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THE ASPECTS AND CONCEPTIONS OF THE TRANSFORMATION OF ECONOMIC INFORMATIONAL RESOURCES IN THE ENVIRONMENT OF FUNCTIONAL-INFORMATICS INTEGRATED MANAGEMENT SYSTEMS

Tudor LEAHU, Assoc. Prof., PhD
Free International University of Moldova
E-mail: leahu.ts@mail.ru

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Abstract

The aspects and conceptions of achievement of transformation of the unitary economic management system information, on the positions of indivisible unity, are praised, analyzed and integrated. The concept of such management system is based on the directly synergy of material and informational (situational and decisional) processes. In this basis there is examined and effected the incorporation in integral full of the organizational, structural and transformational units of information one´s own of economic management system and its informatics sub-system.

In accordance with the conception of starting from the domain towards the means and methods of ensuring its existence and evolution, the conceptual methods and general criteria of the selection of the informatics resources are examined. In the result of determination of the composition and volumes of the selected resources, in the general plan are established the composition, structure and relations of functioning of the constituents of economic management functional - informatics integrated informational systems. For such systems are elucidated the ways to their conceptual achieving in the form of automatized (automated) operative informative and intelligent data banks.

Keywords*: aspects, conceptions, transformation, informatics resources, integrated management system*

1. Introduction

Because of the essential spatial dispersed character and of size what exceeding the human capabilities physical directly to track and manage the material activities, was invented and used by subject the various varieties of economic information. As the latter permanently accompany such concerns, they have their own particularities, being distributed over considerable territorial rays and evolving in the various operating regimes. In the formed conditions, a synergistic approach of both material and informational processes is required. As a result - it becomes of vital importance to examine and realize the evolution of both domains from unitary positions, i.e., in direct-stringing interconnection and interaction, which is the essence of any operative (of analogous action) system of material-informational content.

At the moment and in the unpredictable perspective, the material-informational economic milieu is realized in two environments: functional (for serving the management functions) and informatics (for ensuring the functioning through informatics technical means and technological methods). In order to support the automated (automatic) processing and

transition of information from one environment (functional, manual) to another (informatics, automatic) preliminary, certain preparatory works are required. Latest consist in highlighting, analyzing, functional-informatics integration and selecting of informatics resources, based on which can be elaborated and realized the informational functional - informatics integrated system.

The real-time functionality of such a system can be achieved in the form of operative automated (analogous action) banks of informative and decisional (intelligent) data.

2. The degree of investigation of the problem and purpose of the research

According to the principle of motivation, the initiation of constitution of a new object or the organization of a new activity, primarily is necessary the determination of the component parts, of which they must be composed. Further on, is required to establish the sequence of their working, based on which the interconnections and interactions between them are subsequently defined, thereby ensuring the efficient functioning of the constitutive unit. Therefore, in case of considering any information system, including the economic one, as object and field of activities, the order of performing the elaborative and functioning processes is reduced first to the structuring, then - to the organization and finally - to the transformation (processing) of the informational units values. Although the organizational concerns are specific to any occupation, in order to obtain the necessary informational product, the objective reality dictates the fulfillment first of all of the organizational works, in the second - of the structuring and in the third turn - the processing of the mentioned values. However, regardless of the variant of accomplishing these phases, it becomes inevitable that after predestination the structuring and organization processes have an auxiliary functional role, because they prepare the initial (primary) data to be processed in the third phase. Thus, in this sense, the processing phase is decisive, it dictates to which procedures and in which sequence the informational values must be submitted in order to report the expected result.

From this has been elucidated so far, it becomes obvious the acuity of the need of conceptual study and the practice of interconnected and interacted realization of all transformative phases, as a unitary process.

In such an order of ideas, it can be seen that currently information metamorphoses are practically forgotten, although on average they occupy 70-75% [1, pp. 7-14; 2, pp. 3-7] of solving process labor an economic information issue. Most informational and structural procedures of the primary (initial) data are performed manually, by manipulating the media (permuting documents).

Off the systemic and integration positions, in interconnection are not highlighted and studied the approach of achievement of the interpretative aspects and concepts. Also, in the unitary plan the aspects of the functional evolution (manual) and informatics (automatic) are not examined, so that finally, through interconnection and interaction, that are integrated. The results of the undertaking of last action (integration) consists the basis of on a scientific (exactly) estimation and selection of the composition and volume of informatics resources. Having such resources, the trends of the evolution of the forms of functioning of the integrated functional-informatics informational systems can be formulated and achieved, which exactly support the evolution of the unitary economic managerial process.

The elaboration and introduction in the economic informatics real environment of the aspects of elucidation and the concepts of their approach, as well as of the strictly scientific selection of it resources, the formulation and following the tendencies of the evolution of respective processes are in incipient state.

The created situation and the imperative evolution of advancement of the coverage by the informatics means and technological methods, of directly integrated material-informational management system, abundantly confirm the actuality and importance of topic of this paper, both for human society and for each individual.

3. Applied methods and materials

In present and the foreseeable perspective, at the level of economic organizational unit, gradually the problem of integration of the informational processes in the environment of the unitary material-informational managerial system, become more acute. For this reason, the study of the aspects of interpretation and concepts of their achievement approach, as concerns informative predestination informational systems, which are insufficiently or not investigated and, even more, implemented in the economic informational reality, becomes imperative. Considering the extremely pronounced variety of the composition of transformation of this category information of unitary process constituents, the field of research was based on a fairly wide range of conceptual sources and of collateral practical experiences results.

