UNIT 2: ECOMMERCE BUSINESS MODEL

1. **E-commerce Business Model Based on the Relationship of Transaction Parties.**
    - **Business to Consumer (B2C)**
    - **Business to Business (B2B)**
    - **Consumer to Consumer (C2C)**
    - **Consumer to Business (C2B)**

2. **E-commerce Business Model Based on the Relationship of Transaction Types.**
    - **Brokerage Model**
    - **Aggregator Model**
    - **Info-Mediatory Model**
    - **Value Chain Model**
    - **Community Model**
    - **Advertisement Model**

Introduction to Business Model

A business model is the method of doing business by which a company can sustain itself, that is, generate revenue. The business model spells out how a company makes money by specifying where it is positioned in the value chain.

Some models are quite simple. A company produces goods or services and sells it to customers. If all goes well, the revenues from sales exceed the cost of operation and the company realizes profit. Other models can be more complex. Radio and television broadcasting are a good example. The broadcaster is part of a complex network of distributors, content creators, advertisers, and listeners or viewers. Who makes money and how much, it is not always clear at the outset? The bottom line depends on many competing factors.

For our understanding, e-commerce can be defined as any form of business transaction in which the parties interact electronically.' A transaction in an electronic market represents a number of interactions between parties. For instance, it could involve several trading steps, such as marketing, ordering, payment, and support for delivery. An electronic market allows the participating sellers and buyers to exchange goods and services with the aid of information technology. Electronic markets have three main functions such as: (i) matching buyers and sellers, (ii) facilitating commercial transactions, and (iii) providing legal infrastructure. Information technology permeates all the three functions and also helps to increase market efficiency and reduce transaction costs.

The interaction between participants is supported by electronic trade processes that are basically search, valuation, payment and settlement, logistics, and authentication, as shown in Figure 2.1. The Internet and the World Wide Web allow companies to efficiently implement these key trading processes. For instance, many search services and brokers are available to help buyers find information, products, and merchants in electronic markets.

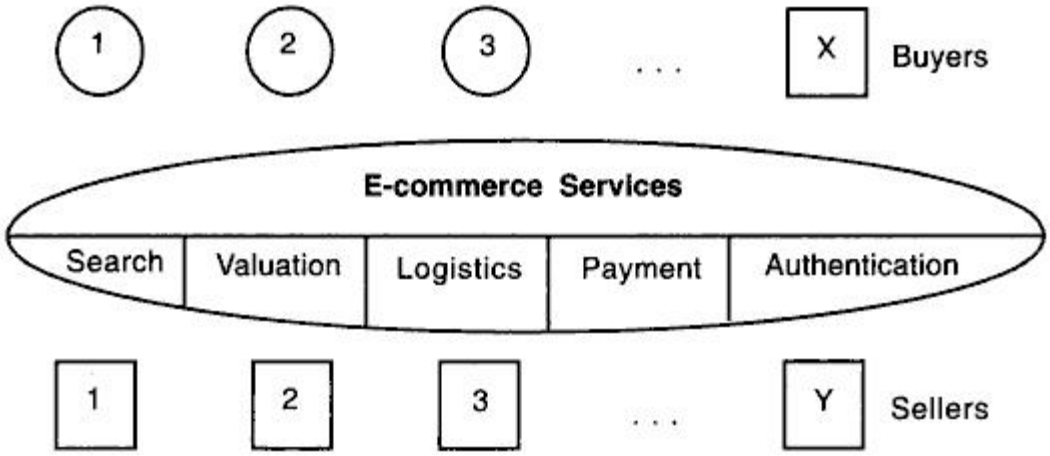


Fig. 2.1 Representation of an electronic market.

E-commerce can be formally defined as technology-mediated exchanges between parties (individuals, organizations, or both) as well as the electronically-based intra- or inter-organizational activities that facilitate such exchanges. It is global. It favors intangible things—ideas, information, and relationships. And it is intensely interlinked. These three attributes produce a new type of marketplace and society.

A company's business model is the way in which it conducts business in order to generate revenue. In the new economy, companies are creating new business models and reinventing old models. Reading the literature, we find business models categorized in different ways. Presently, there is no single, comprehensive and cogent taxonomy of Web business models that one can point to. Although there are many different ways to categorize e-business models, they can be broadly classified as follows:

1) E-Business models based on the relationship of Transaction Parties
2) E-Business models based on the relationship of Transaction Types

E-Business models based on the relationship of Transaction Parties

Electronic markets are emerging in various fields. Different industries have markets with different characteristics. For example, an information B2C market differs in many respects from the automotive B2B market.

The information B2C market represents companies that sell digital information goods, such as news, articles, music, books, or digital videos. In the information B2C market, the electronic infrastructure not only helps match customers and sellers, but also acts as the distribution channel, delivering products to customers.

In the automotive B2B market, the products traded, such as parts and components of cars, have a high degree of specificity. The market infrastructure used is to be mainly based on Electronic Data Interchange (EDI) over expensive VAN services. EDI involves the exchange of standardized, structured information between originations, permitting direct communication between computer systems. B2B is also a closed market in the sense that the number of participants involved in trading is limited and known a priori.

Understanding the nature of the market's requirements is critical for creating the underlying e-business

infrastructure. The relation between B2B and B2C models is clearly shown in Figure 2.3.

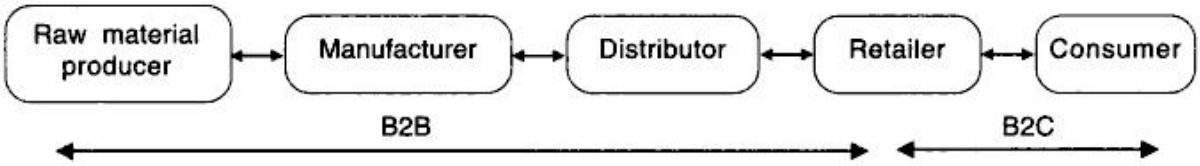


Fig. 2.3 Relation between B2B and B2C models.

B2B covers business transactions along the various interactions existing in the value chain from producers of raw materials to retailers and consumers including manufacturers and distributors. On the contrary. B2C reflects only the interactions between a customer and a retailer. Basically, B2C transactions include the following steps: (i) account acquisition. (ii) product discovery through search and browse, (iii) price negotiation, (iv) payment, and (v) product delivery. In some cases, customer services may also exist.

TABLE 2.1
SUMMARY OF E-BUSINESS TRANSACTION MODELS

Model	*Description*	*Examples*
B2C	Sells products or services directly to consumers.	*amazon.com, autobytel.com, eDiets.com, Pets.com*
B2B	Sells products or services to other businesses or brings multiple buyers and sellers together in a central marketplace.	*MetalSite.com, VerticalNet.com, SHOP2gether.com*
B2G	Businesses selling to local, state, and federal agencies.	*iGov.com*
C2C	Consumers sell directly to other consumers.	*ebay.com, InfoRocket.com*
C2B	Consumers fix price on their own, which businesses accept or decline.	*Priceline.com*

E-commerce can be classified according to the transaction partners such as **1) business to-consumer (B2C), 2) business-to-business (B2B), 3) business-to-government (B2G), 4) consumer to-consumer (C2C), and 5) consumer-to-business (C2B)**. Within these broad categories, there are a number of variations in the way the models are implemented. Table 2.1 summarizes souse of the current e-business models. The contents of this table are illustrated in the form of a diagram in Figure 2.4.

