Planning for management information system

Business, Management

The biggest challenge and most critical success factor in reengineering projects are persuading the people within the organization to cooperate. When you begin to computerize a legacy system considers the advantages; reduced clerical cost, quicker processing time and improved customer service. Everyone knows that the computer capabilities alone make life a lot easier for all managers. The advantage of time and accuracy spread over the lifep of the information system means improved long-term vision and focus for top, middle and lower managers.

A management information system (MIS) focus is on information that management needs to prepare its job. This task becomes much more difficult when the major players have a tradition of high independence, are often confrontational to management, and are irreplaceable independent contractors. CIO's in major business organizations face exactly this situation; further complicated by the fact that the reengineering effort is crucial to the continued existence of the organization.

Such discussion has driven the software industry to focus attention on software specifically designed to support the team approach essential to most service and customer oriented organizations. The importance of teamwork can not be over emphasize in achieving overall organizationalgoals, and the need to capture and manage an organization's knowledge base remain crucial. This teamwork enables the organization to achieve and sustain competitive advantage in their business.

In considering the framework for an information system (IS) each level operational, tactical and strategic planning requires different IS. At the

operational planning system, the IS collect, validate and record transactional data relating to acquisition or disbursement of resources. The data for account receivable and payables, payrolls, inventory level, shipping data, printed invoice and cash receipts recorded as they occur. The operational-level IS characteristic are repetitive, predictable, emphasizes the past and detailed in nature just to name a few.

The focus of the operational system is the daily tasks performed at the user level. The operational level manager uses this data to check every day tasks, i. e. ordering, shipping, inventory control, the essence of the business processes. The second level in the framework is the tactical system. This system provide middle-level managers with information to monitor and control operation while allocating their resources efficiently. The data is summarized, aggregated, or analyzed with a wide range of reports, i. e. , summary, exception and ah hoc reports.

The tactical information system differs from operational information system in the basic purpose: operational support the execution of tasks and a tactical information system supports a manager control over those tasks under their area of supervision as well as the allocation of resources to meet the company objectives set by top management. The data input and the information produced as outputs differ from the type of data involved, tactical characteristics are periodic in nature, with unexpected findings, comparative in nature with both internal and external sources.

The tactical information system purpose and the regularity of report produced within the information system are drastically different from an

operational system. The third level in the framework is strategic planning, designed to provide top managers with information that assist them in making long-range planning decisions for the business. The different in strategic and tactical are not always clear, because both types of information systems may use some of the same data, you might say that the systems sometimes overlap with the difference being in the data that the system uses.

Typically, top management uses strategic planning system to forecast long-range company objectives. The characteristics are ah hoc basis, unstructured format, external source, and subjectivity, summary and predictive in nature. A MIS provides information for effective planning and tactical decision making, which is the foundation of operational level data system. A tactical planning system provides middle-level management with the ability to monitor and control resources. The tactical information system does not support the execution of operational tasks, but allow managers visibility over the operation.

Information systems are costly, to deploy and maintain, yet the maximization of economic value of IS in the long-run balance out over the initial set-up cost. The right software products enable teams of people to integrate their knowledge, work processes and applications to achieve improved business effectiveness. It has been suggested that the implementation of such technologies is more difficult and yields more unintended consequences than is typically acknowledged. First, how such technologies are used reflect the effects.

Second, how these technologies are likely used when alternative tools co-exist, meaning predictability is difficult from technological characteristics. Third, because people use groupware with other people, one person's choices about how to use groupware may have consequences for other group members, user satisfaction. The measurement for an effective MIS must be the users; usage and satisfaction have a strong correlation. Obvious, the effectiveness of MIS depends upon the use of the system and if the employees accept it. The information system department, managers and users together make the MIS process successful.

The managers implement the MIS, their behavior andmotivationplay an important part in the variables for the system to be effective. Each designed MIS produce information for decision making throughout the organization. Let" s examine several case studies with the implementation of MIS as seen in three distinct companies, an insurance company, afoodmarketing company and a social service agency. The insurance company normal routine consisted of tons of policy paperwork generated daily to accomplish the company objectives. The company started on line systems supporting policy screening, creation and issuance in the 70" s.

