Professor Ion IONIȚĂ, PhD
The Bucharest Academy of Economic Studies
Lecturer Liliana MOGA, PhD
"Dunărea de Jos " University, Galati

A NEW METHODOLOGY OF PROJECTING THE INFORMATICS SYSTEMS FOR ENTERPRISES

***Abstract**: If the Value Engineering is currently applied mainly for the projection/reprojection of the products, the researches made in the last twenty years allowed to elaborate new methodologies in order to extend the application area of the method to the technological processes of fabrication and to the investment objectives. This article is meant to present a new methodology elaborated by us, able to be applied in the projection/reprojection of the enterprises' informatics systems.*

The use of the Value Engineering instruments whose purpose is to project the informatics systems, which represent an essential part of the informational system, help to reconsider the managerial system's mode of action with all its subsystems, so as to bring increased benefits to the enterprise.

The projection methodology of the informatics systems, by using the Value Engineering concepts, completed with the two FAST diagrams that we propose in this article, might constitute the basis for the elaboration of a European ISO standard expected to ensure the generalization of the Value Engineering application in the European Union area.

***Key words**: informational system, informatics system, informatics applications, use value, function, cost function.*

JEL Classification: C88, M13, B41

1. Introduction

Our suggestion for the reprojection of the informatics systems by using the Value Engineering (VE) is meant to support those managers who are looking for a success formula in business, yet being aware of the influence of the informational systems on the economic and financial results of the enterprise they manage. Likewise, we address to the enterprises that developed and commercialize their finite product that is the informatics system, by recommending to them a method to develop new products on a competitive background.

The suggested methodology does not contradict the traditional methodologies of projecting the informatics systems, but it comes to complete them and enrolls in the present trend of evolution by its functional and systemic approach as well as by its orientation towards the beneficiary [1]. The new methodology is based on theoretical concepts and practical experience accumulated by the authors after some contract-based studies meant to reproject products, technological processes, investment objectives [4].

For the application of the theoretical concepts of the VE in a case study where the objective is to reproject the informatics system, we are going to use the stage succession that must be covered for the projection of the products, framed in STAS 11272/2-79 [9], actualized with the recommended emendations. We also mention that the European standards EN 1325-1:1996 [14] and EN 1325-2:2004 [15], do not contain the practical methodology of application in the projection and, consequently, they are not useful in this direction. The methodology that we elaborated presents considerable emendations in relation to the one offered by the above-mentioned Romanian standard, by integrating the last elements appeared in the evolution of VE, respectively the FAST diagrams elaborated by American specialists so as to perfect the function analysis. Moreover, still related to the methodology applied to products, the present methodology has a series of characteristics shaped by the specific of the informatics system that make it different towards an ordinary product and customize the methodology, by leaving aside those referring to products, technological processes and investment objectives.

In the American methodology [13], FAST diagrams (Function Analysis Systems Technique) are instruments of the functional analysis for the determination of the interdependence between functions classified according to the destination of the product and the graphic representation in diagrams. Including the FAST in the new methodology allowed us to eliminate the empiricism – detectable with the present methodology in the process of determination and hierarchizing the functions, by using some instruments which favor the logical and justified separation of basic/main functions from the supporting functions. The FAST method has two shapes: Technically Oriented FAST diagram and the Customer Oriented FAST diagram.

2. Presentation of the methodology

The methodology that we will use in the reprojection of the informatics systems is structured into six stages as it is presented in figure no. 1. The mythology does not differ in the structure of the stages of application from the one applied to products, but its content presents considerable characteristics and it has been elaborated and improved by including the FAST diagrams.

Since all critical path functions have a major contribution in achieving the use value, we can assert that the critical path functions enframes in the category of

main functions. In our methodology, we consider inadequate the name of „required secondary function" given in the American methodology to the functions from the critical path functions that connect to the basic function, because it may generate confusions regarding their role in achieving the use value of the analyzed product.

