电子商务（双语）

Electronic Business

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内容提要

本书突破了传统双语教材的局限，采用 **ABC 型教学模式**。A 意味着完整的中文体系架构、完全的英文教材内容；B 意味着中英文对照的、免费下载的教学 PPT；C 意味着完全中文的、自由下载的电子书。

本书既具备了原版教材信息量大、图表案例丰富、语言纯正、表达生动的优点，又兼顾了自编教材紧扣教学大纲内容、有针对性、逻辑性强、篇幅适当的优点，并强调实践，注重实效。

本书可用于应用型本科院校、高等职业院校相关专业的**电子商务课程教材**、**电子商务双语课程教材**，也可作为**电子商务专业的专业英语教材**，还可作为企事业单位电子商务、市场营销、国际贸易等相关从业人员的参考用书或者培训用教材。

前　言

本教材从电子商务课程的教学和实践出发,充分考虑电子商务概论课程的教学要求,特别是双语教学的需求,结合电子商务专业特点和学科的最新发展,并注意该课程教学的历史渊源。本教材采用国外 MBA 教材的体例和写法,将案例与应用背景相结合,将专业知识与实践相结合,并注重新的专业知识结构要求。

教材的主要特色在于:**模式创新、体例严密、基础坚实**。

模式创新是指采用了 ABC 型教学模式。A(absolute)意味着在符合国内教学思路和体系的基础上,完全采用英文构筑教材,即使是专业术语,也是用英文解释;B(bilingual)意味着通过教学网站提供完全免费的、中英文版本的教学 PPT,辅助教学;C(complete)意味着通过教学网站提供自由下载的、中文版本的电子书,供师生对照阅读、学习。

体例严密是指严格按照 MBA 教材的体例和写法,每一章以一个引导性案例开头,章节内容围绕着这一引例和与之相关的专业知识展开,把每章要学习的知识点和难点一一展开。每章的开始部分有"学习目标",结束部分有"总结",最后还给出了问题,并专门设计了与本章紧密相关的讨论话题,供师生课后思考、分析与交流。

基础坚实是指我校"电子商务概论"双语教学自 2007 年开展实践活动以来,已经完成十余个学期的教学任务。"电子商务概论"双语教学实践获得校重点教改课题资助,发表教改论文两篇,并于 2009 年顺利通过验收。教改论文"双语教学中的激励机制研究"获得第一届南京工业大学优秀教育教学研究论文评比二等奖。与此同时,从 2006 年至今出版了三版的《电子商务概论》教材,较受欢迎。

本书由朱晓峰和张琳讨论大纲,朱晓峰负责第 1—4 章,张琳负责第 5—6 章,陆敬筠负责第 7 章,陈红艳负责第 8 章,胡桓负责第 9 章。本书在编写过程中,得到了赵柳榕老师的帮助,得到了研究生裴鑫、冯涛和王子豪的协助。与此同时,本书还受到了南京工业大学 2013 年校级建设立项教材、南京工业大学优秀学术团队建设项目的资助,一并表示衷心的感谢!

本书作者均为从事电子商务教学多年的一线教师。因此,希望本书能够对电子商务教学和学习提供有益的帮助。当然,本书难免有不妥之处,恳请广大读者对此教材提出宝贵意见,以期不断改进。

编　者
2015 年 1 月

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Chapter 1

Introduction to E-business

Case Study: Amazon.com

Jeffrey Bezos, CEO and founder of Amazon.com, is running what some people refer to as the "world's biggest bookstore." The story of Bezos's virtual bookstore teaches many lessons about online business. Out of nowhere, this digital bookstore turned an industry upside down. What happened here was more than just creating a *Web*[①] site. Bezos conceived and implemented an intelligent, global digital business. Its business is its technology; its technology is its business. Shocking traditional *value chains*[②] in the bookselling industry, Amazon opened thousands of virtual bookstores in its first few months of operation.

