

Methods of Acquiring Diagnosis Information

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Abstract

There are, in the specialty literature, various proposals to make studies of diagnosis-analysis. The specialists in the area prescribe, at large, a work methodology that must comprise the classic stages of preparing the diagnosis, of research and analysis properly and of the diagnosis and program of actions elaboration (the after diagnosis). For the gathering, registration and interpretation of the date and information considering the mentioned areas, specialists appeal frequently to methods and specific techniques such as: the interview, the questionnaire, the direct observation, the study of the informational documents, the cards of (auto) evaluation, and the ORTID technique.

Key words: *diagnosis, indicators, data gathering and systematization*

The Interview

It is an active technique that permits the identification of certain existing deficiencies in the organizations activity, as well as the settlement of certain directions of action in the sight of their exclusion.

The Questionnaire

It is a technique of research based on the launch of questions to an illustrative sample of managers and performers, questions with clearer variants of answer, which can cover a large palette of aspects which are doing the object of diagnosis. This contains an ensemble of logical questions, generated by the pursued objective.

The most prevalent gender of used-up questionnaires in the gathering, the registration and the remaking of the information are:

- questionnaires with closed questions, in which the answers are multiple choice type;
- questionnaires with open questions (freely), in which the questioned persons answer textually;
- mixed questionnaires, in which the two types of questions – closed and open – coexist.

The Direct Observation

It is a technique that uses the instantaneous observations in the sight of certain activity's strong and weak points identification. The method consists in the making certain observations to different periods of time, about the selected elements for study. Wherethrough the obtained dates to be significant, it is necessary to keep the following rules: the observation is supposed to be instantaneous, the number and the observations moments are due to respect the rules of the probabilities calculus; the period is due to be long enough to contain all the possible phenomena.

The Documents Examination

It presumes mainly the statistical and book-keeping evidence consulting in the sight of cognition of the organization's general situation and of its different organizational links, as much at one time, quotient and in dynamics. Through the documents examination are obtained valuable data about the analyzed problems. As a matter of fact, all the techniques of diagnosis enforce the previous examination of certain documents, which permit the formation of an exact image about the organization's realizations in all diagnosed areas. The documents examination offers us the first image about the significant symptoms and about the activity's strong or weak points, and then, through the use of the other techniques, follows the check localization of these points' causes and the directions in which it must be acted.

The Card of Evaluation (Auto-Evaluation)

It represents another method of investigation and, by default, informational source important to the studies of diagnose elaboration.

Used-up with priority in the prominence of certain constructive and functional features of management (decisional, informational, methodological and organizational), these documents help to the delineation of a realistic image about the jobs and their occupants, about the measure in which, between jobs and titular exist a proper correspondence.

An example of a structure for such a card of auto evaluation for a job of management is presented in Annex 1.

The ORTID Technique¹ (Objectives, Resources, Transformation, Integration, Development)

It consists in solving the problems the organization is confronted with, depending on their importance, throughout the prism of certain criteria represented by objectives, funds, transformation, integration, development.

This technique is used-up for "the identification and hierarchy of the problems wherewith the firm is confronted" through:

- the defining of determined factors in solving the problems;
- the correlated interpretation of the used-up criteria;

¹ Nicolescu, O. (coord.), Istocescu, A., Popa, I. - *Tehnica Ortid în Sisteme, Tehnici de Management*, Editura Economică, București, 2001

- the paths identification for the problems solving;
- the priorities settlement in solving the problems.

The objectives' settlement represents the origination of the activity of any firm, and their realization requires the use of certain resources of human, material, financier, informational nature and making certain transformations (changes) in the technological process, in the products and the services offered on the market, in the work procedures and in the organizations' management. The appearance of the expected transformations enforces taking certain measures which, through integration, are implemented in practice. The integration presumes the analysis of the possibilities of practice, the phasing of the implementation actions, and the experimentation of the measures.

The transformations made through the integration of the expected measures imply for the amplification of the results through the upper utilization of the existing funds, that is the development of the firm.

