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sistemului de management Diagnosis  
Analysis of the Sub-Systems of  
Management System**

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# DIAGNOSIS ANALYSIS OF THE SUB-SYSTEMS OF MANAGEMENT SYSTEM

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***Abstract:** The management system represents all the elements having an organizational, decisional, informational, and methodological character through the agency of whom the process of management is achieved with a view of attaining a maximum level of performance.*

*The managerial machinery of a modern company has a systemic structure within which the interdependencies among the component elements determine the functioning mechanism of the management at all levels. Irrespective of company's characteristics (profile, size, market position, etc.) the following components of the management system should be noticed: the decisional sub-system, the organizational sub-system, the methodological and managerial sub-system, and the informational sub-system. The paper deals with a profound diagnosis analysis of these sub-systems considering the case of a company which activates within the Romanian energetic industry.*

*The decisional sub-system gathers all the decisions adopted and implemented within the company according to the established goals and to the managerial hierarchical configuration. Integrated within the methodology of managerial analysis of the company, the diagnosis analysis of the decisional sub-system has as a goal the knowledge of its components, namely of the decisions established by managers during a certain period, of the manner the authority within the company is structured, of the decisional tools employed as well as of the part played by the organisms of participative management.*

*Organizational sub-system represents all organizational elements that provide the frame, the division, the combination, and the functionality of labor processes with a view of achieving envisaged goals. The data displayed by the organizational scheme, the organizational and functioning regulations, jobs responsibilities at the level of a machines building company have emphasized several aspects that represent the starting point of analyzing the two components of this management sub-system, namely formal organization and informal organization.*

*Informational sub-system comprises a series of data, items of information, informational fluxes and circuits, procedures and means of approaching information meant to contribute to the settlement and achievement of the company's goals. The analysis of the informational sub-system has in view the fact that its part is to provide the company's inner needs of information and its quality depends on the level of development of the technologies of transmitting information.*

*The methodological sub-system designates the group of systems (complex methods), methods, and techniques employed in conceiving and exerting managerial functions and relations within a company. The important mutations that take place within the internal and external environment of the companies determine the managerial team to employ systems, methods, and techniques characteristic to managerial activity that are continually up-dated.*

The practice of managerial functions and relations at the level of the company demands the planning of the management system according to the need of observing the exactingness required by a set of principles, rules, and norms that form the knowledge of the management science. The systemic approach of a company allows an analytic vision of the management system conceived as an all-inclusive cover of the major managerial components that mediate the implementation of the managerial act.

**The management system** represents all the elements having an organizational, decisional, informational, and methodological character through the agency of whom the process of management is achieved with a view of attaining a maximum level of performance.

According to the general theory of the systems, a system is a group of elements that dynamically interact and are organized in a manner that allows the achievement of certain finality. The managerial machinery of a modern company has a systemic structure within which the interdependencies among the component elements determine the functioning mechanism of the management at all levels. Irrespective of company's characteristics (profile, size, market position, etc.) the following components of the management system should be noticed: *the decisional sub-system, the organizational sub-system, the methodological and managerial sub-system, and the informational sub-system.*

**I. The decisional sub-system** – gathers all the decisions adopted and implemented within the company according to the established goals and to the managerial hierarchical configuration. Integrated within the methodology of managerial analysis of the company, the diagnosis analysis of the decisional sub-system has as a goal the knowledge of its components, namely of the decisions established by managers during a certain period, of the manner the authority within the company is structured, of the decisional tools employed as well as of the part played by the organisms of participative management.

Accordingly, at the level of Paroseni Power Station Branch, the complete evaluation of this sub-system starts from the analysis of the components of the decisional process emphasizing the weak points in the field of elaborating, substantiating, and observing the rationality criteria of decisions, the manner of using the methods of substantiating decisions, the observing of the stages of decisional process as well as the part and competence of decisional subjects, etc. With this in view, the following steps are compulsory:

- The analysis of *decisional subjects*, namely of the composition of the participative management organism, of the managers, in general, and the emphasizing of the concordance between the character of training (economic, technical, juridical etc.) and the character of the activities that are to be deployed by them according to their responsibilities;
- The analysis of the manner decisions are substantiated from the point of view of the methodology used as compared with the type of decision the analyzed decisional situation integrates in;
- The analysis of the manner in which rationality demands determined by managerial decisions have been observed.

For all the decisions adopted during the analyzed period we are going to check whether they have been scientifically substantiated, whether they have been complete, clear, concise, non-contradictory and, last but not least, whether they have been taken at the right moment and have proved their efficiency (table no. 1).