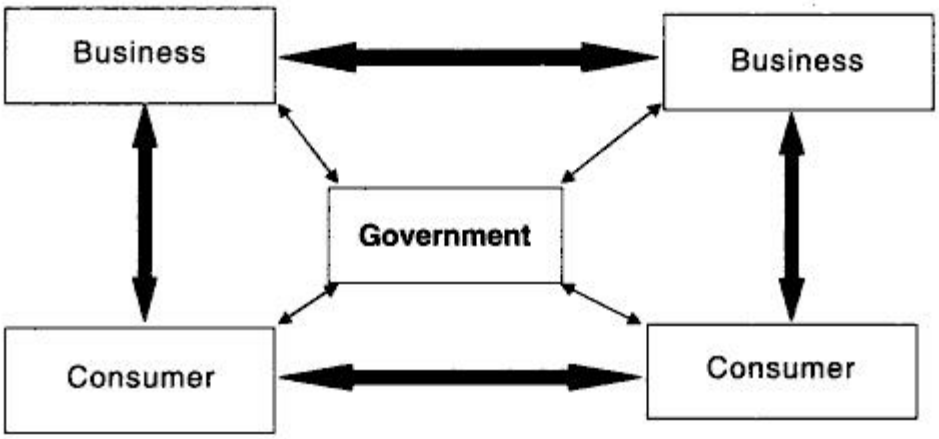


Fig. 2.4 E-business transaction model.

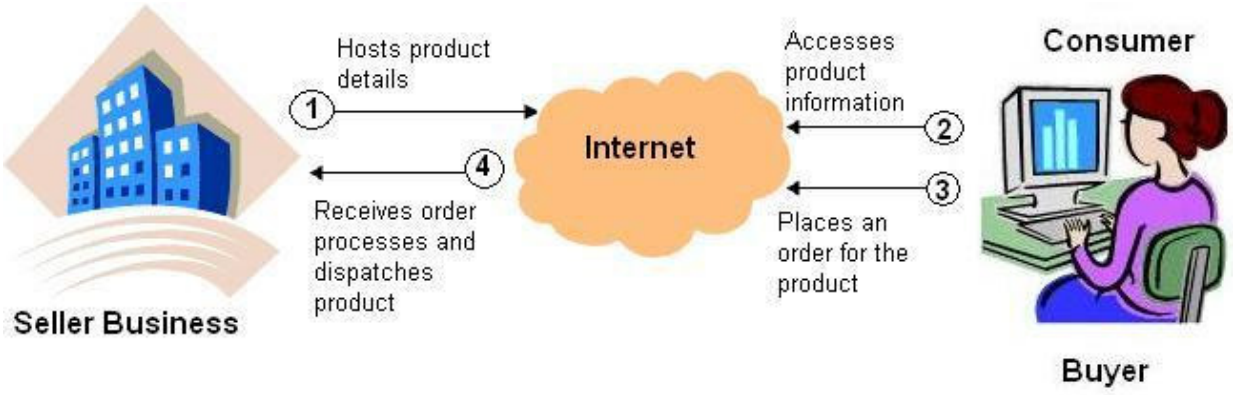
1) Business-to-Consumer (B2C)

The B2C model involves transactions between business organizations and consumers. It applies to any business organization that sells its products or services to consumers over the Internet. These sites display product information in an online catalog and store it in a database. The B2C model also includes services online banking, travel services, and health information and many more as shown in figure below.

Consumers are increasingly going online to shop for and purchase products, arrange financing, arrange shipment or take delivery of digital products such as software, and get service after the sale. B2C e-business includes retail sales, often called e-retail (or e-tail), and other online purchases such as airline tickets, entertainment venue tickets, hotel rooms, and shares of stock.

Some B2C e-businesses provide high-value content to consumers for a subscription fee. Examples of e-business following this subscription model include the Wall Street Journal (financial news and articles), Consumer Reports (product reviews and evaluations), and ediels.com (nutritional counseling).

B2C e-business models include virtual malls, which are websites that host many online merchants. Virtual malls typically charge setup, listing, or transaction fees to online merchants, and may include transaction handling services and marketing options. Examples of virtual malls include excite.com, choicemall, women.com, networkweb.com, amazon.com, Zshops.com, and yahoo.com.



B2C Business Model

E-tailers that offer traditional or Web-specific products or services only over the Internet are sometimes called virtual merchants, and provide another variation on the B2C model. Examples of virtual merchants include amazon.com (books. electronics, toys, and music), eToys.com (children's books and toys), and ashford.com (personal accessories).

Some businesses supplement a successful traditional mail-order business with an online shopping site, or move completely to Web-based ordering. These businesses are sometimes called catalogue merchants. Examples include avan.com (cosmetics and fragrances), chefs (cookware and kitchen accessories), Omaha Steaks (premium steaks, meats, and other gourmet food), and Harry and David (gourmet food gifts).

Many people were very excited about the use of B2C on the Internet, because this new communication medium allowed businesses and consumers to get connected in entirely new ways. The opportunities and the challenges posed by the B2C e-commerce are enormous. A large amount of investment has gone into this and many sites have either come up or are coming up daily to tap this growing market.

Some of the reasons why one should opt for B2C are:

1) Inexpensive costs, big opportunities. Once on the Internet, opportunities are immense as companies can market their products to the whole world without much additional cost.
2) Globalization. Even being in a small company, the Web can make you appear to be a big player which simply means that the playing field has been levelled by e- business. The Internet is accessed by: millions of people around the world, and definitely, they are all potential customers.
3) Reduced operational costs. Selling through the Web means cutting down on paper costs, customer support costs, advertising costs, and order processing costs.
4) Customer convenience. Searchable content, shopping carts. promotions, and interactive and user-friendly interfaces facilitate customer convenience. Thus, generating more business. Customers can also see order status, delivery status, and get their receipts online.
5) Knowledge management. Through database systems and information management, you can find out who visited your site, and how to create, better value for customers.

Processes in B2C (How Does B2C Work?)

B2C e-commerce is more than just an online store. It really is about managing the entire process, but just using technology as a tool for order processing and customer support. Figure 2.5 depicts the processes in B2C.

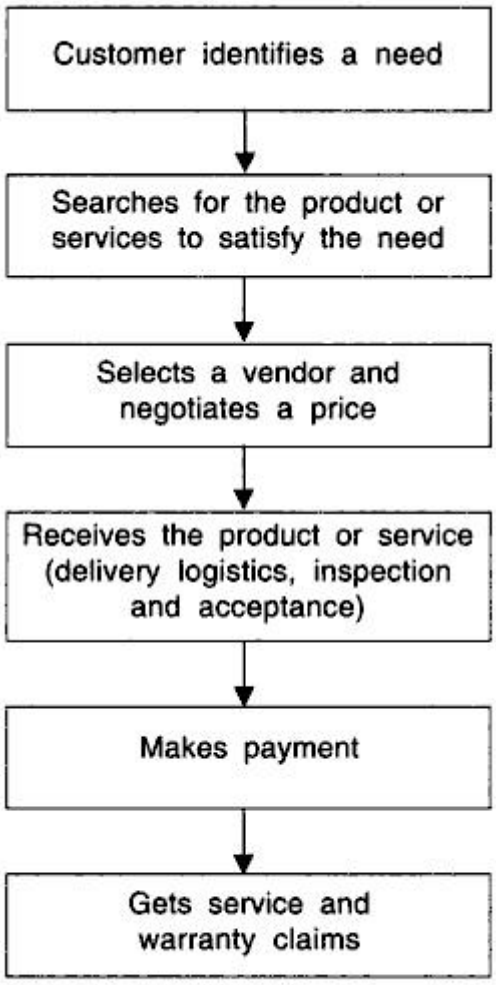


Fig. 2.5 Processes in B2C.

