

## ***The Place, Role and Problematic of the Integral Complex Informatics Achievement in Processing Economic Evidence Information***

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**Abstract:** *The notions of the economic evidence, its transformation and processing, as well as the general classification and content are specified. Its place, role, interconnections and interactions of this evidence together with other economic informative subsystems are established. Starting from the composition and structure of the unitary process of the economic evidence, the categories of the procedures and the operations of this process, the succession of their achievement, the current situation, the ways and prospects of their integral informatics achievement are revealed.*

**Keywords:** *place, role, problems, integral achievement, processing, information, economic evidence*

### **Introduction**

Although at present most end users, mainly bookkeepers create the impression, as if the works of the economic evidence are entirely achieved in informatics mode, the reality confirms the fact that many of them are in an incipient situation. Such state is characteristic for primary and utilization of stages of the examined information.

In connection with this finding, of major importance, there come the problems of determining the place, role and integral complex informatics achievement of the processing of all information of economic evidence in the environment of the unitary economic informational system.

#### **1. The Economic Evidence Information**

The emphasis of the problems in cause is primarily conditioned by the knowledge of the place, role, interconnections and interactions of the economic evidence information with other varieties of such category of information. In this sense, taking into account the principle of motivation and of formation (obtaining) the values of informational units period in relation with the evolution of the material processes, all the economic information is divided in the following two great groups: the information that precedes the economic material activities; the information that succeeds these activities.

Both informational groups are of functional content, because they are damaging some management functions. In compositional aspect, the first group includes the information of rate – setting, settlement and foreseeing to the possible material preoccupations. On their turn, those of the rate – setting contain the informational units with the primary and general values, the first being drawn for the elementary technological components (action, operation), and the second – for the constituent order (sub-stage, stage, process). Concerning the regulatory information, these comes the technological, constructive and administrative content.

If the rate – setting information reflects the limit of the economic volume (material, of time, financial) resources for each technological or constructive unit, then the regulatory information describes the order (succession) of the achievement of certain work. Evidently, the information of the technological settlement itself refers to the passing of the effectuation of any work, the constructive settlement – of the strictly order of assembly of any constitutive constructive unit (knot, coupling, finite product), while the administrative – to the composition of the executors, their obligations, allotted resources and the terms of accomplishing the acts.

Somehow, the forecast information is of regulatory character, as well as by the agency it determined the necessary terms and resources for the accomplishment of the proposed task.

Unlike the rate – setting and settlement, such information limits the composition, volume and terms of fulfilling the task. In the case, when the limitation has the attribution to the reduced terms (shift, day, five days, decade of the work) the forecast information is considered operative, and the limitation is referring to average term (one month) - they are of current order. Periodical is considered the foreseeing information concerning the terms of the quarter, six months and one year of activity, and long - term duration (of prognostic) – the forecast information on terms 5, 10, 15 and more years.

Normally, the reflective ray of the operative planning information possesses such dimensions like the place of work (job), brigade (group), subdivision (sector, section) and material economic unit (industrial unit, organization). The information of current and periodical planning itself reports to the material economic unit and episodic – to the organizational unit of this category. In its majority the prognostic information has the reflective ray in the limits of the organizational economic unit (firm with the essential economic potential, sub – branch, branch and national economy). Each of the enumerated special rays constitutes one certain level of the economic financial administration. What established what in the national economy distinguishes such levels [1, 41-46; 2, 28-29].

