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# The motivation of the imperative integration of the functional and informatics processing of the economic situational information.

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**Abstract:** There are revealed in evidence, enumerated and examined the essential factors that motivated the integration of functional and informatics processing of situational information of the unitary economic managerial process. The fundamental ideas of the place, role, interconnections and interactions among the situational (informative, descriptive) information within the framework of the managerial economical system are formulated. It's analyzed the conceptual essence of these factors .

**Keywords:** motivation, imperative, functional, informatics integration, processing, economic situational information.

**Introduction:** The gradual evolution of the economic informational domain and the informatics substructures, which ensures it functioning, requires elaboration of the certain fundamental theoretical conceptions of the organization, structuring and transformation of the informative (descriptive, situational) information circulating in the medium of the economical management system in the pressing interconnection and interaction with the milieu informatics subsystem, that damages first.

The necessity in such an approach it's motivated and justified by the existent situation, when the economical informational activities aren't effectuated in the both named areas - "external" and "internal". Because of the permanently pronounced and practically boundless in this sense dynamics of economical material processes, which aren't being evolved without informational matching, there is almost impossible that mentioned situation would someday change in the direction of diminution.

This is the main reason, in the both: functional and informational aspects, the integration of the informational processes and the achievement of their transition from one (the functional) into another milieu (the informatics) and opposite, will probably remain in present.

Therefore, it's significantly valuable and they will dispose the correct estimation and selection in this basis of informatics resources, the following and the guidance of their results indisputable to the contribution and to the efficiency of the activity of economic informatics system (E.Ic.S.) and, not the last, to the increase of general, professional informatics and informational qualification and culture.

**Content** The problem of integration of the methods of functional and informatics processing is required by a lot of objective and subjective factors and circumstances, which is taking of the present, but particularly in a long term. Virtue of innovation, anticipated by revealing and explaining the essence of the latter (factors, circumstances), it's necessary to be taken in the view by detailed knowledge, deep awareness and taking in permanently consideration of their, convincing confirmations of the need persevering preoccupation of examined problems both the conceptual (theoretical) and practical (applied) plans. In connection with this, first of all, himself demanded to be cleared some new notions derived from the created situation in the domain, to determine the role and the place of such a category of information within the economic management unitary system, in order that afterwards it would

motivate the imperative of the named integration, and the contribution to its factors.

Concerning the notions brings the followings. At present and in the foreseeable future it's certified the existence and circulation of economical information in two areas – managerial and informatics. The first it still considered “external”, as informational processes are unfurling in the environment of the managerial system, in the outside of the technical means, while the second is considered rightly “internal”, the same processes occurring in the interior of these means.

It stressed currently that of all those three informative stages of examined information (1 – primary (initially), 2 – processing, 3 - utilization) only the second is prevalent achieved in informatics modality.

Thus, a lot of procedures and operations of these stages, but also some characteristics for the stage of the data processing, remain fulfilled in manual modality.

Since the economical administration is scoring through certain functions (standardization, regulation, forecasting, accounting, a.s.o.), and lasts thanks to data transformation, these are unailing through damaging themselves with information products, and with the processing of information within they, in our opinion, can be determined as functional. Such processing is being conditioned and started from the specific of leadership content of the problems of each functions, It's being predetermined and therefore is decisively influencing the informatics processing, while the latter is manifested through various ways of implementing in the physical environment of technical resources. The majority of data processing procedures and operations derived from managerial content of problems are not fulfilled of the subject. In this case, after the structure, composition and sequence of making it, this form the equivalent of those manual, still the informatics – the equivalent of those automatic.

Because of the pronounced dynamics of the terminology of domain investigation and permanently revision, there are enough formulated and used by large notions. Here is the answer to the

question why, in the time there are enunciation and elucidation of the sense of the new terms, himself requests certain explanations of the existents. In this context, taking it from the beginning, in our opinion, itself the notion of processing requires some determinations and clarifications. Thus frequently in practices and in informatics theory any action exerted on the information is interpreted as information processing, indifferently of the influence or not, the latter on this composition, structure and values. From our point of view, in informational environment, this term can not always be applied to the more generalized sense, replacing any modification of information. Usually, this notion itself implies the calculation processing, the result of this, the changes and the value of the digital informational units.

