



PROBLEMS POSED BY INFORMATION SYSTEMS AND THEIR SOLUTIONS

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ABSTRACT

Information systems play a major rule in an organization especially in a business organization. But if it does not work significantly, an organization faces different types of severe problems. In this paper I have mentioned some problems posed by Information Systems especially in business organizations and tried to give solutions by mentioning a model. By analyzing this model, information technology professionals can expand this model as a researchable entity.

Keywords: *organizational change management (OCM), effective cost, long term system, scalable, enterprise resource planning (ERP), supply chain management (SCM), customer relationship management (CRM)*

1. INTRODUCTION:

An information system can be defined technically as a set of interrelated components that collect (or retrieve), process, store and distribute information to support decision making and control operation in an organization. Information systems may help managers and workers to analyze problems, to visualize complex subjects and to create new products. But information system may be a burden of an organization if it does not work properly. So it should be managed and developed very carefully.

2. PROBLEMS POSED BY INFORMATION SYSTEM:

Different types of problems posed by Information System (IS) are:

- i) loss of management control over system
- ii) connectivity and application integration challenges
- iii)organizational change requirements
- iv)hidden costs of enterprise computing
- v) scalability, reliability and security

3. SOLUTIONS TO OVERCOME THE PROBLEMS POSED BY THE INFORMATION SYSTEM (IS):

i. Change management

“Organizational change management (OCM) is a framework for managing the effect of new business processes, changes in organizational structure or cultural changes within an enterprise. Successful OCM strategies include:

- agreement on a common vision for change -- no competing initiatives.
- strong executive leadership to communicate the vision and sell the business case for change.
- a strategy for educating employees about how their day-to-day work will change.
- a concrete plan for how to measure whether or not the change is a success -- and follow-up plans for both successful and unsuccessful results.
- rewards, both monetary and social, that encourage individuals and groups to take ownership for their new roles and responsibilities. Change management is an approach to transition individuals, teams, and organizations to a desired future state.”[1]

“In a project management context, change management may refer to a project management



process wherein changes to the scope of a project are formally introduced and approved.”[2]

ii. Education and training

“Training presents a prime opportunity to expand the knowledge base of all employees, but many employers find the development opportunities expensive.”[3]

An organization has to identify which kinds training and technical education are needed for their employees. So the organization must find out the weakness of the employees and should make them trained. Proper education and training make an employee *the asset of that organization*. The training should be in a consistent way. *Employee satisfaction* is a very important factor to be considered. After getting training the employee should be *evaluated*. Otherwise they will not be satisfied. So they should be properly placed in that organization.

iii. Data administration disciplines

“Database administration (DBA) is rarely approached as a management discipline. The term discipline implies a plan, and implementation according to that plan. When database administration is treated as a management discipline, the treatment of data within an organization will improve. It is the difference between being reactive and proactive.

All too frequently, the DBA group is overwhelmed by requests and problems. This ensures for many reasons, such as understaffing, over commitment to supporting new (and even legacy) application development projects, lack of repeatable processes, or lack of budget. The reactive DBA functions more like a firefighter than an administrator; he attempts to resolve problems only after problems occur. The reactive DBA is focused on resolving the biggest problem confronting him.

In contrast, the proactive DBA implements practices and procedures to avoid problems before they occur. A proactive database administrator develops and implements a strategic blueprint for deploying databases within the organization. This plan should address all phases of the application development life cycle. A data specialist, usually the DBA, should be involved during each phase of the system development life cycle of a software. During the initiation and requirements gathering phase, the DBA

must be available to identify the data components of the project. He can help to determine if the required data already exists elsewhere in the organization or if the data is brand new. During the analysis and design phases, the rudimentary data requirements must be transformed into a conceptual and logical data model.”[4]

iv. Planning for connectivity and integration

Customer Relationship Management (CRM) Systems, Enterprise Resource Planning (ERP) Systems, these two types of systems are very necessary to be coordinated and integrated.