The organizations' development through the objectives fruition and the optimization of the use of resources enforces the solving of an innumerable of technical, economic and management problems. Among these, through the ORTID technique, we can select those which have a major influence over achieving objectives and over the optimum fund use, which requires transformations of reduced size and which are easier to put in practice and which, at last, assures the development. Therefore, this technique is especially used in the stage of over diagnosis, as opposed to the precedent techniques used mainly in the stage of investigation and analysis.

The Data Gathering and Systematization

It has as purpose all data and information selection relevant for the investigated area as part of the analysis. If it a general diagnosis analysis is to be carried on, the data will be gathered and systematized on the enterprise areas.

The Financial Area

The realization of a deep financial diagnosis-analysis requires the use of many indicators that could help to understand the cause-effect relations, to identify the significant tendencies of the activities and to assure certain pertinent comparisons, scilicet (see table 1):

- absolute indicators, of volume or of results: the sales and receipts volume, the current assets and liabilities, the turn-over, the total financial results, the crude and clear profit etc.;
- specific indicators or indexes (rates, ratio) which, in-sequence, are of two types:
 - of common size, that show the report between a financial digit and a significant total. When different digits are reported to the same total, the weight of each is relevant;
 - economic-financial, which show the particular relations between different balance-sheet data and/or of the accounts of results (table 1) and of whose utility consists in the fact that it facilitates the organization performances comparison as much temporally, quotient and with another organization, which is difficult to be achieved - below the aspect of relevance – through absolute indicators.

For the procurement of pertinent information and conclusions, the analysis of these indicators is to be done from three points of view:

- a static one, its purpose being to characterize the organizations' current economic-financial situation and to track down, as much as possible, the causes which drove hereto;
- a dynamic one, its purpose being the emphasis of the main variations (growing or diminishing tendencies) which have changed from one year to another (especially to the

- relevant indicators for the activity and the performances of the organization), the causes which generated them, as well as the tendencies and the major problems (difficulties or sources of progress) which are outlined and which will influence the future evolution;
- a comparative one, with different norms or standards of performance (organization standards, industry standards etc.), as well as with the average on the branch (industry) and with the competitor organizations, in order to put in evidence the organizations' performances or con performances in comparison with these.

Table 1. Economic-financial indicators and indexes. Their determination and utility

Name	Formula calculus	Acceptation
1. Profitability indicators		
a) Crude profit	Total incomes-total expenditures	It expresses the firms' capacity to obtain profit
b) Clear profit	Crude profit-profit levy	It shows the profit level that can be used for the firms' development and the shareholders and wage earner stimulation.
c) Rate of commercial profitableness	$[\text{Crude profit}/\text{turn-over}] \times 100$	It reflects the firms' activities profitability and it offers necessary information for the choice of the activities portfolio structure and, respectively, the structure of production.
d) Rate of costs profitableness	$[\text{Crude profit}/\text{total cost}] \times 100$	It expresses the efficiency of funds consumption - materials, human resources, and finances – analysis in the development of the labor process.
e) Assets profitableness (of advanced funds)	$[\text{Crude profit}/\text{total assets}] \times 100$	It reflects the economic global performance, respectively the efficiency of the use of material and financial ways allocated for the activity's development
f) Profitableness rate of own capital	$[\text{Clear profit}/\text{own capital}] \times 100$	It reflects the efficiency wherewith the own capital is used-up.
g) Profitableness rate of social capital	$[\text{Clear profit}/\text{social capital}] \times 100$	It reflects the efficiency wherewith the social capital is used-up.
h) The share's efficaciousness	$[\text{Equity per share}/\text{Value of a share}] \times 100$	It offers the possibility to appreciate the possible tendencies regarding the shares value evolution.
i) The profitableness of the placement in shares	$[\text{Equity}/\text{Sum invested in shares}] \times 100$	It estimates the ways in which are satisfied the shareholders interests.
2. Liquidity and solvency indicators and indexes (or indicators of financial equilibrium)		
a) Rate of general liquidity	Current assets/Short term debts	It reflects the organizations' possibility of transforming the current assets in needfulness liquidities for the eligible obligations pay on short term. The report is favorable when its value is contained between 2-2, 5.