Drawing a parallel with the material domain, it may come out that the processing of any resource tries to obtain one finished or semi finished product. However any deviously action without fail changes their composition, structure and value of information, after all following with the new product or the prefab. Hence, the more synthesized is the notion, the action exerted on information, is the transformation. Through it are understood any changes in the physical presentation form, composition and sequence distribution of information units within the entities, that includes them, their values as a result of information, structural and calculating processing. Generally, the transformation of information containing in oneself the modification of both the material appearance and the composition, structure, value and their functional content.

Lately, even more affirmative is winning the field the term of processing, which according to DEX means “... to process the recorded signals on the magnetic tape (support - out)”. As any informative action is physically fulfilled, it is thought that the processing is concordant with transformation, but it is achieved in informatics technical environment, with its own respective physical proceedings. So, the transformation itself refers more to the functional framework, but processing – to the informatics, both being of conceptual (imaginary) character.

Since in any domain, inclusively and the informational, of topical interest and better permanently dispose the automatic modality of achievement of works, in present material was to fit the utilization of term of the processing .All the more so that here are elucidated the problems of the constraint of transition and on this basis – the integration of functional (manual) with the informatics (automatic) achievement of the organization, structuring and processing through the selection of respective resources of fulfilling at the firsts

Referring to the categories of information circulating in the economic management system, it can be mentioned that depending on their predestination role, there is standing the situational and decisional information. The firsts, describing (reflecting) the existence and evolution of the managed object (process) in certain moments of time (past, present, future), periods of time (change, day, five days, month of work, a.s.o.), special scales (place of work, crew, sector, section, economic unit, a.s.o.) and the limits of evolution(rates, settlements, tasks). The second (decisional) being the basis of the initiation and guidance of the values during of fulfilled of material activities. Hence the situational information serves as substrate for the formulation of decisional units. At the same time, one of the situational information (of rate – setting, settlement, foreseeing, economic analysis) is disposing a decisional role, since, according to their values, is itself organizing the devolving and the working of the managed object (process), it determined in the measure of its actions.

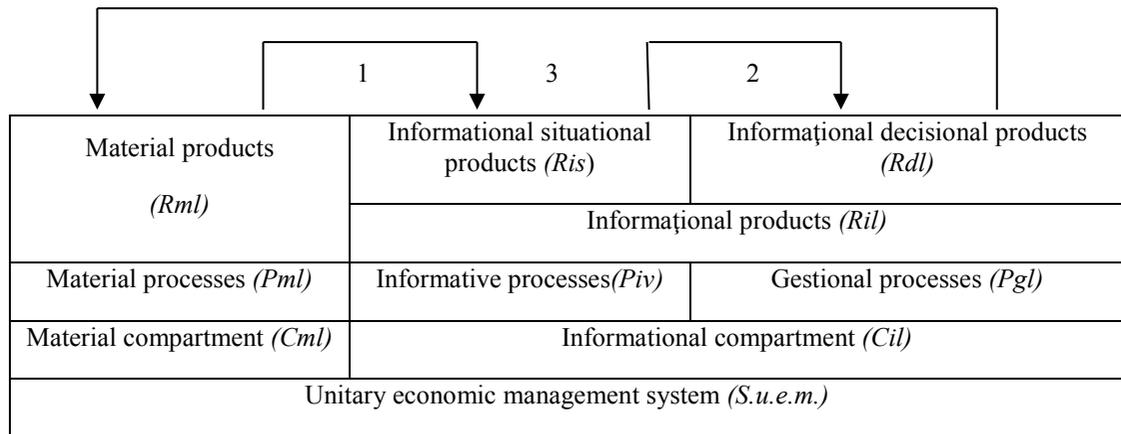
Holding account of these considerations, it may be concluded whom economical situation it is thought the information what reflecting (describing) the material situation of the careful management (of fabrication, commercialization, consumption), but economic decisional – the information, in basis of which starting and it organized most efficient the functioning of her.