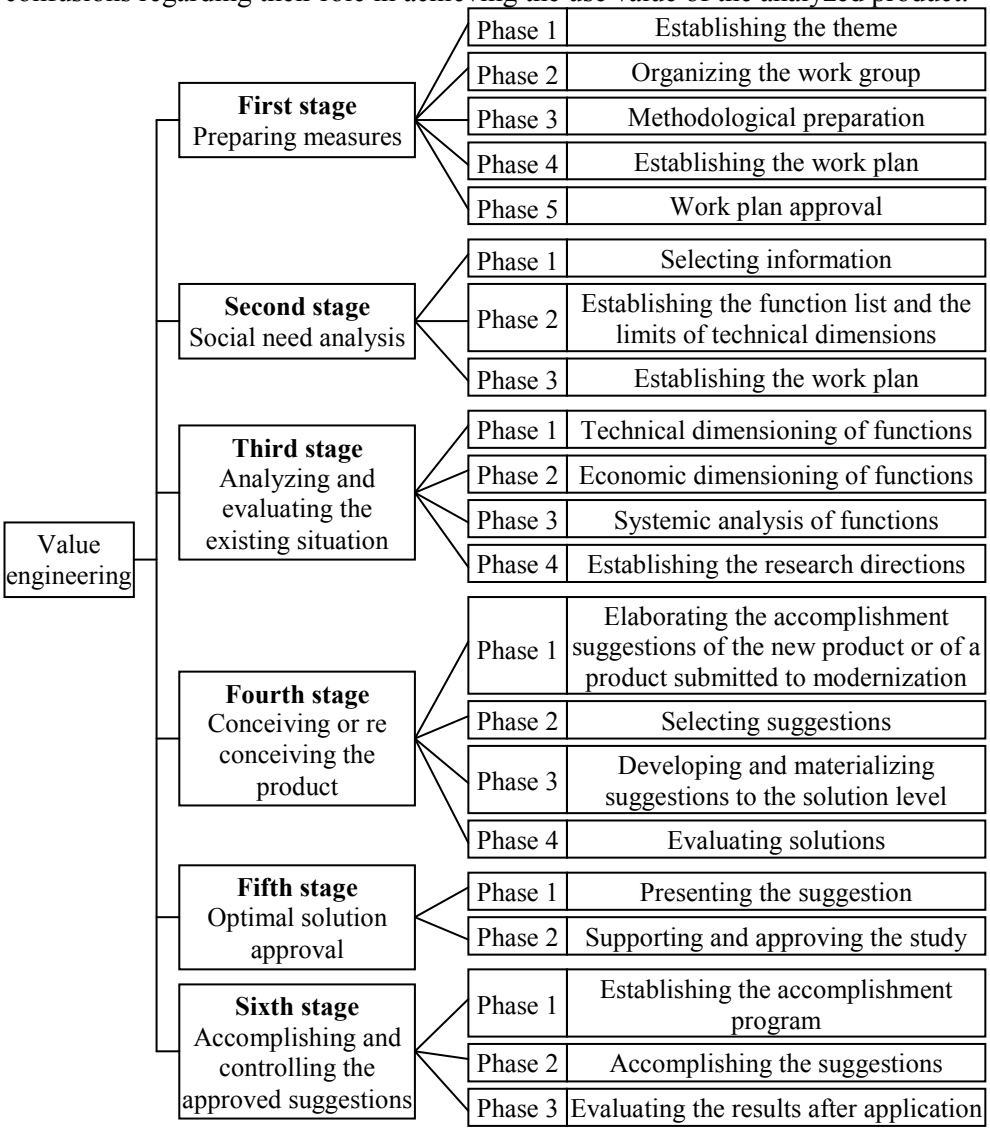

Figure 1 : ***The methodology of projecting/reprojecting the informatics systems***

The next step in creating the diagram consists in the identification of the auxiliary functions. Part of these ones are connected to the critical path functions, including also the functions known as „required secondary function", fact that contravenes the definition of auxiliary functions (according to all the analyzed

standards, an auxiliary function supports the achievement of a basic or main function and not of another auxiliary function). That is why, we suggested to modify the typology of critical path functions by identifying a primary basic function and including the functions required by this one in the category of primary functions known as functions required by the basic function. All the critical path functions are basic functions, fact that will favor the next step in applying the methodology, according to the emendations of STAS 11272/2-79, where functions are classified depending on the possibility to objectively quantify them and the importance in achieving the use value, objective and auxiliary functions. By means of our suggestions, we also bring about unification in the typology of functions proposed by the two diagrams, since the functions of the Task-Oriented FAST are devised in basic and supporting functions. Alongside with the presented types of functions, the Technically-Oriented FAST introduces two new categories – the higher order function and the lower order function (causative function), which are defined only in the American standard of function analysis, being necessary for the finalization of the theory that emphasizes the starting and final points of the critical path. The significations given to the two functions are: the higher order function reflects the reason that the primary basic function ought to be achieved for. The term of „higher order" does not refer to the importance of function, but to the ability to reflect the results of the process: the lower order function (causative) reflects the motive that initiates the study of VE.

The second category of used functions is represented by the secondary functions. They have been devised into two groups, specific to the methodology of the Technical FAST: functions caused by other functions which connect directly to a function of the basic critical path and functions that happen all the time that contribute in the same time in the achievement of two or more of the critical path functions.