Table no. 1: Critical analysis of rationality demands of managerial decisions

No.	Rationality demand	Significance of the demand	Examples of decisions that do not observe it	Possible effects of lacking of observing the demand
1.	To be strong	Managerial decision should be elaborated by the person responsible of doing such a thing who should have managerial and specialized knowledge	The decision regarding the manner of re-structuring the company has been elaborated by the general manager although it is one of the attributions of the Administration Council	Impossibility of attaining the envisaged efficiency
2.	To be scientifically substantiated	Managerial decision should be elaborated by using various decisional methods and techniques according to the character of the situations that require the taking of a decision	Generally, decisions haven't been substantiated owing to the implementation of specific methods and techniques of adopting decisions and of proper methodological scenarios	The best decision is not always taken
3.	To be opportune	Managerial decision should be adopted and implemented during an optimum period of time	Although the decision regarding the improvement of the informational system of the dispatch department has been required by technical and economic reasons it hasn't been analyzed in due time by the Administration Council	The results regarding the detailed analysis of the causes of certain malfunctioning have been registered after the envisaged period of time and the effects of certain repeated damages couldn't have been prevented

- The analysis of observing *the stages of decisional process*, namely the identification and definition of the problem, the settling of all variants possibly to be implemented, the settling of decisional criteria and goals, the choice and implementation of the decision, the evaluation of the results (table no. 2)

*Table 2: Critical analysis of the stages of the decisional process*

No.	Stage of decisional process	Goal of the stage	Examples of decisions that haven't observed the stage	Possible effects of lacking to observe the stages of decisional process
1.	Settling all decisional variants	Inventory of all possibilities of achieving decisional goals	Capital repair of the 50 MW energetic group	The variant of modernizing the group hasn't been considered. The elaboration of a single variant does not offer the possibility of comparing advantages
2.	Settling decisional criteria and goals	Taking the best decision according to the settled decisional criteria	Repartition according to destination of the incomes belonging to the incomes and expenses budget	Incorrect planning of treasury flux
3.	Evaluating the results	Quantification of the economic effects of implemented decisions	Employment of certain persons who are not professionally trained as required by the responsibilities of the job they accept	Perpetuation of such situations and appearance of difficulties in achieving individual, specific, and derived goals.

The elements of analysis exhibited by the study of the components of the decisional sub-system of the management system materialize in the drawing out of the synopsis of its main strong and weak points together with the causes that generate them and their potential effects. In table no. 3 the main weak points of the analyzed company are displayed by delimiting them according to the three components of decisional sub-system, namely decision, decisional process, and decisional subjects.

*Table no. 3: Synthesis of the weak points of the analyzed decisional sub-system*

No.	Weak point encoding	Weak points	Causes that determined weak points	Implications
<b>Decisions</b>				
1.	WPDS_1	High level of decisions' centralization	Domination of the authoritarian managerial style at the superior hierarchical levels	Negative potential consequences upon the quality and promptness of decisional process
2.	WPDS_2	Lack of observing rationality demands of decisions	Lack of concordance between the character of the training of decisional factors and the character of their responsibilities within the job	The manner of implementing the decision is not clear; it is even contradictory, and the result is inadequate

3.	WPDS_3	Elaborated strategic decisions are not enough known at all hierarchic levels	Existence of certain factors that negatively influence horizontal and vertical communication inside the company	Decisional chains are not complete and decisional process is not going to have the envisaged feed-back
4.	WPDS_4	Poor interest in using the modern methods and techniques of substantiating managerial decisions	Managers' lack of knowledge of the content and operating manner of managerial instruments	Practice of an empirical management, based on intuition and experience, characterized by a poor efficiency and the proliferation of amateurism
<b>Decisional process</b>				
5.	WPDS_5	Lack of observing the stages of decisional process	Lack of preoccupations regarding the observation of methodological procedures or poor managerial training of the decisional factor	They do not consider all the alternatives and decisional criteria and do not evaluate the effects of implementing the decision
6.	WPDS_6	Decisional sub-system with not enough delimitations among components and without stipulating the connections among them (decisional environment, decisions' typology, decisional methodology)	Insufficient implication of decisional factors in settling certain problems of the field they manage	"Marginalizing" decisional sub-system in the category of the factors that amplify the company's economic viability
7.	WPDS_7	Lack of well defined goals regarding the functioning of decisional sub-system	Poor attention granted to the vastness of decisional process and the lack of priorities in decisional approaching	Difficulties in implementing decisional process and insufficient turn to good account of the company's decisional dimension
<b>Decisional subjects</b>				
8.	WPDS_8	Non-proliferation of participative management at average hierarchic levels under more complex decisional circumstances	Specialized assistance from specialized functional departments is avoided	Lack of observing the goals of the decisional process and results' distortion