After studying several bibliographic sources we can conclude that after completion of the role in the unitary managerial process it may be one synonymization of the situational information with the informative. Both are recently introduced by

the undersigned. In this connection some memberships of economic informatics domain think that the term of the informative information is tautology so it just means that exists a need to introduce such a term as not informative information, which in their opinion, is a nonsense. By the way, upon this conception is principled, it demand a certain retort to itself. First of all such position is incorrect. In the new dictionary of synonyms (authors: L.Seche, M. Seche, I. Preda, Bucharest, The publishing house VOX, the third revised and enlarged edition, page 185) it comes out that: “INFORMATIVE adj. informational, orientational (Prices)”, but in the Explanatory Dictionary of Romanian Language, second edition, page 491 “ – INFORMATIVE – A. informativi, e (romanian author), adj. What possessing the role to inform, what serving such informer, of information ...”

These definitions demonstrate the fact of existence of two varieties of information – informative and decisional. The first type only informs using description and explanations, but the second type is used for decision making and achievement of certain activities. This differences of information is motivated by the quality of this for the managerial process, which need to include the material and informational compartment. Therefore right source of report may serve not only material object (process), but the information itself. Consequently, in the unilateral descriptive aspect is justified and the notion of the informative information.

Due to the mentioned definitions, the information, which unilateral describe (reflect) the object (process) or action, take to help with molded situation only off on position, it considered informative. It can not serve like a basis of wording decision. For example, the accounting information, taking in isolation, without others categories of economic information express knowing of existence and evolution of the object (process) in the past. Only in combination with the foreseeing or standardization (settlement) information it contribute to the economic analysis, elaboration and wording of the certain decision. These things as standardization, settlement and foreseeing information, take particularly and reflect the limits or amble of the evolution in the future.



In accordance with the scheme in the fig.1, the tidiness of the descending decomposition on the making of *S.u.e.m.* in the constituent component parts can be described through following analytic structural formula in the next succession:

$$S.u.e.m. \equiv Cml \vee Cil \ (1) ; Cml \equiv Pml \vee Rml;(2);$$

$$Cil \equiv Piv \vee Pgl \ (3); Ril \equiv Ris \vee Rid \ (4) .$$

The examined scheme is elaborated starting with the principle of the motivation which predetermine the following consecutivity of functional process of *S.u.e.m.*:

$$S.u.e.m.: Pm \rightarrow Piv \rightarrow Rdl \quad (5)$$

But, it is not excluded on the route of the evolution of each categories of processes so they produced tasks (returns, confirmations) towards the reality of the material, informative or decisional environment. That is why the above order is it's own for the situation when the managed object (process) there is in the dynamics of situation. If it's activities aren't at the initial level, then it is elucidated the presented order:

$$Pdl \rightarrow Pml \rightarrow Piv \quad (6)$$

The same scheme and the analytic formula (3) – (5) confirm the fact that in integral gestational process the situational information holds the

intermediate position, being formulated in the following evolution of the material activities, after processed in the managerial system with the main goal of obtaining of the values of decisional units, that in continuation are offered to the leaded object for ensure in accordance with the lasts of its evolution of remotely. In this sense, the value of the examined information it's predetermined on their role as “primary matter” of starting of the gestational process. Without their scoring last it can not be initiated, as well as disposed on the “mission of link of the liaison between the managed and gestational under systems of the unitary economic managerial system. From this point of view, in the environment of custom system they are on the decisive predestination, as well as their absence is leading to the interruption and impossibility of the unfolding the indissoluble gestational process.

**Conclusions:** In the base of affected findings it can be mentioned that any preoccupations of investigative, elaborative and functional order of such information are always current and important.

