

THE USE OF AUTOMATIC DATA PROCESSING/COMPUTING SYSTEMS AT THE MODERN MANAGEMENT LEVEL OF THE COMPANY

Одним из главных достижений последних лет, оказавшим сильное влияние на системы автоматической обработки данных, явилась интеграция персональных компьютеров и систем коммуникации. Наличие инфраструктуры систем автоматической обработки данных для интегрированных систем является одним из необходимых условий функционирования интегрированных организаций. Доступ к данным по сделкам компании является жизненно важным для улучшения системы управления компании, а преимущества доступа к этим данным и возможность их анализа очевидны. Такая система становится ключом к успешному ведению экономической деятельности, который позволит улучшить управление компанией посредством систематического мониторинга результатов и постановки новых целей.

One of the greatest achievements of the last few years with a strong impact on the ADP systems represents the integration of computers with the communication systems. The existence of the ADP infrastructure for integrated is one of the necessary conditions for the functioning of integrated organizations. The access to the data regarding the company's transactions is vital for the improvement of the company's management activity and the advantages of the access to the transactional data and their analysis as well are obvious. This way the system becomes the key to successful business which permits the improving of management through a systematic control regarding the results and planning the new objectives.

One of the greatest achievements/ breakthroughs of the last decades with the most important impact on the automatic data processing (ADP) systems is the integration of computers with the communication systems. The Local Area Networks (LAN), with their industrial variants included, and as well as the Wide Area Networks (WAN), either Internet or Intranet, have made possible the integration of the functions and processes first in the frame of the company itself and then among different companies. The objectives of the integration process of the company are the following: to ensure the communication among certain functional entities; the achievement of the computing applications' interoperability; the facilitation of the coordination of the functional entities by means of sharing information in the company as well as among other companies, using ADP solutions that are independent of a certain supplier.

A problem that any company which assimilates an integrated ADP/computing product

has to deal with is that of the access to different levels of data, synthesis, analyses. The solving of this matter involves a re-evaluation of the informational circuits as efficient ones and depending on/considering the specific duties of each single job assignment inside the company. Thus, one can also eliminate successfully certain routines that have proved to be inefficient in time. The necessary work steps for the implementation process are the following:

- The evaluation of the equipment on which the product will be installed;
- The formation of the first user group inside the company;
- The creation of the access system and of the paths on which information shall circulate / flow;
- The creation of a data warehouse of the system starting either with the former/previous programs or with the information on external support; each user shall be assigned with the task of introducing the data that he / she (they)

has come or will come into contact with, paying great attention to the data's exactitude and coherence.

At a general level, the results of the implementation of integrated systems can be spectacular: the decrease of redundancy in data distribution, the coherent codification of all the constituent elements of the company, the extraction of synthetic information referring to the integrated work of compartments, the decrease of bureaucracy, the decrease of global costs. It is obvious that the OLAP technology grants a Computing/ADP Management System with some specific traits such as: a clearer view of the objectives, an efficient identification of the priorities, the uncomplicated identification of and prevention from unessential activities, better means of comparison, greater decision-making liberty concerning the company's activities and, last, but not least, a better informational structure during the analysis and decision-making process.

The implementation of a computerized system

How do we start the planning and fulfillment of such a computerized system in order to succeed in managing our activity better? The best plan consists in the achievement of the following four steps:

1. The clear specification of the data and information demands necessary in the different departments and which must be achieved by the new system.

a) The required participants: General Manager, sales manager, manager of the billing/pricing department, account manager and computing manager.

b) Objectives: The defining of the general objectives of the activities and of the levels of assignment that are going to be fulfilled by the new system.

2. The laying out of the general scheme (as in figure 1) which is to emphasize all the relations between the data files and the output and report files.

a) The required participants: The sales, account, billing/pricing and computing Managers and a computer system analyst.

b) Objectives: The defining of the specific functions of the inputs and outputs of the new system.

3. The supply of some detailed examples regarding all the input and output data necessary for updating the information delivered by the reports.

a) The required participants: Managers or professionals/ experts in the following areas: sales, billing/pricing, and accounting and the computer system analyst.

b) Objectives: The defining of the specific functions of input and output as to satisfy the company's objectives.

