V. SMĂRĂNDESCU
Council of Ministers

A Design of Organizing an Integrated Decisional—Informational System for Home Trade

The complexity, volume, dynamism and the special social-economic importance of home trade require just as in all other fields, an adequate scientific management in keeping with the objects to be achieved.

The application of scientific management is not a problem of choice, but an obvious objective requirement for the management of any processes and phenomena, mostly necessary in the socialist economy that has as a specific feature the rational and conscious coordination of all social and economic activities.

The Romanian Communist Party, its leadership, consistently promote the concept of scientific management granting an important role to the management science in building the manysidedly socialist society in our country.

President Nicolae Ceaușescu, General Secretary of the Romanian Communist Party shows in this respect: „The rapidity of the transformations taking place all over the world, the ever closer interdependence between different social, political, economic, technical, scientific and cultural phenomena bestow upon the management science a fundamental role in ensuring the development of human society, on the road of civilization and progress."

„...the science of social management acquires special importance under the conditions of the new system, being a decisive factor in the successful development of the building of socialism and communism" [2]

One of the main directions of improving the management of home trade is the perfecting of the informational system.

Taking into account the particular importance of the informational system, the Executive Political Committee of the Central Committee of the Romanian Communist Party adopted in October 1971 „The Programme of improving the social-economic informational system, of introducing the management

systems by means of automatic data processing, of endowing the national economy with computing techniques for the 1971—1980 period."

At the same time, the Plenary Meeting of the Central Committee of the Romanian Communist Party of April 18, 1972 adopted "Decision of the Central Committee of the Romanian Communist Party regarding the improvement of the social-economic informational system, the introduction of management systems with automatic data processing means and the endowment of the national economy with computing techniques for the 1971—1980 period".

It is pointed out in the Decision that the achievement of scientific management "is conditioned by the existence of an evidence which should allow the manysided knowledge of reality and which should offer the necessary data for substantiating the decisions for all organizational steps" [1].

The conception, achievement and utilization of an adequate informational system represent a basic condition for carrying out the management functions.

This is an obvious necessity also in the problems of scientific management of home trade, which through its nature implies an exchange of a big quantity of data and information which have to be used in substantiating and controlling the decisions.

The existence and the perfect functioning of the informational system of home trade represent a decisive condition for carrying out the increased responsabilities of this activity.

According to the above-mentioned Decision „for the needs of information and management at the level of economic units, branches, territorial-administrative units and of the national economy, functional systems, will be achieved for an efficient management of activities including "the system of home trade and of services to the population" [1].

1. INTEGRATED DECISIONAL — INFORMATIONAL SYSTEM

An economic informational system is not organized and does not work for itself, but it must represent a basis for preparing and substantiating the decisions. [5] [8]. The preparing of decision is carried out with the aid of information, in the case of an enterprise, for example starting from the lowest level respectively from the level of operative activity. At the same time, the process of decision making does not exclusively belong to the highest management level.

Within the hierarchization of decisions, the decision fulfilling the whole activity of the enterprise, respectively the strategic decision, corresponds to this level.

In close concordance with the strategic decision one can find at the same, time, at the lowest levels the so-called derived decisions. As such, the information and decision coexist at all management levels, are mutually conditioned from a qualitative point of view in any activity, including also the home trade activity.

To get maximum efficiency for its utilization and to prevent redundancies, the informational system should be conceived as an integrated system. We mean by integration that the system allows the utilization of the same information, from their input in a raw shape up to the output as indicators, for all needs of informing and decision making. This means, that there is a single

informational system for all compartments, such as the data outputs from a compartment are inputs for the others. The informational system is useful not only for substantiating decisions, for establishing the variants and choosing the optimum decisions, but also for pursuing their application and their effects.

In this way the information-analysis-variants-decision-action-result-information cycle of the management process is achieved, [4], [9]. The respective cycle which is but the decisional informational system, is superimposed on the economic system.

The economic system being a cybernetic system [8], it results that the decisional-informationl system is a cybernetic system as well. Finally, as the informational system is subordinated to the decisional process, it results that the objective of the activity it has to serve, is decisive in its organization. So, it is necessary that the decisional-informational system be conceived by starting from the object to be pursued [5], [6].

A definition might be formulated as follows: the integrated decisional-informational system is a cybernetic system, pyramidally organized, in vertical and horizontal flows on the basis of a unitary mechanism of collecting and processing the information from the enterprise to the management highest levels in economy, which allows the utilization of the same data in substantiating, making and pursuing the fulfilment of decisions with a view to attaining the object of the economic activity for which it has been created.