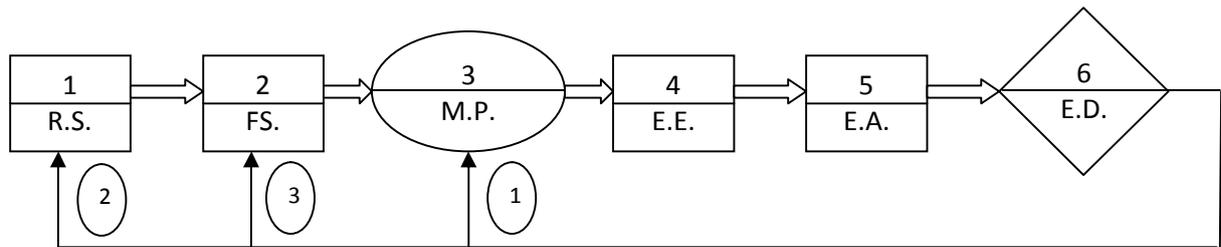
The second group of this information consists of those of the economic evidence and analysis, which after the special and temporal rays composition, are identical with those from the first group. Moreover, by their compositional structure of the informational units, they repeat those of the previous material economic activities. Such a situation is justified by the imperative logic of the economic analysis, the first stage of which comes in contraposition to the evidence indicators of values with the foreseeing or rate – setting and of settlement indicators values. The contraposition itself effects with a view to determine the size of deviation (difference) between the values of the informational units of the both groups in order that the specific factors that provoked it and the share of the influence of each one of them could be established later. As it was mentioned before, both imperative and the composition of the foreseeing, rate – setting and regulatory information predetermine the informational composition of economic evidence.

Depending to the situation of unfolding the material economic phenomenon, the information of the elucidated groups (previously, successor of material processes) can be changed with the place. Thus, in the case, when such phenomenon is found in the incipient situation and, it is foreseen to be achieved (put into functioning), such an intention can be achieved only after the formation of the normative regulatory and forecasting information. At the same time, if the material phenomenon is in full unfolding, being satisfied for many times, only after the formation of the informational values of the evidence and analysis, it may be formulated, tacked and realized the values of the decisional units.

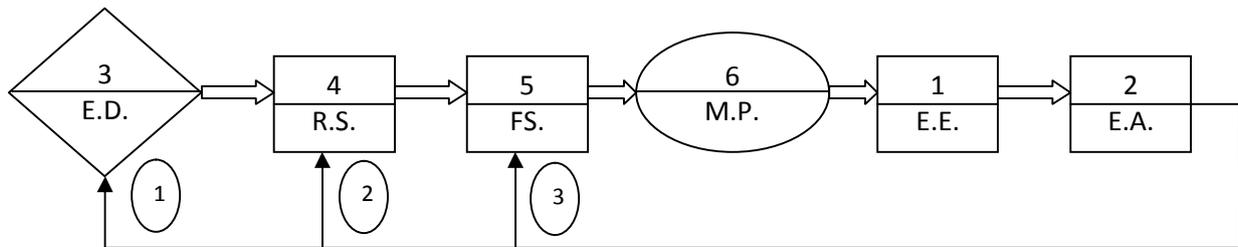
The graphical interpretation of these two variants of the logic of succession training (obtaining) of functional economic varieties information is shown in the Figure no. 1. The scheme of the variant 1 demonstrates that in the case, when the material process is new and foresees to be initiated for the first time, it is requested that before this the composition must be determined and the values of normative and regulatory indicators must be calculated (1), because with their help the values of the indicators of foreseeing are calculated (2). According to the last ones the material processes are put into function (3), but the results of their functioning are determined thanks to the obtaining of the economic evidence information (4). Possessing the information that reflects the foreseeable (1,2) and the real (de facto) (4) evolution of the material process (3), the information of the economic analysis can be obtained (5), in whose framework the respective decisions are formulated (6). The last ones directly influence the on-going of the material activities (1) and led at first to the revision (correction) at the values of the standards and regulation indicators values (2) and the calculation on this basis of the indicators of the foreseeing (3), according to which in the new version the material processes evolve.