The B2C process is now explained in greater details:

1) **Visiting the virtual mall**. The customer visits the mall by browsing the online catalogue—a very organized manner of displaying products and their related information such as price, description, and availability. Finding the right product becomes easy by using a keyword search engine. Virtual malls may include a basic to an advanced search engine, product rating system, content management, customer support systems, bulletin boards, newsletters and other components which make shopping convenient for shoppers.

2) **Customer registers**. The customer has to register to become part of the site's shopper registry. This allows the customer to avail of the shop's complete services. The customer becomes a part of the company's growing database and can use the same for knowledge management and data mining.

3) **Customer buys products**. Through a shopping cart system, order details, shipping charges, taxes, additional charges and price totals are presented in an organized manner. The customer can even change the quantity of a certain product. Virtual malls have a very comprehensive shopping system, complete with check-out forms.

4) **Merchant processes the order**. The merchant then processes the order that is received from the

previous stage and fills up the necessary forms.

5) **Credit card is processed**. The credit card of the customer is authenticated through a payment gateway or a bank. Other payment methods can be used as well, such as debit cards, prepaid cards, or bank-to-bank transfers.

6) **Operations management**. When the order is passed on to the logistics people, the traditional business operations will still be used. Things like inventory management. total quality management, warehousing, optimization and project management should still be incorporated even though it is an e-business. Getting the product to the customer is still the most important aspect of e-commerce.

7) **Shipment and delivery**. The product is then shipped to the customer. The customer can track the order/delivery as virtual malls have a delivery tracking module on the website which allows a customer to check the status of a particular order.

8) **Customer receives**. The product is received by the customer, and is verified. The system should then tell the firm that the order has been fulfilled.

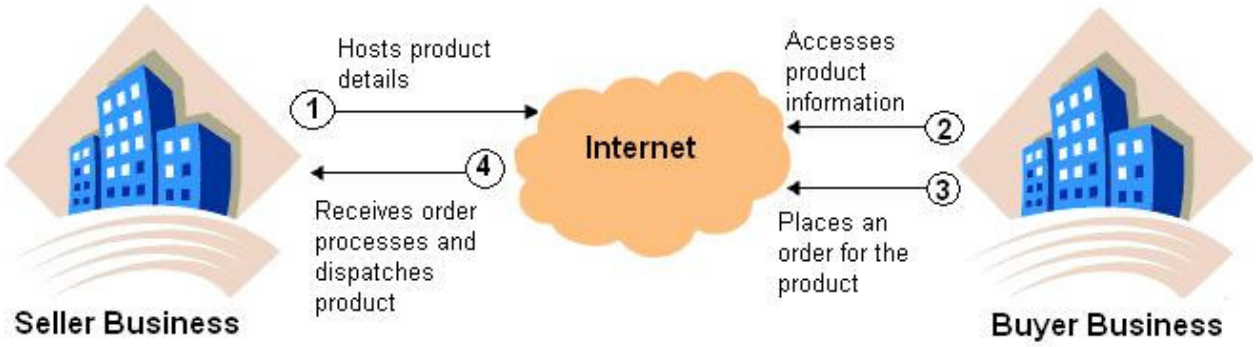
9) **After-sales service**. After the sale has been made, the firm has to make sure that it maintains a good relationship with its customers. This is done through customer relationship management or CRM.

The example of the www.amazon.com site also involves the B2C model in which the consumer searches for a book on their site and places an order, if required. This implies that a complete business solution might be an integration solution of more than one business model. For example, www.amazon.com includes the B2B model in which the publishers transact with Amazon and the B2C model in which an individual consumer transact with the business organization. The B2C model of e-commerce is more prone to the security threats because individual consumers provide their credit card and personal information n the site of a business organization. In addition, the consumer might doubt that his information is secured and used effectively by the business organization. This is the main reason why the B2C model is not very widely accepted. Therefore, it becomes very essential for the business organizations to provide robust security mechanisms that can guarantee a consumer for securing his/her information.

2) Business to Business (B2B)

The B2B model involves electronic transactions for ordering, purchasing, as well as other administrative tasks between business houses. It includes trading goods, such as business subscriptions, professional services, manufacturing, and wholesale dealings. Sometimes in the B2B model, business may exist between virtual companies, neither of which may have any physical existence. In such cases, business is conducted only through the Internet.

Let us look at the example of www.amazon.com. As you know, www.amazon.com is an online bookstore that sells books from various publishers including Wrox, O'Reilly, Premier Press, and so on. In this case, the publishers have the option of either developing their own site or displaying their books on the Amazon site (www.amazon.com), or both. The publishers mainly choose to display their books on www.amazon.com at it gives them a larger audience. Now, to do this, the publishers need to transact with Amazon, involving business houses on both the ends, is the B2B model as shown in figure below.



B2B Business Model

Thus, B2B is that model of e-commerce whereby a company conducts its trading and other commercial activity through the Internet and the customer is another business itself. This essentially means commercial activity between companies through the Internet as a medium.

This is supposed to be a huge opportunity area on the Web. Companies have by and large computerized all the operations worldwide and now they need to go into the next stage by linking their customers and vendors. This is done by supply chain software, which is an integral part of your ERP application. Companies need to set up a backbone of B2B applications, which will support the customer requirements on the Web. Many B2B sites are company and industry specific, catering to a community of users, or are a combination of forward and backward integration. Companies have achieved huge savings in distribution-related costs due to their B2B applications.

Major Advantages of B2B

1) **Direct interaction with customers**. This is the greatest advantage of e-business.

2) **Focussed sales promotion**. This information gives authentic data about the likes, dislikes and preferences of clients and thus helps the company bring out focussed sales promotion drives which arc aimed at the right audience.

3) **Building customer loyalty**. It has been observed that online customers can be more loyal than other customers if they are made to feel special and their distinct identity is recognized and their concerns about privacy are respected. It has also been found that once the customers develop a binding relationship with a site and its product, they do not like to shift loyalties to another site or product.

4) **Scalability**. This means that the Web is open and offers round-the-clock access. This provides an access never known before, to the customer. This access is across locations and time zones. Thus a company is able to handle many more customers on a much wider geographical spread if it uses

an e-business model. The company can set up a generic parent site for all locations and make regional domains to suit such requirements. Microsoft is using this model very successfully.

5) **Savings in distribution costs**. A company can make huge savings in distribution, logistical and after-sales support costs by using e-business models. Typical examples are of computer companies, airlines, and telecom companies.

Processes for Business-to-Business Transactions and Models

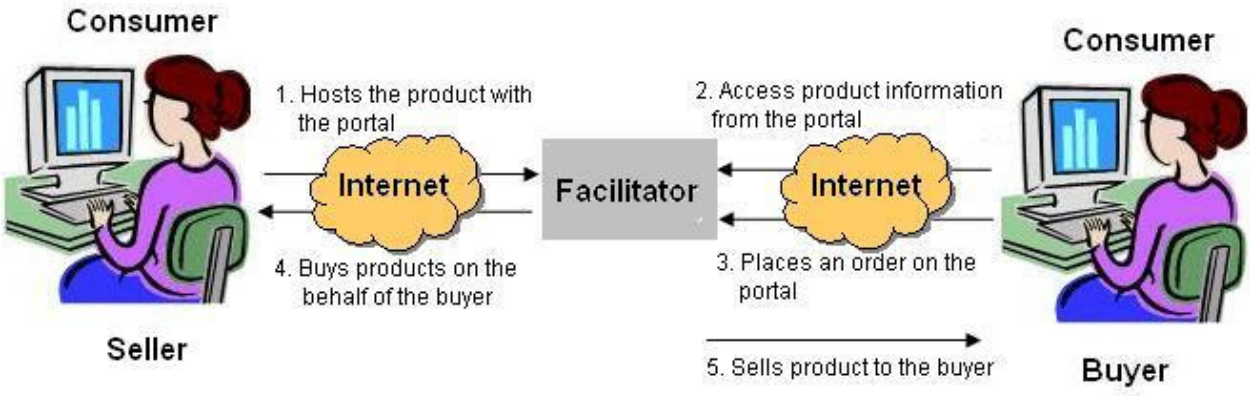
B2B interactions involve much more complexity than B2C. For instance, typical B2B transactions include, among others, the following steps:

(i) review catalogues,
(ii) identify specifications.
(iii) define requirements,
(iv) post request for proposals (REP).
(v) review vendor reputation.
(vi) select vendor.
(vii) fill out purchase orders (PO).
(viii) send PO to vendor,
(ix) prepare invoice,
(x) make payment,
(xi) arrange shipment, and
(xii) organize product inspection and reception.