2.1 Developing the Technical Oriented FAST diagram

The Technical Oriented FAST is characterized by the frequent use of terms and functions from the technical domain, to the detriment of commercial and prestige functions. The graphic development of a Technical Oriented FAST diagram begins from the object of study and two vertical scope lines [7]. Between the two lines, the whole functional representation is created (figure no. 1). The first stage is dedicated to the identification of the critical path functions. The fundamental function and the functions required by the former one, identify themselves by means of the analysis and the evaluation of the functions proposed by the project team. In the graphic representation, the left scope line separates the basic function from the higher order function. The basic function lies on the right of the left scope line and the higher order function lies on its left. The relationship between the higher order function and the basic function is given by the question asked to the basic function: „Why does the higher order function brings about the

basic function?". The answer should be precisely the higher order function. The verification of the argument should be completed by adding the question: „How does the higher order function fulfill?". The answer should constitute the function identified as being basic. The determination of the basic function is made by testing more of the previously identified functions known as candidate functions and centralized on a list of suggestions, by asking successively the questions „How?" and „Why?". The functions situated on the right of the basic function become functions required by the basic function. This group of functions belongs to the main critical path. In order to accomplish it, a last basic required function ought to be established, situated on the left side of the right scope line. By asking the function „How?", an answer having a newly created form will be received, that is the causative function, which is the equivalent of the social need unleashing the study of VE. This is the starting point for the critical path with all its basic functions.

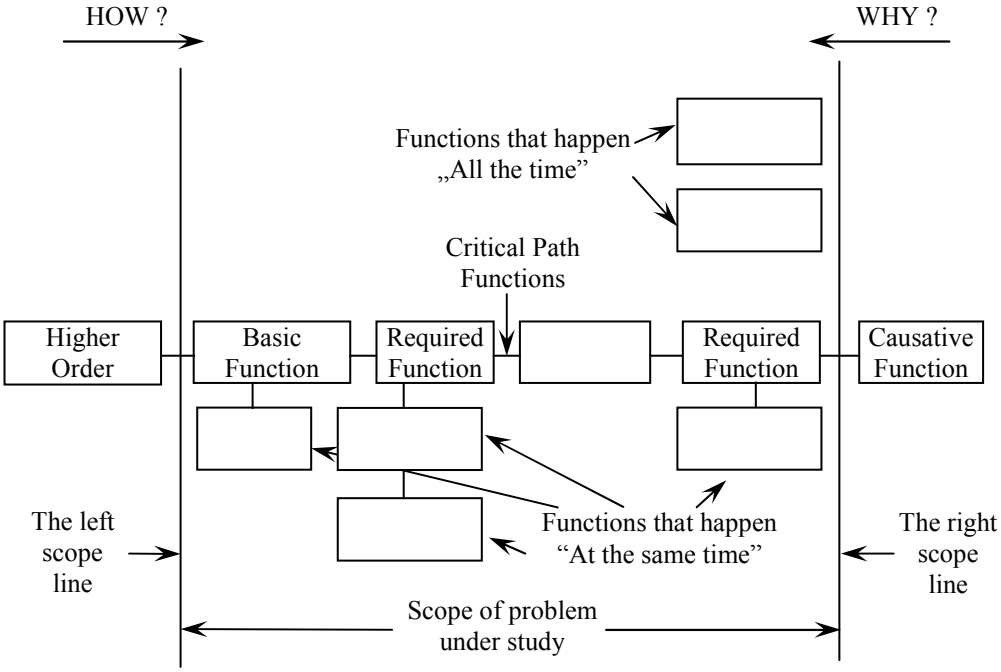

Figure 2: ***Technically Oriented FAST – Ground Rules***

The last group of functions that has to be determined is that of the secondary functions. The methodology of the Technical Oriented FAST presupposes the separation of the secondary functions into two categories:

1. functions caused by another function or by concomitant functions that result from the performance characteristics of the critical path functions and act as modifiers. There are functions that connect directly to a critical path

function, fact that is emphasized graphically by their placing under the critical path function that the creation of the connection also conditions;
2. functions that happen „all the time" and modify in the same time two or more of the critical path functions. On the diagram, they are placed above the critical path, without highlighting the connection with the functions they condition.

2.2 Developing the Task Oriented FAST diagram

The use of the function system in the activity of projection and development of a product proves that the designer takes into account in his conception of the product the functions that reflect the users' needs since the costs of their achievement do not amplify the fabrication costs over the limit accepted by the producer [2].

This elaboration confirms the acknowledgement of the fact that success in the application of VE cannot be attained without knowing, understanding and satisfying the users' needs.

The use of the Task Oriented FAST as we have already shown is oriented towards the task that by means of which the product satisfies the consumer's real need, starts at the same time with the second generation of practitioners of VE. Tom Snodgrass dealt with the development of the concept, by placing the consumer at the very core of the approach. He starts from the premise that any product, service, and so on ought to meet the consumer's fundamental need that he named **task**. In his point of view, a task is accomplished by more interdependent functions. Thus, he delimited a group of functions that he considered essential for assuring the functionality of a product, namely basic functions. Since the method is being used in the projection of a product or service as a whole, we ought to consider the fact that more basic functions to meet the users' social need are necessary. As the marketing specialists showed that the basic functions are not enough to decisively influence the sale of a product, the identification of a new category of functions supporting the buying decision was felt necessary. They were named supporting functions. Throughout the development of Snodgrass's argument (1986), the current form of the FAST diagram was created, as illustrated in figure no.2 [7].