Once there have been established the functional domains ( “external”, “internal” ), the covering level of the informatics transformative means and methods, the contribution level of the realization of gestational functions, the compliance level of the aspects and the methods of its

elucidation ( functional – manual, informatics - automatic), as well as the clarification of the transformative, processing and assimilative notions of situational information with the informative one, it starts creating the best conditions for the establishment of the imperative integration of functional and informatics processing of the situational information.

In this context there can be mentioned the following decisive and contributive factors, which requires the objective preoccupation of such problematic integrations as:

1) the permanent trend for automatic processing (not automatization) in interconnection and interaction of both categories of informative resources ( situational, decisional ) at first stage, and of material and informative in the same integrated modality at last stage. Such mode of approach will contribute in the end to the establishment of the economic system automatically , which due to the Cybernetics father - N. Viener - statement was „ ...the dream of the XX century”;

2) such method of conception requires the integration of the functional ( manual ) and computer ( automatic ) processing of material and informational works within the framework of unitary management system;

3) such integration of elucidated processes is a preliminary order and contributes to:

a) the highlighting of the entire composition and establishment of the logic of succession of the interactions between operations of the unitary transformational informational process , starting with the organization, structuring and finalizing, and the obtaining informational finished product;

b) the classification of operations of this process in manual and automatic operations ;

c) the highlighting of the modalities of transition from manual to technical operations;

d) the fastening and elaboration of informatics interfaces, which ensure such a transition;

e) supporting of automatic continuity of achievement of integral informational processes.

4) the economic situational informational field is significantly partly covered with informatics means and methods, practically all their workings belonging to the processing stage;

5) this covering will contribute to the supporting of automatic evolution of management functions;

6) since at the moment a lot of operations of the all three transformative stages are manually effectuated, a problem of the present, but also, especially of the future, is the ensurance of the easy, slowly and without suspensions transition from manual to automatic . In this sense primordially it's necessary to establish the composition and possible proceedings of achievement the operations in both environments ( manual, automatic ) for the integration (inclusion) within the framework of unitary informational process;

7) the automatic thoroughly achievement of management process, contributes its totally approach;

8) in the labour of processing more than 70 – 75% occupy the informational and structural procedures;

9) the rational organization and structuring of information increases the efficiency their processing;

The thorough knowledge, the awareness of the impartiality role, place, essence of the economic situational information, the guidance of the integrated conception of their functional and informatics processing, finally offer the conditions for both material, and spiritual prosperity of the human society.

## References

[1] Tudor Şt. Leahu The evolution, the specific and the problems of constitution and functioning of automatized banks of intelligent economic data (A.Bn.Ig.E.D).. The proceedings of the seventh

international conference on informatics in economy, Bucharest, may 2005. INFOREC Printing House, pp.845-851

[2] Tudor Șt. Leahu The functional – conceptual aspect of the composition, structure and working relations of the composition, structure and working relations of the automatized banks of intelligent economic data (A.Bn.Ig.E.D.). Volume X, 2006. The 2<sup>nd</sup> supplement of the review “Informatica economică”. International Conference “Knowledge management. Projects, systems and technologies”. Bucharest, november, 9-10, 2006. Volume II, pp.89 – 96. Review accredited by CNCSIS with B-level.

[3] Tudor Șt. Leahu. The Conception of the General Content of the Composition, Structure and Working of the Informative Components of the

Economic Knowledge Base //INFORMATICA ECONOMICA JOURNAL Published with the support of Ministry of Education, Research and Innovation CNCSIS B+,vol.XII, Nr.4(48), pag.105-112.Bucharest, 2008

[4] Tudor Șt. Leahu Imperative integration of functional and informative process of situational economic informatics. Academy of Economic Studies of Moldova. Scientific international conference materials „The Republic of Moldova: 20 years of economical reforms” september 23 – 24 2011, book I, pp. 462 – 465.Chisinau, C.E.P/ al A.S.E.M., 2011

[5] Tudor Șt. Leahu The organisation, structuring and transformation of information of the economic management system. Monograph. Chisinau, E.P.S.M., 2009, pp.90 – 96, 140 – 144, 169 – 191, 251 – 283.