The second variant of the elucidated schemes confirming the fact that in case of finding in the functioning situation (achievement of multiple date) of the material processes, firstly it forms the information of the economic evidence (1), because the information of the R.S. (4) and FS.(5) has to be obtained at the stage of their initiating, it exists already. In such a situation all the conditions from doing the economic analysis, the information products of their serving right the basis of the formulation of decisions (3), their correction (1) and of the values of standardization and settlement (2), as well as foreseeing information (3), in their agency – and of the processed material (6) are created.

a) the first variant: the incipient (initial) situation of new material processes:



b) the second variant: the functional (at multiple date fulfilled) situation of material processes:



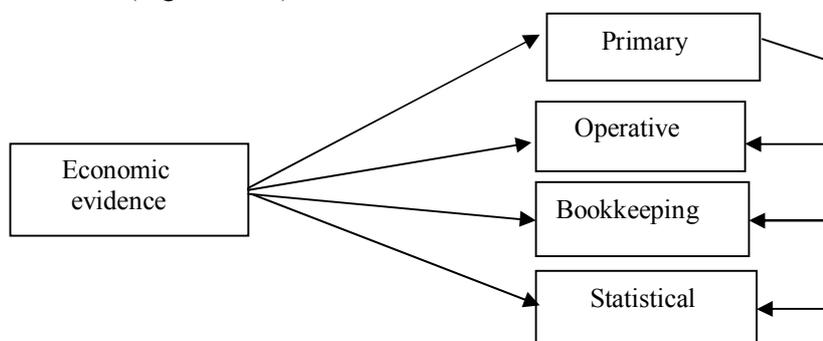
**Figure no. 1. The graphical showing the variants at possible successions of obtaining the values of functional economic information**

In the schemes of the Figure no. 1 there are admitted the next significations: R.S. – the rate – setting and settlement of information, FS. – the foreseeing information, M.P. – the material processes, E.E. – the economic evidence information, E.A. - the economic analysis information, E.D. – the economic decisional information. The numbering in the upper part of the blocks reflects directly the formation of the values of varieties of the information, but the numbering in the circles (on the bottom part of the blocks) – the reverse direction of such formation. From all those analyzed so far, it becomes evident that the economic evidence information permanently forms after the passage a certain period of functioning of the material process, has pure informative (descriptive) character, having the intermediate position between material and decisional processes, in joining with other varieties of information contributing to the formation (obtaining) of economic analysis information, formulating respectively decisions and correction of the previous economic material activities information.

Thus, any information at the pure descriptive content, that reflects the previous evolution of the object (process), is considered to be of evidence. If such information refers to the processes and production, distribution (commercialization) and consumption of the material and spiritual goods, it is of economic content.