The major components of the diagram are as it follows: scope line, task, primary and secondary basic function and primary and secondary supporting functions.

Basic functions are those that prove to be essential for the accomplishment of the formulated task and without their existence, the product wouldn't function. The primary basic function is interdependent and essential for the accomplishment of tasks. In the graphic representation, the primary basic functions are placed on the right of the scope line, right near to it. After having determined the primary

basic functions, the question „How?" can be asked for each of them. The answers are to be often found in the branches of the diagrams and are the secondary basic functions. In order to justify the ramification of the primary basic functions, at least two secondary basic functions must be determined. This rule applies also to the third level of ramification.

The supporting functions, although not essential for the functionality of the product, are highly important to attract the consumer and sell the product/service. The three great categories of primary supporting functions are: supporting functions assuring convenience, supporting functions satisfying the user and supporting functions attracting the user.

The last stage illustrates the distribution of supporting functions in the three groups, according to the presented classification. The secondary supporting functions branches to the right from the primary supporting functions. The same rule established for the ramification of the basic functions is valid in this situation, too: two or more supporting functions must be identified in order to justify the ramification.

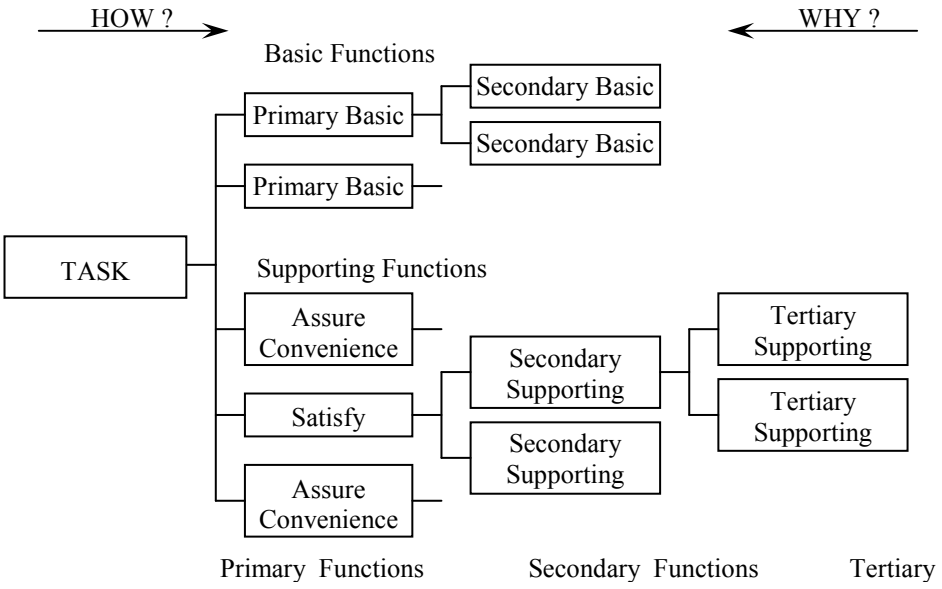

Figure 3*: Customer Oriented FAST – Ground Rules*

For making the identification activity easier, the main categories subscribing to the above-mentioned classification criteria have been identified. They are as it follows:

1. supporting functions that assure convenience;
2. supporting functions that satisfy the user;
3. supporting functions that attract the user.

3. The application of the suggested methodology to the reprojection of an enterprise's informatics system

The stages of applying the suggested methodology are illustrated in figure no.1. Obviously, the space does not allow us to refer to each of them that is why we have chosen the most suggestive stages so as to demonstrate the feasibility and efficiency of the methodology.

The object of the case study is represented by the reprojection of the informatics system of an enterprise, by using the suggested methodology. Since the requests from the informational system, and implicitly from the informatics system, differ according to the type of activity performed by the enterprise they are destined to (for example: commerce, production, services) and by the dimensions of the enterprise that influence the practiced management's characteristics, we focused in this study on the reprojection of an informatics system of a small commerce enterprise. Besides testing the new methodology, choosing this type of application was conceived out of practical reasons. We refer to the absence on the informatics application market of some adequate solutions for the specific demands of SMEs, available at accessible prices for their investment budget, fact which has as a result the development of decisional processes in a predominantly empirical manner, caused by the lack of adequate information at the right time.

