions,
- allows dairy enterprises to describe their weak and strong points and to employ fundamental principles of quality control management,
- coherence of directions for activity (actions) in describing that, which should be realized,
- very effective diagnosis,
- stimulation improving the working process focusing on places where these improvements are most necessary.
- methodology for application in all areas management from individual organizational units to the whole organization,
- a way of creating and of promoting good work and responsibility among the staff of the organization as well as instilling "fresh" enthusiasm in an endeavour to achieve more and better results,
- a way of comparing achievements of the organization with relation to an organization model constructed by the author of the paper.

GUIDELINE FOR CONDUCTING SELF-EVALUATION

To conduct self-evaluation of an organization - one should:

- 1. Call on competent, an objective team of experts, which should include: Chairman President / Manager, Secretary Legal representative for initiating the ZPJ, Responsible for conducting (initiating) the self-evaluation of individual criteria board members or department heads.
- 2. To enact a division of responsibility for realizing the self-evaluation as well as to develop a work schedule.
- 3. To undertake a self-evaluation of the enterprise based on the Questionnaire for the Self-evaluation of a Dairy Enterprise.
- 4. To conduct a comparison process with the achievements of the best dairy enterprises in the country, using the benchmarking method for this aim.
- 5. To perform an analysis and write a final report based on self-evaluation (strong points and areas requiring improvement).
- 6. To create a repair (salvaging) program.

Realization of the self-evaluation should be conducted according to pattern below.

Fig. 3. Pattern for the self-evaluation process of a dairy enterprise



Source: own study 2005.

A SELF-EVALUATION QUESTIONNAIRE FOR DAIRY ENTERPRISES

Universal Method of Evaluation – Questionnaire for the Self-evaluation of a Dairy Enterprise is based on three criteria groups:

- The first group concerns an evaluation of the ways the enterprise functions:
 - evaluation of the management process,
 - evaluation of the nonmaterial capital of the enterprise
 - evaluation of economic coefficients.
- The second group serves as an evaluation of requirements for suppliers of raw materials for the enterprise.
- The third group of criteria concerns the evaluations of the way customers perceive the enterprise.

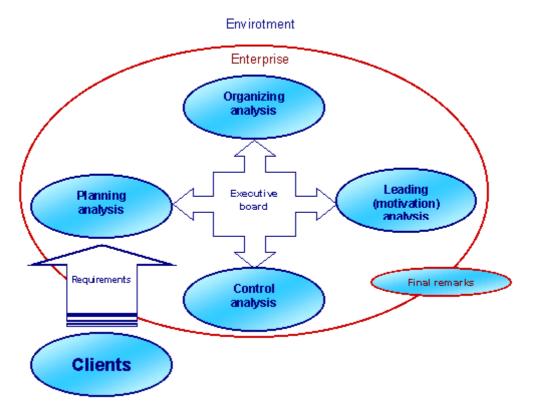
Each of the three main groups of criteria can be divided into more detailed ones, which are assessed on a five point semantic scale. It is recommended that evaluations be made by two independent teams, where one would assess the enterprise's management process, and the second – the effects of the economic enterprise. An example of model organization – characteristic features as well as the essence of the enterprise's functioning.

Presented below on the basis of conducted evaluations is a model organization.

Designed, as the result of research works conducted by the author of the model enterprise, it is of practical significance for enterprises of the dairy industry. The utilization of recognized and checked internal and external patterns serves the introduction of a range of better solutions for processes, products as well as ways of solving problems and of realizing aims, whose result should be increased efficiency in the remaining enterprises.

<u>Fig. 4.</u> presents the pattern of the self-evaluation process for a dairy enterprise. The highest level of the enterprise's management, after verifying the strategic plans for the enterprise, from the view of customers' requirements, makes the analyses an evaluation of the organization, its leadership as well as monitoring. The final evaluation is the result of individual analyses, including their diagnosis. The essence of the constructed model depends not on finding and transferring the finished patterns, but in the way the inquiry is conducted to obtain the best solutions.

Fig. 4. Pattern of the self-evaluation process of a dairy enterprise



Source: own study 2005.

An aid to preparing self-evaluation may be reference to the model enterprise stand. Characteristics as well as coefficients relating to the model enterprise appear as follows:

Oualities of the model enterprise:

- The most important aim of the enterprise is the improvement of the management process.
- The enterprise makes a SWOT analysis, which leads to a well-ordered description of the situation in an enterprise, which constitutes the basis of formulating aims and priorities of development.
- The customer plays a key part in describing requirements relating to the quality of the product.
- The enterprise, in establishing a strategy for action, makes use of different ways of obtaining knowledge from the outside, which makes possible the process of continuous improvement within the enterprise as well as adjusting to changes in the surroundings.
- Within the group of enterprises with initiated quality control systems, the highest management level participates actively in the process of introducing these systems, through the realization of the following actions: setting of strategic aims, setting a policy of quality control, assurance of accessibility of supplies, carrying out internal audits.
- A readable organizational structure functions in the enterprise based on perceived responsibility for the final product.
- Every worker knows the aims of the company and identifies with its qualitative results.
- A key part in the enterprise is played by the education and development of its staff.
- The realization of training and education of workers of the enterprise in the range of managerial skills, supervision, transport, specialized and professional skills, styles of control, administrative techniques, new methods, procedures of work and relations with customers.
- Developing programs for brief-, average and long term education and staff development.
- In undertaking the decision of a strategy for managing human resources, the direct opinion of workers is consulted.
- Proper communication processes inside the organization are established.
- The management of the enterprise fulfils the very important part of a leader, and is able to co-ordinate and integrate the efforts of groups around common aims.
- There is an effective form of monitoring, which occurs at individual stages of the production process.