Table 1. (cont.)

b) Rate of immediate liquidity	Availabilities/ Short term debts	It reflects the firms' capacity to honor the short-term eligible obligations from book debts and availabilities.
c) Rate of financial global autonomy	$[\text{Own capital}/\text{total liability}] \times 100$	It reflects the financial autonomy of the firm, respectively its capacity of auto bankrolling (which is with as much higher with how much the value of this indicator is bigger), as well as the measure in which the creditors are defended against the risks through the firms' own capital.
3. Indicators regarding the book debts and availabilities		
a) The period of recuperating the book debts	$[\text{Book debts}/\text{turn-over}] \times 365$ days.	It expresses the necessary time to recover the book debts (debtors + emissive and unreceived invoices from customers).
b) The degree of indebttness	$[\text{Total debts}/\text{Total assets}] \times 100$.	It shows the proportion in which the firm is financed from other sources (loans) than from the own funds.
c) The period of reimburse the debts	$[\text{Payment obligations}/\text{Turn over}] \times 365$ days.	It indicates the necessary time for the purveyors of the firms' payment.
d) Rate of global indebttness	$[\text{Total debts}/\text{Total liabilities}] \times 100$	It measures the debts' weight in the firms' patrimony.
4. Indicators regarding the activity		
a) Work productivity	Turn over/total number of wage earner.	It expresses the efficiency wherewith the working factor is spend.
b) Efficiency of assets' utilization	$[\text{Turn over}/\text{Total assets}] \times 100$	It reflects the efficiency wherewith the firms' assets are used.
c) Potential of the firms' development	$[\text{The take-off from profit for the developmental capital}/\text{Working capital}] \times 100$.	It expresses the possibilities that the firm has to assure the prospective development.
d) Rotation of the stocks	$[\text{Turn over}/\text{Total stocks} - \text{unreceived invoices}] \times 365$ days	It expresses how many times the stocks are renewed at a given time.
4. Indicators concerning the capital immobilizations		
a) Rate of immobilized assets	$[\text{Immobilized assets}/\text{Total assets}] \times 100$	It measures the degree of capital investments as part as the firm.
b) Rate of corporal assets	$[\text{Corporal assets}/ \text{Total assets}] \times 100$	It reflects the firms' capacity to adapt to changes.
c) Rate of current assets	$[\text{Current assets}/ \text{Total assets}] \times 100$	It expresses the current assets' weight in total assets.
d) Rate of the stocks	$[\text{Stocks}/ \text{Total assets}] \times 100$	It expresses the stocks' weight in total assets.
e) Rate of the book debts	$[\text{Book debts}/ \text{Total assets}] \times 100$	It expresses the book debts weight in total active.

The Commercial Area

In this area we may gather information concerning:

- the sales evolution on the internal market and on the external market;
- the over-sale services evolution;
- the level of technical, constructive and functional performances of the firms' products;
- the level of the supra normative stocks of end products and of raw materials;
- the volume and the structure of the costs with the quality;
- the cost of the damages' prevention;
- the organizations' products place in the zonal national and international hierarchy of quality;
- the degree of activities organization AQ and CTC;
- the marketing developmental degree for the supply of complete information concerning the firms' customers, competitors, the distributors and the purveyors;
- the sufficiency of the funds provided for the activity of marketing;
- the use of the prevision methods in the sales area;
- the correspondent research of the consumers needs before the conception and manufacture of a new product;
- the necessity of entering, of widening, of abating the limits or of coming out of certain segments of market;
- the elaboration of comparative studies between the firms' orientations and of main competitors concerning the product quality, the sale price, the network of casting, the forms of promotion;
- firms' orientation concerning the rational choice of the purveyors;
- the use of the proper forms of storage and work supplying of raw materials;
- the elaboration of studies concerning the possibility of reducing the transport expenditures with the raw materials;
- the firms' quota on sale and the main competitors.