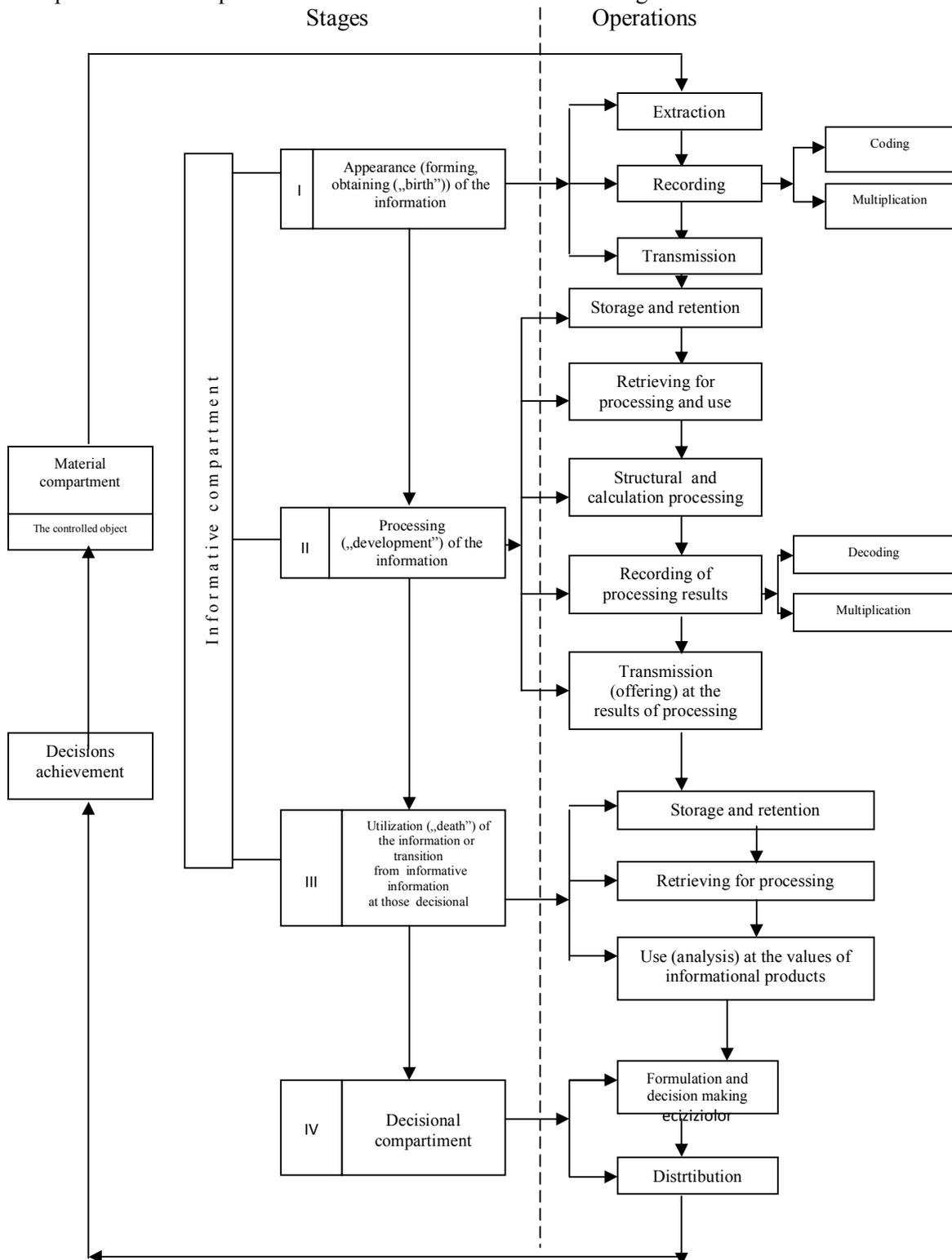
## 2. The Economic Evidence

The notion of the economic evidence is generalizing. It includes primary, operative, book – keeping and statistical evidence (Figure no. 2).



**Figure no. 2. The compositional structure of the economic evidence**

To the basis of the fabrication of operative, book – keeping and statistic informational products stays the initial data obtained within the framework of primary evidence. Only that the modalities of their gathering and systematization are different. From the procession point of view the economic evidence includes procedures and operations achieved in the order shown in Figure no. 3.



**Figure no. 3 The composition and the content of the stages at transformation of economic informative information (the functional aspect)**

Any management processes, inclusively the economic ones, take place on the basis of multiple organic interconnections and interactions among such three essential compartments as, the material, informative and decisional. Their achievement produces through the agency of accomplishment certain functions in diverse special rays and temporal regimes of their functioning.

Depending on the domain, the functioning may be discreetly or continuously ordered. Generally, the last modality is the one own for the pure material activities within the framework of one thing of several actions (operations), while the discrete one refers to prevalent at the co – ordination of these activities in the above mentioned rays and regimes. Therefore, the analogous (uninterrupted) modality is characteristic especially for the material compartment of economic unitary managerial process. This is explained by the fact that in majority such activities are fulfilled at the subject in the space and time enough compactly (within the framework of the first job or the first subdivision – group, sector, section, which allows operative to intervene with certain modifications in any moment on the route of first shift, working day).

Simultaneously, at the level of material organizational shape (economic unit, sub-branch, branch, national economy) the effectuation of material activities is possible through their co-ordination at a distance in miscellaneous new temporal and long standing terms. From this reason, within the framework of organizational material units it's enough evident and pronounced the discrete (interrupted) character of economic material activities.

Certainly, any activity at any category, either material or informational, disposing of certain discretion, very much as it's achieved through the decomposition in certain component parts and achievement the lasts in certain succession. But at those affected within the framework of each job or subdivision the special and temporal rays are so reduced, that conventionally may establish their continuity. In such a situation and informative and decisional informational necessities are enough confined, very much as the actions (operations) take place in the physical capacities of subject through directly visual monitoring and in its basis – material reaction, in accordance to certain instructions at the achievement of work.