Bezos graduated from Princeton and was the youngest vice president at Banker's Trust in New York. He had to decide if he would stay and receive his 1994 Wall Street bonus or leave and start a business on the Internet. "I tried to imagine being 80 years old, looking back on my life. I knew that I would hardly regret having missed the 1994 Wall Street bonus. But having missed being part of the Internet boom—that would have really hurt," stated Bezos. One evening he compiled a list of 20 products he believed would be sold on the Internet. Books, being small-ticket items that are easy and inexpensive to ship, were on the top of the list. It was also apparent that no bookstore could conceivably stock more than a fraction of the 5 million books published annually. Bezos, who had never sold a book in his life, developed a strategic plan for selling books on the Internet. Amazon launched three years later. In the fall of 1994, Amazon filled its first book order—personally packaged by Bezos and his wife.

Amazon does not operate any physical stores. All of its sales occur through its website. It is consistently pushing the technological envelope in its search to provide a satisfying, personalized experience for its customers. What started as a human-

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① **Web** provides easy access to Web pages. (万维网，World Wide Web)

② **Value chain** is a chain of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market. (价值链)

edited list of product suggestions morphed into a sophisticated computer-generated recommendation engine. The company captures the comments and recommendations of buyers for site visitors to read—similar to the friendly salesperson in a store offering advice on which books to buy. The website tracks customer traffic, the number of visitors who access the site, how long they stay, what pages they click on, and so forth. The company uses the information to evaluate buying and selling patterns and the success of promotions. Amazon has quickly become a model success story for e-businesses around the globe.

Amazon retains customers with website features, such as personalized recommendations, online customer reviews, and "1-click ordering"—the creation of a true one-stop shopping establishment where customers can find anything they want to buy online. Through the Amazon.com Auctions, zShops (independent third party sellers), and more recently the Amazon.com Marketplace (where customers can sell used items), the company is able to offer its customers almost everything.

Amazon released a free Web service that enables its business partners (whom Amazon calls "associates") to interact with its website. More specifically, this Web service allows its partners to access catalog data, to create and populate an Amazon.com shopping cart, and even to initiate the checkout process. In 16 months, the company has inspired 30,000 associates to invent new ways to extend Amazon's visibility on the Internet. With over 30 million customers, Amazon has become a household brand.

Learning Objectives

- To define e-business and describe how it differs from e-commerce;
- To understand the complexity of e-business and its many facets;
- To compare the six types of e-business models and understand its meaning;
- To identify the impact of e-business;
- To recognize the benefits and limitations of e-business;
- To understand the evolution of e-business from its early years to today.

1.1 Definition of E-business

1.1.1 Conception of E-commerce

(1) History

In order to understand electronic commerce it is important to identify the

different terms that are used, and to assess their origins and usages.

According to the editor-in-chief of *International Journal of Electronic Commerce*, Vladimir Zwass, "Electronic commerce is sharing business information, maintaining business relationships and conducting business transactions by means of telecommunications networks." He maintains that in its purest form, electronic commerce has existed for over 40 years, originating from the electronic transmission of messages during the Berlin airlift in 1948. From this, *electronic data interchange* (***EDI***)[①] was the next stage of e-commerce development. In the 1960s a cooperative effort between industry groups produced a first attempt at common electronic data formats. The formats, however, were only for purchasing, transportation and finance data, and were used primarily for intra-industry transactions. It was not until the late 1970s that work began for national Electronic Data Interchange (EDI) standards, which developed well into the early 1990s.

