Chapter 11:
Issues in E-Commerce

Electronic Payment System

- Implementation of electronic payment systems is in its infancy and still evolving.
- Electronic payments are far cheaper than using the dead-tree method of mailing out paper invoices and then later processing received payments.
- Electronic billing and payment systems is a win-win situation:
  - It is convenient for customers and it saves companies a lot of money.

Electronic Payment Systems - Payment Method

- There are currently three basic ways to pay for your purchases:
  - Cash
  - Cheque
  - Credit card
- Electronic cash distribution and payment can be handled by wallets, smart cards, or through proprietary, limited-use scrip (Scrip is a digital cash minted by a small number of third-party organizations).
- Electronic checks are encrypted representations that resemble electronic cash.
- Over 80% of Internet purchases are paid for with credit (or debit) cards.

Electronic Cash

- Credit card-issuing banks make money, by charging merchants a processing fee ranging from 1-3% of the value of the transaction.
- Small purchases are not profitable for merchants who accept only credit cards for payment.
- Compaq and IBM are among several companies that think electronic cash schemes are in their infancy, and these companies envision a rosy future for such methods.
- Electronic cash is attractive in the sale of goods and services of **Micropayments** (Internet payments for items costing US$1 or less are called Micropayments)

Concerns on Electronic Cash

- All electronic payment schemes have some issues that must be satisfactorily resolved to allay consumers'fears and give them confidence in the methodology.
- Concerns about electronic payment methods include **Privacy** and **Security**, **Independence**, **Portability**, **Divisibility** and **Convenience**.
- These issues are particularly important when considering electronic cash payment systems.
- Privacy and security questions are probably the most important issues that have to bee addressed with any consumer.

Characteristics of Electronic Cash

- Electronic cash should have two important characteristics in common with real currency.
    - ◆ It must be possible to spend electronic cash only one, just as real currency is.
    - ◆ Security procedures should be in place to guarantee that the entire electronic cash transaction occurs between two parties such that the recipient knows that the electronic currency being received is not counterfeit or being used in two different transactions.

An Effective Web Presence

- The only contact that customers and other stakeholders have with a firm on the Web might be through its presence there.
- Creating an effective Web presence can be critical even for the smallest and newest firm operating on the Web, and the tasks are:
    - ◆ Identifying Web Presence Goals
    - ◆ Achieving Web Presence Goals

Identifying Web Presence Goals

- When a business creates a physical space in which to conduct its activities, its managers focus on very specific objectives.
- They must find a location that will be convenient for customers to find, with sufficient floor space and features to allow the selling activity to occur, and they must balance the need for room to store inventory and provide employee working space with the costs of obtaining that space.
- The presence of a physical business location results from satisfying these other objectives and is rarely a main goal of designing the space.

Achieving Web Presence Goals

- An effective site is one that creates an attractive presence that meets the objectives of the business or other organization.
- These objectives include:
  - Attracting visitors to the Web site
  - Making the site interesting enough that visitors stay and explore
  - Convincing visitors to follow the site's links to obtain information
  - Creating an impression consistent with the organization's desired image
  - Reinforcing positive images that the visitor might already have about the organization

Important of Web Presence

- On the Web, businesses and other organizations have the luxury of intentionally creating a space that creates a distinctive presence.
- A Web site can perform many image-creation and image-enhancing tasks very effectively – it can serve as a sales brochure, a product showroom, a financial report, an employment ad, or a customer contact point.
- Each entity that establishes a Web presence should decide which tasks the Web site must accomplish and which tasks are the most important to include.
- Different firms, even those in the same industry, might establish different Web presence goals.

Web Presence for Not-for-profit Organizations

- Use their Web sites as a central resource for integrated communications with their varied and often geographically disperse constituencies.
- Integrate information dissemination with fund-raising while providing a two-way contact channel with persons engaged in the organization's work.
- This combination of information dissemination with a two-way contact channel is a key element in any successful electronic commerce Web site.
- Use the Web to stay in touch with existing stakeholders and identify new opportunities for serving them.