Due to the large number of transactions involved, business-to-business operations can be too risky if e-business sites cannot guarantee adequate quality of service in terms of performance, availability, and security.

3) Consumer to Consumer (C2C)

The C2C model involves transaction between consumers. Here, a consumer sells directly to another consumer. eBay and www.bazee.com are common examples of online auction Web sites that provide a consumer to advertise and sell their products online to another consumer. However, it is essential that both the seller and the buyer must register with the auction site. While the seller needs to pay a fixed fee to the online auction house to sell their products, the buyer can bid without paying any fee. The site brings the buyer and seller together to conduct deals as shown in figure below.



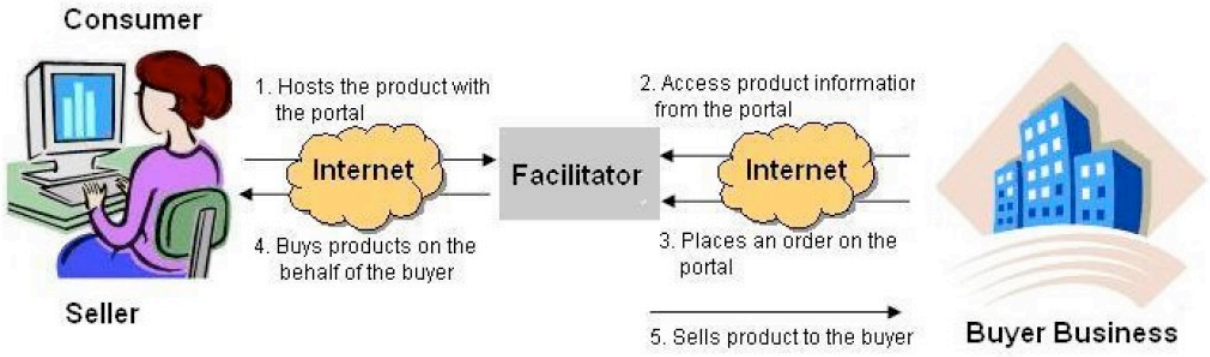
C2C Business Model

Let us now look at the previous figure with respect to eBay. When a customer plans to sell his products to other customers on the Web site of eBay, he first needs to interact with an eBay site, which in this case acts as a facilitator of the overall transaction. Then, the seller can host his product on www.ebay.com, which in turn charges him for this. Any buyer can now browse the site of eBay to search for the product he interested in. If the buyer comes across such a product, he places an order for the same on the Web site of eBay. eBay now purchase the product from the seller and then, sells it to the buyer. In this way, though the transaction is between two customers, an organization acts as an interface between the two organizations.

There are also a number of new consumer-to-consumer expert information exchanges that are expected to generate $6 billion in revenue by 2005. Some of these exchanges, such as AskMe.com and abuzz, are free, and some allow their experts to negotiate fees with clients. InfoRocket.com, one of the first question-and-answer marketplaces, is driven by a person-to-person auction format. The InfoRocket.com bidding system allows a person who submits a question to review the profiles of the "experts" who offer to answer the question. When the person asking the question accepts an "expert" offer, infoRocket.com bills the person's credit card, delivers the answer, and takes a 20 percent commission.

4) Consumer to Business (C2B)

The C2B model involves a transaction that is conducted between a consumer and a business organization. It is similar to the B2C model, however, the difference is that in this case the consumer is the seller and the business organization is the buyer. In this kind of a transaction, the consumers decide the price of a particular product rather than the supplier. This category includes individuals who sell products and services to organizations. For example, www.monster.com is a Web site on which a consumer can post his bio-data for the services he can offer. Any business organization that is interested in deploying the services of the consumer can contact him and then employ him, if suitable as shown in figure.



C2B Business Model

Let us look at another example of the C2B model. William Ward needs to buy an airline ticket for his journey from New York to New Jersey. William needs to travel immediately. Therefore, he searches a Web site for a ticket. The Web site offers bidding facility to people who want to buy tickets immediately. On the Web site, William quotes the highest price and gets the ticket.

In addition to the models discussed so far, five new models are being worked on that involves transactions between the government and other entities, such as consumer, business organizations, and other governments. All these transactions that involve government as one entity are called e-governance. The various models in the e-governance scenario are:

• **Government-to-Government (G2G) model**: This model involves transactions between 2 governments. For example, if the American government wants to by oil from the Arabian government, the transaction involved are categorized in the G2G model.
• **Government-to-Consumer (G2C) model**: In this model, the government transacts with an individual consumer. For example, a government can enforce laws pertaining to tax payments on individual consumers over the Internet by using the G2C model.
• **Consumer-to-Government (C2G) model**: In this model, an individual consumer interacts with the government. For example, a consumer can pay his income tax or house tax online. The transactions involved in this case are C2G transactions.
• **Government-to-Business (G2B) model**: This model involves transactions between a government and business organizations. For example, the government plans to build a fly over. For this, the government requests for tenders from various contractors. Government can do this over the Internet by using the G2B model.
• **Business-to-Government (B2G) model**: In this model, the business houses transact with the government over the Internet. For example, similar to an individual consumer, business houses can also pay their taxes on the Internet.

E-Business models based on the relationship of Transaction Types

Based on transaction type, different types of transactions can be identified as listed below:

- Brokerage
- Aggregator
- Info-mediatory
- Community
- Value chain
- Advertising

These transaction types take place in a variety of ways. Moreover, any given firm may combine one or two of these as part of its web business strategy.

1) Brokerage Model

Brokers are market-makers: they bring buyers and sellers together and facilitate transactions. Brokers play a frequent role in business-to-business (B2B), business-to-consumer (B2C), or consumer-to-consumer (C2C) markets. Usually a broker charges a fee or commission for each transaction it enables. The formula for fees can vary depending on context. Brokerage models include:

Marketplace Exchange -- offers a full range of services covering the transaction process, from market assessment to negotiation and fulfillment. Some examples are [Orbitz, ChemConnect]

Buy/Sell Fulfillment -- takes customer orders to buy or sell a product or service, including terms like price and delivery. Some examples are [CarsDirect, Respond.com]

Auction Broker -- conducts auctions for sellers (individuals or merchants). Broker charges the seller a listing fee and commission scaled with the value of the transaction. Auctions vary widely in terms of the offering and bidding rules. Some examples are [eBay]

Transaction Broker -- provides a third-party payment mechanism for buyers and sellers to settle a transaction. Some examples are [PayPal, Escrow.com]

Search Agent -- a software agent or "robot" used to search-out the price and availability for a good or service specified by the buyer, or to locate hard to find information.