In order to elaborate the study, we have cooperated with managers of some SMEs, specialists in coordinating the financial-accounting activity, project managers for the development of informatics systems and specialists in informatics. Moreover, to obtain the best representativity of the final users' demands, according to the informatics system dedicated to the SMEs, the study of the final users' demands has been extended to ten small enterprises mainly based on commercial activity.

In this case study, the objectives were as listed below:

1. experiencing and testing the validity of the new methodology, based on concepts VE which assimilated also the FAST diagrams, by the customizing the small enterprise with commerce-based activities
2. reducing the total cost of the informatics solutions to the level where it becomes attractive to the SMEs, if the demands of their informational system are satisfied;
3. improving the functions of the informatics system, and consequently the functions of the informational system;
4. improving the functions of the informational system being an essential part of the informatics system so as to obtain an improvement of the management, with direct consequences on the competitivity of the whole enterprise.

3.1 Reprojecting the informatics system by using the Technical – Oriented FAST

3.1.1 Establishing the function list by means of the Technical – Oriented FAST of the reprojected informatics system

Selecting the information has been made by interviewing a group of IT (information technology) specialists. After having explained to them the aim of the study and put forward the specific concepts, they were asked to present their own point of view with respect to the functions carried out by each of the major components of the informatics system, belonging to an enterprise with commerce-based activities, identified in a previous stage: hardware, operating system, database and software (informatics application for business administration) [6]. After the first attempts to establish the functions, it has been noticed that hardware functions cannot be separated from those that the operating system is expected to have and, moreover, the technical solutions for the two components of the informatics system mutually determine each other.

After having gone through all these stages was established the function list for each component of the system. For example, in table no.1 there are illustrated functions for hardware and operating systems, in table no. 2 database functions, and in table no. 3 those belonging to the software.

Table no. 1: ***Functions for hardware and operating system***

Symbol	Function	Type of function
A	Use resources	Basic function
B	Distance maintenance	Secondary (determined by A)
C	Distance work	Secondary (determined by A)
D	Render information	Required function
E	Stock information	Required function
F	Assure security	Secondary (determined by E)
G	Memorize information	Required function
H	Perform calculations	Required function
I	Introduce information	Required function
J	Assure reliability	Secondary that „happens all the time”
K	Easy to use	Secondary that „happens all the time”

Table no. 2: ***Functions for the database***

Symbol	Function	Type of function
A	Perform calculations	Basic function
B	Eliminate redundant information	Secondary (determined by A)
C	Save information	Required function
D	Assures security	Secondary (determined by C)
E	Process information	Required function
F	Receive information	Required function
G	Assure reliability	Secondary that „happens all the time”
H	Easy use	Secondary that „happens all the time”
I	Allow extension	Secondary that „happens all the time”
J	Permit independence	Secondary that „happens all the time”

Table no. 3: ***Functions for the software***

Symbol	Function	Type of function
A	Aggregate information	Basic Function
B	Stock information	Required function
C	Modify information	Secondary (determined by B)
D	Delete information	Secondary (determined by B)
E	Catalogue information	Required function
F	Permit independence	Secondary that „happens all the time”
G	Assure reliability	Secondary that „happens all the time”
H	Reduce maintenance	Secondary that „happens all the time”

3.1.2 The economic dimensioning of functions by means of the Technical Oriented FAST for the reprojected informatics system

Hereinafter, the importance order of functions was established and thus, total costs were distributed in turns for each function of the three major components previously identified, as illustrated in tables no. 4, 5 and 6.

Table no. 4: ***Centralizing the cost of functions for hardware and operating system (RON)***

No.	Function / Cost articles	A	D	E	F	G	H	I	J	K	Total
1.	License for the operating system of the database server	900	0	0	0	0	0	0	0	0	900
2.	License for the operating system of the LTSP server	1.920	0	0	0	0	0	0	0	0	1.920
3.	Server	0	4.000	3.200	0	2.400	1.600	0	800	0	12.000
4.	Clients PCs	5.622	4.919	4.217	0	3.514	2.811	2.108	1.406	703	25.300
Total cost :		8.442	8.919	7.417	0	5.914	4.411	2.108	2.206	703	40.120

Table no. 5: ***Centralizing the cost of functions for the database (RON)***

No.	Function / Cost articles	A	B	E	F	G	H	Total
1.	DBMS	1.200	990	900	0	0	210	3.300
Total cost:		1.200	990	900	0	0	210	3.300

Table no. 6: ***Centralizing the cost of functions for the software (RON)***

No.	Function / Cost articles	A	C	E	F	G	H	I	J	Total
1.	Software	4.350	3.750	3.300	3.000	2.250	540	1.050	1.650	19.890
Total cost		4.350	3.750	3.300	3.000	2.250	540	1.050	1.650	19.890

Note: The total value of the manual labor has been devised to 10 that is the name of the active clients whose informatics application will be changed and reprojected according to the specifications resulting from the present study.