The created situation and the acuity of the researches on this topic was contributed to the formulation and guide of the theses of functional-informatics integration of the present article issues. Thus, the conceptualization of the examined sector was performed, taking into account the fundamental bases of the theory, analysis and synthesis of methods and means of transformation, circulating in the economic management system and its informatics sub-system, information of informative content. Also, during the research, the fundamental principles of managerial theory, systems theory and systemic analysis, information and informatics theory, economic cybernetics was taken into account. The investigations are based on scientific publications on the specifics of the transformation of informational values in general, and economic ones, in particular, informational and informatics systems, economic informational management and the adjacent areas to these activities branches. In the same hypostasis, have been taken in consideration the materials related to the elaboration and implementation of design decisions for the constitution and functioning of informatics systems of socio-economic organizational units, the results of universities scientific investigations, of Republic Moldova normative and legislative acts in managerial, informational and informatics domains, the results of the author's own investigations.

4. The obtained results and discussions

4.1. The aspects and concepts of the informative approach of functional-informatics integrated unitary economic management informational system

Because until the informational needs remaining satisfied only partially, the improvement of the quality of the economic material processes management it could occur prevalent through its insurance with the more complete and more qualitative information. The last (insurance)

depends not only on the "capacities" of data processing, but also by the level of knowledge and skills of the application of the laws of existence and evolution of the information in daily practice.

From the given reason, it is important to establish, which are the basic aspects and concepts of the evolution and existence of the elucidated information and led by them both during the constitution and working on economic informatics and informational sub-systems, of determined the varieties of these aspects, their place and role in the environment of the same category managerial system. Thus, in the present and in the long perspective, the situational (informative) economic information are obtained, processed and used in the environments of the two domains - in the managerial system and in them processing sub-system. In this sense its distinguish the following two aspects of the formation and evolution of informational processes [1, pp. 23-26; 2, pp. 14-17]:

1) the external aspect, concerning to the information of the managerial system framework;
2) the internal aspect, the framework of which involving the organizing, structuring and processing of the information, depending on the specific potential of the technical informatics environment.

Be noted that the second appearance neither deviously totally covering the informational process of the economic material organizational unit. In the internal aspect, relatively entirely are fulfilled only the works of the information processing stage, which including the informational, structural procedures and calculus operations. At the same time, the steps of the obtaining of primary (initial) data values and using of the results of their processing until in masse not are through achieved.

The created situation itself explains by two main reasons – the unsatisfactory level of functional performances of the technical means or their absence and the dynamics of the pronounced evolution of the economic objects (processes), which does not allow the bringing in the necessary concordance of its management system with the performance level of working of the material processes. In such circumstances, the initial and final stages of transformation of the economic information mainly have the externally appearance, as they are massive fulfilled in the environment of the managerial system.

Rather, the both aspects are of the presentation order, as through them itself creating the possibilities of distinguishing the concepts of presentation, processing, organizing and structuring the information. They objectively come from the other aspects, among which in the first of all row are the logical and physical. The last is incident to the material environment, on which are fixed the informational values, but the its achievement depends of the possible methods of organization on this environment, of the proceedings of data access, intervention with corrections, of their logical structuring, a.s.o.

The logical appearance is concerned with the issues of content interconnections and interactions between the informational units, independent of their physical environment of fastening and material presentation, for that raison including the syntactic, semantic and pragmatic concepts.

Be observe that the economic information is of the pragmatically content, as it materializing and orienting its content to the purposes of the managerial system. Since, the management in general, and particularly, the economic, are achieved by the agency of certain functions, formed on the basis of the specific and the volume of solution of the certain inextricably interconnected complex issues in the basis of them predestination, it can be ascertaining and the existence of the functional concept of situational information. In present the continuation of materializing of the semantic concept, formed by the union of semantics and pragmatics of the information and, in this way, starting from the purposes of the using in the managerial processes, predetermining their content and sense, Whereas, at the moment, en masse, the functions of economic management are fulfilled by the subject, outside of the informatics system, the functional concept is of the external order, being achieved only in the managerial aspect. Its thus can be considered and of the reason that this interpretation starting from the harming with the necessary information of certain functions and purposes of management system. Because in this system the information is subjected of various informational, structural procedures, and operations of calculus, a.s.o., they can be elucidated and in the transformative aspect.

On the modern positions, when the technical means have found wide spreading in the informative activities, the functional aspect interpreting the information as a consumable product, while the transformative them treating as the object of calculation (arithmetic operations, the economic-mathematical methods) and in calculation (information and structural procedures) processing.

The transformation and functional application are essentially influenced by the level and adequacy of preparation of the information for their achievement. The meaning of this preparation itself reducing to the formation of such forms of data organization and structures, which would contribute to effective performance of, tied of the obtaining of superior consumable quality informational products, the transformative works. Therefore, the processing of the information needs to be elucidated in the interconnection with their organization and structuring.

Classification and interconnections of basic aspects and concepts of the approach evolution of economic situational (informative) information is shown in fig. 1 [1, pp. 25-26; 2, pp. 15-17; 3, pp. 31-32].

As the obtaining of the values of any informational units taking place by effectuation of certain procedures and operations, the decisive role in ensuring of the existence and processing of these values having the concepts of examination and taking into standing account of the situational concepts and of their achievement. At the same time, the latter is necessary to be elucidated having in view the specific of the interpretative managerial and transformational aspects, but of this – of logical and physical aspects.