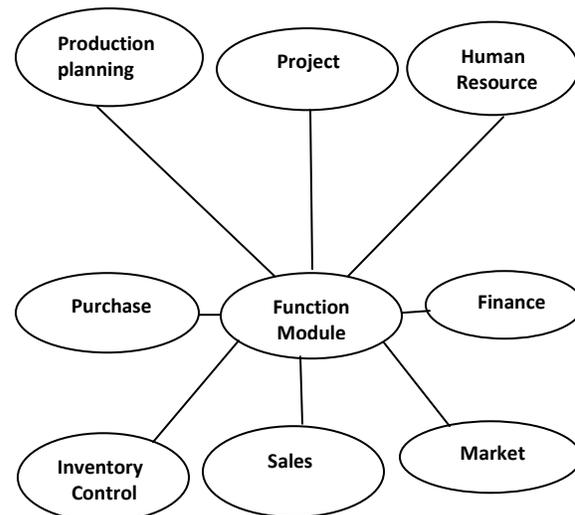


Fig-1 Enterprise Resource Planning (ERP) functional module [6]

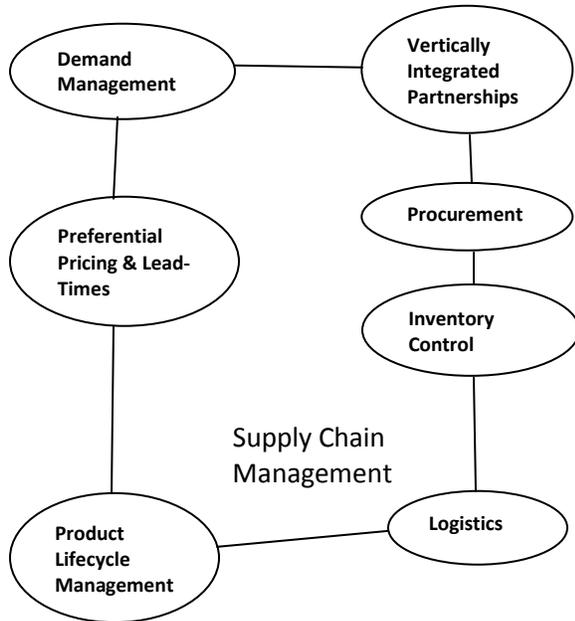


Fig-2 Supply Chain Management ^[8]

v. Effective cost and security management

Company should consider the malicious insider (disgruntled employee, contractor, insider theft), accidental insider (poorly trained, curious) malicious outsider (hacker, industrial espionage) and necessary management should be taken for the future of the company.

vi. Long-term system planning

Effective strategic planning requires only a handful of procedures to analyze the organization. Long term system planning should be taken in such a way that the *Information system and organization* may be **scalable**.

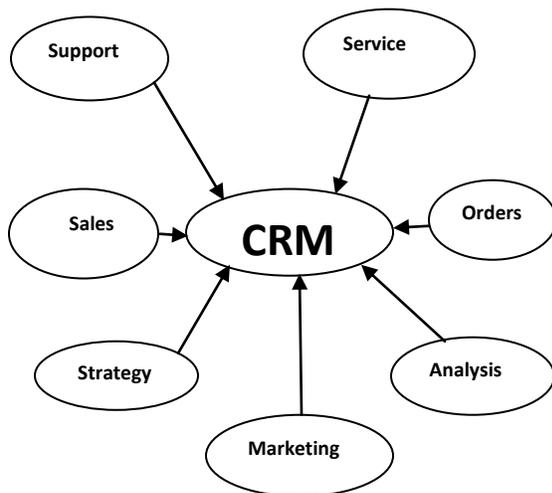


Fig-3 Customer Relationship Management system ^[7]