4. The next step shall be the actual system programming and the creation of the data base.

The most important issue in the process of analysis and planning of these transactional systems is that the users should bear in mind that they must communicate and co-operate with the technical experts in order to establish the demands of the system. In this example, the users will be part of the sales, billing/pricing, and accounting compartment/department, the latter ones being responsible to forward monthly to the clients the situation of the debit/overflow. The managers and the department professionals/experts shall co-operate with the technical experts in order to describe the perspective and the demands of the user. The initial objectives of the system should be defined by the general manager together with the manager of the computing/ADP department. Department experts and the operator analyst shall settle the daily details of the physical planning and of the work method that best describes the new system.

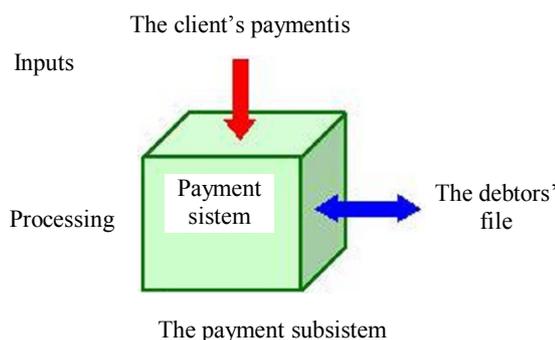
The most appropriate approach for the planning of an all-inclusive general system shall be the planning of the development of all the functional subsystems as an integrated computerized system. This will be materialized in two advantages. On one hand, it will determine the leadership to define very precisely their business objectives and the interaction thus resulting and, on the other hand, this will lead to the simplification and the increase in the operators' work efficiency when creating the data base.

The improvement of the managerial control over the use of computing systems/ADP

The computing system leads to the improvement of the managerial control activity over the sales, receipts and payments. These advantages came as a result of the increase of the control over the transactions' efficiency. Moreover, the leadership will be capable/in the position to make efficient and rapid decisions taking into consideration the sales and profits obtained by the company. Figure illustrates the managerial control where the data resulting out of the system are compared to the stipulated objectives. Taking all these facts into consideration, the manager makes the decisions referring to the inputs and procedures from the system.

A computerized system introduces a series of systematic approach procedures of the transactions, fact that leads to the increase of efficiency for the activities of the company's departments. Once the data were correctly introduced in the computer, their accuracy is guaranteed. The automatic systems lead to the almost absolute/complete elimination of human errors (oblivion, tiredness, and calculation errors). This automatic activity processing eliminates the inherent delays of the human transaction processes as all the processes are now fulfilled at a computer characteristic speed. The increase in precision combined with the increase in efficiency lead to the improvement of the managerial productivity. The improvement of productivity becomes obvious when the same work/task/duty can be accomplished in a shorter period of time or when a bigger work volume can be accomplished in the same time interval. The work volume will increase as the computerized procedures tend to force the improvement of work quality by a rapid and precise/accurate data introduction. The management might notice the errors and the work volume accomplished daily or weekly and can thus make the necessary adjustments in order to correct problems.

But, above all the managers of each compartment will improve their results thanks to the capacity of the system to inform and correct the accomplished work. The computerized system can be designed to supply daily, weekly, or



monthly reports. These reports can present either a detailed or a summarized overview on the type of goods bought by the client and in the same time they can present the history of the credits placed to the clients. The system is able to provide information on each area of activity. These reports can serve the management to compare the present performances with the planned ones. For example, a report referring to the work accomplished in a shift, in one of the week's days, or to that of a certain worker can inform the top manager on the quality of the accomplished work. A report that combines both the production and sales activity may provide valuable information on faithful clients who could benefit on price discounts. A report on unsettled debts will show the chief account the possible financial loss.

The aim of this article has been to illustrate/present the four essential components of the earnings system, such as: the order, the invoice, the claims and the bills of costs. Thus, there have been presented the four necessary steps to the projection and planning of this system and at the end it was explained how the system's reports can be used in order to improve the management system. It is important that all the Romanian companies should start the implementation of computerized systems in most of the domains/areas, using the modern software technology. Only the moment the systems will be completely prepared for automatic data processing will the method of concluding a transaction improve in quality. The Romanian companies will also have access to managerial information, allowing them to compete on the international market.

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