Virtual Marketplace -- or virtual mall, a hosting service for online merchants that charges setup, monthly listing, and/or transaction fees. It may also provide automated transaction and relationship marketing services. Some examples are [zShops and Merchant Services at Amazon.com]

2) Aggregator Model

Electronic commerce business model where a firm (that does not produce or warehouses any item) collects (aggregates) information on goods and/or services from several competing sources at its website. The firm's strength lies in its ability to create an 'environment' which draws visitors to its website, and in designing a system which allows easy matching of prices and specifications. Aggregator model includes:

Virtual Merchant -- this is a business that operate only from the web and offers either traditional or web specific goods and services. The method of selling may be listing price or auction. Some example includes [Amazon, toys]

Catalog Merchant – Catalog business is a migration of mail order to web-based order business.

Bit Vendor – This is the merchant that deals strictly in digital products and services in its purest form.

Subscription model – the users have to pay for the access of the site. High value-added content should be essential for subscription model. Some examples are [Wall street journal, Consumer Reports]

3) Info-mediatory Model

Data about consumers and their consumption habits are valuable, especially when that information is carefully analyzed and used to target marketing campaigns. Independently collected data about producers and their products are useful to consumers when considering a purchase. Some firms function as infomediaries (information intermediaries) assisting buyers and/or sellers understand a given market. Info-mediatory model includes:

Advertising Networks -- feed banner ads to a network of member sites, thereby enabling advertisers to deploy large marketing campaigns. Ad networks collect data about web users that can be used to analyze marketing effectiveness. [DoubleClick]

Audience Measurement Services -- online audience market research agencies. [Nielsen//Net ratings]

Incentive Marketing -- customer loyalty program that provides incentives to customers such as redeemable points or coupons for making purchases from associated retailers. Data collected about users is sold for targeted advertising. [Cool savings]

Meta-Mediatory -- facilitates transactions between buyer and sellers by providing comprehensive information and ancillary services, without being involved in the actual exchange of goods or services between the parties. [Edmunds]

4) Community Model

The viability of the community model is based on user loyalty. Users have a high investment in both time and emotion. Revenue can be based on the sale of ancillary products and services or voluntary contributions; or revenue may be tied to contextual advertising and subscriptions for premium services. The Internet is inherently suited to community business models and today this is one of the more fertile areas of development, as seen in rise of social networking.

Open Source -- software developed collaboratively by a global community of programmers who share code openly. Some examples are [Red Hat, Linux]

Open Content -- openly accessible content developed collaboratively by a global community of contributors who work voluntarily. [Wikipedia]

Public Broadcasting -- user-supported model used by not-for-profit radio and television broadcasting extended to the web. A community of users support the site through voluntary donations. [The Classical

Station (WCPE.org)]

Social Networking Services -- sites that provide individuals with the ability to connect to other individuals along a defined common interest (professional, hobby, romance). Social networking services can provide opportunities for contextual advertising and subscriptions for premium services. [Facebook, Orkut]

5) Value Chain Model

Value chain selling is supported through two business models: demand chain and a supply chain; E-Commerce supports the transactions through both the demand chain business model and supply chain business model.

Products, goods, services, or information are delivered through the parties of the value chain from producers to end users. A value chain also has relationship and administrative aspects, that is, you can manage the relationship of the partners or enterprises in your value chain, as well as offer some administrative services to those parties.

As a result, value chain business models must manage the two sides of their businesses: their customers and direct sales, and their channel partners and suppliers. Each requires its own management channels and practices.

To sell directly to customers (direct sales), value chain models usually include a storefront, where customers can purchase their goods or services directly. To manage relationships with partners or suppliers, the demand chain and a supply chain models within the value chain include a hub.

6) Advertising Model

The web advertising model is an extension of the traditional media broadcast model. The broadcaster, in this case, a web site, provides content (usually, but not necessarily, for free) and services (like email, IM, blogs) mixed with advertising messages in the form of banner ads. The banner ads may be the major or sole source of revenue for the broadcaster. The advertising model works best when the volume of viewer traffic is large or highly specialized. Advertising model includes:

Portal -- usually a search engine that may include varied content or services. A high volume of user traffic makes advertising profitable and permits further diversification of site services. Some common examples are [Google, Yahoo!]

Classifieds -- list items for sale or wanted for purchase. Listing fees are common, but there also may be a membership fee. [Monster.com, Craigslist]

User Registration -- content-based sites that are free to access but require users to register and provide demographic data. Registration allows inter-session tracking of user surfing habits and thereby generates data of potential value in targeted advertising campaigns. [NYTimes]

Contextual Advertising / Behavioral Marketing -- For example, a browser extension that automates authentication and form fill-ins, also delivers advertising links or pop-ups as the user surfs the web. Contextual advertisers can sell targeted advertising based on an individual user's surfing activity.

E-Business/Revenue Model:

In business, revenue typically consists of the total amount of money received by the company for goods sold or services provided during a certain time period. Therefore, revenue models are a part of the business model. Many online companies generate revenues from multiple income streams such as advertising, subscription, affiliate marketing etc. Online models not only sell goods or services but also contacts (e.g. banner) and information (e.g. user-data).

Five primary revenue models are described below. Since there are possibilities of multiple variations, many companies do not use one single revenue model

1. **Transaction fee model:**

   A company receives commissions based on volume for enabling or executing transactions. The revenue is generated through transaction fees by the customer paying a fee for a transaction to the operator of a platform. The company is a market place operator providing the customer with a platform to place his transactions. Example: eBay

2. **Subscription Fee model:**

   Users are charged a periodic (daily, monthly or annual) fee to subscribe to a service. Many sites combine free content with premium membership, i.e. subscriber- or member-only content. Subscription fees do not depend on transactions. Subscribers use the content as long and often as they want. E.g.: online journal/magazine such as New York times, daily mail etc.

3. **Advertisement model:**
   Typically, fees are generated from advertisers in exchange for advertisements, which is ultimately the classic principal among the revenue models besides sales. Even if representatives of major media companies complain about earning less money with online advertising than with advertising in print or TV.

4. **Sales Revenue model:**
   Wholesalers and retailers of goods and services sell their products online. The main benefits for the customer are the convenience, time savings, fast information etc. The prices are often more competitive. In terms of online sales there are different models such as market places as common entry points for various products from multiple vendors.
5. **Affiliate model:** Commission is taken for referring customer to other site or party.

B2C Business Model:

Retail: businesses that sells to customers. The grouping can be further distinguished in many, sometime overlapping, ways but below is common one:

What is Electronic Retailing (E-tailing)?

Electronic retailing (E-tailing) is the sale of goods and services through the internet. E-tailing can include business to business (B2B) and business to consumer (B2C) sales of products and services. E-tailing requires companies to tailor the business models to capture internet sales, which can include building out distribution channels such as warehouses, internet webpages, and product shipping center.

Types of Electronic Retailing (E-tailing)

Business-to-Consumer (B2C) E-Tailing
Business-to-consumer retailing is the most common of all e-commerce companies and the most familiar to most Internet users. This group of retailers includes companies selling finished goods or products to consumers online directly through their websites. The products could be shipped and delivered from the company's warehouse or directly from the manufacturer. One of the primary requirements of a successful B2C retailer is maintaining good customer relations.

Business-to-Business (B2B) E-Tailing
Business-to-business retailing involves companies that sell to other companies. Such retailers include consultants, software developers, freelancers, and **wholesalers.** Wholesalers sell their products in bulk from their manufacturing plants to businesses. These businesses, in turn, sell those products to consumers. In other words, a B2B company such as a wholesaler might sell products to a B2C company.