Similarly, the strong points emphasized by the analysis of the components of the decisional management sub-system are exhibited in the following table:

*Table no. 4: Synthesis of the strong points of the analyzed decisional sub-system*

No.	Strong points	Causes that have generated strong points	Implications
<b>Decisions</b>			
1.	Gathering of the majority of solutions necessary to achieve the goals in spite of the major percent of operative decisions	Special attention paid to organizing decisional process	Providing, generally, certain conditions of rigor in implementing decisional processes
2.	Preoccupation regarding the efficiency of administrative decisions	They match operative options and actions and allow the checking process, control, and orientation of the choices operative staff is going to make	Most administrative decisions are adopted by medium level managers and play a control part
<b>Decisional process</b>			
3.	The balanced character of the organizational frame from the point of view of the number of hierarchic levels as compared with the company's size	Creation of an atmosphere of confidence in the managing power of the managerial team	Employees are enthusiastic and strive to implement decisions
4.	Continual up-dating of the documents formalizing the organizational structure especially from the point of view of decisional skills specific to the job	Necessity of passing from rigid structures to flexible structures that consider managerial sub-systems , including the decisional one, as open and dynamic inter-dependent sub-systems	Increase of the degree of adapting the decisional factors to the demands required by the turbulent environment specific to the market economy
<b>Decisional subjects</b>			
5.	Preoccupation of superior management to improve informational activity and up-date staff training	Need of adapting to the demands of planning and implementing modern informational systems indispensable in providing information to decisional factors	Increase of the functioning efficiency of decisional sub-system having positive effects upon the other decisional sub-systems

**II. Organizational sub-system** represents all organizational elements that provide the frame, the division, the combination, and the functionality of labor processes with a view of achieving envisaged goals.

The data displayed by the organizational scheme, the organizational and functioning regulations, jobs responsibilities at the level of a machines building company have emphasized several aspects that represent the starting point of analyzing the two components of this management sub-system, namely formal organization and informal organization.

The diagnosis analysis of this management sub-system implies the following:

- The critical analysis through the agency of the principles of rational elaboration and functioning of organizational structure. Although these principles are essential demands that the organizational sub-divisions of a company should observe, their analysis shows a lot of drawbacks and breakings of certain of them. (table no. 5);

*Table no. 5: Critical analysis through the agency of the principles of elaboration and functioning of organizational structure*

No.	Name of the principle	Requirement	Possible effects of lacking to observe the principle
1.	The principle of goals supremacy	Organizational structure should be directed to the achievement of the general and derived goals of the company	Staff over-dimensioning of certain organizational divisions and the poor dimensioning of certain departments where important activities are deployed (e.g. the Department of Supervising Investment Works)
2.	The principle of the concordance between the staff's training and competence and the character and complexity of the goals and responsibilities to be achieved	Within organizational structure there is a need for correlating the amount, character, and complexity of the tasks, competence, and responsibilities of the job with the aptitudes, skills, knowledge, qualities, and experience of the employees	Existence of a social and professional structure of the staff insufficiently correlated with certain jobs' demands
3.	The principle of flexibility of organizational structure	Structural organization should permanently reflect company's goals, under the circumstances of changing exogenous variables that influence the company and its management	Existence of certain rigid organizational structures that are not in concordance with the amount, complexity, and difficulty of the company's goals.
4.	The principle of the frequency of connections between tasks and the initiation of inter-departmental groups	The tasks among which there frequent and powerful connections are grouped within the same job, and, in case this is not possible, within jobs that belong to the same department or to interdepartmental groups	Within the operational structure one can notice that in order to achieve certain strategic goals of the company, groups made of specialists recruited from various departments and having homogenous tasks are initiated
5.	The principle of the optimum variant of the organizational sub-system	Elaboration of several variants of the organizational structures and their reflection according to the maximum advantage	As the elaboration of a single variant does not offer the possibility of comparing advantages, several variants have been proposed, at least at the level of primary components
6.	The principle of management permanence	Existence of a person who can replace the manager in order to provide management continuity at all organizational levels of the company	They assure the continuity of the persons having managerial responsibilities in order to avoid the impossibility of settling certain urgent matters, lack of control, and continuity in deploying activities