4.2. The conceptual integration of the transformation (processing) of situational information of the unitary economic managerial system

Within the framework of the unitary economic informational process decisive is the transformational concept of information, for which the organizational and structural concepts

are "subordinate", and therefore by its self-predetermined. The predominant value it is motivated by the importance of obtaining of the informational product, the other aspects only contributing to this.

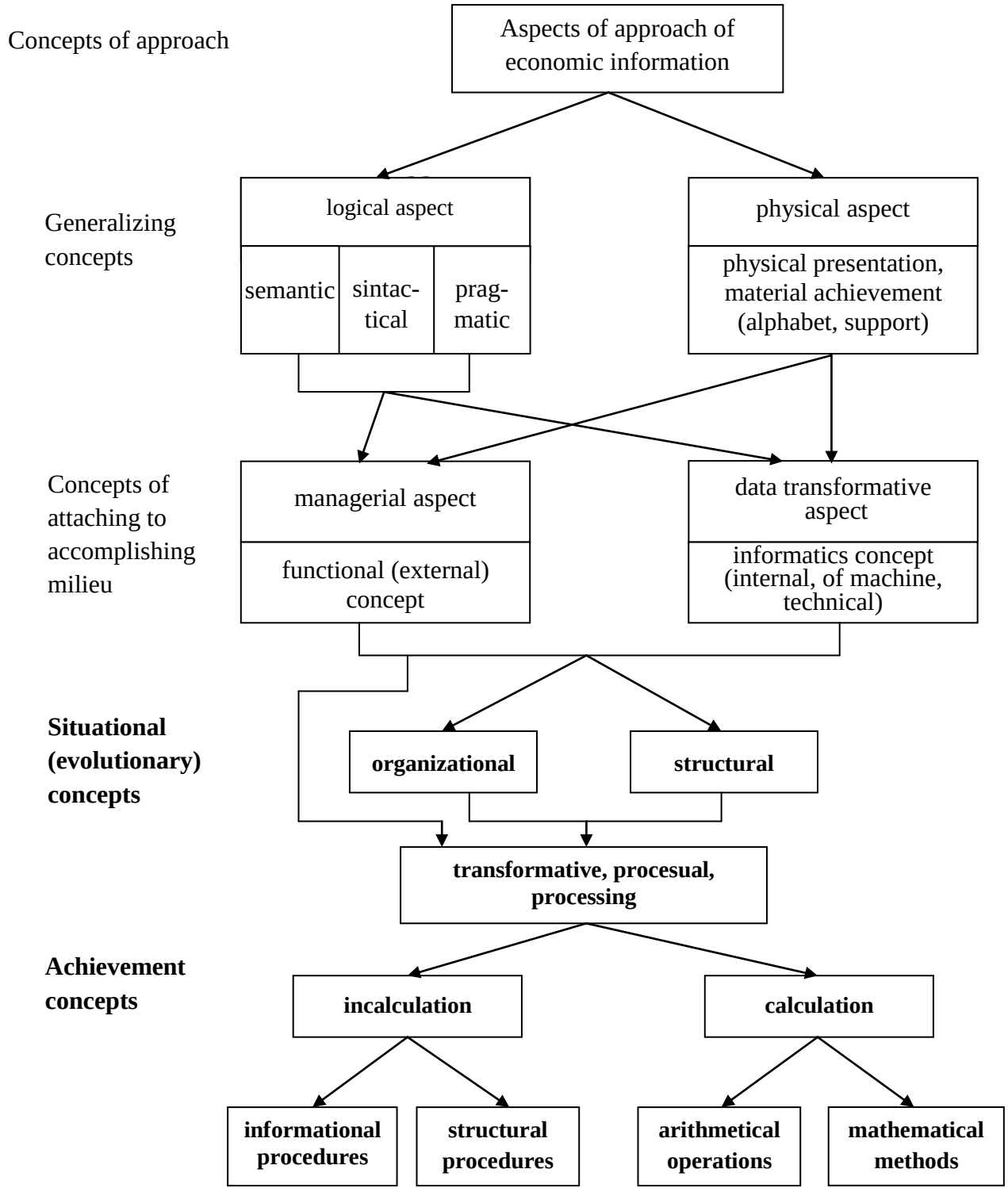

Figure 1. Classification and interconnection of the interpretative aspects and concepts of integrated approach of the economic situational (informative) information

Since, until present, as a rule, any exerted concerning of the information action is considered right the processing, regardless of the influence on of their composition, structure, presentation and values, appearing the necessity of materialization of this notion. Because that any operation neither deviously not changing the structure, presentation and value of the informational unit and in consequence of its effectuation don't is obtained any finished or semi-finished product, it can be considering that any performed action on the information is transformative, it is contributing only to their modification. Therefore, the transformation includes itself the modification of the presentation, organization, structure, values and functional content of the information.

As well as for the organization and structuring, the transformation, is own the same two environments - functional and informatics. The first of them it is carried out in three basic stages: appearance ("birth"), processing (extension or detailing of the value, "development") and utilization ("death") or the transition from the informative to the decisional information (see fig. 2) [1, pp. 150-154; 2, pp. 94-95; 4, pp. 87-101; 5, pp. 138-144].