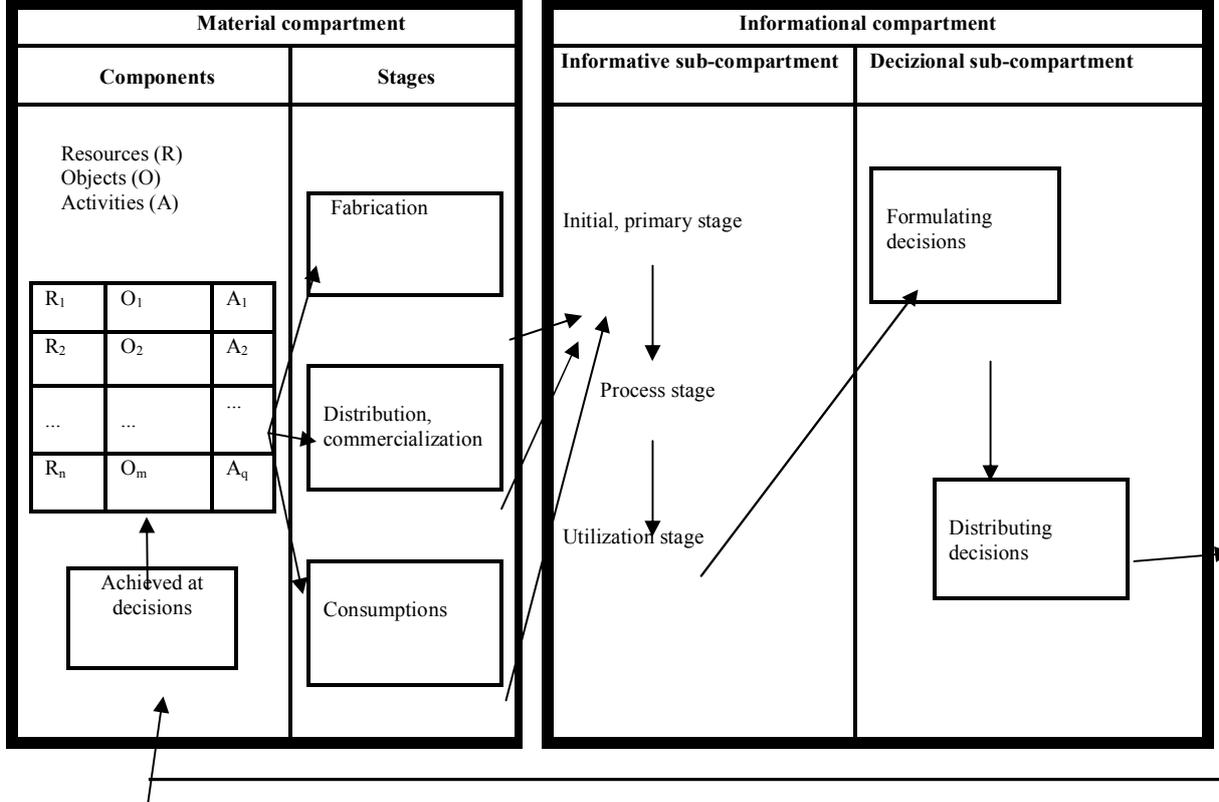
If the material activities, depending to the level of their accomplishment, disposing of different character (at the initial – continuous, at derived (superior) – discreet), then the informational, regardless to the manageable level, have the discreet character, because that is done after the expiration of the first term of achievement of the material (minimum, after one shift).

The modality of accomplishing the activity (continuous or discreet) leaves one's mark of the informatics aspect of its achievement. So, in the continuous case the technical, which are operating with the physical units are necessary, what puts into function or stops on a certain process, while for the discrete the implication at more resources in joining, their interconnection rarely taking place is characteristic. In connection with those elucidated till now it certifies that in strategy of informatics achievement of economic managerial system it must first of all lean against account of the modality of fulfilling the economic activities (material, informative, decisional) – continuously or discreetly – and of the succession of their special and temporal interconnections and interactions. Such a conception at their approach can be admitted and applied in the event, when the leaded object or activity is conceived right one unitary material – informative nucleus, of its leadership process is thought the integrate of the material – informative – decisional activity.

