DATA BASE CONCERNING THE COSTING MANAGEMENT

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Abstract:

For projection of a data base is necessary to understand and analyse the economical process and building a scheme of economical analyse. Building a complex and large informational system can be compared with heighten of a big and complex building when the owner, architect and builder had different opinions. These opinions are combined in a complex scheme which represents the top-down, the owner and the bottom perspectives or the opinion's who implements the informational system.

Key words: data base, decisional process, decision assisting.

JEL Classification: C 63

A data base projecting presumes application of an economic analysis scheme for determining the measure where the deposit of data is efficiently and necessary.

First, the data base must produce **the competitive advantages** presenting the relevant information which can measure the performances and can make the critical adjusters to win besides the competitors, and then, a data base can determine the increasing of the productivity when it is permitted to obtain a fast and efficiently information which describes accurately the organisation.

Third, a data base can facility the management of clients' relations because it produce a consistent opinion about the clients and products from all business lines, in all the departments and all the markets.

Finally, a data base determines the costs reducing through accentuation the tendencies, directions and exceptions for long periods of time.

For projection of a data base is necessary to understand and analyse the economical process and building a scheme of economical analyse. Building a complex and large informational system can be compared with heighten of a big and complex building when the owner, architect and builder had different opinions. These opinions are combined in a complex scheme which represents the top-down, the owner and the bottom perspectives or the opinion's who implements the informational system.

A very important aspect in the projection of the data base is the grade of granularities which indicates the level of the data details from the facts table/tables. Practically, the granularities of the facts table is directly dependent by the detailed grade of the hierarchies from the dimension tables.

To establish the granularities must be realised attentively because a reduce granularities will not be permitted to obtain detailed information while an accentuate granularities can determine the exponential increasing of the physic space occupied by the data base.

When the system is projected, in principal, the granularities will be determined by the detailing grade of the *Time* dimension. As I said, the hierarchy of the *Time* dimension for a system dedicated to the assisting of the decision in the financial-accounting domain can be delimited at the level of the monthly reports, any trying for taking-up of the data at the more detailed level causes supplementary difficulties in collection of the data. We appreciate through the dynamics of the economical process that a daily detailing can be considered at the users' solicitation.

The *Technology* dimension will be limited at the detailing of information at the synthetic accounts (the system of the analytic account is defined by each firm and it is difficult to be implemented in a general system). Another very important concept, the aggregation of the data, can be determined for a correct utilisation; an important increasing of the performance ought to the time response at the informational solicitations. The aggregation represent the pre-calculated values and these calculations are done on the data from the analytic level of the deposit. The aggregation advantage is to obtain some synthetic information it can be launched interrogations over the aggregated values without to realise intermediate calculations.

The *Product* dimension will detail the information on more types of products, which in concordance with the technique specification have similar procedure of making.

The taken-up data from the different data sources are loaded in the data base, then, on the OLAP and DATA MINING technologies, the data are transformed in information. The information arrives at the beneficiaries like reports.

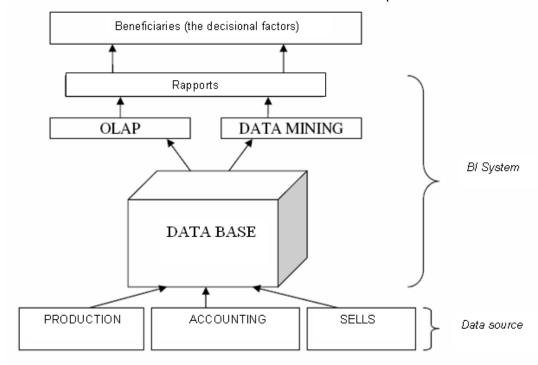


Fig. no. 1. The decisional process of the firm

Using the application by the type of decision assisting offers some important advantage for the decedents from economical domain:

- a) Because the projection and developing of the application based on the development and requirements of the firms economical process, they will generate benefices for the firm:
- b) The applications permit processing of a great volume of data and put the obtained information at the disposal of a great number of users;
- c) The offered information by these applications validates the structure, the bases model and the data base:
- d) The application can integrate without the problems the calculation mechanism and analyse for the indicators of the firm performance;
- e) In the applications projection and developing, the applications' beneficiaries can be involved and more times, people with decisional power in the firm.

In the projection and realising the data base it is begun with application of a

scheme of the economical analysis for determining the measure when the data base is necessary and efficiently:

- 1. It must produce the competitive advantages (presents the relevant information which can measure the performances and can make the critical adjusters to win besides the competitors);
- 2. It can determine the increasing of the productivity when it is permitted to obtain a fast and efficiently information which describes accurately the organisation;
- 3. It facilities the management of clients' relations because it produce a consistent opinion about the clients and products from all business lines, in all the departments and all the markets.
- 4. It determines the costs reducing through accentuation the tendencies, directions and exceptions for long periods of time.

The data base is based on the multidimensional data models which see the data under the data cube shape.

The data cube permits modelling and visualisation the data, in multiple dimensions and it is defined through dimensions and facts; the dimensions are the perspectives or entities when an organization wants to keep the records; each dimension can have an associate table named the dimension table which describes the dimensions.

The dimension tables can be specified by the users or experts or can be generated automatically and adapted function of the data distribution and a multidimensional data model is organized around the central issue (sells, clients). This issue is represented by the facts table.

The fact has a numerical measure. It expresses the quantities which help to analysis the relations between the dimensions; the facts table contains the names of the facts or the measures and the keys for each of the connection dimension tables.

A data cube is a set of data, organized and reduced in a multidimensional structure through a dimension and measure set which produce a facile mechanism for the data interrogation with a very short time for answer.

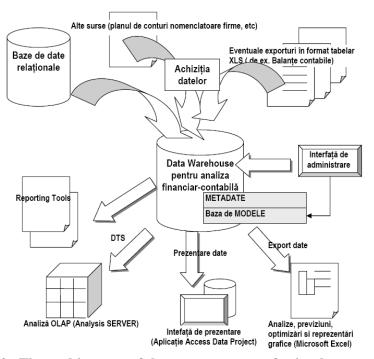


Fig. 2. The architecture of the propose system for implementation

Each cube has a scheme represented by the data base table set, the central table

is the facts table and it is a source of the measures from the cube; the dimension tables are dimension sources.

Although, currently, we base on the 3D cubes, in the data base the cube is n-dimensional.

How it can be observed in the anterior figure, first, we propose the projection of the integrate models base in data warehouse and using of some instruments for supplementary analysing with specific facilities for data analysing (how there are the processors for table calculation). So, I consider the possibility for using of these kinds of instruments for managing a part of the base analysing models.

Return at the description of the methods and instruments of investigation specific to the financial analysing, we can appreciate some models like *the analogical models* which can be developed faster in an adequate medium like a processor of the Microsoft Excel table calculation. Even for the analysis methods by the types of scores, the informatics applications of this category have some facilities (like functions defined by the users) which recommend them like a good developing medium.

As regards the symbolic models of cumulative, multiplicative, balance-sheet types or under the rapport form, the necessity to permit an ulterior enrichment of the models base guides us towards the solution to realise a relational model for the models base.

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