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Assessment aspects and criteria of corporate management systems

K e y w o r d s: management system, diagnosis of management systems, examination aspects of management systems (target-oriented, subjective, structural, functional, instrumental), assessment criteria of management systems

S u m m a r y: The aim of the article is to present the framework concept of the diagnostic research, based on the formula of five aspects of determining the management system. The following aspects have been distinguished: appropriate, subjective, structural, functional and instrumental. The aspects form the cognitive model which, along with the management field (being a kind of activities or resources) constitutes the subject of diagnosis.

In the diagnostic research—interpreted in universal context—the general task is to assess the actual condition of a given facility, be it an enterprise, a strategy being executed, any process or system. The diagnosis can be extended by the assessment of external factors which made up of the surroundings of the facility being examined.

The presented concept is oriented on the assessment of management systems and it is recommended to use the multi-criterion approach, within the framework of the aspects listed below. The approach has a decisive substantial advantage over one-criterion approaches, which leads to the postulate of binding the individual assessment criteria into a complementary system. It is a problem of the quantitative and qualitative selection of assessment criteria and their aggregation.

In connection with the above, the subsequent points of the article present the following questions:

- directions of research on management systems;
- the notion of the corporate management system as a collective category;
- the five-aspect model of corporate management systems (CMS);
- aspects of examination of the corporate management systems;
- the essence of the multi-aspect diagnosis of the corporate management systems;
- an overview of the assessment criteria of the corporate management systems.

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1. Directions of management system research

The methodology issue of analysing management systems, set primarily in the organisation and management theory (OMT), has strongly headed for the theory of systems in the later period of its development. Classical sections of OMT, such as the organisational diagnostics of work processes, organisational structure improvement, management function analysis, corporate economics, organisation of management and production processes, have made use of methodological proposals stemming out of the systemic current. Above all, it concerns the mathematical modelling and the theory of decision-making, as well as that of steering and regulation.

The presence of the issue connected with the theory of systems is also clearly visible in the modern times and includes, among other things, the following methodological approaches:

- 1. Competitive system model (Beer, 1984);
- 2. Integrated management concept—St Gallen (Bleicher, 2004);
- 3. Concept of critical systemic thinking (Jackson, 2003);
- 4. Intelligent organisations (Schwaninger, 2006);
- 5. Organisation conceptual model (Hatch, 2002).

Summarising the above comments one should state that OMT and the theory of systems (both the general theory and the systemic analysis) have complemented one another. Most recently there has been a development within the field of designing management systems, oriented on various areas of practical activities. The basic management systems can, for instance, include: quality management system, environmental management system, health-and-safety-at-work management system, information security management system, IT applications of planning resources, financial analysis and budgeting.

A collection of management systems is inordinately enriched by decision-making models, algorithms, financial instruments, diagnosing and designing methods, statistical formulas of scenario planning and forecasting. One cannot omit the 'learning organisation' concept, knowledge management, the 'network thinking' approach, process management algorithmisation, improvement of managerial information systems, communication techniques. These are complex goals and the varied research instrumentarium is but a set of management systems which can appear in the form of partial systems or integrated solutions.

To recapitulate, one should also pay their attention to the terminological issue. The term 'management system' does not have an unambiguous interpretation in literature, which can be explained by the multiplicity of models and methods being applied as well as empirical references. Therefore, for comparative reasons, we quote a few characteristic framework terminological proposals (Table 1).

Table 1

Examples of framework definitions of the 'management system' term

Specification

L. von Bertalanffy (1962, p. 1–20):

Formal features of the systems are: summation, integrity, mechanisation, centralisation, system hierarchical organisation, equifinality.

H. Bieniok, M. Ingram, J. Marek (1998, p. 4):

- 1. A corporate management system is the leading corporate subsystem isolated in the institutional, instrumental and procedural sense (steering and controlling, IT and decision-making).
- 2. The task of this subsystem is the functioning that standardises and stimulates all the significant executive subsystems, in the direction of better use of the resources and in connection with it—an improvement in efficiency of the functioning of the whole, assessed within the context of the market, economic and social environment.

http://en.wikipedia.org./wiki/Management_system:

A management system sets frameworks of the processes and procedures where the goals of an organisation are executed.

http://incert.pl/p_show_32_systemy_zintegrowane.html:

An integrated management system is a documented and coherent system, fulfilling the requirements of at least two norms. Its implementation allows efficient and simultaneous management of numerous subsystems by establishing a uniform policy.

A. Stabryła (-):

The management system is a steering and regulating system as well as the mechanism of shaping the structure and efficient functioning of an organisation.

S o u r c e: author's own study.