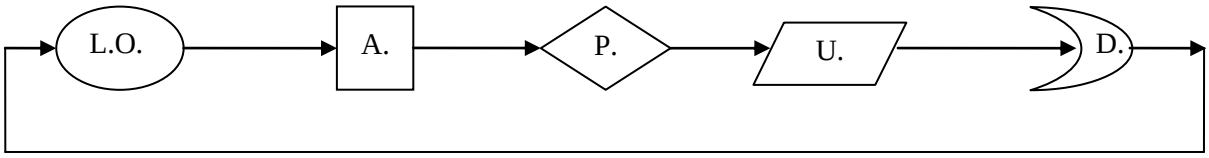

Figure 2. The composition and interaction of the transformation stages of economic information: L.O. – leaded object; A. – the stage of appearance (obtaining) of values of the initial (primary, elementary, intermediate) situational informational units; P. – stage of their processing; U. – the stage of using of the informational products; D. – decisions.

The scheme of the fig. 3 [1, pp. 155-161; 2, pp. 96-99, 4, pp. 87-101; 5, pp. 138-144] revealing the operational content of these stages, according to which primarily its taking place the forming of the most elementary (primary, initial) values of the situational informational units, at the second stage, thanks to the processing of these values in the informational, structural and calculation way, itself producing the extension or the narrowing of the spatial and temporal reflectors (descriptive) rays, in consequence of such processing the obtaining of the situational informational product; at the third stage, the result of the analysis of the values of such product, and sometime and primary data (intermediate), itself formulating and taking the necessary decision, in the final refusing of the informative and leading of the decisional information.

Compositionally, the informatics appearance of transformation of the economic information values in principle itself distinguishing from the functional aspect by a fragmental (partial, by jumps) performing with the help of technical means and devices of the informational processes [6, pp. 41-51; 7, pp. 116-127; 8, pp. 104-118; 9, pp. 511-514].

To mention that some operations of the functional appearance, belongs to the first and third stages are fulfilled by the technical means of the second stage. In this sense, itself imposing the trend of minimum diminution of composition of the external (functional) transformative operations, this being motivated by the its achievement in the interior of technical means. Moreover, it is not excluded that in prospect all the stages of the transformation of economic information will be achieved by a single category of technical means. Therefore, once with

the advancement of scientific-technical progress, compositional, both the stages, and their operations, will be essential reduced, in the ideal, till an action.

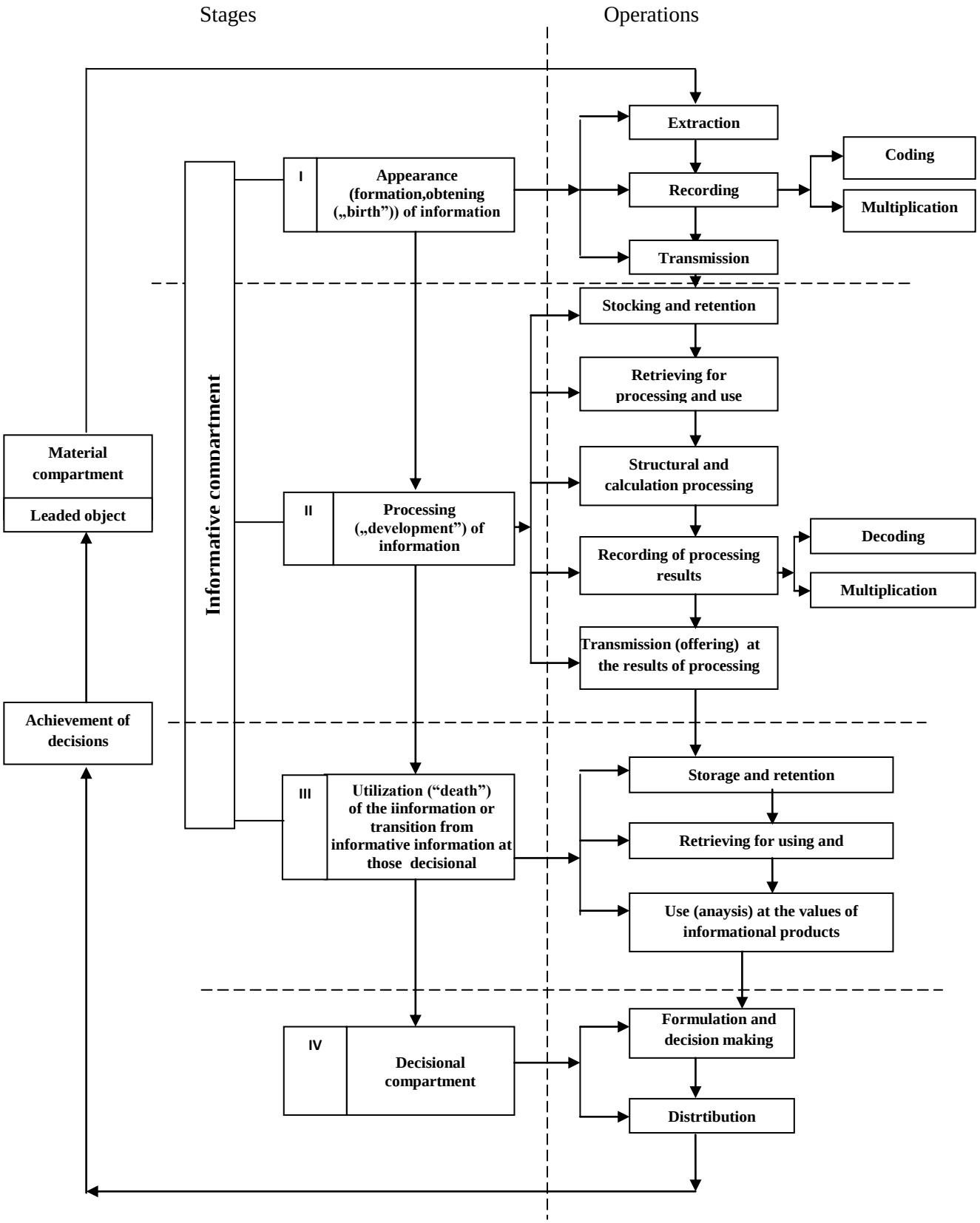

Figure 3. The composition and operational content of the stages at transformation of economic situational (informative) information (functional aspect)