The Area of Production

In this area we may gather the following data and information:

- the degree of completion for the plan of physical production;
- the degree of utilization for the capacity of production;
- the level of the stocks of unfinished production;
- the efficacy of the organization forms of production in different sections and workshops;
- the rationality of the technological eager;
- the efficacy of internal transport;
- the degree of organization of the activities of keeping up, workovers, energetic management, assurance with tools and checking implements;
- the equipments situation, depending on their age;
- the indications state of physical and moral attrition of the basic equipments;
- the briefly presentation of the main used manufactured technologies
- the degree of endowment and the level of Sdv-es and the Amc-es in the organization.

The Area of Human Resources

In the area of human resources we may gather the following data and information:

- the staff number and structure, correlative uncorked with the volume dynamics of production;
- the degree of working time utilization;
- the absenteeism;
- the number and the weight of the travelers in all personal;
- the size of the wage earners' surplus or deficit, on total and structure, in comparison with the real necessities of the firm;
- the indicators of fluctuation and motion of the capacity of work force;
- the concordance keeping between the average category of workers and the average level of hard-working qualification;
- the existence of certain qualification courses;
- the activity's rationality of personal selection;
- the quality of the conditions of labor in sections and workshops;
- the existence of a program of personal promotion.

The Development Area

In the development area, the most important information is adverted to:

- the new and modernized product weight in total production;
- the made production weight with new or modernized technologies;
- number of inventions, innovations and suggested rationalizations;
- number of inventions, innovations and applied rationalizations;
- the personal weight which did inventions, innovations and rationalizations;
- the personal qualify level trained in the investigatory activities;
- the sufficiency of information and financial funds for the efficient development of the investigatory activities;
- the activities of technical conception organization degree;
- the average degree of use for the engineers, technicians and foreman technical potential.

The Managerial Area

The Organizational System

- the size of the managerial apparatus;
- the hierarchical average weight and the hierarchical weights of the main categories of management;
- the number of hierarchical levels;
- the number and the name of the compartments that compose the organizational structure;
- the degree of structuring of tasks, of attributions, responsibilities and competences on jobs, functions and compartments;
- the regulation of organization and functions' update, of descriptions for functions and jobs;
- the integration with personal for the organizational structure.

The Decisional System

- the main gender of decisions adopted on organizationally levels;
- the integration of the adopted decisions on management functions (prevision, organization, coordination, entrainment, checking) and firms' actions (research, production, trade, financier, of personal);

- the qualitative parameters of adopted decisions (scientifically underlain, the warrant, the timeliness, the integration in the firms' ensemble decisions, the chockfullness);
- the utilized decisional instrument.

The Methodological System

- the use of managerial modern instruments: management through objectives, management on products, management through projects, the dashboard, management through exception, management through budget;
- the methods and the managerial classic techniques utilization: the diagnosis-analysis, the delegation, the sitting, the chart of the managers' work;
- the use of the methods of creativeness stimulating: Brainstorming, Delphi, sinectics, the discoveries matrix, Philipps 66, Delbecq etc.

The Informational System

- the degree of endowment with modern technique;
- the main used-up informatics applications;
- the completeness and the promptness of managers report from all hierarchical levels;
- the firms' information degree concerning the national and international plans evolution;
- capacity of communicating and the informational fluxes with other firms.

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Metode de culegere a datelor folosite în analiza diagnostic

Rezumat

In literatura de specialitate există numeroase tehnici despre modul în care se pot desfășura cercetările analizei diagnostic. Specialiștii din acest domeniu recomandă, în general, o metodologie de lucru care trebuie să includă etapele clasice de pregătire a analizei diagnostic, de cercetări și analize corespunzătoare, și ale analizei diagnostic, precum și elaborării programului de acțiuni (după încheierea analizei diagnostic). Pentru culegerea, înregistrarea și interpretarea datelor și informațiilor aferente domeniilor menționate, se face frecvent apel la metode și tehnici specifice cum sunt: interviul, chestionarul, observarea directă, studierea documentelor informaționale, documentele de (auto)evaluare și metoda ORTID.