2. The term of corporate management system as a collective category

A developed explanation of the 'corporate management system' (CMS), collecting the multiplicity of its partial forms, can be interpreted in the following way:

- 1. It is a set of multiple economic and extra-economic goals;
- 2. From the organisational point of view it is a structure which determines (as a static system) functioning of an enterprise;
- 3. It is an institutional pragmatics and that of management processes;
- 4. It is a process which constitutes the normalising procedure and disposal influence on executive sphere;
- 5. The management process is determined by the following functions: decisionmaking, identification, planning, organising, motivating and control;

- 6. The management process is encapsulated in diversified organisational forms, such as: decision-making systems of management, systems supporting the management process, functional systems, integrated systems;
- 7. It is a collection of rules of resources management;
- 8. It is an instrument stimulating innovative processes;
- 9. In the broad, holistic approach it is a complex which is determined by the following aspects: holistic, subjective, structural, functional, instrumental.

The above-mentioned set of distinguishers which describe the corporate management system can be extended and specified. The range of developing this set will depend on individual management areas, because it is them that imply the peculiarity of managerial activities.

The ninth and the last point of the above-mentioned description is a proposal of a multi-aspect approach to the corporate management system.

3. The five-aspect model of corporate management systems (CMS)

The structure of the model is as follows:

CMS statics

- 1. Target-oriented aspect;
- 2. Subjective aspect;
- 3. Structural aspect.

CMS dynamics

- 4. Functional aspect;
- 5. Instrumental aspect.¹

The individual aspects have their own counterparts which are CMS sub-systems. Depending on the selected aspects these are:

- 1. Operational goals;
- 2. Subjective sphere;
- 3. Institutional pragmatics and CMS configuration;
- 4. Course of management processes;
- 5. Management process instruments.

The sub-systems are partial towards multi-aspect CMS. As it follows, the latter is the aggregate which combines the selected sub-systems.

Individual sub-systems are defined by determinants which are characteristic of them and direct the search and creation of different forms of CMS. It is for them that the model-samples are designed which are of normative importance and are the benchmark for diagnostic research and CMS design (improving and base design).

¹ In the book *Organizacja i zarządzanie. Zarys problematyki* (1986, p. 130) I distinguished the following aspects: substantial (objective), static (structural), functional, instrumental.

4. Examination aspects of corporate management systems

(1) Target-oriented aspect

The aspect refers to the range of a company's business operations and its formalising, based on a fixed vision and mission plus overall goals. The correlate of the aspect under discussion is the 'operational goals' subsystem which covers classifiers of the partial goals (investment, operational, financial, marketing and others) as well as cooperation conditions.

The determinants which determine the subsystem of goals are:

- 1. Principles of designing the structure of goals (of classifiers, sets, beams, trees);
- 2. Techniques of selecting the goals;
- 3. Mechanisms of shaping cooperation conditions.

The principles of designing the structure of goals are methodological guidelines which are used in preparing strategic options, advanced management strategies, business plans. The principles concern: methods of goal formulation, goal classification, goal complementarity, goal coordination, goal selection.

Techniques of goal selection are the instruments which are used in decision-making process. They are a natural consequence of the goal selection principle and, simultaneously, they express the optimising (rationality) methods of the management strategy plus operational plans. The fundamental techniques of goal selection include: efficiency analysis, rules of priorities, preference analysis for the decisionmaking model in conditions of multiplicity of goals, multi-dimensional comparative analysis, the method of the two-step assessment of design variants, decision-making models taking into account the risk parameter.²

The mechanisms of shaping cooperation conditions are methods allowing the achievement of assumed goals. They include, for example: work division and specialisation, selection of productive factors, coordination and concentration of activities, managerial information system, incentive system.³

(2) Subjective aspect

The aspect exhibits the competence as well as organisational and economic significance of managerial staff. The counterpart of this aspect is the 'subjective sphere' sub-system which covers management of individual rungs, advisory teams and organisational units being responsible for supporting the management in all the corporate areas.

The determinants which determine the sub-system of subjective sphere are:

² The sub-system of operational goals is strictly connected with the sub-system of management process instruments, because the techniques of goals constitute a joint part of both subsystems.

³The incentive system is also a determinant of subjective sphere.

- 1. Types of management institutions (managing entities);
- 2. Mode of appointing and dismissing management institutions (managing entities);
- 3. Description of managerial and specialist positions:
 - job descriptions,
 - qualification cards (competences);
- 4. Fixing the number of permanent posts;
- 5. Managerial contracts, remuneration procedure;
- 6. Organisation of management work:
 - work organisation of the management board,
 - work organisation of coordinating teams (commissions, committees);
- 7. Incentive system:
 - motivation factors,
 - task-based system,
 - labour costs,
 - system of employees' participation in management,
 - formulas of a learning organisation;
- 8. Communication;
- 9. Assessment system of management efficiency:
 - system of direct and indirect assessment,
 - management through results,
 - work measurement and valuation.