EDI is the electronic transfer of a standardized business transaction between a sender and receiver computer, over some kind of private network or *value added network* (***VAN***[②]). Both sides would have to have the same application software and the data would be exchanged in an extremely rigorous format. In sectors such as retail, automotive, defense and heavy manufacturing, EDI was developed to integrate information across larger parts of an organization's value chain from design to maintenance so that manufacturers could share information with designers, maintenance and other partners and stakeholders. Before the widespread uptake and commercial use of the Internet, the EDI system was very expensive to run mainly because of the high cost of the private networks. Thus, uptake was limited largely to cash-rich multinational corporations using their financial strength to pressure and persuade (with subsidies) smaller suppliers to implement EDI systems, often at a very high cost. By 1996 no more than 50,000 companies in Europe and 44,000 in the USA were using EDI, representing less than 1 per cent of the total number of companies in each of the respective continents. According to Zwass, electronic commerce has been re-defined by the dynamics of the Internet and traditional e-commerce is rapidly moving to the Internet.

With the advent of the Internet, the term e-commerce began to include:

• Electronic trading of physical goods and of intangibles such as information;

• All the steps involved in trade, such as on-line marketing, ordering payment and support for delivery;

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①　**Electronic data interchange** is a standard format for exchanging business data. One way an organization can use EDI is through a value-added network. (电子数据交换，EDI)

②　**Value-added network** is a private network, provided by a third party, for exchanging information through a high-capacity connection. (增值网，VAN)

• The electronic provision of services such as after sales support or online legal advice;

• Electronic support for collaboration between companies such as collaborative on-line design and engineering or virtual business consultancy teams.

(2) **Established concepts**

Some of the definitions of e-commerce often heard and found in publications and the media are:

• Electronic commerce (EC) is where business transactions take place via telecommunications networks, especially the Internet;

• Electronic commerce describes the buying and selling of products, services, and information via computer networks including the Internet;

• Electronic commerce is about doing business electronically.

(3) **Conception**

In this book, electronic commerce (e-commerce) is defined as the conduct of a financial transaction by electronic means. The wide range of business activities related to e-commerce brought about a range of other new terms and phrases to describe the Internet phenomenon in other business sectors.

Some of these focus on purchasing from online stores on the Internet. Since transactions go through the Internet and the Web, the terms I-commerce (Internet commerce), icommerce and even Web-commerce have been suggested but are now very rarely used.

Other terms that are used for online retail selling include e-tailing, virtual stores or cyber stores. A collection of these virtual stores is sometimes gathered into a "virtual mall" or "cybermall."

1.1.2 Conception of E-business

(1) **Origin**

As with e-commerce, electronic business (e-business) also has a number of different definitions and is used in a number of different contexts. One of the first to use the term was IBM, in October 1997, when it launched a campaign built around e-business. Today, major corporations are rethinking their businesses in terms of the Internet and its new culture and capabilities and this is what some see as e-business.

(2) **Established concepts**

Some of the definitions of e-business often heard and found in publications and the media are:

• E-business is the conduct of business on the Internet, not only buying and selling but also servicing customers and collaborating with business partners;

• E-business includes customer service (e-service) and intra-business tasks;

- E-business is the transformation of key business processes through the use of Internet technologies. An e-business is a company that can adapt to constant and continual change;
  - E-business is everything to do with back-end systems in an organization.

(3) **Conception**

In this book, electronic business means the use of the Internet, the Web, and apps to transact business. More formally, digitally enabled commercial transactions between and among organizations and individuals.

Generally speaking, e-business includes government institutions, enterprises and business units within various electronics. E-business can be seen as a modern commercial and administrative practice; it is through improved quality of products and services to improve service transmission speed to meet governmental organizations, manufacturers and consumer demand for lower cost, and through the computer network to speed up the exchange of information to support decision-making.

(4) **Content and aspect**

Any number of facets of a business might be carried forth electronically. Consider as simple examples the following business activities that might be carried forth in electronic form:

- recruiting of new employees;
- marketing, advertising and public relations;
- customer support and education;
- meetings and information resource sharing among employees;
- training of employees;
- intelligence gathering for strategic and tactical planning;
- distributed inventory control functions;
- payroll and benefits management.