An employee could key in new application information at his or her computer terminal, after the compilation of information an underwriter can evaluate the insurability of potential customers. After the approval process, the information system produces a policy data sheet. This business process makes it possible to handle inquiries from individual policyholders and sales agents seeking personal data information about policyholders. The home

office linked to all locations of their sales agencies allowing sales agents to inquire on-line about policies with the capability to edit application information at their site.

The home office can still update policies as well. Yes, this service provides the agencies with a competitive advantage in product marketing and customer service. The home office outsourced and purchased software that enable the sales agents to analyze alternative companies" product and service options, resulting in winning the customers" loyaltyand a quicker sales. The company continues to grasp the future for innovations and anticipating their customers" needs in the future.

This approach along ensures valuable information for the senior-level management to plan as well as reduce overhead cost with improved productivity and better decision-making ability. Next, let look at the food industry and view how information system improved their process. The MIS geared toward physical distribution at the operational level, where update orders and invoices sent to the distribution centers and the system updates the account receivable and associate system files. The system prints invoices at the origin and destination location, resulting in reduced cost and faster payments equal more cash flow.

The food company produced numerous reports that enabled the managers to conduct on-line credit checks from their account receivable status report, and identify delinquent accounts, before shipping the merchandise to the distribution centers. The customer services personnel have immediate access to open account allowing for immediate visibility and response to

customer inquiries about deliveries and shipments, similarly cash payments received automatically applied to customers" on-line account. Let us not forget to look at the marketing advantages with MIS as well.

Sales analysis reports reflect the customers" history product information file; this data generates report by product line in each territory each month for middle-level managers to forecast demands for any specific product item. Normally, this begs the question about production and if the company can continue to support the demands of the customers. At this junction, the IS gives managers additional insight about demand and the need to forecast for future buys. The company established a bill-of-material file, which computerized the ingredients for each product line and created batch size for all products.

This process minimized the work process and improved the manufacturing ordering process for each customer batch orders. The product specification file served as the database of reference information enabling the manager the ability to print text on all purchase orders. The text file produced a finished goods inventory, which is transferred to the branch warehouse stockroom in various locations; this information is based on sales analysis report (demand). In thefinanceand administration department, the updated account receivables correlates with customers' billing and cash receipts.

A monthly exception report generated from the aged balances spits out a collection letter automatically to the respective recipients at specified intervals. The MIS enabled the food marketing company to process orders more timely, manage inventories more efficiently and organize their

production section. Bottom line cost savings of MIS results in more revenue and a better customer relationship and senior-level managers focusing their attention on emerging trends in the market.

A social service department utilizes MIS in the public sector by providing financial assistance to the residences, i. . medical assistance, food stamps, facilitate foster home and adoption, day care, school service, familyplanning, housing and legal services. The MIS processes new applications and payments. The applicant applies and become eligible then the system creates an on-line record for them. The system automatically prints an identification card for the payroll master file that entitles the recipient to service for which the bill goes to the social service department. An on-line inquiry and update of the applicant record are also possible.

The payroll master file sorts, generates the welfare check, and lists them on the payroll register, which generates historical report for managers. In all three case studies, the information systems support transactional processing. The user involvement in each of the project selection ensures the effectiveness of the information system and its acceptability. How do you measure utilization and performance in MIS? The term utilization is the extent that the intended users use the information system (IS) for its intended purpose. The term performance measures the improvement of the business process that supports the IS implementation.

These measurements observed through business records, visual or electronic inspections and take the personal opinions and attitudes out of the decision-making loop. The multiple variables sometimes are difficult to identify, but

the IS department must be impartial if the true value is realized of a successful IS project. A successful IS project can be measure best with psychometric tests of attitude, interests, and opinions such as user information satisfaction in the broadest sense. The performance measures of the business determine the effectiveness of the MIS.

You can see that informationtechnologygive companies a competitive edge, once an information based service enters other company either catch up or eliminate the original innovator competitive advantage thus raising the stake for those participating in the marketplace. Today, company can link its customer to its order entry system, thus improving efficiency and improve business performance. Sure, an effective information system, if efficient reduces needless paperwork and allows the customer access to available stock information before committing to the purchase of goods and services.

Let not forget about effective too, the information system provide better service to its customers, for instance, i. e. the creation of electronic travel supermarket through on-line reservation system, i. e. www. priceline. com or www. Travelocity. com, which is transforming the basis of competition within this marketplace. To compete efficiently in this world, companies must establish information partnership as an integral part of successful business processes.