7.	The principle of the efficiency of organizational structure	Existence of a permanent commensuration of the expenses determined by the elements of the structure with the economic effects they generate	It is necessary to commensurate the efficiency of the organizational structure not only through the agency of calculating certain indices of general economic activity but also through the agency of certain specific indices
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- The critical analysis of the *formal components of the organizational structure*. As a result of analyses one can point out the main factors that emphasize the strong and the weak points of formal organization both from a processing point of view as functions, activities, responsibilities, and tasks, and from a structural point of view as organizational subdivisions. The factors that negatively influence formal organization are the following: maintaining of a high hierarchical percent of certain jobs (shift dispatcher-in-chief), improper sizing of certain functional departments to the prejudice of operational ones (contracts and sales office as compared with chemical exploitation workshop); over-centralizing of authority at the level of departmental chiefs due to the maintaining of certain strict procedures stipulated by written directions etc.
- The analyses of the *company's goals and of the activities* needed to achieve them. Starting from the company's strategy it is necessary a permanent direction of the formal structure according to the first degree general and derived goals and their corresponding activities. Their analysis allows the emphasizing of the statute of the company's goals and activities, displayed in table no.6:

Table no. 6: Statute of the company's goals and activities

General goals (G)	Derived goals of 1 <sup>st</sup> degree (G')	Activities needed in order to achieve the goals
<b>G1</b> Increase of production amount within the next 2 years with 40%	<b>G'1</b> - putting into service of a modernized boiler; <b>G'2</b> - modernizing old equipments of machinery hall; <b>G'3</b> - replacement of 80% of the pipes that transport thermal energy to the boilers hall.	Production organization Planning Projects Research
<b>G2</b> Modernizing repairing activities	<b>G'1</b> - endowment of repair workshops with equipments and the corresponding checking devices <b>G'2</b> - drawing out of realistic repairs programs	Repairs planning and supervising Checking devices manufacturing and maintenance

- The study of the *documents of formalizing the organizational structure*. The documents of formalizing the organizational structure display deficiencies regarding the non-concordance among organizational scheme, the organizational and functioning regulation and other organizational documents; vague enunciations of certain responsibilities and tasks included in jobs specifications, etc. Such deficiencies have as a main cause their

improper planning as well as their lack of adapting to the changes of the company's external environment and to the company's dynamics.

- The critical analysis of the *informal component of the organizational structure* is done according to the basic constitutive elements, namely the individuals, interpersonal relationships, and groups. Accordingly, one can notice a convergence between formal and informal structure due, mainly, to the trade union. Nevertheless, employees, especially those belonging to the operational structure, tend to organize according to groups, namely according to preferences, that are frequently met outside working hours. The initiation of such groups is determined by causes that are connected with job uncertainty under the circumstances of the future re-structuring of the energy industry, of maintaining an authoritarian style by departments' chiefs, of mutual extra-professional preoccupations, etc.

The conclusions of the study of the components of the organizational sub-system materialize in the drawing out of a report regarding its main weak points together with the causes that generate them and their implications. Table no. 7 displays the synthesis of the main weak points of the company analyzed according to the two components of the organizational sub-system, namely the formal and informal structure.

*Table no. 7: Synthesis of the weak points of the analyzed organizational sub-system*

No.	Weak point encoding	Weak point	Causes that have generated the weak points	Implications
<b>Formal structure</b>				
1.	WPOS_1	Discordance between the character of the activities deployed and the structure of the employees' professional training	Frequent employment of engineers in jobs having an economic or informational character and a concentration of economists only in departments having a financial and accounting character	Low degree of decisional substantiating and implicitly a diminution of the efficiency of the decisional act
2.	WPOS_2	Improper sizing of management jobs and of associated hierarchical percent	Existence of a major disproportion and of a concentration of the relations around the area of the technical assistant manager who has as subordinates 12 department chiefs and 5 office chiefs	Promptness diminution of managerial system
3.	WPOS_3	Lack of knowledge of the general and derived goals at the level of average and inferior organizational structures	Lack of dividing derived goals into specific goals and individual goals and a poor communication of the goals employees have to attain	Difficult and sometimes delayed informing of employees

4.	WPOS_4	Formalizing documents of organizational structure are not up-dated and have a poor content	Lack of systematic preoccupations for correlating the changes of the organizational and functioning regulation, jobs specifications, and organizational scheme	Appearance of non-concordances between jobs specifications and the responsibilities and tasks of the employees
5.	WPOS_5	Rationalizing organizational structure does not start from a complex theoretical and methodological substantiation of the new organizational solutions	The over-evaluation, under-evaluation or lack of evaluating one or several elements included in the methodology of rationalizing the organizational structure	A diminution of the effects appreciated within the goals defined at the beginning of re-planning organizational sub-system
6.	WPOS_6	Diminution of the importance of certain activities such as budgeting or prediction and lack of research activities	Maintaining as a priority the goal of achieving production schedule	Over-appreciation of the operational side of management
<b>Informal structure</b>				
7.	WPOS_7	Lack of equilibrium between the parameters of formal organization and those of informal organization	Lack of preoccupations regarding the increase of the part played by the organizational culture of the company	Diminution of the positive effects generated by the deep accordance between formal and informal organization

