

## Chapter 6

# Electronic Payment Systems in Electronic Commerce

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### ABSTRACT

*Technological advances and correspondingly the spreading usage of the Internet have significantly changed commerce, and also the concept of money has become more abstract. Customers with the help of the technological advances don't have the necessity of cash money, and consumers/firms tend towards alternative payment methods. At this point, electronic commerce (e-commerce) web sites have started to use block chaining payment methods. In this digital world, new payment technologies have started to spread far and wide thanks to fast improvements in payment technologies, and they offer different options in payment methods. Each electronic payment (e-payment) system has some advantages; however, each of them has some disadvantages as well. The aim of this study is to investigate the e-payment systems which are different from traditional payment methods.*

### INTRODUCTION

Almost 40 years ago, e-commerce started to come into our lives. As Miva (2011) suggests, e-commerce has allowed many new businesses to enter the online sector and it has still been growing with the advancements in science, new technologies and innovations. There are apparently two time periods for this sector: the first period from the 1960s to 1990s was based on Electronic Data Interchange (EDI)

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and the second the period was after 1990s when e-commerce was fostered by the emergence of World-Wide-Web (Yang, 2017).

E-commerce is sure to be one of the most leading services which showed up as a result of the spread of the common Internet users all across the world. With the advancements in technology, the attempts to design mobile devices with a high internet speed as well as mobile technology have made it possible for users to utilize those devices and services like reading e-mails and Web browsing wherever they are and whenever they wish for performing e-commerce transactions.

Throughout centuries, payment systems have undergone a change in a radical way, which include coins, papers and data. The reason why payment systems have continually evolved is that the new technologies included in these systems provide convenience and efficiency at a high speed. The advancements in global electronic payments have changed the humans' point of view. In today's world, many different e-payment systems are being used internationally in a common way and provide security and economic transparency as well as easiness for processes. The users throughout the world provide great benefits via this payment network. Payments are the basic factors of the economies. With the common adoption of e-payment systems, sale of goods and services has continually been increasing. E-payment has also ruled out the obstacles of immediate liquidity and credit. Today, there are many different e-payment opportunities provided by financial institutions for the customers. As an example, ATM machines, credit cards, debit cards, online banking and mobile banking are among these e-payment systems. E-payment systems are relatively cost-saving over traditional paper-based payments.

In addition to those (Read, 1989) arguing that the use of cash will be removed in the near future, and a non-cash economy is not very far away, there are also approaches suggesting the exact opposite of this argument (Harrop, 1989). Furthermore, many studies in the relevant literature reach a consensus that as economies grow and globalize, physical money will be replaced in shopping by e-payment methods in various forms due to the developments experienced on the internet and e-commerce and the importance of physical money will decline. Accordingly, the more common use of e-payment methods instead of physical money in today's and future's commercial forms is inevitable.

Today, more companies have started performing their company operations through e-commerce. In this way, the purchase of the goods and services produced in any part of the world by consumers depends on the healthy and secure functioning of millions of e-payment processes performed on the internet every day. In this context, the subject of e-payment and e-payment systems, which are among the basic elements of uninterrupted and healthy functioning of the process in the e-commerce-related process, is an area of research coming into the forefront recently with its various aspects.

Each electronic e-payment system has some advantages; however, each of them has some disadvantages as well. The aim of this study is to investigate the e-payment systems which are different from traditional payment methods. In this sense, this paper presents a comprehensive explanation that aims to provide raising awareness regarding the development of e-payment systems. For this purpose, firstly, the concept of e-commerce and secondly, e-payment methods will be addressed. Lastly, the facts regarding e-payments in e-commerce practices will be explained.

## **E-Commerce in the World**

E-commerce has reached to significant levels in all countries, particularly in developed countries. Due to the increase in internet use and thus, e-commerce, changes that could only be imagined in the past have become a part of daily lives and e-commerce has become a new competition space for businesses.

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