Community Provider:

It is a social network that brings together people with the same interests and allows sharing content, communication etc. The profit is gained by advertising payments, subscription commissions, sales revenues, transaction fees, affiliate fees.

Example: Twitter.

Content Provider

a platform that contains digital content, such as music, video, photos etc. The profit is gained by subscription commission, advertising or download payments.

Portals

It is a platform that combines content (such as news, meteorological outlooks, rates of currency etc) and services (community forum, downloads, chat, entertainment etc). The owner gets profit due to advertising, subscription and transaction payments.

Example: Google Service.

Transaction Brokers

Transaction Brokers help get things done more quickly and cheaply. process online transactions usually conducted in person by phone or e-mail. The owner gets profits via transaction payments.

Example PayPal, Open Table and Commerce Bancorp.

Market Creators

Market Creators use internet technology to create markets that bring buyers and sellers together. uses Internet technology to develop markets that connect buyers and sellers. The revenue is got by transaction commissions.

Example: eBay.

Service Providers

provides services that save time, are convenient or cheaper alternatives to common service providers. Owners get profit via subscription fees, advertising, sales of services.

Example: Tootle.

B2B: Business to Business

Grouping.

E-Distributor

These are companies that provide goods and services directly to sole businesses and make profits via this activity. These companies are run by a firm that wants to work for many customers.
Example: CISCO.

E-Procurement

These firms create and sell access to digital e-markets. They make profits by transaction commissions, payments based on the number of computers using the service or annual licensing payments and are usually named as application service providers

Digital Exchanges

Digital exchanges are electronic marketplace where hundreds of suppliers meet large commercial purchasers. Example: Liquidation.com

Industrial Consortia

Industrial Consortia are industry-owned vertical marketplaces that serve specific industries.

Private Industrial Networks:

Private Industrial Networks or Private Trading Exchanges are digital networks that coordinate the flow of information between companies that do business together.
They Constitute some 75% of all B2B expenditures by large companies. Example: Walmart.

Single Firm Network:

They are the most widespread and are run wholly by a one large purchasing company. Joining in is by offering only to a long-term supplier of direct inputs.

Industry-wide Network:

These are networks controlled by a consortium of large companies in a field and their goals are:

- Provide a neutral set of standards for commercial communication;
- Shared and open technology platforms for solving problem within a field;
- Collaborative activities.

What is Electronic Data Interchange (EDI)?

Electronic Data Interchange (EDI) is the computer-to-computer exchange of business documents in a standard electronic format between business partners.

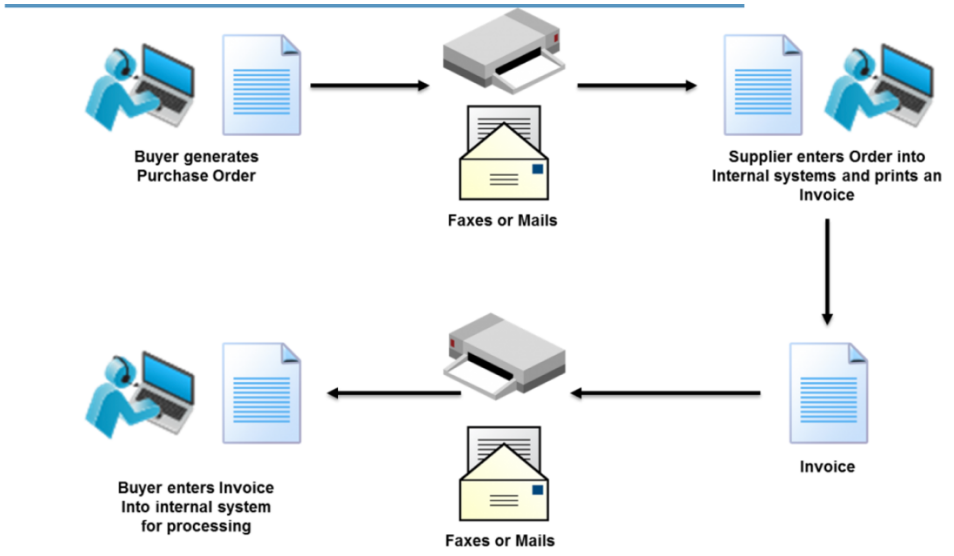
Electronic Data Interchange (EDI) is the electronic interchange of business information using a standardized format; a process which allows one company to send information to another company electronically rather than with paper. Business entities conducting business electronically are called trading partners.

Many business documents can be exchanged using EDI, but the two most common are purchase orders and invoices. At a minimum, EDI replaces the mail preparation and handling associated with traditional business communication. However, the real power of EDI is that it standardizes the information communicated in business documents, which makes possible a "paperless" exchange.

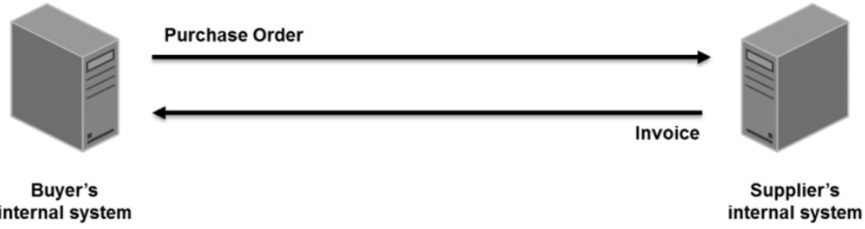
The traditional invoice illustrates what this can mean. Most companies create invoices using a computer system, print a paper copy of the invoice and mail it to the customer. Upon receipt, the customer frequently marks up the invoice and enters it into its own computer system. The entire process is nothing more than the transfer of information from the seller's computer to the customer's computer. EDI makes it possible to minimize or even eliminate the manual steps involved in this transfer.

Each term in the definition is significant:

- Computer-to-Computer
  EDI replaces postal mail, fax and email. While email is also an electronic approach, the documents exchanged via email must still be handled by people rather than computers. Having people involved slows down the processing of the documents and also introduces errors. Instead, EDI documents can flow straight through to the appropriate application on the receiver's computer (e.g., the Order Management System) and processing can begin immediately. A typical manual process looks like this, with lots of paper and people involvement:



The EDI process looks like this — no paper, no people involved:



- **Business documents:** These are any of the documents that are typically exchanged between businesses. The most common documents exchanged via EDI are purchase orders, invoices and advance ship notices. But there are many, many others such as bill of lading, customs documents, inventory documents, shipping status documents and payment documents.

- **Standard Format:**
  Because EDI documents must be processed by computers rather than humans, a standard format must be used so that the computer will be able to read and understand the documents. A standard format describes what each piece of information is and in what format (e.g., integer, decimal, mmddyy). Without a standard format, each company would send documents using its company-specific format and, much as an English-speaking person probably doesn't understand Japanese, the receiver's computer system doesn't understand the company-specific format of the sender's format.

    - There are several EDI standards in use today, including ANSI, EDIFACT, TRADACOMS and ebXML. And, for each standard there are many different versions, e.g., ANSI 5010 or EDIFACT version D12, Release A. When two businesses decide to exchange EDI documents, they must agree on the specific EDI standard and version.

    - Businesses typically use an EDI translator – either as in-house software or via an EDI service provider – to translate the EDI format so the data can be used by their internal applications and thus enable straight through processing of documents

- Business Partners:
  The exchange of EDI documents is typically between two different companies, referred to as business partners or trading partners. For example, Company A may buy goods from Company B. Company A sends orders to Company B. Company A and Company B are business partners.