Similarly, the strong points of formal and informal organization are displayed in table no. 8:

*Table no. 8: Synthesis of the strong points of the analyzed organizational sub-system*

No.	Strong points	Causes that have generated strong points	Implications
<b>Formal structure</b>			
1.	Continuous up-dating the organizational scheme containing all the changes operated within structural sub-divisions	Special attention paid to considering the company an open system and to changing from static structures to organic structures	Providing the conditions necessary in order to implement organizational changes
2.	Grouping the activities according to certain criteria in order to get a coherent distribution within organizational sub-divisions despite of an insufficient sizing of processing and human dimension	Special attention paid to the efficient practicing of the organizational function of management	Providing certain discipline condition especially in developing executing processes

<b>Informal structure</b>			
3.	All groups and inter-human relations spontaneously settled among employees have as major goals the goals of formal structure	Informal structure is not fragmented into several informal groups with contradictory interests	Informal groups have, generally, been formed on existing organizational sub-divisions
4.	The part played by the trade union in creating a work climate that may generate work satisfactions	Deployment of certain sports and cultural activities with a view of strengthening the relations among the company's organizational sub-divisions and between the company and other companies belonging to the energy branch	Implication of the trade union in the gradual delimitation of an organizational culture

**III. Informational sub-system** comprises a series of data, items of information, informational fluxes and circuits, procedures and means of approaching information meant to contribute to the settlement and achievement of the company's goals. The analysis of the informational sub-system has in view the fact that its part is to provide the company's inner needs of information and its quality depends on the level of development of the technologies of transmitting information.

This analysis aims at accomplishing a study upon the existent informational activities and fluxes, the volume of processed information, the inclusiveness of informational system, and its endowment with calculus technique. This study emphasizes the strong points, the limits and deficiencies of the existent informational system that should be observed in order to improve it in the future.

Such an approach comprises the following:

- The critical analysis according to the *fundamental principles of the informational sub-system*. The conception and implementation of this sub-system has to rely upon a series of principles that have to provide the achievement with maximum efficiency of its specific functions, a fact that determines the necessity of emphasizing their lack of observing. (table no. 9);

*Table no. 9: Critical analysis according to the principles of substantiating the informational sub-system*

No.	Name of the principle	Expressed requirement	Possible effects of lacking to observe the principle
1.	Subordination of the conception and functioning of the informational system to the requirements of the company's management	The structural and functional elements of the informational sub-system should be settled subsequent to the study of the strategy, policies, and analyses mutually achieved by managers and the employees who are responsible of the functioning of this sub-system	They do not provide the reason of the existence of the informational subsystem as a support of efficiently displaying management processes

2.	Obtaining the maximum amount of final information out of the fund of primary information	The existent fund of primary information at the company's level should be efficiently turned to good account with a view of getting the most pertinent final items of information	They do not provide a solid basis of information for strategic decisions and a multilateral evaluation of managerial processes
3.	Providing informational and managerial flexibility	The informational sub-system should be enough flexible in order to allow the change of the functional characteristics according to necessities	They do not get a rapid processing with the help of electronic calculus equipments of the changes of the informational and managerial characteristics
4.	Achieving the methodological cohesion of information treatment	The ways of gathering and processing information should provide the compatibility of the items of information transmitted among all the components of the informational sub-system	They do not provide a unitary manner of treating and processing information

- The analysis of the manner the *requirements of rationalizing information* have been observed, namely whether they are synthetic and concise, precise and reliable, real or adapted to the characteristics of the employees involved (table no. 10);

*Table no. 10: Critical analysis of the requirements of rationalizing information*

No.	Rationalizing requirement	Requirement's significance	Examples of items of information that do not observe it	Possible effects of lacking to observe the requirement
1.	To be synthetic and concise	Information should be elaborated by authorized persons who have to be endowed with the necessary knowledge capable of grasping essential, new and synthesized elements	Generally, the information in the primary filled documents are difficult to be processed and synthesized due to the lack of exploitation of an adequate informational system	The turning to good account of the transmitted information does not have anymore the envisaged efficiency
2.	To be opportune	Information should be transmitted and processed during an interval of time considered optimum for decision taking or for releasing the targeted action	Certain items of information included in the statistics reports regarding the elaboration, informing, and approval of technical and economic documentations are not displayed in due time before the Administration Council	The turning to good account of the transmitted information does not have the envisaged efficiency