About those mentioned, the varied diversity of the levels of informatics achievement of the functional transformative appearance still is caused and by the dynamics of the rapidly evolving of economic material and informational areas, that do not allowing the full automatic achievement not only of the first, but and of the second domain; of the extensive variety of the environments of the physical presentation, organization and manipulation of the functional informational units values, what complicating the composition of these interfaces and maintaining the uncomfortable level of the quantification of processes, in such a way, multiplying them on the ends; of the inadequate level of such environments (in combination or separately) of physical requirements of the multi-variant manipulations of the informational units values; of the physical (direct or intermediate) impossibility of aggregation (connecting) of the informatics technical means with the materials objects (processes) or lack of communicative interfaces between them, in such a way, separating and varying them.

Above enumerated technical (physical) factors, at the compositional varying of functional transformative operations contributing and the level of elaborations of the interfaces – resources (informational, technical, programming, technological, a.s.o.). the situation, is added them according to which once with the massive implementing of the various informatics mains and methods, has expanded the variety of semiotic presentation of the informational units values.

Concerning the existing situation itself certifying that the informatics means, environments, methods covering only partially the works of I and III (primary and using) stages, while the II stage (of processing), with some conventionality, is in full performed by them. Simultaneously, already itself observing the automatic realization of multiple informational procedures of a single technical mean, thanks it aggregation with other technical means or equipping with new devices. In this regards can be mentioned thus informatics technical mean, how there is computer, that automatically performing not only the structural procedures and operations of calculation, but also, through allocating and recording, the data introduction, them transcription from a type of memory on another, the data exchange between the internal memory and the processor, displaying the results of the processing to the monitor and the printer.

The discontinuity and incompleteness of informatics achievement of the I and III stages of economic informational units values transformation practically does not influence, and therefore retaining the composition and sequence of the operations in the order own of fulfilled in manual mode the functional appearance. Very much as the logical content of the solving of the problems predetermining the composition and sequence of the fulfilling of procedures and operations, the latter are identical both in the functional and informatics aspect. That's why their concordance can be established through agency of the equivalences and the methods and proceedings to them achieving.

In this context certifying the uniformity of achieving of the first (functional) and the extensive variety of the second aspect. This it is explained by the fact that the technical means, is the most imperfect, the methods and the modalities of works execution are more varied. At the same time, currently for the economic informational activities that regularity is not characteristic, because it is determined, especially, by the pronounced variety of the informatics means and environments.

That's why, after the composition and the sequence of performing the procedures and operations of both aspects are identical, while the physical modalities of their achievement there are pronounced varied, this being explained by the unsatisfactory functional level of informatics technical resources. In its turn, the created situation is the consequence of the total absence of a technical policy (concept)ion) at the universal level, what would merge the evolution of the technique of materials processes with the evolution of informatics technique. The informatics technique evolving without systemically orientation to the domain, at that reason itself requires obviously the need to starting not from the means and methods to the sphere of their application, but vice-versa – from the field of activity – to the necessary means and methods of supporting the evolution of this field.

Regarding the accomplishment of concept of the trend of further evolution of informatics technique, can be highlighted two variants, one of them reduced to the invention and the application of technical means for each technological action or operation, and other – to the creation and using of a so mean, what would automatically performing all the actions and operations of the unitary technological process of production the finished or semi-finished product.

At the moment, however, moreover, in the predictable prospect it's difficult to assume that such technical mean will be invented and put in function since the reasons of compositionally, structurally and quantitatively rapid dynamism of the domain of application, inadequate level of the classical and applied sciences of the requirements of informational reality. That's why it is not achieved, and probably never fully will not failing with informatics achieving the unitary economic informational process.

For the establishment, contribution and support the correct orientation of the such trend of coverage coming out the necessity in highlighting and concordance of equivalents of the functional [1, pp. 169-199; 9, pp. 511-514]. and informatics technological units of economic informational activities (see tab.1).

Table 1. Concordance of equivalents of the structural functional and informatics technological units, of the sequence of their execution in the unitary economic informational process

Structural technological entities	Sequence of performing	Aspect of achievement	
		Functional (external)	Informatics (internal) physical)
Process	7	+	
Phase	6	+	
Stage	5	+	
Sub-stage	4	+	
Procedure	3	+	+
Operation	2	+	+
Action	1	+	+

The transformational framework of the economic information including and the activities of the data protection that produces with the help of various technical, programming,

organizational and social means and methods. Their necessity is motivated by several specific features, the main being the interconnection and interaction transformative informational works.

Protection is achieved through the reliability and security of all other resources (technical, programming, technological, economic, socio-legal, etc.), the latter contributing to the overall efficiency of the functioning of economic informatics systems (E.Ic.S.), especially, the technical ones are fulfilled in the shape of network (see fig. 4).

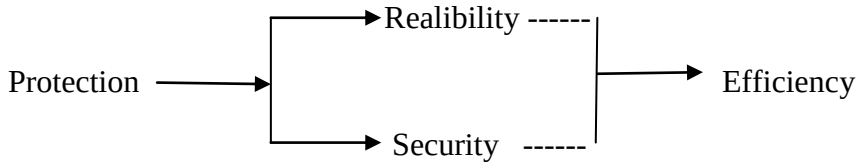

Figure 4. The interconnection of the parameters of the protection and efficiency of E.Ic.S functioning

If the protection is of general order, then the reliability, security, confidence, integrity and the risk (peril) in different weight at the miscellaneous new informatics resources it is relative. This and imposing the granting of increased attention for any variant of such resources protection.