2. THE STRATEGIC OBJECT OF HOME TRADE

Home trade plays an important part in the process of enlarged socialist reproduction. It is the final point of the production process marking the transfer of goods into the sphere of consumption. The role of home trade is the more important as it has to meet, to a great extent, with the requirements of the fundamental economic law of socialism, respectively, the satisfying of the ever more increasing material and spiritual needs of the entire society. Most of the material needs of society are satisfied through the home trade activity.

It can be said that the home trade activity has as a strategic object the raising of the living standards of population, being thus organically linked with the supreme aid of the Romanian Communist Party Policy — the building of a society of welfare, for the entire people.

In our opinion, in the management activity of home trade it is necessary permanently to take into account the consumer and his needs. The home trade can better fulfill its role and social-economic functions as the consumer is better satisfied with goods and services, adequate as regards quality in the desired quantities and assortments.

That is why, the consumption requirements of the population, the preferences and tastes of the consumers must be a very important element in orienting the production of consumer goods.

In his Report to the Eleventh Congress of the Romanian Communist Party, Nicolae Ceauşescu, General Secretary, points out:" In this field we have to start from the elaboration of scientific criteria for establishing the level and structure of consumption in keeping with the phisiological and psychical requirements of man, with the necessity of ensuring conditions for a

corresponding development of the population, for maintaining the physical and intelectul vigour of our people" [3].

In our opinion, all these facts show that the fundamental decision within the home trade — decision characterizing its strategic object — is that decision which refers to the satisfying of purchasing needs of consumers.

Besides, we dwell on the organizing decisions of trade activity which can be grouped as follows: Decisions connected with the stocks of necessary goods are made so as to meet with the requirements of the buyers.

Decisions regarding the technical-material basis are necessary for achieving a connection between the buyer and the stocks of goods. To prove the stocks of goods, so as to reach the buyer, a whole set of conditions is necessary: — personnel, warehouses, shops, transport means etc, — which implies a multitude of decisions to be made.

3. INTEGRATED DECISIONAL – INFORMATIONAL SYSTEM OF HOME TRADE

The precise and clear statement of the object of the directions regarding decision making, determines at least the way of organizing the integrated decisional — informational system of home trade, on subsystems.

If the decisive decision within home trade is that referring to the fulfilment of the consumers' purchasing needs the subsystem supplying information for its preparation and substantiation will be that one which characterize the buyer.

According to importance it follows the decision regarding the stocks of goods. That is why, the second subsystem will be that one supplying information as regards the stocks of goods. Finally, the third subsystem is that one supplying data regarding the technical — material basis necessary for achieving the connection between the buyer and the stocks of goods.

These three subsystems should include a series of activities so as the integrated decisional-informational system to have the following structure:

A. The Buyer Subsystem

a.1. Substantiating, elaborating, laying out and launching the plan for goods sale by retail.

a.2. Pursuing the achievement of plan regarding goods sale by retail.

B. Stock of Goods Subsystem

b.1. Substantiating, statement and contracting of the necessary stock of goods.

b.2. Substantiating elaborating and pursuing the plan regarding the stock of goods.

b.3. Goods supply. Pursuing the achievement of contracts.

C. Subsystem of the Technical — Material Basis Necessary for Establishing the Connection between the Buyer and the Stock of Goods

c.1. Substantiating, elaborating and pursuing the labour force plan and the wage fund.

c.2. Substantiating, elaborating and pursuing the plan of network development.

c.3. Substantiating, elaborating and pursuing the plan of transports.

c.4. Substantiating, elaborating and pursuing the plan for technical-material supply.

The following activities: financial relations and bookeeping, mathematical modelling and data electronic processing are going to work within the system in close collaboration with the three subsystems.

The above-mentioned activities and the proposed way of grouping can ensure, in our opinion, the solving, from the decisional-informational point of view, of the whole problems arising within the subsystems which these problems correspond to.

Schematically, we propose that the integrated-decesional-informational system of home trade be represented as in Fig. 1 and 2.

The three subsystems and the activities within them are characterized by the following:

— All stages covered in the development of phenomena within the activity of home trade are logically linked in each of them.

In this connection we can notice that the phases of substantiation, elaboration, control and reporting are formed in each of them. Pursuing of the phenomena has a dynamic character, of action, with the aid of which a permanent control is achieved, regarding the way in which the decisions made are being fulfilled on the basis of collected data for their full achievement.