3.	To be precise and reliable	The exact grasping of essential items of information owing to the efficient use of their processing means	The transmission of certain processed items of information in a simplified manner, non-algorithmic and without employing the modern means of processing them	Decrease of the efficiency of using information and unjustified charge of informational circuits
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- The analysis of the table of documents circulation, of their content as well as of the other informational supports that are employed in order to collect the information that represent the basis of conceiving plans, of adopting decisions, of coordinating, and controlling. At present, the analysis of the table of documents circulation emphasizes the fact that the most charged informational circuits are to be found among the supply, transport, storing, and accounting departments, namely between investment department and financial department;
- The analysis of the informational component of the informational sub-system, both from the point of view of the hardware category, namely of the computers and connected devices, and from the point of view of the software component, namely of the set of programs, documents, procedures, and routines associated to operating activities. Although the majority of the functional components are endowed with electronic calculus technique, yet, due to the lack of certain adequate soft components and specialists in the field capable to create specific informational programs, informational data supports are still under-used in a lot of departments; at the same time, for non-standard documents, an intra-network might be conceived in order to stock and centralize data.

From the informational point of view, at the level of the company, the main components are modeled - from data and items of information to the means of processing information; nevertheless, the functioning of this management sub-system witnesses a series of deficiencies, the most important ones being displayed in the centralizing report in table no. 2.11:

*Table no. 2.11: Synthesis of the weak points of the analyzed informational sub-system*

No.	Weak point encoding	Weak points	Causes that have generated weak points	Implications
<b>Data, items of information, circuits, and informational fluxes</b>				
1.	WPIS_1	Those items of information connected to certain activities considered to be auxiliary have an improper degree of processing	Use of the informational system at the level of the activities connected to production functioning and marginalizing other functions	Non-relevantly and difficultly informing the managers

2.	WPIS_2	Improper sizing of informational circuits and fluxes from the point of view of the route length, of the speed of propagating information, and of the configuration	Existence of an informational concentration according to certain directions or areas and the appearance of certain discrepancies among the implied ends, namely the emitter and the receiver	Diminishing the promptness of the informational sub-system due to generating certain major deficiencies, such as redundancy or the over-charge of informational circuits
<b>Informational procedures</b>				
3.	WPIS_3	Heterogeneous character of informational supports that stock data	The lack of dividing derived goals into specific goals and individual goals and a weak communication towards the employees of the concrete goals they are responsible for	Difficulty and sometimes lately informing the employees
4.	WPIS_4	Use of old informational supports, morally and physically worn-out and lack of taking over of data archives on modern informational supports	Absence of systematic preoccupations to revise and correlate all the components of the informational sub-system with the new informational procedures	Appearance of non-concordances among informational archives and of certain raised costs implied by the use of modern informational procedures
<b>Means of processing information</b>				
5.	WPIS_5	Under-use of informational components due to the maintaining of the initial form and content of the documents and of the data bases	Existence of certain non-concordances between the professional training and the practical experience of the employees who use informational equipments	Decrease of the efficiency of the means of processing information
6.	WPIS_6	Limited access to Internet and lack of preoccupations for implementing such a system	Lack of a unitary conception regarding the actual and future use of informatics at the level of the company	Persistence of a low efficiency of the informational sub-system

Similarly, the diagnosis analysis of the informational sub-system also emphasizes certain positive aspects of its organization that may be a starting point of the process of improving the functioning of this sub-system of the management system (table no. 2.12).

Table no. 2.12: Synthesis of the strong points of the analyzed informational sub-system

No.	Strong points	Causes that have determined the strong points	Implications
<b>Data, items of information, informational circuits and fluxes</b>			
1.	Conceiving a flux table and emphasizing parallel , useless, an irrational informational fluxes with a view of eliminating them	Preoccupation of a group of specialists belonging to the company to create electronic informational circuits and fluxes	Significant amplification of the size and speed of informational fluxes
2.	Remarkable preoccupation of the specialists to protect data bases against informational viruses	Special attention paid to efficiently exerting the operational function of the informational sub-system	Providing discipline in the field of using information or external informational documents
<b>Means of processing information</b>			
3.	Use of automatic means of processing information to the prejudice of the mechanized and/or manual ones	Endowment of the Electronic Calculus Center and of other departments with performing computers	Increase of efficiency and of the importance of the informational component of the informational sub-system
4.	Decrease of employees' reluctance when facing the changes determined by the implementation of informational improvements	Organizing certain specializing courses in the field of informatics and of employees meetings in order to make them aware of its importance	Implication of employees in the process of improving the informational sub-system of management

**IV. The methodological sub-system** designates the group of systems (complex methods), methods, and techniques employed in conceiving and exerting managerial functions and relations within a company. The important mutations that take place within the internal and external environment of the companies determine the managerial team to employ systems, methods, and techniques characteristic to managerial activity that are continually up-dated.