3.1.1 The systemic analysis of functions of the reprojected informatics system

A real state illustration of each component belonging to the informatics system, reprojected by means of the Technical Oriented FAST, has been obtained by comparing the cost level per functions with their importance level, in the general use value. Using the data obtained from the calculation of function costs for hardware and software, we have designed the graphic from figure no. 4, the graphic from figure no. 5 for the database and graphic from figure no. 6 for the software.

As the graphic itself illustrates, functions J, H and G are situated on the regression line, therefore the accomplished costs are directly proportional with the weight of functions in the use value. Functions K, I and A, are easily under evaluated whereas E and D were over evaluated. The under evaluated functions are the functions with a successful accomplishment determined by the components of the informatics system that do not imply acquisition costs.

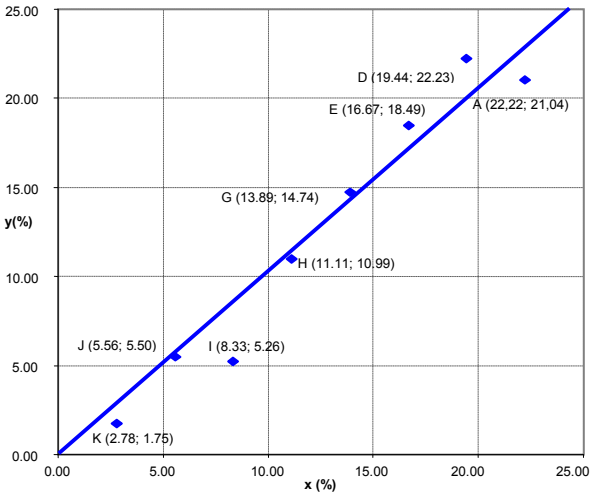

Figure : ***The graphic representation of the hardware and operating system systemic analysis***

Figure 5 shows that functions G and F are placed on the *x* line, which indicates that the accomplishment of the two functions did not imply material costs with the manual labor. On the contrary, functions A, D and E are easily over evaluated, which can also be a consequence of cost distribution for the accomplishment of the database only for these latter ones.

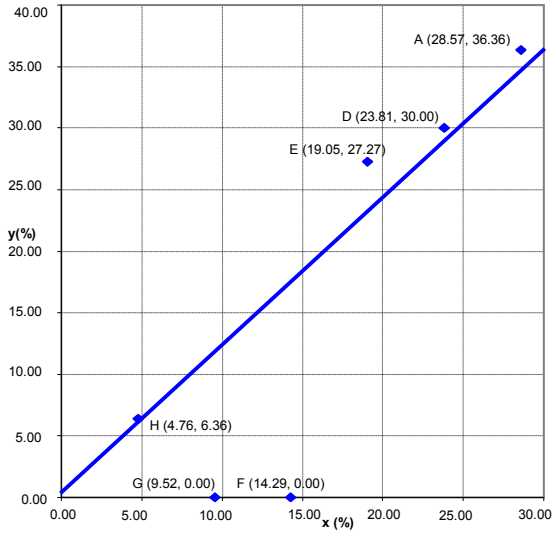

Figure 5: ***The graphic representation of the database systemic analysis***

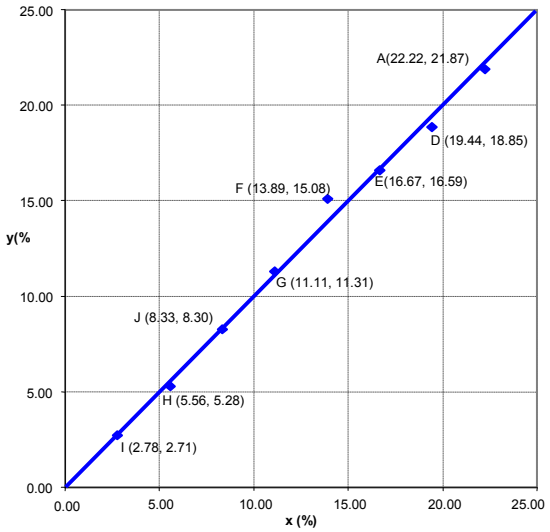

Figure 6: ***The graphic representation of the software systemic analysis***

Figure no. 6 illustrates that the functions of the informatics application (except for F) were accomplished by means of costs that are directly proportional with their importance in the use value.

The relatively reduced number of functions determined by applying the Technical Oriented FAST method is due to methodological limitation of the number of critical path functions and to the fact that a part of these are to be found in many of the analyzed components. The situation presents itself differently for the application based on the use of the Task Oriented FAST diagram.