EDI Layered Architecture:

Generally, EDI Architecture specifies four layers:

I. Semantic (Application) Layer.
II. Standard (Transaction) Layer.
III. Packing (Transport) Layer.
IV. Physical Infrastructure Layer.

EDI Semantic Layer	Application Layer Service	
EDI Standard Layer	EDI fact Business form standards.	
	ANSI X12 business form standards.	
EDI Transport Layer	Electronic Mail	X 435 MIME
	Point to Point	FTP, TELENET
	WWW	HTTP
Physical Infrastructure Layer	Dialup Lines, Internet, I-way	

EDI- EDI is a form of E-Commerce is a standard format for exchanging electronic data. Electronic Data Interchange is the interchanging of standard formatted data between computer application systems of trading partners with minimal manual intervention.

Tangible Benefits of EDI-

1. IDI is time saving system which transfer business information frame one computer to another automatically and reduces errors quickly.
2. EDI is a cost saving system that allow minimum cost transaction to its business partners and also produces acknowledgement at the receiving of data.
3. EDI handles all paper work such as (maintaining data, filing cabinets) since it takes all transactions in paper form and also reduce the postal charges.
4. EDI check Data Entry errors, improve business services.
5. It builds a bridge among manufacturers, retailers, suppliers.
6. EDI has also linked with international trade which left the long standing trade restrictions.

IT is the structured transmission of data between organizations by electronic means. It is used to transfer electronic documents or business data from one computer system to another computer system, i.e. from one trading partner to another trading partner without human intervention.

Architecture of EDI- The architecture of EDI is divided into four layers-

1. Application Layer
2. Standards translation Layer
3. Transport Layer
4. Physical Network Infrastructure Layer

1. Application Layer- The first layer of EDI defines the business applications that are used by EDI. This layer of EDI translates business application into request for quotes, purchase orders, acknowledgement and invoices. For every company this layer is specific and also for the software that company uses. The application layer also called the semantic layer. The Semantic layer describes the

Business application that is driving EDI. For a procurement application, this translates into request for quotes, price purchase orders, acknowledgements, and invoice. This layer is specific to a company, and the software it uses. i.e. the user interface and content visible on the screen are tailored or customized to local environment. By the semantic layer of the EDI the companies form are change into more specific format and then it may be send to various partners of the company have a several software applications to handle all forms aspects. To achieve all above activities the company must follow the EDI standard ex. of EDI standards are X12, ANSI, EDIFACT etc. If the sender and receivers of company want to exchange some files then requires a compatible standards of Electronic Data Interchange. The Sender who want to send a data use a software application with EDI and exchange data in EDI format so that at the receivers end the receiver can read it. The EDI standards are very important in exchange of data because at sending end a sender manipulate data by EDI as in receiving end data is manipulated by EDI.

2. Standard Layer- This layer of EDI architecture defines the structures of the business form and some content which are related with the application layer. This layer of EDI has no mean without application layer so we can say that EDI applications and standard layer are interlinked.

3. Transport Layer- EDI transport layer is a non electronic way of sending the business form from one company to another company. This non electronic way may be registered mail, postal services or private career, telecommunications, fax etc. Now a days the transportation method is more complex with compare to e-mail.

4. physical Layer- The physical layer of EDI also called the infrastructure layer. This layer defined the component communication path for EDI data transaction. What are the structure of e-commerce supported EDI in which information can be build and what are the communication established over which EDI data transfer from one customer to another customers.

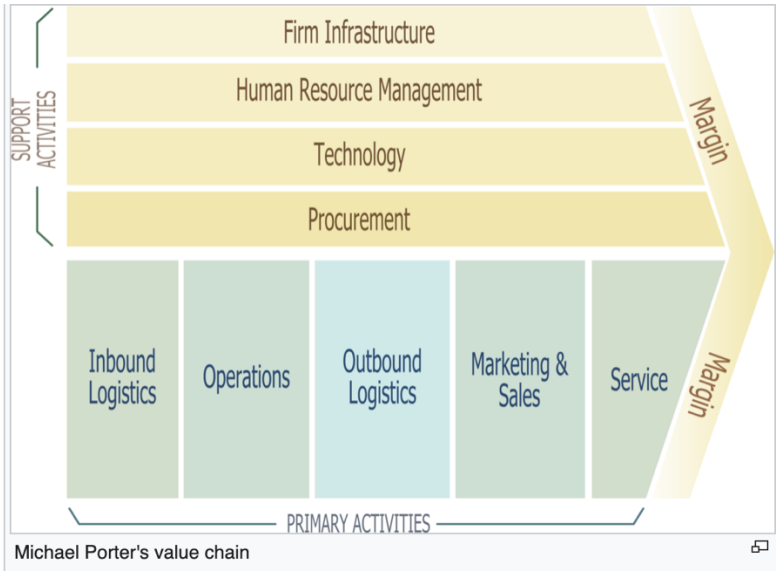
EDI involves exchanging data between in-house applications and applications at other companies; comprehensive middleware architecture often includes it. EDI can be formally defined as the transfer of structured data, by agreed message standards, from one computer system to another without human intervention. EDI might be considered "middleware", it also shares characteristics with applications in their own right. Although it lies between applications like other middleware, the applications to one side of it do not belong to your company! The whole point of EDI is to enable your company to communicate with other applications that are: 1. Always on the distal end of some long-distance link, and 2. Always "black boxes" from the viewpoint of your own network and applications. The whole point of EDI is to make data exchange possible with applications whose nature you cannot know, and whose behavior you cannot control. This makes EDI a special case of middleware, one better treated as an application (a suite of applications) unto itself

EDI in Ecommerce

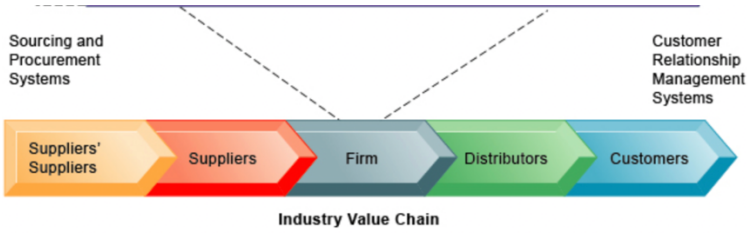
E-Commerce & Industry Value Chain

Value Chain Model

A value chain for a product is the chain of action that are performed by the business to add value in creating and delivering the product. For example, when you buy a product in a store or from the web, the value chain includes the business selecting products to be sold, purchasing the components or tools necessary to build them from a wholesaler or manufacturer, arranging the display, marketing and advertising the product and delivering the product to the client.



Michael Porter's value chain



Industry Value Chain

The value chain model as originally demonstrated by Porter (1985), identifies nine strategically relevant activities that create value and reduce cost is a specific business. These nine value-creating activities consist of five primary activities and four support activities. The primary activities represent the sequence of bringing materials into the business (Inbound logistics), converting them into final products (operation), shipping out final products (outbound logistics), marketing and service.
The support activities include:

- Procurement
- Technology department
- Human resource management
- Firm infrastructure.

This model is very helpful for identifying specific activities in business where competitive strategies can be applied and where information systems are most likely to have a strategic impact. Successful implementation of ecommerce in an organization should be based on thorough understanding of the areas in the value chain where ecommerce can add value most. More importantly, to succeed in gaining competitive advantage, ecommerce is to be based on the overall corporate strategy. Among a host of critical areas/ factors in the value chain the major organization have taken into consideration for establishing the sound ecommerce strategy include the role of intermediaries, value pricing, logistics/purchasing. fulfillment, and value nets among other.

What is Firms Value Chain?