Frequently, their modernizing implies the beginning of the process of re-planning the methodological sub-system of management.

Accordingly, the complete evaluation of this sub-system starts from the analysis of the main systems, methods, and techniques of management used, from the ways of involving the employees in the process of methodological changes, as well as from the stages run through during its re-planning. Subsequently, the diagnosis analysis of the methodological sub-system of management has as a goal the emphasizing of its weak and strong points as a substantiation of future improvements. They involve the following:

- The analysis of the typology of managerial instruments used implies the inventory of the systems, methods, and techniques employed by managerial activity in order to determine the efficiency of their use. This analysis emphasizes, as a rule, a starting point of the improvement of the portfolio of systems, methods, and techniques of management made up by eliminating those instruments considered to be inefficient and by replacing them with modern ones;
- The emphasizing of the part played by the human factor in the efficient functioning of the methodological sub-system of management. In order to identify the employees' attitude within this process the following aspects are to be noticed: the

means employed by managers with a view of eliminating and even canceling the resistance factors of the employees against the implementation of certain modern systems, methods or techniques of management; the mechanisms of involving the employees in the efficient implementation of methodological instruments. Generally, one can notice employees resistance when facing the changes proposed by the managers in order to rationalize methodological sub-system, and, in certain cases, a poor preoccupation of the managers to document themselves in the field of modern managerial instruments;

- The analysis of observing the *stages of the implementation process of certain modern systems and methods of management*. This analysis aims at delimiting the characteristics, manners, and general directions of the new managerial instruments to be implemented, the reducing to practice of certain adaptations with a view of better implementing the new managerial systems, methods, and techniques, their proper implementation, and the evaluation of their functioning (table no. 2.13).

The elements emphasized by the study of the components of the methodological sub-system may be systematized by drawing out a synthesis of its main strong points and weak points together with the causes that determine them and the potential effects (Tables no. 2.14 and 2.15).

*Table no. 2.13: Critical analysis of the stages of implementation of certain systems, methods, and techniques of management*

No.	Stage name	Goal of the stage	Circumstances that do not observe the stage	Possible effects of lacking to observe the stages
1.	Delimitation of the characteristics of the general components, ways and instructions of the new managerial instruments to be implemented	Inventory of all the possibilities of efficiently implementing decisional instruments	Thorough documentation upon the new managerial instrument	Adoption of incomplete managerial formulae during the process of implementing methodological instruments
2.	Adaptations done in order to better implement the new managerial systems, methods, and techniques	Functional detailed correlation of managerial systems, methods, and techniques	The implementation project or plan does not contain a distinct sub-chapter for this problem.	They do not provide an optimum adaptation of the new method in the context of methodological sub-system
3.	Approval of the program of implementation by top management and its effective implementation according to the program	Operating the changes through the agency of the new methodological instrument	Lack of observing the program of implementation stages of the new methodological instrument	Appearance of difficulties in deploying the stages of implementation of the methodological instrument
4.	Evaluation of the functionality and performances of the new methodological instrument	Analysis of the efficiency of implementing the new methodological instrument	Lack of periodically examining the effective constructive and functional parameters as compared with the provisioned ones	Possible improvements and adaptations of the new managerial instrument are postponed or do not become operational in due time

*Table no. 2.14: Synthesis of the weak points of the analyzed methodological sub-system*

No.	Weak point encoding	Weak points	Causes that determined weak points	Implications
<b>Management systems</b>				
1.	WPMS_1	There are few methodological systems of management	Participative management is mainly employed; budget management is used at a rudimentary level	Limited implementation of modern management systems diminishes the efficiency of the methodological sub-system
2.	WPMS_2	Limited use of the goals management system	Limited use of this system without emphasizing its manner of becoming operational	Goals management is restrictively employed and does not provide the envisaged efficiency
<b>Methods and techniques of management</b>				
3.	WPMS_3	Lack of use of modern methods and techniques of management based on employing information technology	Lack of preoccupation of managerial team to completely improve methodological sub-system	Amateurism and empiric approaches proliferation in exerting the company's management
4.	WPMS_4	Persistence of employing certain obsolete and frequently inefficient methods and techniques such as meetings and delegation	Limited training of low level managers regarding managerial methodology	Diminished turning to good account of scientific management

It is certain that the elements mentioned as weak points do not exhaust the series of deficiencies that characterize methodological sub-system; yet, their knowledge and elimination, on the one hand, as well as the identification of the strong points of this sub-system, on the other one, represent the starting point of its improvement. Although there are a few strong points of methodological sub-system they should be analyzed with a view of emphasizing their impact upon the company's managerial strategy (table no. 2.15).