This variant of treatment solicits the inversion of the orientation at invention, implantation and functioning of the economic managerial system in informatics modality. The essence of this reversal consisting in that if the initial and in majority and at present firstly takes place the invention of technical means and technological (organizational) methods, afterwards establishing the concrete domain of their efficient application, then once becomes evident the necessity of the elaboration (projection) and application of those means and methods on qualitative and quantitative parameters of the respective domain. Thus, the informatics technical policy is necessary to be orientated from means and methods – to their application, but conversely, from the domain – to the necessities in means and methods of putting in permanent functioning of this domain. The more is the evolution of the informatics technique the more evident is confirmed the fact of increasing its flexibility in the meaning of their adaptation at any domains of application.

That is why the existent situation and the forthcoming prospect requires primary establishment of composition of the proper works of domain at leaded activities, objects and resources with all values of his quantitative and qualitative parameters, on the basis of which it effectuates their leadership.

In this context it comes out that of the unitary positions the economic managerial system comprises the fundamental phases, schematically presented in the Figure no. 4 (in the order of their achievement, proceeding from main to contributory motivation).

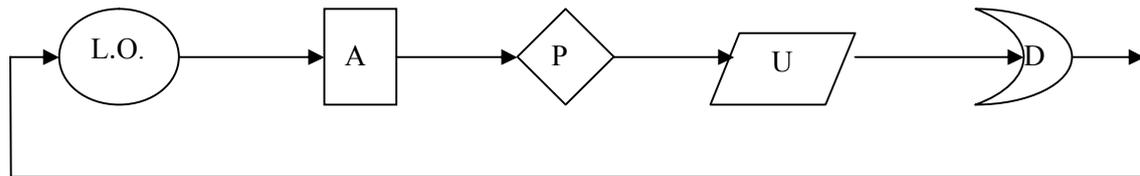


**Figure no. 4. The composition and sequence of achievement at the stages of the unitary economic managerial system**

The scheme in cause evidently demonstrates the extreme complexity and immense globalisation of the composition of each compartment and phase of works, with the miscellaneous pronounced ramifications, especially, concerning, the material. As a result, the modality of their approach requires being at systemic order, but their treatment – of conceptual order.

To confirm this situation it's sufficient to enumerate those operations (works) what are proper only for the informational informative sub-compartment, as well as the material compartment and decizional sub-compartment are individualized for each real resource, object and activity. Therefore, the conceptual elucidation of these two compartments (material and informational) is not so much eloquent.

Of these positions, the transformation of the information, as their organization, disposes of the same two aspects of elucidation – functional and informatics. In accordance with the first, it's achieved in the main three stages: appearance (“birth”), processing (“development”) and utilization (“death”) or the transition from the informative at decizional values of information. The interconnection and succession of achievement of these stages schematically and in general are presented in the Figure no. 5.



**Figure no. 5 The composition and interaction of the principal stages at transformation of economic information**

L.O. – leaded object; A – the stage at the appearance (obtaining) of initial (primary, elementary, intermediate) informational informative units; P – the stage of their processing; U - the stage of the utilization of informational informative products; D – decisions.

Depending to the functional variety and concrete parameters, the economic information crosses miscellaneous stages and processes of transformation on diverse succession. But for the majority the transformativ stages and operations are presented in Figure no. 3. Thus it is evident that the „birth” of information takes place on the basis of identification of the specific features or the produced changes in the leaded objects through measurements and calculations.

As well as the primary and initial informational units at one level of economic leadership (those of the evidence and rate – setting – at the inferior level, those of the planning – at the superior level), but their values processing – at other levels) existing the necessity of their memorization, achieved thanks to the registering on miscellaneous supports (manual, technique). Such a necessity is motivated, also, and of their economic, managerial and juridical importance can be capitalized in miscellaneous special and temporal rays.