In value chain analysis, analysts examine the flow of raw materials to the point of sale to ensure that value exceeds costs. Firm-level value chains focus specifically on business units rather than entire divisions or industries. A value chain breaks down business unit activities into processes. Identifying the inputs, transformation and output of each department can help a company implement efficient processes that create a competitive advantage

A firm's value chain is linked to the value chains of its suppliers, distributors, and customers.

Information systems can be used to achieve strategic advantage at the industry level by working with other firms to develop industry-wide standards for exchanging information or business transactions electronically, which force all market participants to subscribe to similar standards. Such efforts increase efficiency, making product substitution less likely and perhaps raising entry costs.,

Primary Activities

The five primary value chain activities provide direct value to the customer. Exact activities vary by company, but the primary groupings are inbound logistics, operations, outbound logistics, marketing and sales, and service. Inbound logistics represents the reception, storage and distribution of raw materials. Operations transforms the raw inputs into the finished goods for the customer. Outbound logistics delivers the final goods to customers. Marketing and sales represent activities that help customers buy the goods. Service includes the follow-up support, such as repair and maintenance services.

Support Activities

In contrast to primary activities, support functions never directly interface with the customer. Instead, support functions enable effective performance of the primary activities. The main categories of support activities are firm infrastructure, human resources, technology and purchasing. Technology development can focus on process automation that allows the operations activities to run more efficiently. Human resources can support marketing by recruiting sales representatives that fit with the organization's culture.

Supply Chain

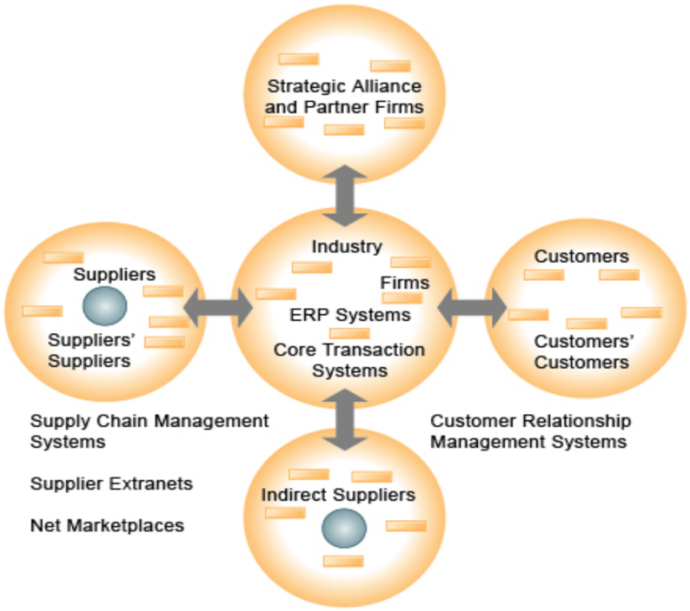
A company's value chain is part of a larger supply chain that includes interactions with suppliers and distributors. The supply chain includes the raw materials supplier, the manufacturer, the distributor, the retailer and the consumer. The supply chain helps analysts visualize what outside parties will be affected by decisions. For example, a company that implements a more efficient inventory management system will improve the efficiency of both the inbound logistics and purchasing departments, which have relationships with suppliers and manufacturers.

Value Chain Analysis

To analyze a company's value and supply chains, it's helpful to map out a flow chart of all company processes. A graphical representation helps analysts identify key relationships and causation. Analysts should pay special attention to activities that affect each other on a cost basis. This information is useful for performing incremental analysis on "make or buy" decisions regarding outsourcing.

Firm Value Web

Internet technology has made it possible to create highly synchronized industry value chains called value webs. A **value web** is a collection of independent firms that use information technology to coordinate their value chains to produce a product or service for a market collectively. It is more customer-driven and operates in a less linear fashion than the traditional value chain.



The value web is a networked system that can synchronize the value chains of business partners within an industry to respond rapidly to changes in supply and demand.

A large corporation is typically a collection of businesses. Information systems can improve the overall performance of these business units by promoting synergies and core competencies.

- In synergies, the output of some units can be used as inputs to other units, or two organizations pool markets and expertise, and these relationships lower costs and generate profits.
- A **core competency** is an activity for which a firm is a world-class leader, such as being the world's best miniature parts designer. A core competency relies on knowledge that is gained through experience as well as incorporating new, external knowledge. Any information system that encourages the sharing of knowledge across business units enhances competency.

Business models based on a network may help firms strategically by taking advantage of **network economics**. In network economics, the marginal costs of adding another participant or creating another product are negligible, whereas the marginal gain is much larger. For example, the more people offering products on eBay, the more valuable the eBay site is to everyone because more products are listed, and more competition among suppliers lowers prices.

Another network-based strategy is the **virtual company**, or virtual organization, which uses networks to link people, assets, and ideas, enabling it to ally with other companies to create and distribute products and services without being limited by traditional organizational boundaries or physical locations. One company can use the capabilities of another company without being physically tied to that company.

The traditional Porter model of competitive forces assumes a relatively static industry environment; relatively clear-cut industry boundaries; and a relatively stable set of suppliers, substitutes, and customers. With the emergence of the digital firm and the Internet, some modifications to the original competitive forces model are needed. Some of today's firms are much more aware that they participate in business ecosystems, loosely coupled but interdependent networks of suppliers, distributors, outsourcing firms, transportation service firms, and technology manufacturers. In a **business ecosystem**, cooperation takes place across many industries rather than many firms.

Case Studies of Local and Global Ecommerce System?

Dashain Assignment

This is additional reference for students who wants to know more about case studies.

Writing a Case Study Analysis

A case study analysis requires you to investigate a business problem, examine the alternative solutions, and propose the most effective solution using supporting evidence.

Preparing the Case
Before you begin writing, follow these guidelines to help you prepare and understand the case study:

- Read and Examine the Case Thoroughly.
    - Take notes, highlight relevant facts, underline key problems.
- Focus Your Analysis
    - Identify two to five key problems.
    - Why do they exist?
    - How do they impact the organization?
    - Who is responsible for them?
- Uncover Possible Solutions/Changes Needed
    - Review course reading, discussions, outside research, your experience.
- Select the Best Solution
    - Consider strong supporting evidence, pros, cons. Is this solution realistic?

Drafting the Case

Once you have gathered the necessary information, a draft of your analysis should include these general sections, but these may differ depending on your assignment directions or your specific case study:

- Introduction
    - Identify the key problems and issues in the case study.
    - Formulate and include a statement, summarizing the outcome of your analysis in 1-2 sentences.
- Background
    - Set the scene: background information, relevant facts, and the most important issues.
    - Demonstrate that you have researched the problems in this case study.
- Evaluation of the Case
    - Outline the various pieces of the case study that you are focusing on.
    - Evaluate these pieces by discussing what is working and what is not working.

    - State why these parts of the case study are or are not working at all.

- Proposed Solution/Changes
    - Provide specific and realistic solutions or changes needed.
    - Explain why this solution was chosen.
    - Support this solution with the solid evidences, such as:
        - Concept from class (text readings, discussion, lectures)
        - Outside research
        - Personal experience

- Recommendations
    - Determine and discuss specific strategies for accomplishing the proposed solutions.
    - If applicable, recommend further action to resolve some of the issues.
    - What should be done and who should do it?

Finalizing the Case

After you have composed the first draft of your case study analysis, read through ti to check for any gaps or inconsistencies in content or structure:

- Is your statement clear and direct?
- Have you provided solid evidence?
- Is any component from the analysis missing?

When you make necessary revision, prrof read and edit your analysis before submitting the final draft.