4.3. The conceptual estimation and selection of the basic informatics resources of processing of situational information of the unitary economic managerial system

According of the concept starting from the domain of application, so far until now accumulated experiences and scientific formulate theses, the composition and the sequence of selecting of the informatics resources for the economic informational domain requiring above all the determination of methods of organizing, structuring and functioning of economic informational resources [10, pp. 100-116], then in this basis - the selection technical, mathematical, programming, organizational-technological and social resources.

At the moment the better elaborated, more conceptual and more limited fulfilled in the informatics practice, are the methods of data organizing on the computer memory physical space, in dependence of which type they can be external and internal [1, pp. 47-96; 2, pp. 33-48].

The estimate of any data structures in the basis of the value only of a criterion, the basic being the efficiency of sorting, recovering, economy of the memory space, conform and promptness of the correction, a.s.o., is one-sided and, so, erroneous. Moreover, some criteria are unacceptable for certain data structures. Therefore, for accurate and authentic estimate data structures is necessary to calculate and involved the values of several criteria, which ensuring multilateral appreciation.

In the case, when the values of several criteria relating to some and the same data structure are extreme, it is necessary of appeal, on the basis of specific criteria values, to the calculation of generalizing criterion. The generalized estimation of data structures can be performed and by

the comparison of pairs of the structures values criteria [1, pp. 129-148; 2, pp. 168-176; 4, pp. 74-83; 5, pp. 117-132].

In such way, the determination of the variety of concordant data structure with the informational entity, there is necessary to produce in the following stages [1, pp. 292-304; 10, pp. 100-116]:

1) establishing of the composition, structures, modalities and methods of functional organizing, transformative procedures and operations own of informational entities;
2) the choice for their informatics realization of the possible data structures, of physical packing on the any category of memory methods, as well as and transformative procedures and operations;
3) calculating of the criteria values of estimation of the data structures, methods of physical packaging and already selected at the second stage them transformative procedures and operations.

The estimation of the processing procedures and operations of information depending on the modalities of their fulfilment and the purposes of this estimation, taking into account that it can be carried out both to determine the composition of the technical resources, as well as to detect the composition of the data transformative works, a.s.o. However, in such a situation overlooking the main goal – getting of a superior quality informational products. From this reason, in our opinion, more adequate for the estimation transformative procedures and operations would be the values of the indicators of quality of these products. At the same time, the limiting of the estimation only with these indicators would be one-sided. That's why it's desirable to be applied and the quantitative criteria that characterizing the number of procedures, operations, instructions, a.s.o., which is returning to an informational unit.

All the related to the estimation and the selection of methods of data organizing, structuring and transformation works following the purposes not only of the improvement of informational resources, but the primordial – to determine as accurately and precisely the composition and the required number of each category of technical informatics means. But, in advance of this determination requiring a number of preparatory works, among them of the basic being the systematization of the informatics technical means (according of certain criteria of the selection) and material sources of information; determination of the composition of exploited parameters and characteristics of these means, on the basis of which it is producing the selection.

Establishing the composition and number of technical means dividing into such two steps, as the calculation of the technical exploitative parameters values, which itself have such a meaning, according to the preliminary determined composition and volumes of information and performed works on them; selecting from the established so range means of the corresponding calculated characteristics in the framework of the preparatory works. If that means there are absent, then, on the basis of the calculated features values, can be concluded the drawn of them manufacturing [1, pp. 306-325; 2, pp. 175-177].

It could be mentioned that after all the issue of the in question selection reducing the formation of a such chain of technical means what through their interconnection and interaction would provide the calculated speed of the data processing. This one indicating to

the leadership of that concept, according to which the works of the selection of such means must let being effected in complex, concomitantly and in the same time, as a class or category functionally and productivity influencing the other one. At the same time, the composition and the number of technical resources depending not only of the characteristics of informational resources, but also of the specific of the other informatics resources [10, pp. 100-116].

Regarding the selection of mathematical resources it comes out that it takes place on the basis of the degree of correspondence of accuracy and authenticity of the content issue wording, of the as possible concordant of this content of economic-mathematical methods and models application, of maximum precise algorithmization of the same content in the situation of disagreement of using the standardized mathematical resources. [1, pp. 326-340; 4, pp. 199-206; 5, pp. 324-336]

Although the mathematical resources can influence those technical and programmed, decisive in the process of their selection are the specifics and properties of the economic informative issues, which disposing of the essential communities with the informational resources of the same category. Without them taking into account is impossible the selection of elucidated resources [4, pp. 59-83; 5, pp. 93-132].

The results of the selection of informational, technical and mathematical resources motivating a natural transition to the selection and elaboration of programmed resources, distinctive effected for the systemic and the applicative, the latter being of standardized and individual order (of the user). Actually, of the selection are submissively the systemic and standardized, with possible modifications of the latter, and the original – of elaboration [1, pp. 340-346; 4, pp. 207-210; 5, pp. 337-342].