(3) Structural aspect

The structural aspect is the dimension where CMS is analysed in a way balanced with organisational structure. It can be interpreted as a holistic organisational structure but it can also be perceived as an individual partial organisational structure. These partial structures can, for example, be: structures of management decision-making systems (management board, operational activities, finances, B+R, market-ing, logistics and others), structures of the planning and control system (surveillance, controlling, audit).

The counterpart of this aspect is the 'institutional pragmatics and CSM configuration' sub-system. The institutional pragmatics is a section of the management pragmatics and covers regulations of subjective area and internal organisation (static) whereas CSM configuration are multi-type forms of organisational structure, both referring to the whole of the enterprise and to partial structures (in the above-mentioned varieties).

Determinants which are characteristic of the sub-system of institutional pragmatics and CSM configuration include, among other things: division of tasks, deployment of decision-making improvements, centralisation and decentralisation, division of responsibilities, management organisation of relations with suppliers and clients, network organisation, system of responsibility centres.

(4) Functional aspect

This aspect refers to the functional dimension of CSM and expresses a perspective which is a point of departure for CSM dynamics (functioning) analysis. The aspect becomes an inherent part of the process approach convention, particularly taking into account organisational forms of management processes.

The correlate of this aspect is the 'course of management processes' sub-system which contains configurations of modular processes and procedures.

Furthermore, the subsystem can also hold chains of values (as mapping configurations of modular processes and procedures) as well as the base of the fundamental execution parameters of management processes and operational processes.⁴

The determinants which determine the sub-system of the management process course are, among other things:

- 1. Management principles;
- 2. Scope of management function, due to the assumed corporate vision, mission, strategy, partial goals;
- 3. Pragmatics of management processes and configuration of management processes;
- 4. Standardisation of management processes;
- 5. Management styles;
- 6. Organisational forms of management processes (decision-making management systems, systems supporting management processes, functional systems, integrated systems).

(5) Instrumental aspect

According to this aspect, CSM is analysed as a collection of research and application tools, used in diagnostic works, design and implementation and generally in fulfilling individual management functions.

The correlate of this aspect is the 'management process instruments' subsystem which covers different types research and execution operators including: influence factors, models, methods, techniques, algorithms, functional strategies. Examples of the management process instruments are: strategic analysis methods, economic and organisational diagnostics, economic planning and forecasting methods, negotiation techniques, decision-making computations, control methods, financial instruments, organisational methods.

Determinants which are characteristic of the sub-system of management process instruments are, among other things: research functions of identification, diagnosis and design, comparative cross-sections, rules of model-building, scope of applications, functionality, credibility of data, cause and effect verifiability, importance of selection (choice) criteria, level of objectivisation, economic efficiency (cost of applications), aggregation possibility of partial grades, accuracy of forecasts.

⁴The base serves as a coordination tool of modular processes and procedures.

5. The essence of the multi-aspect diagnosis of corporate management systems

As a theoretical construction the management system can be analysed in a way independent of the area of activities being its reference point. As it follows, this construct is defined by the universal formula, which, having undergone appropriate transformations, has multiple applications. It means that, from the practical point of view, the management system is always related with the management area, making a complimentary system. Examples of the areas as reference points can be: B+R area, knowledge and information, the design process of developmental strategy, restructuring process, personal politics, finance and bookkeeping, investment projects, implementation processes, products, technology, operational activities, logistic processes, administrative and office processes.

In connection with the above the diagnosis of management systems is, on the one hand, conducted with reference to their individual sub-systems, and on the other hand: with regard to the management area. It should be stressed that the diagnosis of the management area is usually executed at the beginning of research.

Carrying out diagnostic works is subordinated to the need of establishing efficiency of the management system. Calculating the efficiency can be based on the formula of the verifying, possibly ranking assessment.

The verifying assessment serves to establish whether a given system fulfils the assumed standards. It can be used to analyse the efficiency level of all systems and organisations, with individual model values serving as the base.

Ranking, however, is a tool of comparative analysis of management systems due to, for example, their functionality, correctness of the assumed pragmatics, work consumption and cost of application, accuracy of measurement made with the help of different management instruments.

The diagnostic basis is to define the assessment criteria, being adequate to the individual aspects which determine the management sub-systems as well as to the areas which are subordinated to them. The diagnosis of management systems is an aggregate one by its definition, expressed in the quotient or point form, so it is announced as a factor or index of efficiency, relevant to a given management system. The assessments are subject to categorisation which means that they are attributed to a given qualitative class, marked on the assumed valuing scale.

