Chapter 15
E-Commerce Models, Players, and Its Future

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ABSTRACT

This chapter describes e-commerce, a trading business built on top of the internet. Different e-commerce models, such as B2B, B2C, C2C, and their major players are described. E-commerce companies like Amazon and Alibaba are used to explain the effect of e-commerce on the economy, society, and beyond. GMV, MAU, market capitalization, and other business data are presented and analyzed. Influential factors, such as user retention, government policy, payment method, and logistics, are also discussed. Finally, the emerging e-commerce model, emerging e-commerce market, and the future of e-commerce are illustrated.

INTRODUCTION

Wikipedia defines e-commerce (electronic commerce) as the trading or facilitation of trading of products or services using the Internet. E-commerce is becoming a major business model in developed countries. For example, in US, the e-commerce sales as ratio of total retail sales reached 7.5% in December 2015; in China, the e-commerce sales as ratio of total retail sales reached 9.7% in July 2015; and it is estimated that globally, the e-commerce sales will reach $ 1.5 trillion in 2018. Furthermore, e-commerce is growing and will continue to grow, especially in developing countries.

E-commerce plays an important role in our modern economy (Goldfarb, Greenstein, & Tucker, 2015), and its effect goes beyond economy and business. E-commerce is becoming an integral part of our society and our life. It is therefore necessary to clearly understand e-commerce operations and impacts. In this chapter, we examine various e-commerce models, major players, and the environmental ecosystem factors in order to understand how e-commerce has shaped our new way of conducting business and how it is going to influence our future. The remaining of this chapter is organized as follows. Section 2 reviews e-commerce history. Section 3 introduces various e-commerce models. Section 4 describes the major e-commerce players in the global business. Section 5 describes emerging models and emerging market. Section 6 describes the future trend of e-commerce. Conclusions are in Section 7.

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BACKGROUND

Self-sufficiency was considered a primitive lifestyle in early human society. Once communications and interactions became popular in human society, trading gradually replaced self-sufficient economy (Watson, 2006). The advantages of commerce/trading over self-sufficient economy include the increase of productivity of human being and the increase of diversity of consuming products/services. Commerce (trading), as a basic activity of human society, can be traced back to prehistoric time and its evolution can be categorized into the following stages.

- **Barter System:** Barter system is the direct exchange of products or services with other products or services without using a medium. This kind of trading model can be traced back to 150 thousand years ago (Watson, 2006).
- **Currency System:** In currency system, standardized exchange medium, money, was introduced. With the support of currency, trading became more convenient. The development of original currency, metal coins, is believed to have originated about 500 BC.
- **Banknote:** The first development of a local banknote (paper currency) began about 700 AD in China. With its many advantages over metal coins, paper currency or paper money was gradually adopted nationally in China around 1100 AD.
- **E-Currency:** Electronic money was introduced within the modern banking system. Examples of e-currency include bank deposits, fund transfer, and electronic payment. Using e-currency, money balance and transaction history are stored in a computer system and users who have the access key could manage their money. The access key could be a bank card or an online password. The first bank card was introduced in 1946 by John Biggins, a banker in New York, and the first online banking system was introduced in 1983 by the Bank of Scotland.
- **E-Commerce:** The first e-commerce model was proposed and built in 1970s, which was long before the wide use of the Internet. It was created in student laboratories of Stanford University and Massachusetts Institute of Technology (Markoff, 2005). In the following half century, various e-commerce models are proposed, tested, and implemented (Tkacz & Kapczynski, 2009; Palmer, 1988; Kelly, 2005).

E-commerce, like any other internet-based applications, evolves with the revolution of information technology (Rayport & Jaworski, 2002). On an e-commerce platform, not only payments can be transacted electronically, placing orders, processing orders, and tracking orders all can be executed electronically. After about 150 thousand years of evolution, human beings are entering a completely different business era, which is characterized by e-commerce.

E-COMMERCE MODELS

There are many ways a business activity could be conducted online. The most commonly seen e-commerce models include B2B, B2C, and C2C, which are responsible for majority of the online business transactions. These common models together with some other models are described below.

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