After the selection of the elucidated a until now, determining the composition of organizational-technological resources, during which effecting the establishing of the composition of external and internal constituents type; the highlighting of each type structural units; the distinction of the units which soliciting or not the involving of the subject; the definition of the succession (order, tidiness) of the location of organizational constituents in the unitary process of their functioning; determining the complete composition with the selection of the most rational and efficient interconnections and interactions, which ensuring the preliminary established functioning of organizational-technological constituents; the examination, analysis and estimation of the various schemes of the spatial location of the organizational components and functioning in the temporary expected regime, with the definition of the most optimal from them; the highlighting, analysis and assessment of possible methods and procedures of the achievement of the organizing and functioning of organizational-technological components; the determination of the composition and volumes of necessary socio-economic resources for the ensure the use of these components [1, pp. 346-359; 4, pp. 223-231; 5, pp. 343-376; 11, pp. 104-113].

Very much as currently the performance level of the computing technique allowing the effectuation of the works of data organization, processing and using within the framework of each job, the most indicated way of achieving the economic informatics processes is the operational, and the most adequate organizational form for their daily functioning– the network of informatics activity of the specialists posts. The last is advisable for any economic

material or organizational units, since it providing the interconnections and interactions of the material and informational activities in any special rays and the functional regimes. At the same time, having in view the fact that such a network neither deviously not covering with the automatic achievement all operations of the incorruptible economic informational cycle, in prospect it is necessary be oriented towards the constitution of the so form what would be fully "able" to translate into reality this cycle.

With a view to ensuring on long-term of the compositional, structural and sustainable functional stability of a such networks there is important the determination of the principle, on the basis of which it is necessary to established the membership, destination and the place of elucidated networks within the framework of the general managerial system of the national economy. In this regard, taking into account that the more reliable is the structure of production of the economy, the units of which are serviced by certain managerial levels, imposing the organization of informatics networks for each such level with their framing in the economic national informatics system, the technical basis of which would be the unitary global network.

Also, the reliability of the creation and the functioning of the economic informatics systems of any financial-administration level is ensured and of the social-economic resources [1, pp. 359-368; 10, pp. 100-116; 12, pp. 175-187]. Among the base social it is considered the legal, normative, administrative and of psychological order resources. In the process of them selecting the main criteria, which is necessary to itself leading, are the accuracy and adequacy of their application in the real domains, the exactly conformity of their content to the concrete environment or the event, the formulation and taking decision in concordance and with the required precision.

4.4. Trends of the evolution of functional-informatics integrated informational systems of unitary economic management

The final goal of the integration and the selection of informatics resources consists in the elaboration and ensuring of working functional-informatics integrated informational systems. Attainment of this goal can be achieved on the basis of the organizational forms, suitable of the domains of informational resources evolution - managerial and informatics. The sinergical approach, the interconnected and interactioned working of such forms requiring their realization in the shape of the data automatized banks, which have evolved from integrated automatized data-processing systems (A.D.P.S.) at the automatized data informative banks (A.D.Iv. Bn.), and from the lasts – to the automatized data intelligent banks (A.D.Ig.Bn.). Having in view of the necessity of them functioning in the regime of real time (analogical) and directly to both compartments (material, informational (informative, decisional)) of the unitary economic managerial process, they are considered right operative (fig. 5) [1, pp. 223-282; 4, pp. 129-133, pp. 189-198; 8, pp. 104-118; 9, pp. 511-514; 12, pp. 187-192; 13, pp. 105-112; 14, pp. 104-113].

The variety of the elucidated up forms is motivated not both of the categories of human economic activities (material, informative, decisional) and of the evolutionary level of the mains and methods of their achievement, of the essential dispersion in space and time. Since

on the point of view of the unity, in the process of functioning of the operative economic managerial system (O.E.Mg.S.) the forms of its accomplishment constituting an incorruptible inseparable ensemble, requiring its simultaneously compositional, structural and functional interpretation.

In the case, when the A.Ig.D.Bn. covering entirely both the material compartment and informational sub-compartments, this bank can be equalizing with automatized (automatic) economic management system (Az.(Ac.).E.Mg.S.). That is why, for A.Ig.D.Bn are owns the same principles of the constitution and functioning what and for the Az.(Ac.).E.Mg.S., among which being fundamental the principles of systemic approach, new issues, main manager, continuity of the evolution, maximum typefication (standardization), co-ordination of functioning of the compartments of Az.(Ac.).E.Mg.S., of unity of actual and prospect goals, flexibility of informatics resources, their selection, a.s.o.

U N I T A R Y E C O N O M I C M A N A G E R I A L P R O C E S S (U.E.Mg.P.)		
MATERIAL COMPARTMENT	INFORMATIONAL COMPARTMENT	
	INFORMATIVE SUB-COMPARTMENT (Iv.Sc.)	DECISIONAL SUB-COMPARTMENT (Dl.Sc.)
A.O.T.D.Bn.	A.O.Iv.D.Bn.	A.O.Ig.D.Bn.

Figure 5. The place and of covering rays of the forms of informatics achievement of compartments of the unitary economic managerial process (U.E.Mg.P.): A.O.T.D.Bn. - automatized operative technological data bank; A.O.Iv.D.Bn. - automatized operative informative data bank; A.O.Ig.D.Bn. - automatized operative intelligent data bank

As previously established, the functioning achievement of the economic information system in the shape of unitary database maximum using both the priorities of the properties of information and the possibilities (capacities) of technical, programmed and technological resources, because it is always in the proper state of its values implication in the process of solving of any issues. But, the concept of A.Iv.D.Bn., as well as the automatized data processing integrated system (A.D.P.I.S.) inciting and imposing the solving of the issue of safeguarding of adequate of data reliability and as of data exacting protection.