3.2 The reprojection of the informatics system by using the Task Oriented FAST

3.2.1 Establishing the function list by using the Task Oriented FAST of the reprojected informatics system

Establishing the function list by taking into account the principles that underlie the Task Oriented FAST begins from the task that the informatics system ought to accomplish for the administration of the business of a commerce-based enterprise, respectively ***assures information for the management and the execution of the commerce-based activities***. In this approach, the determination of functions was preceded by the assignation of the informatics system characteristics. For the accomplishment of this stage we effected a study focused on the users of the informational system and its informatics component from the target enterprises, taken

as potential beneficiaries, and the personnel from the developers – especially those working directly with the beneficiaries and aware of the beneficiaries' demands.

The process of determination of the informatics system characteristics began by establishing the categories of information that must be collected, namely: information about social need, respectively expectations from the new informatics system, by comparing it with some other used products; information about the degree of qualification of the personnel and its capacity to adapt to new demands; information about economic aspects, that refer mainly to the availability of the enterprise to pay [8].

The used methodology for the selection of information is adapted to each category of personnel that represents the study sample. The determination of users' demands was made by analyzing the personnel's opinion from ten SMEs that perform a commerce-based activity, in various forms. Users or potential user have been distributed in the following categories: operational personnel, superior level managing personnel and enterpriser. In order to interrogate the operational personnel as well as the middle level managing personnel, the questionnaire and interview methods were applied.

3.2.2 The characteristics of the informatics system in the opinion of the beneficiary enterprises

The characteristics that the informatics system has to carry, established after processing the questionnaires and interpreting the received answers, are determined by the experience in computer work and in the use of an informatics application. The reached conclusion was that in the SMEs there is a crisis of qualified personnel for the software administration, experience is highly reduced, limited mainly to entering data (data operating). As a result, the demands that the projected informatics system is expected to meet are: a friendly interface, simple, easy to use, intuitional and a unitary method of work for operating data and monitoring its result; the assurance of some facilities so as to ease interrogations and result listing; the informatics system should be monitored and administrated by personnel from the outside of enterprise.

The employees' expectations from the informatics system are mainly related to minimizing the time of entering data, verifying the introduced information, drawing and listing the documents and compulsory accounts or those demanded by the management. After the analysis of the determined characteristics, eliminating the superposed and contradicting ones, each of the selected characteristics was transposed in a function. As illustrated in table no.5, in the situation of the Task Oriented FAST, the result is a greater number of functions than in the situation of using the Technical Oriented FAST. The explanation resides in the particularity of this diagram, by means of which the satisfaction of beneficiaries' specific demands are of a primary concern. In the situation of commercial enterprises, they are accomplished by means of a great number of supporting functions.

The next covered stage was the separation of basic functions from the supporting ones. The above-determined functions are centralized in table no. 7 in order to facilitate the systemic analysis, a letter was attached to each function, and the secondary, tertiary etc. functions were assigned the letter of primary function (whether it was basic or supporting), the cipher corresponding the rank and the order number.

Hereinafter, the importance order of functions was established. Basic functions were considered more important than supporting functions and inside each category a hierarchy was created. The same principle was applied for the secondary and tertiary functions, which made easier the determination of the importance level for each of the great categories of functions (basic and supporting). Further on, the total cost of the informatics system per function was distributed.

Table no. 7: ***The classification of functions for the informatics system determined by using the Task Oriented FAST***

Symbol	Function	Type of function
A	Introduce information	Basic function
A2-1	Allows introducing information	Basic function
A2-2	Verify information	Basic function
A2-3	Assure unitary operating	Basic function
A2-4	Eliminate repetition	Basic function
B	Process information	Basic function
B2-1	Perform calculations	Basic function
B2-2	Allocate account records	Basic function
B2-3	Modify information	Basic function
C	Generate outgoings	Basic function
C2-1	Generate documents	Basic function
C2-2	Generate accounts	Basic function
C3-1	Generate compulsory accounts	Basic function
C3-2	Generate specific accounts	Basic function
C2-3	Provide real information	Basic function
D	Assure security	Basic function
D2-1	Protect the physical support	Basic function
D2-2	Protect information	Basic function
D3-1	Protect against inside threats	Basic function
D3-2	Protect against outside threats	Basic function
E2-1	Simplify instruction	Supporting function
E2-2	Allows service from the outside	Supporting function
E2-3	Assure reliability	Supporting function
F2-1	Simplify accounts	Supporting function
F2-2	Makes employees responsible	Supporting function
F2-3	Minimize the introducing time	Supporting function

Symbol	Function	Type of function
F2-4	Minimize the checking time	Supporting function
F2-5	Minimize the implementation time	Supporting function
F2-6	Minimize the processing time	Supporting function
F2-7	Minimize the generating accounts time	Supporting function
F2-8	Maximizing information processing	Supporting function
G 2-1	Presents friendly interface	Supporting function

Further on, the importance order of functions was established and in turns, the total costs per each function accomplished by the informatics system were distributed, as presented in table no. 8.