Efficiency assessment of management systems is executed for five sub-systems (relevant to the aspects), moreover it relates to the management area. These five subsystems are five parts of every management system, encapsulated in a holistic way, whereas the efficiency assessment, referring to every management area should be expressed in the diagnosis of the results of a given activity (e.g. material economy, personal policy, scientific and technical development, operational activities).

6. An overview of the assessment criteria of corporate management

I. Holistic aspect (sub-system: 'operational goals')

- 1. System of values;
- 2. General preferences defined in management strategies;
- 3. External determinants and internal conditionings (selection of productive factors);
- 4. Time perspective;
- 5. Risk.

II. Subjective aspect (sub-system: 'subjective sphere')

- 1. Managerial ability (decision-making);
- 2. Work organisation;
- 3. Quality and cost-effectiveness of results;
- 4. Acting in crisis situations;
- 5. Management costs;
- 6. Productivity of management costs.

III. Structural aspect (sub-system: 'institutional pragmatics and configuration of the management system')

- 1. Division evenness of scope of duties;
- 2. Deployment commensuration of decision-making rights;
- 3. Balance of scope of duties, rights and responsibilities;
- 4. An accumulation of the hierarchical structure, span and scope of management (supervision);
- 5. Horizontal and vertical coordination;
- 6. Integration of responsibility centres;
- 7. Compactness of organisational units;
- 8. Level of internal cooperation;
- 9. Benefits of the subject's appearance in bigger structures;
- 10. Adequacy of the quantitative and generic employment structure to permanent post needs.

IV. Functional aspect (sub-system: 'course of management processes')

- 1. Formalisation coherence of pragmatics of management processes and procedures (mpap);
- 2. Cohesion of mpap pragmatic
- 3. Length of mpap cycles;
- 4. mpap work-consumption;
- 5. Operational capability;

- 6. mpap productivity;
- 7. Cost of mpap;
- 8. Degree of mpap configuration complexity;
- 9. Level of mpap configuration integration.

V. Instrumental aspect (sub-system: 'instruments of management processes')

- 1. Fulfilment degree of research functions;
- 2. Topicality and completeness of the required data;
- 3. Quality of the measurement;
- 4. Objectivity of the measurement;
- 5. Significance and completeness of the assessment criteria (choice);
- 6. Diagnostic value of the applied method and technique (algorithm, strategy);
- 7. Work-consumption of the applied method;
- 8. Cost of the applied method;
- 9. Simplicity (easiness) of the applied method.

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Aspekty i kryteria oceny systemów zarządzania przedsiębiorstwem

S t r e s z c z e n i e: Celem artykułu jest przedstawienie ramowej koncepcji badań diagnostycznych opartych na formule pięciu aspektów określania systemu zarządzania. Wyróżniono następujące aspekty: celowościowy, podmiotowy, strukturalny, funkcjonalny i instrumentalny. Aspekty te tworzą model poznawczy, który wraz z dziedziną zarządzania (będącą rodzajem działalności lub zasobem) stanowi przedmiot diagnozy.

W badaniach diagnostycznych – pojmowanych w sensie uniwersalnym – zadaniem ogólnym jest ocena stanu faktycznego danego obiektu, jakim może być przedsiębiorstwo, realizowana strategia, dowolny proces czy system. Diagnoza może być poszerzona o ocenę czynników zewnętrznych, jakie stanowią otoczenie badanego obiektu.

Prezentowana koncepcja jest ukierunkowana na ocenę systemów zarządzania, przy czym zaleca się stosowanie podejścia wielokryterialnego, w ramach wyróżnionych wcześniej aspektów. Podejście to ma zdecydowaną przewagę merytoryczną nad podejściami jednokryterialnymi, stąd postulat wiązania poszczególnych kryteriów oceny w układ komplementarny. Jest to problem ilościowego i rodzajowego doboru kryteriów oceny oraz ich agregacji.

W związku z powyższym, w kolejnych punktach artykułu zostały przedstawione następujące zagadnienia:

- kierunki badań nad systemami zarządzania;
- pojęcie systemu zarządzania przedsiębiorstwem jako kategorii zbiorczej;
- model pięcioaspektowy systemów zarządzania przedsiębiorstwem (SZP);
- aspekty rozpatrywania systemów zarządzania przedsiębiorstwem;
- istota wieloaspektowej diagnozy systemów zarządzania przedsiębiorstwem;
- przegląd kryteriów oceny systemów zarządzania przedsiębiorstwem.

Słowa kluczowe: system zarządzania, diagnoza systemów zarządzania, aspekty rozpatrywania systemów zarządzania (celowościowy, podmiotowy, strukturalny, funkcjonalny, instrumentalny), kryteria oceny systemów zarządzania