In this construction, planning and statistics are integrated component parts of the subsystems allowing that „the person elaborating the plan should also pursue it."

They respond to the three directions in which decisions are made within home trade and therefore its strategic objective. To build subsystems corresponding in some way to the work departments existing today, such as the subsystem of planning, statistics supply, etc., means to outline what is characteristic of home trade, because in this formulation they are found again in all activities of the national economy.

That is why, we believe, that in organizing the informational systems for other fields, the respective designers have to state precisely the object of activities and to exclude the present organization of the work departments which are to be found again in a new conception, within the new informational systems.

We hope this way of thinking which guided us in achieving this design, will represent a small contribution to stating precisely the conception that has to lie at athe basis of organizing the informational systems in general.

We have presented a design of organizing an integrated decisional-informational system of home trade, not a design of informational system based on informatics. By an interdisciplinary co-operation of economists, mathematicians, data-processing analysts, etc., the system could be transformed into an

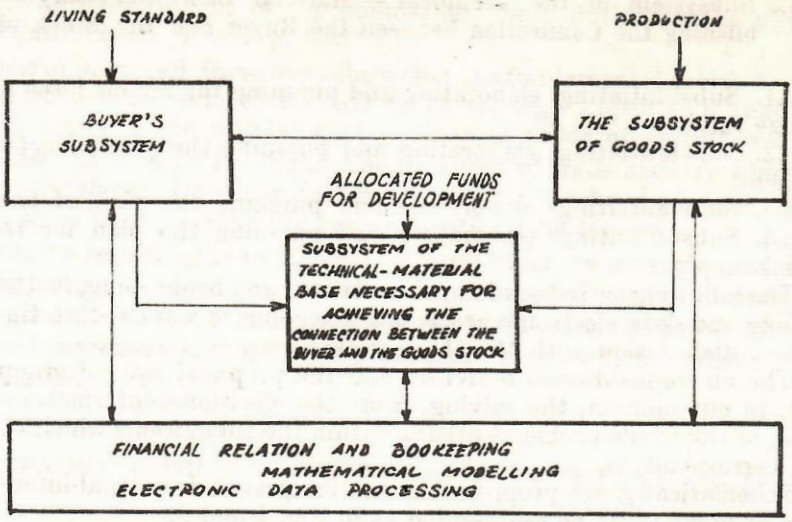

Fig. 1 Scheme of the integrated—decisional—information system of home trade

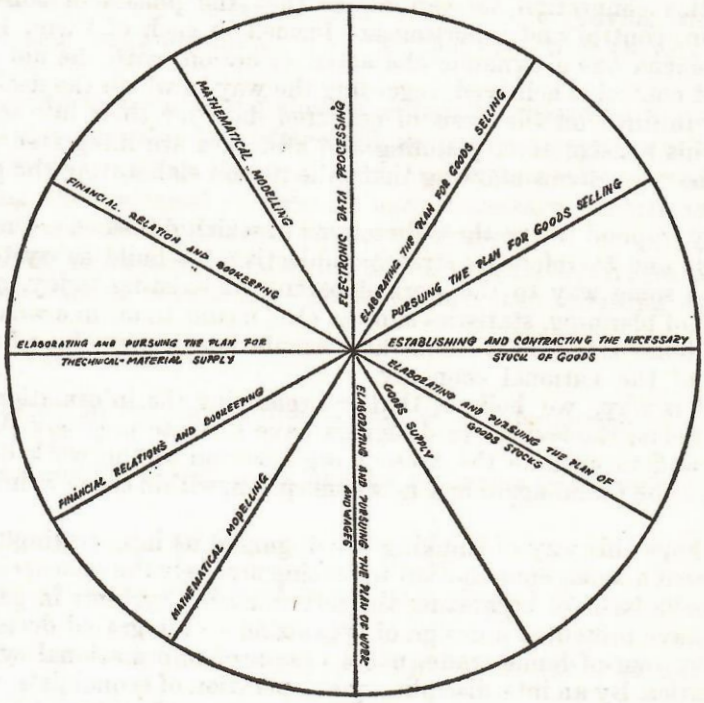

Fig. 2 "Hours" of the integrated decisional-informational system for home trade

informational system based on informatics and then implemented, especially when we had in view this eventual possibility. Under the present conditions, when the automatic means for obtaining information and even the decision are so much developed at present, any organization of informational system has to be conceived only from such a point of view. Of course, it is necessary before establishing the necessary indicators, such as, knowing the outputs, to determine the whole volume of input information. At the same time, one must elaborate computing algorithms as well as logical diagrams containing input elements, analysis, operations and their processing within the subsystems and data outputs on the basis of a clear methodology of working as regards substantiation, elaboration, laying out and pursuing of the plan, establishment of necessary goods stocks and their contracting. These problems once solved, one can pass to elaborating printed forms adapted to processing on computer, to specifying necessary files, to organizing data base and obviously to establishing necessary capacity of processing*).

