Chapter Three
Business Models for E-commerce

Introduction

Electronic commerce, or e-commerce, is the process of buying and selling goods and services over the Internet or other computer networks. Because of the online boom and a larger share of disposable income, the amount of trade conducted electronically has also grown. This has also spurred innovations in electronic funds transfer, supply chain management, online marketing and transaction processing and inventory management.

Although a large portion of e-commerce is conducted electronically, some e-commerce involves the transportation of physical items also. The popularity of e-commerce is such that almost all big retailers who have physical outlets are present on the Web. This chapter will give you a comprehensive overview of various business models related to e-commerce.

3.1. E-Commerce Transaction

E-commerce transactions typically refer to all interactions between the owner of a Website and the users of the Website. A standard e-commerce transaction set-up involves the following transaction players:

- **Sellers** who include the following:
  - ✓ Corporate Websites with e-commerce resources, such as secure transaction servers
  - ✓ Corporate intranets to process orders efficiently and effectively
  - ✓ An effective IT staff that manages the flow of information and maintains the e-commerce system
- **Banking institutions** that process and approve credit card payments and electronic fund transfers
- **Freight companies** that facilitate the movement of goods to and from the source and destination places
- **Authentication authorities** that serve as a safe third party to ensure the integrity and security of transactions
- **Consumers** with access to the Internet, disposable income and a mindset to purchase goods online rather than by physical inspection
- **Firms/businesses** with Internet access and the capability to place and take orders over the Internet
- The legal framework of the **government** that looks after electronic documents signatures, and so on

- **Legal institutions** that enforce related laws and regulations and protect consumers and businesses from fraud
- The **Internet** with a robust infrastructure and a good pricing structure

To understand the operating procedure of an e-business model, consider a customer who wants to make an online purchase. He is transferred to the online transaction server where all the information is converted into an encrypted form. Once he has placed his order, the information moves through a private gateway to a processing network where the issuing and acquiring banks complete or deny the transaction. This process takes only few seconds. A typical online transaction is shown in the following Figure.

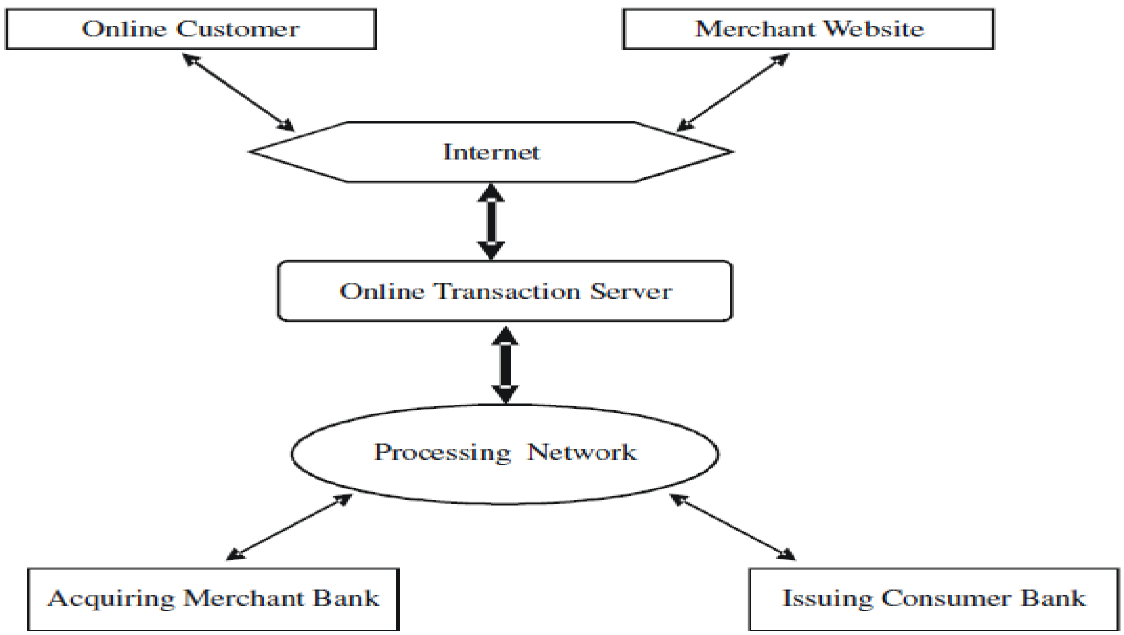

Figure 1.1 Online Transaction

A transaction in an electronic market describes a number of interactions between parties. This includes, for example, ordering products, making payments, supporting delivery and marketing and promotion activities. One must therefore have a marketing strategy for transacting commerce through which a corporation maintains itself and generates revenue.

3.2. **Business Models**

Business models are defined as, ‘A set of shared common characteristics, behavior and methods of doing business that enables a firm to generate profits through increasing revenues and reducing cost.’ Business models are created for the purpose of trying to answer the following questions:

(i) How can you get competitive advantage?
(ii) Which product-market strategy is to be followed?
(iii) What should be the marketing mix?

