# Chapter 4
# Security Issues in E-Commerce

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## ABSTRACT

*E-commerce is selling and buying products in online shopping through the internet. When purchasing the products using internet, many security issues arise. These issues are to be addressed effectively and to be resolved. The security issue is an essential part of any transaction that takes place over the internet. Security becomes paramount not only for retailers but for any business that operates via the internet as the popularity of online shopping grows. This chapter focuses security protocols and their achievements in providing effective communication between end-users and business people.*

## 1. INTRODUCTION

The term E-Commerce refers to the use of an electronic medium to carry out commercial transactions via internet. Now a day's E-Commerce is playing a very vital role in online retail marketing and the number of people using this technology is increasing in leaps and bounds all over the world. The security becomes a paramount as the popularity of online shopping grows exponentially in the present days, not only for retailers but for any business that operates via internet. This leads to numerous security risks for consumers. In present scenario, consumer needs to be very cautious while making any kind of online transactions or even surfing the internet. Common mistakes that leave people vulnerable include shopping on websites that aren't secure, giving out too much personal information, and leaving computers open to viruses. This chapter mainly focuses the e-commerce security issues, security threats and guidelines for safe and secure online shopping through shopping web sites. A consumer can very well secure his online shopping to some extend by religiously following the guidelines mentioned in (Niranjanamurthy & Chahar, 2013). Privacy is a state in which one is not observed or disturbed by other people whereas

Security is the action of keeping something secret or the state of being kept secret. So e-commerce security is an essential part of the Information Security Framework which specifically applies to the components that affect e-commerce. These components are generally known as computer security, data security and other realms of the information security framework. The section defines e-commerce and its importance.

## 1.1 What Is Importance of E-Commerce?

E-commerce has shown enormous growth in the last few years. Sources say that the retail e-commerce sales around world will reach 12.8% in the year 2019 from 7.4% in 2015 (Kalakota & Whinston, 1996). E-commerce is rapidly increasing in the businesses all over the world. E-Commerce usage is moving towards uptrend direction and has received much attention from governments, businesses and regional bodies due to enormous increase of internet users.

   The E-Commerce Applications are more popular due to the following reasons

- **Time Consuming Process:** It is very convenient for everyone to shop anytime, anywhere and in any device instead of visiting the shops in person. E-commerce proved its importance based on the fact where time is essence. In the commercial markets, time plays an important role to both the business and consumers. From the business perspective, with less time spent during each transaction, more transaction can be achieved on the same day. As for the consumer, they will save up more time during their transaction. Because of this, Ecommerce steps in and replaced the traditional commerce method where a single transaction can cost both parties a lot of valuable time. With just a few clicks in minutes, a transaction or an order can be placed and completed via the internet with ease. For instance, a banking transaction can be completed through the Internet within a few minutes compared to the traditional banking method which may take up to hours. This fact obviously proves that Ecommerce is beneficial to both business and consumer wise as payment and documentations can be completed with greater efficiency.
- **Product Comparisons:** View different products online is much simpler and more efficient than visiting different stores at different places. So researching the products is much easier by accessing different products online i.e. proper product comparison.
- **Reduction in Capital Investment:** Running an e-commerce business requires far less capital investments compared to owning physical shops. No need to invest on recruiting sales staff, rentals for high end retail stores and unwanted overheads. The only responsibility on you have in an online shop is to promote your website and deliver quality products on-time to the customers.
- **Tremendous Increase of Internet Users:** Electronic commerce, or Ecommerce, which literally means business trading through the Internet, has been around the globe since mid 90s. However, until the recent few years, Ecommerce is getting more and more attention from entrepreneur and consumers, both local and international. One of the main reasons is due to the highly successful operations of some well known names on the Internet, such as eBay, Yahoo and Dell. The sales revenue these companies shown in their annual reports are without doubt, one of the biggest factors why Ecommerce is important in the commercial market nowadays.
- **Business View:** Ecommerce is much more cost effective compared to traditional commerce method. This is due to the fact where through Ecommerce, the cost for the middleperson to sell their products can be saved and diverted to another aspect of their business. One example is the giant computer enterprise, Dell, which practice such a method by running most of their business

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