CS 2 INFORMATION MANAGEMENT

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1. ***How do enterprise systems help businesses achieve operational excellence?***

Enterprise systems, also known as **enterprise resource planning (ERP) systems**, are based on a suite of integrated software modules and a common central database. The database collects data from various divisions and departments within a firm, covering key business processes:

- manufacturing and production
- finance and accounting
- sales and marketing
- human resources.

This data is made available for applications that support nearly all of the organization's internal business activities. When new information is entered by one process, it is immediately accessible to other business processes.

Enterprise systems provide value by both:

- increasing operational efficiency and
- offering firm-wide information to help managers make better decisions.

These systems help firms respond quickly to customer requests for **information** or **products**. By integrating order, manufacturing, and delivery data, manufacturing is better informed by:

- producing only what customers have ordered
- procuring the right number of components or raw materials
- minimizing the time components or finished products spend in inventory.

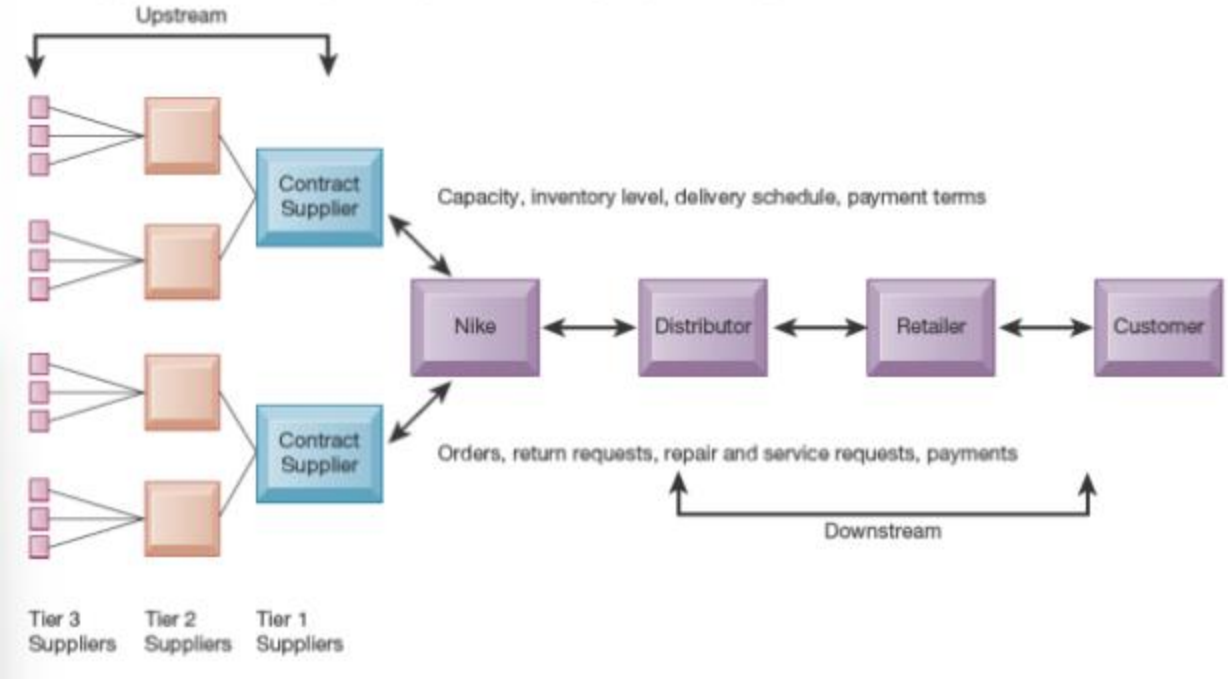
Enterprise systems also provide valuable information for improving management decision-making. Corporate headquarters has access to *up-to-date data* on **sales**, **inventory**, and **production**, which is used to create more accurate sales and production forecasts. This allows senior management to easily assess the performance of any organizational unit, determine which products are most or least profitable, and calculate overall company costs.

2. ***How do supply chain management systems coordinate planning, production, and logistics with suppliers?***

A firm's **supply chain** is a *network of organizations and business processes* for procuring raw materials, transforming the materials into intermediate and finished products, and distributing the finished product to customers.

FIGURE 9.2 NIKE'S SUPPLY CHAIN

This figure illustrates the major entities in Nike's supply chain and the flow of information upstream and downstream to coordinate the activities involved in buying, making, and moving a product. Shown here is a simplified supply chain, with the upstream portion focusing only on the suppliers for sneakers and sneaker soles.



Upstream - portion of the supply chain includes the *company's suppliers, the suppliers' suppliers, and the processes or managing relationships with them.*

Downstream - portion consists of the organizations and processes *for distributing and delivering products* to the final customers.

Just-in-time strategy - a strategy where components would arrive exactly at the moment they were needed, and finished goods would be shipped as they left the assembly line.

In order to satisfy customers while unforeseen events happened causing product delivery to be delayed, manufacturers keep a **safety stock** which acts as a *buffer* for the lack of flexibility in the suppl chain. Although excess inventory is expensive, low fill rates are also costly because business may be lost from cancelled orders.