Timmers (1999) defines a ‘business model’ as ‘*An architecture for product, service and information flows, including*

- ✓ *a description of the various business actors and their roles;*
- ✓ *a description of the potential benefits for the various business actors; and*
- ✓ *a description of the sources of revenue.*

A summary of how a company will generate a profit identifying:

- ✓ *its core product or service value proposition,*
- ✓ *target customers in different markets,*
- ✓ *position in the competitive online marketplace or*
- ✓ *value chain and its projections for revenue and costs.*

The business model for e-commerce requires consideration of a company and its position in the micro environment. Investors will require eight key elements of the business model to be defined which will summarize the organization’s e-business strategy.

1. ***Value proposition***: Which products and or services will the company offer?
2. ***Market or audience:*** Which audience will the company serve and target with its communications? For example, business-to-business, business-to-consumer or not-for-profit?
3. ***Revenue models and cost base:*** What are the specific revenue models that will generate different income streams? What are the main costs of the business forming its budget? How are these forecasts to change through time?
4. ***Competitive environment:*** Who are the direct and indirect competitors for the service and which range of business models do they possess?
5. ***Value chain and marketplace positioning:*** How is the company and its services positioned in the value chain between customers and suppliers and in comparison with direct and indirect competitors?
6. ***Representation in the physical and virtual world:*** What is its relative representation in the physical and virtual world, e.g. high-street presence, online only, intermediary, mixture?
7. ***Organizational structure:*** How will the organization be internally structured to create, deliver and promote its service? How will it partner with other companies to provide services, for example through outsourcing?
8. ***Management:*** What experience in similar markets and companies do the managers have? What is their profile which can be helpful to attract publicity?

There are mainly five different types of e-commerce model that can be facilitated by the web. These are described mainly in terms of their revenue models and value chain or marketplace positioning.

- Business to Business (B2B)
- Business to Consumer (B2C)
- Consumer to Business (C2B)
- Consumer to Consumer (C2C)
- Business to Government (B2G)

3.2.1. Business to Business (B2B)

Business-to-business (B2B) model: In this form, both buyers and sellers are business set-ups and there are no individual customers. In this model, manufacturers supply goods to retailers or wholesalers. This type of model needs two or more business organizations that do business with each other. It entails commercial activity among companies through the Internet as a medium.

It is a commercial transaction between an organization and other organizations (*inter-organizational marketing*) such as between a manufacturer and a wholesaler, or between a wholesaler and a retailer. For example Tech hardware sell b/n Dell and IBM.

At present, there are many types of e-businesses. The B2B e-business is of the following types:

- **Supplier oriented:** In this type of e-business, a supplier establishes the electronic market where a number of customers or buyers transact with suppliers. Generally, it is done by a supplier which has monopoly over products that it supplies.

- **Buyer oriented:** In this type of e-commerce, big business organization with high volume purchase capacity creates an e-business marketplace for purchases and gains by starting a site of their own. The online e-business marketplace is used by buyers for placing requests for quotations and carrying out the entire purchase process.

- **Intermediary oriented:** In this type of B2B e-business, a third party establishes the e-business marketplace and attracts both buyers and sellers to interact with each other.

- **Application of B2B model:** Some of the applications of the B2B model are, inventory management, channel management, distribution management, order fulfillment and delivery payment and payment management.

3.2.2. Business to Consumer (B2C)

Business-to-consumer (B2C) model: This is the most commonly prevalent e-commerce segment, in which online retailers and marketers sell their products to consumers by using data made available through online marketing tools. This model concentrates on individual buyers and offers consumers the capability to browse, select and merchandise online from a wider variety of sellers and at better prices. The B2C e-business interaction is most appropriate for the following types of transactions:

- ✓ Easily transformable goods, i.e., products that are easily transformable into digital format, such as videos, software packages, music books, and so on
- ✓ Highly rated branded items or items with return security
- ✓ Items sold in packets that are not possible to open in physical stores
- ✓ Items that follow standard specification

The working of B2C has the following steps:

i. The customer identifies his/her need.
ii. The customer looks for the product or services that suit his/her needs.
iii. The customer selects a vendor and negotiates a price.
iv. The customer then receives the product or service.
v. The customer makes the payment for the received product.
vi. The customer gets the services and warranty claims that are associated with the product.

3.2.3. Consumer to Consumer (C2C)

Consumer-to-consumer (C2C) model: This model facilitates the online selling and purchasing of goods and services between two parties. There is no middleman involved and the parties carry out transactions with other consumers directly via online classified advertisements and auctions or by selling personal services or expertise online. This model involves the growing popularity of peer-to-peer (P2P) software that facilities the exchange of data directly between individuals over the Internet.

