

DEVELOP IT SYSTEM

The introduction of a computerized system in the Agency has become an indisputable fact imperative because of its proven utility. Moreover, the same is considered as the upgrading and improvement of existing computerized system for reasons such as the continuous development of technology, the upward trend of an Agency and parallel to these growing requirements.

The feasibility study and the methodology to be applied to solve the above until they become fact, they may not produce the desired effect and even affect negatively the smooth functioning of the Agency. Results of this kind often have the following characteristics:

- The final amount of the overall financial investment is considerably higher than that originally estimated
- The implementation schedule was extended much more than that originally planned
- Final demand for applications and equipment exceeded enough the initial requirements
- They consumed more of man hours and personnel than initially estimated
- The final form of the product causes more confusion and doubts users.

The size of the failure is related to the size of these characteristics and which are the result of the following factors:

- He had become the baseline forecast for avoiding or treating problems that would result in all of the above
- The manager responsible for this study had no previous experience in this subject
- The working group does not include systems analysts
- There is no complete description of the Agency circuits affected by the planned changes, or, if any, is unclear and inaccuracies.
- The real needs of the Agency not fully examined in the preparation of this study but found during the course of study.
- Inadequacy or lack of determination of feasibility study
- Recording of operator needs and proposals made after the completion of setting of the new system, without an assessment of their effect on the whole system.
- The written reports on the progress of the work, not issued periodically and contain full and clear information.

The success in the development and implementation of a computerized study, in addition to the methodology that should be applied also depends on the following factors:

- The necessity, importance and risks that may exist in the current system was initially identified by the department of IT support (IT) and operators.
- This finding is transferred directly to higher administrative levels as the Directors
- The project team (Project Team), among others, must necessarily include systems analysts and the main and most basic operators of the Agency.
- Detailed and careful planning of work
- Strict and narrow version and monitor the project implementation progress reports
- The time for a detailed analysis of existing procedures and verification problems should form the bulk of the project / study.
- In each progress report stage of project execution, and is parallel assessment of economic data.

The entire project in a Design Development of a Computer System (System Development Cycle) should be divided into the following stages:

1. **Identification (Project Initiation)** of the problem and the demands and proposals
2. **Feasibility Study (Feasibility Study)** : preparation of the evaluation of the implementation of the proposals by analyzing the relationship between cost, in terms of expected benefits and relationships of the technical and operating costs, taking into account the IT requirements and objectives of the organization
3. **Analysis (Analysis Research)**: identification and verification of all functions (circuits) of the Agency with a detailed description of the requirements arising from each operation
4. **Design (Specification)**: determination of the required operating system in the context of those who are daily users
5. **Design Technician (Technical Design)**: the planning of the Agency's operations, based automation fixing of applications, database and files
6. **Development (Construction)** and coding the required applications and verify their correctness (connection and operation) with sample data. Writing operation manuals and instructions for operators
7. **Application (Implementation)**: Creation of the natural environment, for the installation of the process equipment and applications. At this stage become a new test system operation and evaluation of the main and key operators of the Agency.
8. **Rating Application Results (Post Implementation Review)** in achieving the objectives of the system functionality and the level of applied technology. Moreover, at this stage, tested the reliability of the system

At each of these stages should be given great attention and emphasis on the methodology to be followed and the size of the analyzes will be done. Obtaining

information should be deep and cases improving existing systems should approach the structure of the data files (file structure analysis). The depth of analysis and transparency will be given of these steps should be as large as possible so as to lead to a straight horizontal connection of each stage to the next. Any deficiencies or misconceptions will lead this connection under the wrong angle and the final result will not be the objective and the requirements set by the authority.

Upon completion of work in each of these eight stages, should be prepared a written report (Report Report) as to the gradual achievement of the objectives. These reports are the bridge to the next stage, the work of which should not begin before the evaluation of any such reference.

At all stages of the study, it is considered necessary and important to monitor the development of the internal auditor, in order to ensure the installation of the necessary safeguards. Where the organization has no internal control, then you should seek the services of external auditors.

Despite the fact that such a study may be highly detailed and not there are any gaps, sometimes unforeseen difficulties may arise. For this reason, each study should include the Project Rehabilitation Program (Project Recovery Procedure) to address such difficulties.

1. Full and detailed examination of project progress
2. Precise definition of the problem encountered
3. Full evaluation of the part of the work performed
4. Collection of all costs incurred up to the time the problem occurred and evaluation of the balance on completion of the project, referring to the budget of the total project cost.
5. Review and redefinition of the objectives, costs, risks and expected benefits from the project.
6. Identification and assessment of the remaining part of the project
7. Submission of documented proposals to management for decision making.

The success factors in a computerized system development study, must always be taken into consideration, regardless of the size of the study. These factors are equally important in the development of small and large computerized systems or even part of them.

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