Table no.8: ***Centralizing the costs of functions for the informatics system***

Symbol	Cost
A	2,820.19
A2-1	1,663.67
A2-2	1,342.86
A2-3	1,328.57
A2-4	1,357.14
B	4,990.63
B2-1	4,600.84
B2-2	1,800.00
B2-3	2,042.86

Symbol	Cost
C	4,200.00
C2-1	3,410.53
C2-2	3,173.68
C2-3	3,672.56
C3-1	3,134.21
C3-2	3,347.37
D	4,599.62
D2-1	3,442.69
D2-2	3,803.34
D3-1	2,969.68
D3-2	2,877.30

Symbol	Cost
E2-1	330.99
E2-2	601.77
E2-3	1,022.55
F2-1	1,050.00
F2-2	1,350.00
F2-3	2,377.05
F2-4	614.72
F2-5	1,023.15
F2-6	831.58
F2-7	382.33
F2-8	1,634.16
G 2-1	573.96

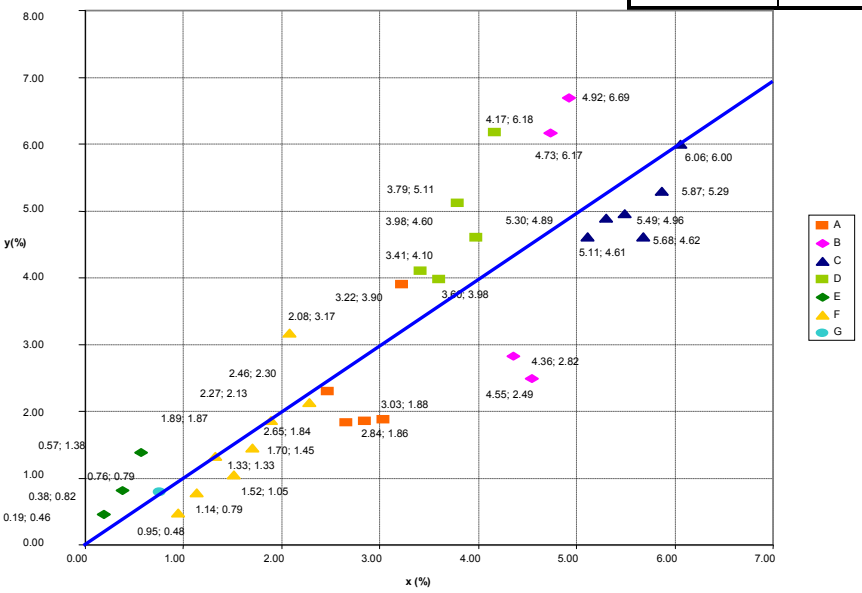

Figure 7: The graphic representation for the reprojected informatics system systemic analysis

The systemic analysis is presented in figure 7 as it is shown in the graphic, a part of the functions are placed above the regression line, which means that they are over evaluated. Consequently, in the model designed by using the Task Oriented FAST, there are still reserves regarding the improvement of cost proportionality, necessary to accomplish the functions and their contribution to assure the product whose use value fully satisfies the users' demands. The situation can be improved by finding some more efficient technical solutions in order to accomplish the functions.

However, the experiment allowed us to demonstrate the feasibility of the suggested methodology and, by means of the registered results we aim at justifying its superiority towards the methodology currently used by developers of informatics applications.

Conclusions

The two variants of the FAST diagram for the determination and hierarchical classification of the function system brought some changes in the way in which the suggested methodology was applied, starting from the initial structure. After applying the Technical Oriented FAST for the hardware components, operating system and database, constructive and original solutions were proposed, which assured the successful accomplishment of the function system, especially of the basic ones. The Task Oriented FAST generates a greater number of functions, especially supporting functions, because it starts from the system's requests established after studying the exploitation characteristics that it has to accomplish according to the users' demands. By comparing the final results, the efficiency recorded on the two methods [4], we observe the superiority of the Task Oriented FAST diagram. In return, if we refer to the solutions that can be proposed for the technical accomplishment of the informatics system, Technical Oriented FAST is superior. That is why, our suggestion for the projection of the hardware, operating system and database, which has a strong technical feature, is to use the technical variant of the FAST diagram and use the critical path functions as a starting point for basic functions of the task oriented variant of the diagram. The second variant of FAST diagram proved its efficiency in the projection of the software, a situation in which the functions that lead to the accomplishment of the demands specific to the studied domain, are predominant. In this way, we consider that a better satisfaction of the users' demands will be obtained if some informatics systems based on technical innovative solutions, at attractive prices, are created.

We consider that the new methodology of projecting/reprojecting the informatics systems by using the concepts VE, completed by the two FAST diagrams, could constitute the basis for the elaboration of an ISO European standard, expected to assure the generalization of applying VE in the European Union.

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