As the automatized economic intelligent data bank (A.E.Ig.D.Bn.) has formed in the desert, but has advanced from the precedent isolated forms of the integrated economic data organization, processing and using (A.E.D.P.I.S., A.E.Iv.D.Bn.), in our opinion, such notion is more adequate, it reflecting more correctly the composition of the constituents and the working modality of the informatics forms of formulation, taking and achievement of the decisions.

On the basis of this raison become evidently that the inclusion of the knowledge base (K.Bs.) in composition of expert system (E.S.), which it manipulating, don't is exactly correctly. Just like the A.E.Iv.D.Bn. consists of two compartments - economic informative database (E.Iv.D.Bs.) and economic informative database management system (E.Iv.D.Bs.Mg.S.), and

the A.E.Ig.D.Bn. compositional comprising the unitary economic knowledge base (U.E.K.Bs.) and the economic expert system (E.E.S.), the first (U.E.K.Bs.) containing the informative and decisional products, and the second (E.E.S.) presenting a programming system, which is manipulating.

Both the elaboration, and functioning should start from the concept of the wholly achievement of the economic unitary management process (E.U.Mg.P.), beginning of the material compartment (M.C.) and finalizing with material accomplishment of the taked decisions of the informational compartment (Il.C.) and carried out of the M.C.

The systemic approach of the E.U.Mg.P. requiring the interpretation of A.E.Ig.D.Bn. in the shape of the unitary material-informational nucleus. In such situation, because of multilaterality of economic processes and as a result – of the cardinal specific character of any category of these processes, the A.E.Ig.D.Bn. may contain some types of the expert systems, of the economic technological (E.E.T.S.) and informational expert systems (E.E.Il.S.).

The extreme complicated character, the enough varied composition of the constituents, the pronounced variety of interconnections and interactions between them within the framework of A.E.Ig.D.Bn. soliciting the making evident, elaboration and achievement of the lot of entirely specifically nature of the interfaces. Also, the spatial and temporal rays of functioning of the A.E.Ig.D.Bn. inciting and will incite the major difficulties regarding the its constitution, as there are of the social order, referring to the society, it subdivisions and to the any partly individual.

All has been elucidated so far, abundantly confirms the fact that in present time and in predictable prospect the creation a complete A.E.Ig.D.Bn. practically presents an unachievable issue. Yet, in the theory and the practice of the elaboration and working of the functional-informatics integrated informational systems is necessary to take into account of the conception of this category banks.

5. Conclusions

The elaboration and assurance of the implementation and functioning on a scientific basis of the unitary, functional-informatics integrated economic management information systems requires the performance of the following works in the next sequence:

1) highlighting, systematizing, classifying the aspects and concepts of the integrated approach to the transformation of economic situational (informative) information and establishing the interconnections between them;
2) delimitation, ordering and functional-informatics integration of the transformational units of the informational and data units values;
3) on the basis of the integrated organizational, structural and transformative units, their quantitative and qualitative characteristics, the effectuation of the estimation and selection of informatics resources;
4) based on the selected informatics resources – the elaboration, commissioning and ensuring the efficient daily working of the economic management, functional – informatics integrated informational system, according to the concept of automated data banks.

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Rezumat

De pe poziţii de unitate indivizibilă sunt evidenţiate, sistematizate, dezvăluite şi integrate aspectele şi conceptele realizării transformării valorilor entităţilor informaţionale ale sistemului de management economic unitar. Concepţia sistemului managerial este bazată pe sinergia nemijlocită a proceselor materiale şi informaţionale (situaţionale şi decizionale). În această bază este examinată şi efectuată înglobarea într-un tot integral a formelor (unităţilor) transformative a informaţiilor proprii mediilor sistemului de gestiune economică şi sub-sistemului său informatic.

Conform concepţiei pornirii de la domeniu spre mijloacele şi metodele asigurării existenţei şi evoluţiei lui, sunt elucidate principiile generale de selectare a resurselor informatice. În rezultatul determinării componenţei şi volumelor resurselor selectate, în plan conceptual sunt stabilite compoziţia, structura şi relaţiile funcţionarii constituentelor sistemelor informaţionale de management economic funcţional - informatic integrate. Pentru astfel de sisteme sunt elaborate şi dezvăluite tendinţele realizării lor analoage sub formă de bănci automatizate operative de date informative şi inteligente.

***Cuvinte-cheie**: aspecte, concepţii, transformare, selectare, resurse, sisteme informatice integrate*

Аннотация

С позиций неразрывного единства выявлены, раскрыты, систематизированы и интегрированы аспекты и концепции их реализации относительно преобразования значений составных информационных единиц, принадлежащих единой (неделимой) системе экономического менеджмента. Концепция такой системы зиждется на непосредственной синергии материальных и информационных (информативных и управленческих) процессов. На этой основе рассмотрено и выполнено включение в единое целое форм (единиц) реализации преобразования информации сред системы экономического управления и её информатической подсистемы.

Согласно концепции отправления от области применения, к средствам и методам обеспечения её существования и эволюции, рассмотрены общие принципы выбора информатических ресурсов. На основе выбранных ресурсов, в концептуальном плане установлены состав, структура и взаимосвязи функционирования составляющих разделов информационной системы функционально-информатического интегрированного менеджмента. Для такой разновидности систем разработаны и раскрыты концептуальные формы аналоговой реализации в виде автоматизированных (автоматических) банков информативных и интеллектуальных данных.

***Ключевые слова**: аспекты, концепции, преобразование, выбор, ресурсы, интегрированные информатические системы*

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