Issues in Setting up a Website

- Use of e-commerce software
- Development of the website
- Digital cash: Payment
- Delivery
- CRM facility

Strategies for Purchasing, Logistic and Support Activities

- Businesses use electronic commerce to improve their primary activity of purchasing and all of the support activities creating a Web presence and selling to new customers on the Web.
- An emerging characteristic of purchasing, logistics and support activities is that they need to be flexible.
- Economic organizations are evolving from the hierarchical structures they have used since the Industrial Revolution to new, more flexible network structures.
- These network structures are made possible by the reductions in transaction costs caused by the emergence of the Internet and the Web.

Purchasing Activities

- Purchasing activities include identifying vendors, evaluating vendors, selecting specific products, placing order, and resolving any issues that arise after receiving the ordered goods or services.
- These issues might include late deliveries, incorrect quantities shipped, incorrect items shipped, and defective items.
- The term **Procurement** generally includes all purchasing activities, plus the monitoring of all elements of purchase transactions. It also includes the job of managing and developing relationships with key suppliers.

Purchasing Activities Strategies

- A number of manufacturers that deal in general industrial merchandise and standard machine tools that are used in a variety of industries have created Web sites through which businesses can purchase items to fulfill recurring needs.
- Many of the products that companies buy on a recurring basis are commodities; that is, standard items that buyers usually select using price as their main criterion.
- These products are often called **Maintenance, Repair and Operating** (MRO) supplies.

Purchasing Activities Strategies

- By using a Web site to process orders, the vendors in this market can save the cost of printing and shipping catalogs, and the cost of handling telephone orders.
- Office equipment and supplies are also items that are used by a wide variety of businesses.
- Well-designed Web sites devoted to helping business purchasing departments buy these routine items are easily as possible.

What is Logistics Activities?

- Logistics activities include managing the inbound movements of materials and supplies and the outbound movements of finished goods and services.
- The activities of **Receiving**, **Warehousing**, **Inventory Control**, **Vehicle Scheduling and Control**, and **Finished Goods Distribution** are all logistics activities.
- The classic objective of logistics is **providing the right goods in the right quantities in the right place at the right time.**

Logistics Activities Strategies

- Businesses have been increasing their use of information technology to achieve this objective.
- Information system delivers real-time shipment information to Web browsers on its customers' computers.
- Firms that run their own tracking operations have also begun implementing tracking systems that use satellite global positioning technology to monitor vehicle movements.
- The Web and the Internet are providing an increasing number of opportunities to better manage these activities as they lower transaction costs and provide constant connectivity between firms engaged in logistics management.

Support Activities

- Support activities include the general categories like
  - ◆ Finance and Administration
  - ◆ Human Resources
  - ◆ Technology Development

Finance and Administration

- Finance and Administration includes activities such as making payments, processing payments received from customers, planning capital expenditures, and the budgeting and planning that ensure sufficient funds will be available to meet the organization's obligations as they come due.
- The operation of the computing infrastructure of the organization is also an administration activity.

Human Resource Activities

- Human Resource activities include hiring, training, and evaluating employees; benefits administration, and complying with government record-keeping regulations.

Developing Technology

- Developing Technology can include a wide variety of activities, depending on the nature of the business or organization.
- It can include the networking of research scientists into virtual collaboration work-groups, posting of research results, publishing research papers online, and providing connections to outside sources of research and development services.

Support Activities - Training Strategies

- The training function can be handled by the human resources department, or decentralized and administered by individual departments.
- In addition to saving the costs of running classroom sessions in multiple locations, many companies found that the training was producing sales increases in specific product lines.
- The company also began tracking the courses that a salesperson or reseller's salesperson had taken and began assigning sales leads for specific products to the salespersons that had taken the course for that product.
- To keep salespersons updated after they have taken a course, they send course graduates an e-mail notification whenever new information about a product becomes available.

Business Plan for Implementing E-Commerce

- Setting Objectives
- Benefit Objectives
- Cost Objectives
- Comparing Benefits to Costs

Setting Objectives

- Objectives for e-commerce initiatives should include expected benefits and expected costs. It can inspire businesses to undertake activities:
  - Building brands
  - Enhancing existing marketing programs
  - Selling products and services
  - Selling advertising
  - Improving after-sales service and support
  - Purchasing products and services
  - Managing supply chains
  - Operating auctions
  - Creating virtual communities and Web portals
- Although the success of each of these activities is measurable to some degree, many companies have undertaken these activities on the Web without setting specific, measurable goals.