*Table no. 2.15: Synthesis of the strong points of the analyzed methodological sub-system*

No.	Strong points	Causes that have determined the strong points	Implications
<b>Management systems</b>			
1.	Implementation of budget management with a view of identifying cost centers	Foundation of responsibility centers by emphasizing cost centers as modern instruments of watching economic results	Providing the conditions necessary in order to watch the results of responsibility centers whose results are watched through the agency of budgets and administration accounting

2.	Use of dispatchers as an empiric form of boards	Use of informational devices within production departments in order to supervise technological process	Watching quantitative and qualitative parameters that can be processed by implementing boards
<b>Methods and techniques of management</b>			
3.	Perceive of the need of changing methodological instruments by employees	Training of medium and high level managers through the agency of energetic management courses	Involving the managers and part of the employees in improving the methodological sub-system of management

The activity of diminishing and eliminating the weak points of each sub-system of the management system, can be done during several years or trimesters according to the complexity of their effects upon the company. The table that has been drawn out with this in view (table no. 2.16) shows that it is possible to eliminate them no later than the end of 2008. The longest period of time is proper for those aspects connected with the implementation of certain adequate and advanced elements of managerial methodology and of certain modern instruments of optimizing decisions. The shortest period of time, namely until the end of 2006, can be used in order to settle certain problems connected with establishing more complete goals and decisional criteria, with employing responsibility delegation especially towards the managers situated on medium and superior hierarchical levels, with using with maximum efficiency informational systems and with introducing Internet in more departments etc.

*Table no. 2.16: Centralizing situation regarding weak points echeloning during the periods 2006 – 2008*

No	Managerial Sub-system	Weak points encoding	Weak points	Echeloning period of eliminating weak points					
				2006		2007			2008
				Trim.4	Trim.1	Trim.2	Trim.3	Trim.4	
1.	Decisional sub-system	WPDS_1	High degree of centralizing						
		WPDS_2	Lack of observing rationality requirements of decisions						
		WPDS_3	Elaborated strategic decisions are not enough known at all hierarchical levels						
		WPDS_4	Low interest in using modern methods and techniques of substantiating managerial decisions						

		WPDS_5	Lack of observing the stages of decisional process						
		WPDS_6	Decisional sub-system with insufficient delimitations among components and without specifying the connections among them (decisional environment, decisions' typology, decisional methodology)						
		WPDS_7	Lack of certain well defined goals regarding the functioning of decisional sub-system						
		WPDS_8	Non-proliferation of participative management at medium hierarchical levels under more complex decisional circumstances						
2.	Organizational sub-system	WPOS_1	Lack of concordance between the activities deployed and the structure of professional training of employees						
		WPOS_2	Improper sizing of management jobs and of connected hierarchical percent						

		WPOS_3	Lacking to know general and derived goals at the level of medium and inferior organizational structures						
		WPOS_5	The documents that formalize the organizational structure are not updated and have an improper content						
		WPOS_6	The rationalization of the organizational structure does not start from a complex theoretical and methodological substantiation of the new organizational solutions						
		WPOS_7	Inexistence of an equilibrium between the parameters of formal organization and those of informal organization						
3.	Informational subsystem	WPIS_1	Those items of information connected to certain auxiliary activities have a precarious degree of processing						
		WPIS_2	Improper sizing of informational circuits and fluxes from the point of view						

			of the length of the route, of the moving speed of the items of information and configuration						
		WPIS_3	Heterogeneity of informational supports that stock data						
		WPIS_5	Use of certain outdated informational supports, morally and physically worn and lack of taking over data archives on modern informational supports						
		WPIS_6	Under-use of informational component due to maintaining the initial form and content of the documents and data bases						
		WPIS_7	Restricted access to Internet and lack of preoccupations to implement an Intranet system						
4.	Methodological sub-system	WPMS_1	There are few management systems						
		WPMS_2	Restricted use of goals management system						
		WPMS_3	Lack of use of modern management systems, methods and techniques based upon the employment of						

			information technology						
		WPMS_4	Persistence of using old and frequently inefficient methods and techniques such as meetings and delegation						

If, at the level of a branch, the need of improving the activity represents an indispensable premise for successfully operating the strategy conceived for the machines building industry as a whole, the conclusions of the diagnosis analysis of management sub-systems together with the analysis of the economic and financial situation demands more stringent improving approaches. The strong and weak points, together with the generating causes and potential consequences should form the releasing factors of the process of improvement, its continual and all inclusive character being required by the unprecedented dynamism of nowadays managerial systems. That's why improving analysis is paid attention more and more by the specialists and practitioners in the field of management as an extremely complex and topical matter that demands extremely precise substantiating efforts both at a theoretical level and at a pragmatic one.

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