Simultaneously with the fastening of the support, it produces the coding and multiplication of initial information. The first work (coding) aroused of the specific character of the informatics means and methods of data processing, although it is not excluded that if sometimes is effectuated and in such a way in the milieu of the manual processing, because often more economic presentations of information, their values aren't applied. Simultaneously, the multiplication produces in the event of the simultaneous utilization of the values of some informational units in many places of a lot of users.

Both extractions, the registering of values of the initial information are done decentred, while their processing, as a rule, takes place in a centralizing way. About one, the place of processing of these values it's situated at certain distance of places of their forming (obtaining). At this reason the extraction and recording aren't succeeded by the transmitting of the initial informational units values from the places at their processing, with this operation being ended, the works of obtaining of raw matter” – at informational units of primary (elementary) and initial values, what constitutes the basis of forming of any information with the derived values.

At the same time, the transmitted primary and initial information doesn't suddenly process, for one certain term being stocked and that is why it's necessary the organization of their storage. As mentioned, the examined operation itself refers not only to the information with the variable values, but to those with the relative constant values, the last requiring the long keeping of juridical reasons and strategic intentions.

Very much as not all information is submissive at simultaneous processing, it imposes the retrieving only of those which aren't necessary at once. Subsequently, of structural and calculation processing take place the concluding of the obtained results in accessible form for end users, which is done, also, through recording. The multiplication is motivated by the same circumstances within the framework of operation with the same naming affiliating at the first stage, but the decoding – of the data transformation (the physical (informatics) informational units) in the functional informational units, which may be spotted and awareness of the user. Lastly, the derived (resulting) informational units, concluded in certain form (well – informed) aren't provided (submitted) to end-users (functional workers), who are interested in analysis of their values.

But, and this stage not all information is suddenly at analysis and that is why preliminary it's necessary to do concerning them the same operations, which at the second stage, linked to their organization, retention and retrieving. Being retrieved, the necessary informational units, their values aren't analyzed. This last informative operation is achieving firstly through counter-putting of the values of informational units affiliated of miscellaneous managerial subsystems in miscellaneous combinations, as by example, those at evidence if counter-putting with those of foreseeing or of the evidence with those of rate – setting, etc. In the case of hunting out certain deviations moulded as result of these comparing it determines the composition of the factors, which are contributed at their and, respectively, are influenced by the economic material activities, the weight of each of them in the general (total) value of deviation.

On this basis of establishing the composition of factors (reasons) at influence and of them weight in the traced deviation, in continuation to determine the actions, participants and necessary resources for not admitted in the future or for encouraging the characterized tendency of the deviation in the previous term, the period of achievement at the actions and methods (proceedings) of verifying the quality and complete fulfilments at stipulated actions.

All these activities constitute the content of the first stage of initiating management, which is reduced to the formulation and taking the decisions. Once with the achievement of this stage takes place the „eruption” of decisional information from those informative within the framework of the unitary leadership process, or so – called transformation of informative information in the decisional one.

Concerning the achievement to take decisions, it may be said that generally they take place through agency of the material activities, although without the guidance of certain information it may not be affected.

In such a way, at the initial stage it is obtained the primary or initial, at the processing – the derived (intermediate, resulting) values of informational informative units, while at the third stage – it creates the basis for forming the informational decisional units.

We can also mention that at the first stage takes place the „birth” of the informative information, at the second stage – its „development”, thanks to extension at spatial and temporal reflection (description) rays, obtained consequently of informational, structural and calculating processing of the primary (initially) data, but at the third stage – it „death”, since in result of analysis of informational informative units, as a rule, at derived order, it formulating and taking the necessary decisions, in continuation refusing at the informative information and guiding at the decisional. Because at the probabilistically character (particularly, at the point of the exactness) of the economic material activities, permanently existing the necessity at „to acquire” the new values of informational units, to their processing, to get in the result of this processing the solicited informational informative products, what finally may be analyzed and in basis of the last it being formulating and selecting the informational decisional units.