Cost and Benefit Evaluation

- In the early days of e-commerce (the mid-1990s), companies that had good ideas could launch a business activity on the Web and not face competition.
- As e-commerce is now beginning to mature, more companies are taking a closer look at the benefits and costs of their electronic commerce projects.
- A good business plan will set specific objectives for benefits to be achieved and costs to be incurred.
- A company will create a pilot Web site to test an electronic commerce idea, and then release a production version of the site when it works well.
- These companies must specify clear goals for the pilot test so that they know when the site is ready to scale up.

Benefit Objectives

- Some companies build Web sites to build their brands or enhance existing marketing programs in order to increased brand awareness, as measured by market research surveys and opinion polls.
- Companies that want to sell goods or services on their sites can measure sales volume in units or dollars.
- A good marketing staff or outside consulting firm can help a company sort out the causes and effects of marketing and sales programs and may be needed to help set and evaluate these kinds of goals for electronic commerce initiatives.
- Companies that want to use their Web sites to improve customer service or after-sales support might set goals of increasing customer satisfaction or reducing the cost of providing the customer service or support.

Measurement of Benefit

- The benefits of other electronic commerce initiatives can be assessed by using a variety of measurements.
  - Supply chain managers can measure supply cost reductions, quality improvements, or faster deliveries of ordered goods.
  - Auction sites can set goals for the number of auctions, the number of bidders and sellers, the dollar volume of items sold, the number of items sold, or the number of registered participants.
  - Virtual communities and Web portals measure the number of visitors and try to measure the quality of their visitors' experiences.
  - Some sites use online surveys to gather these data; most settle for approximations provided by measuring the length of time each visitor remains on the site and how often visitors return.

Cost Objectives

- Managers found that the cost of information technology projects can be equally difficult to estimate and control.
- Since Web development uses relatively new hardware and software technologies, managers have little experience on which they can draw to make estimates.
- E-Commerce initiatives tend to have a shorter timeframe than many other information technology projects, the rapid changes in Web technology can destroy a manager's best-laid plans very quickly.
- In addition to hardware and software costs, the project budget must include the costs of hiring, training, and paying the personnel who will design the Web site, write or customize the software, create the content, and operate and maintain the site.

Comparing Benefits to Costs

- Most companies have procedures that call for an evaluation of any major expenditure of funds.
- These major investments in equipment, personnel, and other assets are called capital projects or capital investments.
- The techniques that companies use to evaluate proposed capital projects range from very simple calculations to complex computer simulation models.
- No matter how complex the technique, it always reduces to a comparison of benefits and costs.
- If the benefits exceed the cost of a project by a comfortable margin, the company invests in the project.

Cost-Benefit Evaluation of E-Commerce Strategy Elements

- A key part of creating a business plan for e-commerce initiatives is the process of identifying potential benefits, identifying the costs required to generate those benefits, and evaluating whether the benefits exceed the costs.
- Companies should evaluate each element of their e-commerce strategies using this cost-benefit approach.
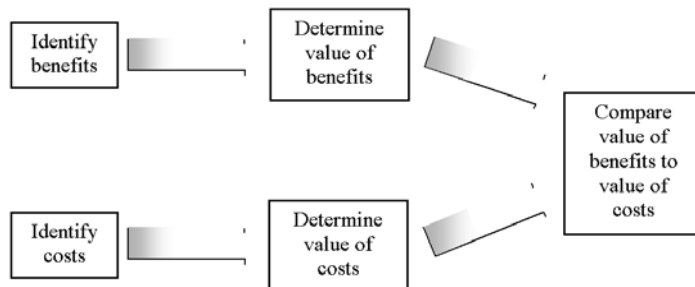
E-Commerce: Go or Stop?

- Capital project evaluation (such as the payback method or the net present value method) provide a quantitative expression of what a comfortable benefit-to-cost margin is for a specific company.
- Managers often use the term **Return on Investment** (ROI) calculation to describe any capital investment evaluation technique.
- The value of early position in a new market is so great that many companies are willing to invest very large amounts of money with no near-term prospects of profit.