In our oppinion the proposed way of approaching can be a starting point in designing a unitary integrated decisional-informational system for enterprises and commercial organizations, county commercial units, county units of consumption cooperations, Ministry of Home Trade, Centrocoop and for the trade developed by other ministries and central bodies. In this way, the integration of the decisional-informational system of home trade could be achieved both on a vertical and on a horizontal level. At the same time, it can be integrated into the informational systems in industry, investment, transports, technical-material supply and others within the integrated decisional-informational system of the national economy.

REFERENCES

1. * * * : *Hotărîrea Comitetului Central al Partidului Comunist Român cu privire la perfecționarea sistemului informațional economico-social, introducerea sistemelor de conducere cu mijloace de prelucrare automată a datelor și dotarea economiei naționale cu tehnică de calcul în perioada 1971—1980.* (Decision of the Central Committee of the Romanian Communist Party as Regards the Improvement of Social-Economic Informational System, Introduction of Management Systems by Means of Automatic data Processing and Endowment of the National Economy with Computing Technique for 1971—1980 Period. Scînteia, April 22, 1972.
2. NICOLAE CEAUȘESCU: *Expunere la deschiderea colocviului privind problemele științei conducerii societății.* (Speech at the Opening of Examinations as Regards the Problems of Society Management Science). March 6, 1972, Editura politică.
3. NICOLAE CEAUȘESCU: *Raport la cel de-al XI-lea Congres al Partidului Comunist Român.* (Report at the Eleventh Congress of the Romanian Communist Party,), Editura Politică, Bucharest, 1974.
4. BÎRLEA ST.: *Modelarea cibernetică în industria constructoare de mașini.* (Cybernetic Modelling in Engineering Industry). Doctor's Thesis. Polytechnical Institute, Bucharest, 1972.
5. BOLDUR G.: *Fundamentarea complexă a procesului decizional economic.* (Complex Substantiation of Economic Decisional Process). Editura Științifică, Bucharest, 1973.
6. DELVILLE A.: *L'information dans l'entreprise.* Dunod, Paris, 1969.
7. MANEA MĂNESCU: *Preocupări cu privire la tehnica de elaborare a modelelor cibernetice în economie.* (Preoccupations Regarding the Technique for Working Out Cybernetic

* The author has treated some of these problems in an ampler work.

Models in Economy). Studii şi cercetări de calcul economic şi cibernetică economică, no. 2, 1967.
8. MANEA MĂNESCU: *Consideraţii privind aplicarea principiilor ciberneticii în economie. Contribuţii la dezbaterea problemelor teoretice ale economiei socialiste.* (Considerations on Applications of Cybernetic Principles in Economy). Contributions to Discussing the Theoretical Problems of Socialist Economy. Editura Politică, Bucharest, 1969.
9. NICULESCU MIZIL EUGENIU: *Cibernetica şi aplicaţiile ei în tehnica şi economia industriei.* (Cybernetics and Its Applications in Technique and Economy of Industry). Editura Academiei R.S.R., Bucharest, 1973.
10. SMĂRĂNDĂDESCU V.: *Contribuţii la definirea sistemului decisional informational integrat ca factor al procesului de conducere.* (Contributions to Defining the Integrated Decisional-Informational System as a Factor of the Management Process). Studii şi cercetări de calcul economic şi cibernetică economică, no. 1, 1974
11. SMĂRĂNDESCU V.: *Puncte de plecare în organizarea sistemului informaţional decisional integrat al comerţului interior.* (Starting Points in Organizing the Integrated Decisional-Informational System of Home Trade). Studii şi cercetări de calcul economic şi cibernetică economică, no. 1, 1975.
12. SMĂRĂNDESCU V.: *Coordonate ale organizării unui sistem informaţional decizional integrat pentru activitatea de comerţ interior.* (Co-ordinates of Organizing an Integrated Decisional-Informational System for the Activity of Home Trade). Revista economică, no. 18, 1975.