4. PROPOSED MODEL TAKING THE HELP FROM ABOVE DISCUSSION:

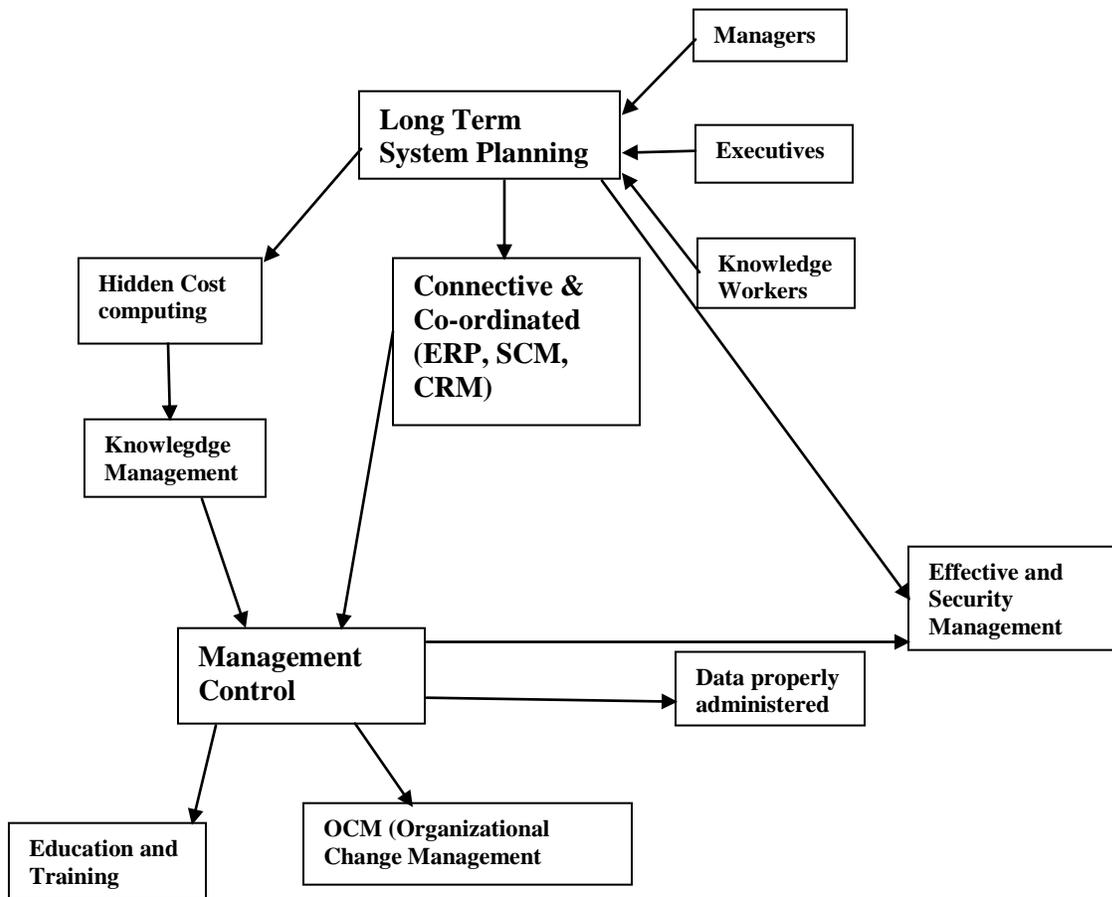


Fig-4 proposed model for solving the problems posed by information system

Actually managers, executives or knowledge workers, these three types of employee can exist in the long term system planning process. The result can be used by the hidden cost computing process which in turn is used by the knowledge management process. All these results can be implemented by management control division. Besides these the management division can control the education &

training activities, data administration, effective and security management and overall organizational control management. Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Customer Relationship Management (CRM) should be coordinated but the overall administration control should be managed by **Management Control** division.



5. CONCLUSION AND FURTHER RESEARCH:

In future, I will try to identify more problems posed by Information Systems and try to expand the model of Fig-4.

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