Consequently, at a given moment, declining the necessity in certain informational informative units and that is why they are submissively of the „death”, concomitantly being solicited the moulding others new informational values, which describing the evolution of the activities (objects) within framework of previous period.

At the offered scheme of the Figure no. 3 it's evident that the composition of works of the informative order is very varied, but the achievement of each at them has a pronounced specific. Respectively, the composition of the technical means and informatics technologies isn't at the same character.

Such an approach requires the necessity of elaborating firstly such a row of technical means, which has automatically achieved each of works what is contained in the scheme. But, more existing is another way of informatics achievement at the examined compartment. It comes included the only technical mean of the possibilities at automatic effectuation of all informational and structural procedures and of calculating operations.

Until now, at present it is observed one certain success at the second way, obtained through creation and equipment of the computers with such device like the modem, what permits to fulfil the new function of data change at the distances. The prevalence of one of these two ways depends on performance of the classic sciences (physique, chemistry, biology, etc.), at the level of application of these performances in economic informational domain and of technique – scientific progress.

The present level and the visible practical prospect of the evolution of these sciences conditioned the basis of the strategy of informatics achievement at the economic managerial system on the electrical effects, what ensures both reliability and performance flexibility of this system in the material environment at its functioning. According to this orientation, the apogee in cause strategy will be in such a situation, when the solving of the informational problems will occur through the agency of the physical (chemical, biological, etc.) models, in such a manner eliminating many existent interfaces in the shape of the internal informational, mathematical, programmes and technological resources.

The same composed variety of economic informational activities, also, showing the necessity of revising the general notion at „computing technique”, under that, usually, is understood any technical means involved in the unitary economic informational process, and its substitution with the term „informatics technique”, that, in our opinion, is far greater adequate (coherent).

### **Conclusions**

The accumulated until now experience and formulated theoretical theses concerning both informational and those material activities permit to highlight evident the following trends and general directions of informatics achievement at economic, as well as the economic evidence, informational respective system and subsystem:

- 1) The improving of the technical basis on the following directions:
  - a) the extension of functional capacities of technical means;
  - b) as much as, the intense and massive utilization of the performance constructive elements and the effects of physical (chemical, biological, etc.) modern processes in construction of these means;
  - c) maximum miniaturization of the clearance diagrams at the informatics technique with the concomitant continuous extension of „capacity” of solving the economic informational issues;
  - d) maximum facility of functional access at any category of users through agency definitive simplifying their exploitation;
- 2) The modernization of the technologies of fabrication of the informatics technical means on basis of permanent unification at constructive elements and their assembling through the conveyed method;
- 3) Continuous elaboration of the concepts and timely application at gradual shapes of functioning at the economic informatics managerial system, granting the priority of technical factor comparatively to the organizational, previous to the last being predominant, but in present and in future – low down – entirely;
- 4) Detailed and complex (in interconnection) accomplishment at all the stages of functioning at the economic managerial system, which contributes to:
  - a) the rational construction and the increase of consciousness at this system;
  - b) bringing into full compliance at the informational with those material ensuring of their distributive concordantly organizing and effecting;
  - c) autoimmunization of the majority of economic activities thanks to informatics achievement at the informational connections between them;
  - d) maximum loading with work of informatics technical means;
- 5) Orientation of classical sciences to application of obtained investigation results within the framework of their invention, elaboration, implantation and functioning domains of the informatics technique;
- 6) Intensive preparation scientifically motivated, strong and adequate for the prospects activities at the future specialists necessary for the miscellaneous domains of economic informatics;
- 7) Constitution of gradual shapes and setting up new scientific branches in the elaboration, implantation and functioning of the economic informatics managerial systems (E.Ic.Mg.S.).

The detailed and entire knowledge at the aspects of strategies informatics achievement of economic, including the economic evidence, managerial activities, as well as at the tendencies and general directions of evolution at performances of this achievement will contribute to one integrant informatics system of fabrication of material, informative and decisional products of economic order with the essential functional efficiency.

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