Peer-to-peer (P2P) model: In this model, people share computer files and computer resources directly without being routed through a Web server. Here, both parties must install software that enables them to communicate on the common platform.

M-Commerce: Short for mobile commerce, this model facilitates the use of smart phones, personal digital assistants and other mobile devices to conduct business transactions.

It refers to the use of wireless digital devices to enable transactions on the Web. These devices utilize wireless networks to connect cell phones and handheld devices such as the PalmVIIx to the Web. Once connected, mobile consumers can conduct many types of transactions, including stock trades, in store price comparisons, banking, travel reservations, and more. Thus far, m-commerce is used most widely in Japan and Europe (especially Finland).

3.2.4. Consumer to Business (C2B)

In a consumer-to-business (C2B) e-commerce model, a consumer posts online information regarding the goods for sale (project) with a budget. Depending on the popularity of the site and the requirement, interested parties will review and bid on the project. The consumer will review the bids and select the company that will complete the project. In addition to the various types of e-commerce, such as business-to-business (B2B), business-to-consumer (B2C) and consumer-to-consumer (C2C) commerce, there is another model known as consumer-to-business (C2B).

A consumer posts his project with a set budget online and within hours companies review the consumer's requirements and bid on the project. The consumer reviews the bids and selects the company that will complete the project. C2B is a rather unusual online phenomenon. The following instance would explain the concept of C2B ecommerce well:

Neha, a student, wants to fly from New Delhi to London and back, but has only Rs 35,000 to pay for this trip. She puts up an online advertisement on a C2B site for airline companies that provide such a package to budget travellers. If any airline company can match the offer, it will respond to Neha's advertisement. Thus, this way airline companies can operate, albeit at no profit margin, which is better than flying with empty seats.

C2B systems represent the future of e-commerce and can be defined as the comparison of shopping activities performed online by a user before purchasing a product.

Example C2B scenarios

The following scenarios help clarify the intended role of C2B systems.

- ✓ *Shopping assistance:* A pedestrian is walking through the streets of Connaught Place, New Delhi. She passes by the shops and peers through the windows to examine the various offerings. A fashion apparel outlet recently got a new C2B system that requests for this pedestrian's details and identity information. Based on that, the software determines her preferences for various items of clothing. On the basis of the inventory, the software determines that the shop has certain items that might fit her profile. The store sends a message to the pedestrian on her PDA containing information about the items available in the store and the directions to the store.

- ✓ *Emergency room:* A businessman falls ill after having dinner with potential clients in Taj Mahal Hotel, Mumbai. His family is away on holiday in Paris and his family physician is attending a conference. The ambulance picks the patient from the hotel and rushes him to the emergency room at the nearest hospital. The hospital where he usually gets himself examined has sent his personal details to this hospital. Since the hospital has his details, he is not asked to fill out forms or answer questions regarding history or allergies. The local doctors provide the treatment and the patient recovers soon without complications.

C2B models must have the following requirements:

- ✓ Mobile device
- ✓ Real-time, highly relevant information and personalized attention
- ✓ Maintenance and access of personal data for various real-life situations
- ✓ Creation of forms for automated information extraction
- ✓ Matchmaking between personal requirements and corporate offerings
- ✓ Automated update of personal information on the completion of specified transactions
- ✓ Automated system evolution to support new custom data

3.2.5. **Business to Government (B2G)**

Business-to-government (**B2G**) or **business-to-administration** (**B2A**) is a derivative of B2B marketing and often referred to as a market definition of "public sector marketing" which encompasses marketing products and services to various government levels through integrated marketing communications techniques such as strategic public relations, branding, marketing communications (mar.com), advertising, and web-based communications.

B2G networks provide a platform for businesses to bid on government opportunities which are presented as solicitations in the form of request for proposals (RFPs) in a reverse auction fashion. Public sector organizations (PSOs) generally post tenders in the form of RFPs, request for information (RFI), request for quotations (RFQs), Sources Sought and suppliers respond to them.

Government agencies typically have pre-negotiated standing contracts vetting the vendors/suppliers and their products and services for set prices. These can be local or national contracts and some may be grandfathered in by other entities (i.e. California's MAS Multiple Award Schedule will recognize the federal government contract holder's prices on a General Services Administration Schedule).

Other e-commerce business models are listed as follows:

- Business-to-employee (B2E) model
- Government-to-business (G2B) model
- Government-to-citizen (G2C) model

Table 1.2 summarizes the various e-business models.

Table 1.2 E-Business Models

Model	Description	Sample Websites
B2C	Goods or services are sold directly to consumers	Pets.com, edirects.com, amazon.com, autobytel.com
B2B	Goods or services are sold between businesses and other businesses	Verticalnet.com, metalsite.com, shop2gether.com
B2G	Goods or services are sold to government agencies	Igov.com
C2C	Goods or services are sold between consumers	Ebay.com, inforocket.com
C2B	Consumers fix the cost of their goods or services for other consumers	Priceline.com