Bullwhip effect - happened when *information gets distorted* as it passes from one entity to the next across the supply chain. If all the supply chain members share up-to-date and accurate information about inventory levels, schedules, forecasts, and shipments, they have more precise knowledge about how to adjust their sourcing, manufacturing, and distribution plans, the bullwhip effect can be tamed.

Supply chain software is classified as either:

- **Supply Chain Planning** - software to help businesses plan their supply chains
- **Supply Chain Execution** - software to help them execute the supply chain steps

Demand planning is one of the most important and complex supply chain planning functions wherein it determines how much product a business needs to make to *satisfy* all its customers' demands.

In addition to reducing costs, supply chain management systems facilitate efficient customer response, enabling the workings of the business to be driven more by customer demand.

Earlier supply chain management systems were driven by a **push-based (build-to-stock) model**, where:

- the production master schedule is based on forecasts or best guesses of demand for products, and
- products are pushed to the customers.

With new flows of information made possible by web-based tools, supply chain management more easily follows a **pull-based(build-to-order) model** where:

- actual customer orders or purchases trigger events in the supply chain.

By implementing a networked and integrated supply chain management system, companies can:

- match supply to demand,
- reduce inventory levels,
- improve delivery service,
- speed product time to market, and
- use assets more effectively

More precise control of the supply chain enhances the firm's ability to have the right product available for customer purchases at the right time.

3. ***How do customer relationship management systems help firms achieve customer intimacy?***

In a large business operating on a metropolitan, regional, national, or even global basis, it is impossible to know your customer in an intimate way due to:

- too many customers

- too many ways customers interact with the firm (over the web, phone, email, blogs, and in person).

It becomes especially difficult to integrate information from all these sources and deal with the large number of customers. **Customer relationship management (CRM) systems** capture and integrate customer data, and then distribute the results to various systems and customer **touch point (contact point)** across the enterprise. A **touch point** is a method of interaction with the customer, such as:

- telephone,
- email,
- customer service desk,
- conventional mail,
- Facebook,
- Twitter,
- website,
- wireless device, or
- retail store.

Commercial CRM software packages range from niche tools that perform limited functions, such as personalizing websites for specific customers, to large-scale enterprise applications. The more comprehensive CRM packages contain module for:

1. **Partner Relationship Management (PRM) –** enhances collaboration between a company and its selling partners and,
2. **Employee Relationship Management (ERM) –** deals with employee issues that are closely related to CRM, such as setting objectives, employee performance management, performance-based compensation, and employee training.

Sales force automation (SFA) modules in CRM system help sales staff increase productivity by focusing sales efforts on the most profitable customer, those who are good candidates for sales and services. SFA modules provide sales prospect and contact information, product information, product configuration capabilities sales quote generation capabilities. It can assemble information about particular customer's past purchases to help the salesperson make personalized recommendations.

Customer service modules in CRM systems help improve the efficiency of call centers, help desks, and customer support teams by managing customer service requests. These systems can route customer calls to the right service personnel, who only need to input the customer's information once. Afterward, any representative can access this data, improving service consistency. This results in higher productivity, shorter call durations, and better service at lower costs. Customers benefit from faster service and less need to repeat information. Additionally,

CRM systems may offer web-based self-service options for personalized support and further assistance.

Companies with effective customer relationship management (CRM) systems realize many benefits, including:

- increased customer satisfaction,
- reduced direct-marketing costs,
- more effective marketing, and
- lower costs for customer acquisition and retention.

Information from CRM systems increases sales revenue by:

- identifying the most profitable customers and segments for focused marketing and
- cross-selling (marketing complementary products to customers).

Customer churn is reduced as sales, service, and marketing *respond better to customer needs.* The **churn rate** measures the number of customers who stop using or purchasing products or services from a company. It is an important indicator of the growth or decline of a firm's customer base.

4. ***What are the challenges that enterprise applications pose, and how are enterprise applications taking advantage of new technologies?***

Enterprise applications involve **complex pieces of software** that are expensive to purchase and implement. It requires not only deep-seated technological changes but also **fundamental changes** in the way the business operates, Companies must make sweeping changes to their business processes to work with the software. Employees must accept new job functions and responsibilities. They must learn how to perform a new ser of work activities and understand how the information they enter into the system can affect other parts of the company. This requires:

- new organizational learning and
- should be factored into ERP implementation costs.

SCM systems involve multiple organizations sharing information and processes, and firms may need to adapt their processes to benefit the supply chain. Companies like Woolworth's Australia and Kmart faced operational issues due to poor understanding of the necessary changes, such as data management and system integration. Enterprise applications also come *with high switching costs*, as businesses become dependent on vendors like SAP or Oracle for upgrades and maintenance. **Data cleansing** is *often required* for CRM systems, and vendors offer simplified versions and fast-start programs to address common issues.

Companies can save time and money **by minimizing customizations**, as seen in examples like Kennametal and Office Depot, which adopted standardized enterprise software to streamline their processes and reduce costs. Today, enterprise application vendors are delivering more value by becoming more *flexible, user-friendly, web-enabled, mobile*, and *capable of integration* with other systems. Major enterprise software vendors have created **enterprise solutions** enterprise suites, or e-business suites *to integrate* **CRM, SCM**, and **ERP** systems with each other and link them to the systems of customers and suppliers.

Cloud-based enterprise systems are increasingly adopted by large companies, including FT Global 500 firms, running all or part of their enterprise applications in the cloud.