

COMPETITIVE ADVANTAGE THROUGH ENTERPRISE MANAGEMENT SYSTEMS

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Today's worldwide market is constantly changing, bringing new competition along with new opportunities. New competition pushes business to achieve ever-higher levels of service. New technology compresses product life cycles and demands that companies adopt new technology or risk losing market share. Keeping a competitive edge means being able to anticipate and respond quickly to changing business conditions. To meet the challenges brought by change, business organisations need solid information systems designed to deliver continuous improvement and innovation by integrating the various functional areas capable of 'enterprise management'.

BUSINESS CHALLENGES

In the past decade the business environment has changed dramatically. Enterprises today confront new markets, new competition, and increasing customer expectations. They must respond to these challenges to stay in business.

The first challenge is the new market opportunity represented by the European Community (EC), North American Free Trade Agreement (NAFTA), Association of Southeast Asian nations (ASEAN) and the Global Agreement on Trade and Tariffs (GATT). Organisations can now participate in larger markets than they could in the past. To take advantage of these new opportunities, manufacturers must be able to serve the needs of these new customers.

The second challenge is new competition. New competitors increasingly appear in local markets. New technologies replace older products at an ever-faster pace. With a worldwide marketplace, customers can

now "shop the world" for the best service and products.

Finally, organisations today are challenged by customer expectations. Increasingly, businesses of every type are reducing the number of suppliers that they deal with. These customers expect 100 per cent on-time delivery, high quality, and competitive prices. And, increasingly, they expect their suppliers to "go paper-less"—to communicate electronically. Without electronic communication capabilities, manufacturers in many industries cannot compete at all.

ENTERPRISE MANAGEMENT SYSTEMS : A NEW DIMENSION

Companies can gain a competitive edge and benefit from successfully meeting these challenges of ever-changing business environments by effectively managing and integrating their business processes. Enterprise Management Systems (EMS) is a new concept in business management that essentially comprises application soft-

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ware for each of the business functions and activities, and is "totally integrated".

Many companies have spent decades automating portions of their business, with solutions that have resulted in scattered networks and "information islands". The emerging trend is to spread the information and systems across divisions, departments, functions and physical locations for operational flexibility while, at the same time, using this information as a key enterprise resource by integration.

Enterprise Management Systems provide a total solution for different functional activities like Finance, Manufacturing, Sales, Distribution, etc. Since these are integrated by the software, information is easily accessed throughout the organisation.

Enterprise Management Systems offer not only an on-line transaction processing system for operations support but also decision support systems like Enterprise Information Systems (EIS) for management support. World-wide organisations use EMS for streamlining their "supply chain". Major players in the electronics industry like Philips, Hitachi, and Nortel have gained major benefits by ensuring integration of information between Sales, Production and Purchase departments to ensure customer satisfaction by making the right products available at the right time and right place. For example, based on sales orders, Enterprise Management System enables the production department plan raw material procurement after checking inventory stores and giving due consideration to purchase lead times.

SUPPLY CHAIN MANAGEMENT

Supply chain management describes the integrated management of materials from raw material suppliers to the delivery of finished product to a customer. This inte-

gration includes suppliers, sub-contract suppliers, in-house production processes, shipping, transportation, distribution warehouses, and closes the loop with the end customer.

Electronics industry is characterised by such short product life cycles that companies cannot compete solely on product leadership. As we all know when selecting a new computer, if you wait a week or two there will be something better. So leadership is achieved through price, availability, or service. The industry is undergoing major changes as companies focus on their core competencies. If a company achieves leadership through designing superior products, then it may be better served by concentrating on this competence and outsourcing its manufacturing, distribution and service activities. Similarly, if its core competence is manufacturing, then it must consider manufacturing its competitors' products also. The electronics industry must provide products on short lead-times and at competitive prices. The industry is seeking new business processes and a structured supply chain to provide a competitive advantage by implementing Enterprise Management Systems.

Enterprise Information System is one of the tools for managers who wish to improve the business performance of their companies. The enterprise tool presents the information accurately, timely, up-to-date, and by means of a friendly user interface. Basically, the information needed to make strategic decisions and set realistic goals is at the manager's fingertips.

EIS provides a user-friendly, graphical tool that monitors business performance with user-defined performance indicators. More than a series of graphical reporting tools, EIS alerts management to performance deviations. Managers can see overview

information for companies, sites, and specific area within a plant; graphical displays provide "drill down" capability to actual data. These tools can assist companies in managing their supply chain. Manufacturing can establish performance indicators for supplier deliveries, manufacturing defects, inter-plant deliveries, and on-time customer shipments. These indicators can be monitored easily, enabling a proactive management of the business. A company's performance indicators are displayed, showing the valid range for each indicator and its "owner". The buttons are color-coded to indicate performance: green is acceptable, yellow is caution, and red is unacceptable.

EMS: ENABLING BUSINESS PROCESS REENGINEERING

Due to rapid changes in the market, organization, and technology, many companies are forced to reevaluate and adapt the structures of their business processes. This reevaluation process, known as Business Process Reengineering (BPR), is often initiated with the introduction of logical standard systems that function as a BPR enabler.

Enterprise Management Systems are designed incorporating the "best business practices" for the different activities for a given industry. These "business models" are designed by incorporating feedback from the big six consultants and industry experts. Implementing Enterprise Management Systems enables organizations to critically reexamine their processes and align them with the best, i.e. reengineer.

ELECTRONIC COMMERCE

"Going paper-less" means that trading partners must communicate business infor-

mation, electronically, between two computer systems. This computer to computer exchange, known as Electronic Data Interchange (EDI), describes the transfer of common business documents, such as purchase orders, invoices and manufacturing schedules, in standard formats.

EDI can also be used by multi-site companies to transfer requirements, schedules, shipments, and receipts among plants.

The goal of EDI is cost reduction through the elimination of traditional paper documents and all of the attendant overheads that accompanies their generation and receipt. For example, through the use of computer messages in a standard format, users can purchase and sell inventory and services, invoice a customer, pay a supplier, and advise a trading partner of a shipment.

INTERNET

The business environment is constantly changing, and a faster response to customer/supplier issues makes the difference between success and failure. Businesses can reap significant cost and time savings by employing the Internet higher service levels provided by 24-hour availability and the ability to provide valuable information throughout the supply chain. Enterprise Management Systems exploit the benefits offered by Internet.

References

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