- Eliminating all threats (physical, chemical, and microbiological) connected with the production process, with raw and other materials taking part in production, machines, apparatus as well as the enterprise's staff.
- Introducing systems of quality control management, this depends on the assurance of quality, that is: settling policies of quality control, aims of quality control, planning the quality, organization of systems of quality control management, responsibility of management as well as assurance of quality in production processes.
- Functioning of effective monitoring methods and measurement of management processes which show the ability of processes to achieve planned results.
- The highest management level of the enterprise makes a review of quality control systems every 3 months.
- Measurement of customer satisfaction is an essential tool for improving the management of the quality control system. This is a continuous measurement and considers the congruency of the product with requirements, fulfilling the needs and of expectations of the customer, the price as well as the delivery of the product.
- A measure of customer satisfaction constitutes a fundamental factor in the evaluation of the functioning of an enterprise.
- Employing benchmarking as a method for improving the effectiveness of the enterprise's management process.
- The most important resource of an enterprise is the human one, whose quality includes the ability to learn and to use the continuous development of knowledge.
- A great ability to adapt to changes.
- The ability to learn, adaptation to changing conditions as well as the introduction of innovations.
- Strategic management of the enterprise is based on the ability to learn by the entire organization.
- The process of learning is a reflection of the adaptive ability of a company to its environment and is based on raising the culture of an organization (process of learning the new practices of the company and cultivation of already existing good company practices, the process of creating the organization as an active and creative one, skilfully strengthening its positive image).
- The main source of obtaining knowledge is education as well as in an organization supporting creativity and innovativeness as well as cooperation with schools of higher learning.
- Actions and the resources connected with them are managed as a process.
- Identification, understanding and management of mutually related processes as a system.

Economic indices of a model enterprise include:

- Index ROA − 4.55,
- Index ROE − 8.85,
- Index ROI 19.83,
- Index PM 2.04,
- Index TAT − 1.99,
- Index EAR − 0.50.

CONCLUSIONS

Benchmarking is not an autonomous method for building an organization that is engaged in learning, and patterning oneself on the best does not guarantee success. Compiling the best practices in one company or product is no recipe for achieving a leading position on the market. Everything depends on the culture of the company in question

Benchmarking is an excellent medium for educating employees and engaging them in the decision making process, and in the same aids the process of empowering them. This process also frees the creativity of people, since it causes innovative adaptation or the creation of solutions for the company.

The self-evaluation model created by the author gives the organization the occasion to analyze its work, to provide an analysis of its strong points and areas requiring improvement. This allows one to find out how far the organization has moved on the road of introducing systems of quality control management and what is yet to be done, in order to achieve success.

REFERENCES

- Bramham J., 2004: Benchmarking w zarzadzaniu zasobami ludzkimi (Benchmarking in labour resources management). Oficyna Ekonomiczna, Cracow [in Polish].
- 2. Grudzewski W. M., Hejduk I. K., 2004: Metody projektowania systemów zarzadzania [Methods of management systems' projecting]. Difin, Warsaw [in Polish].
- 3. Grudzewski W. M., Jagusztyn-Grochowska S., Zużewicz L., 1999: Benchmarking istota i zastosowanie [Benchmarking essence and application]. Ekonomika i Organizacja Przedsiębiorstw No. 7, p. 15 [in Polish].
- 4. Ko miński A., Piotrowski W., 1999: Zarzšdzanie teoria i praktyka [Management theory and practice]. PWN, Warsaw [in Polish].
- 5. Krzyżanowski Z., 1994: Podstawy nauk o organizacji i zarzadzaniu [Essences of organization and management sciences]. PWN, Warsaw [in Polish].
- 6. Lisiecka K., 1999: Benchmarking narzędziem doskonalenia procesów biznesu firmy [Benchmarking as a tool of business processes' training]. Problemy Jakosci, No. 1, [in Polish].
- 7. Martyniak Z. (ed.), 1998: Nowe metody organizacji i zarzadzania (New methods of organization and management). Wydawnictwo Akademii Ekonomicznej, Cracow [in Polish].
- 8. Wegrzyn A., 2000: Benchmarking. Antykwa, Kluczbork [in Polish].
- Zimniewicz K., 2003: Współczesne koncepcje i metody zarzadzania [Contemporary conceptions and methods of management]. PWE, Warsaw [in Polish].

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