

Chapter 46

Security Issues and Countermeasures of Online Transaction in E-Commerce

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ABSTRACT

Nowadays, e-commerce is one of the most growing sectors in the field of internet. It gives the flexibility to shop online, transact online, transfer money online and many more feature to its internet users. As the growth of e-commerce increases, e-commerce security also comes out a major concern to ensure its user a secure transaction without any fear over the network. Banking sector is one of the most prominent sectors of growth in world of e-commerce, but as its demand increases the security and risks along with it also increases. E-commerce security must ensure major security features of cryptography: privacy, authentication, access control, confidentiality and protect data from un-authorized access. In this chapter, all aspects regarding e-commerce describes from its introduction to its security, countermeasures and an example of doing secure payment from any website.

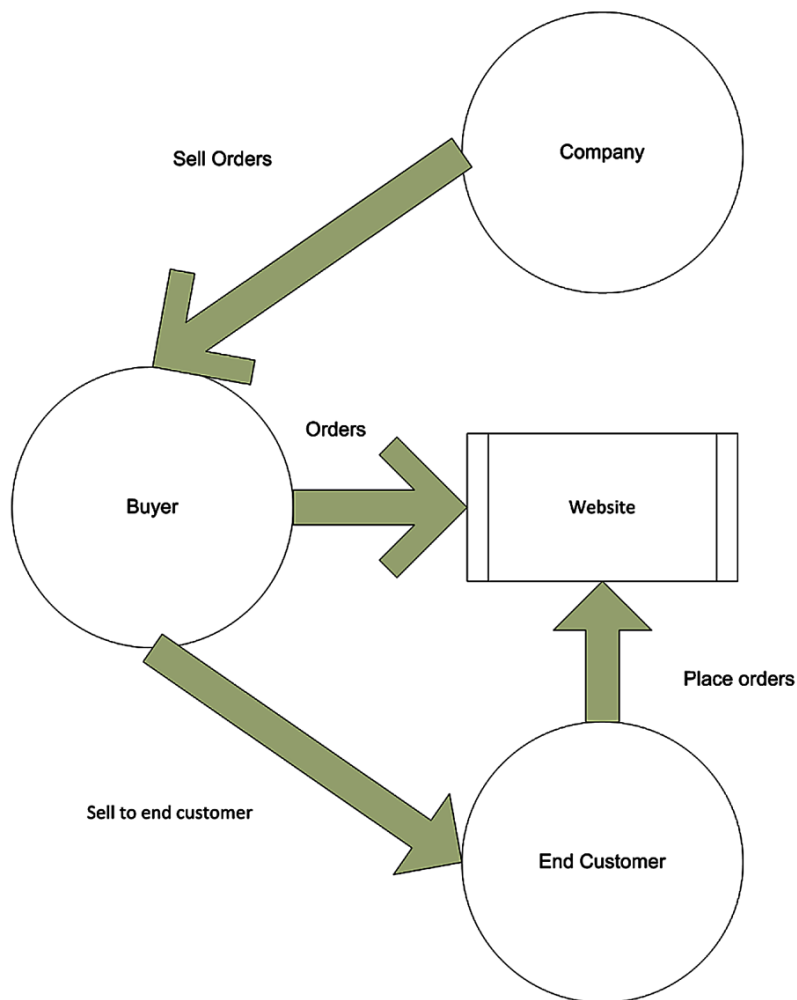
INTRODUCTION TO E-COMMERCE

Now days, e-commerce is a booming sector in the world of internet. E-commerce replaces the method of doing shopping traditionally by electronically over internet. E-commerce is stands for electronic commerce which involves the use of Information and Communication Technology (ICT) and Electronic Funds Transfer (EFT) in making commerce between consumers and organizations, organization and organization or consumer and consumer. With growing of internet Electronic data exchange (EDI) also increases which provides to do digital shopping in e-mall (electronic-mall). There are various types of business models for e-commerce which categorized as given below:

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1. **Business-to-Business (B2B):** B2B e-commerce, the commerce takes place between two business entities or two business organizations. For an example, main buyer (say any top company) first sales their product to any intermediate buyer (say any BPO or website owner) and then the intermediate buyers will send the product to their end customers (Figure 1).
2. **Business-to-Consumer (B2C):** In B2C model any business organization or a company directly deals with its customer. Customer places order by seeing product on their website and company supplies product directly to customer (Figure 2).
3. **Consumer-to-Consumer (C2C):** In C2C business model, one end customer directly deals with another end customer by giving some advertisement of goods which he/she wants to sell over some website and another customer who wants to purchase that goods directly deals with that customer. In India, the website named OLX, giving this facility to sell your old or new product by uploading its advertisement on the website along with your details (Figure 3).

Figure 1. B2B e-commerce model



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