It is relatively easy to imagine how any of these activities, if appropriate to a particular business intent, might benefit from instantiation in an electronic form. They will all have an impact on the bottom line of the business.

Electronic business can be understood from three aspects:

First, an e-business may of course be engaged in pure e-commerce. The focus on e-business is not meant to suggest that e-commerce is excluded. Indeed it is likely that e-businesses will be engaged in e-commerce and that e-commerce companies will have a string commitment to being e-businesses.

Second, not all aspects of a business can, should, or will be electronic. The point is simply to suggest that a traditional business can be made more efficient by engaging some of its activities electronically.

Third, some of the most profitable and rapidly growing aspects of e-business are

those that involve the streamlining of back office processes to adopt a more efficient electronic form. Specifically, business to business transactions that enhance supply-chain management, just in time inventory control, and accounts payable and receivable are among the first targets of opportunity for smart business people.

1.1.3 Differences between E-commerce and E-business

For the purpose of clarity, the distinction between e-commerce and e-business in this book is based on the respective terms of commerce and business.

Commerce is defined as embracing the concept of trade, "exchange of merchandise on a large scale between different countries." By association, e-commerce can be seen to include the electronic medium for this exchange. Thus electronic commerce can be broadly defined as the exchange of merchandise (whether tangible or intangible) on a large scale between different countries using an electronic medium—namely the Internet. The implications of this are that e-commerce incorporates a whole socio-economic, telecommunications technology and commercial infrastructure at the macro-environmental level. All these elements interact together to provide the fundamentals of e-commerce.

Business, on the other hand, is defined as "a commercial enterprise as a going concern." E-business can broadly be defined as the processes or areas involved in the running and operation of an organization that are electronic or digital in nature. These not only include direct business activities, such as marketing, sales and human resource management, but also indirect activities, such as business process re-engineering and change management, which impact on the improvement in efficiency and integration of business processes and activities.
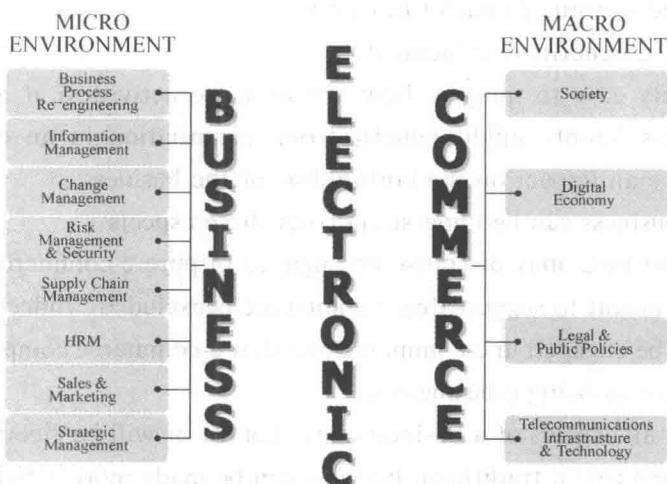

Diagram 1.1   Electronic commerce and electronic business

　　Diagram 1.1 illustrates the major differences in e-commerce and e-business, where e-commerce has a broader definition referring more to the macro-environment; e-business relates more to the micro-level of the firm. But in practice, e-commerce and e-business are often used interchangeably.

　　In this context, this book chooses to focus on e-business. E-business is concerned with the growth and development of new and existing businesses in the direction of more electronically mediated enterprises.

　　In conclusion, e-business contains electronic commerce, abbreviation for the EB. As its name implies, it contains two parts: One is electronic means; the other is business. E-business can be conducted through electronic means, including the various social activities. With the development of information technology, e-business connotation and denotation are also constantly enriched and expanded, and has been given new meaning into a broader application of space.

1.2　Understanding to E-business

1.2.1　Understanding E-business: Organizing Themes

(1) Technology: Infrastructure

　　The development and mastery of digital computing and communications technology is at the heart of the newly emerging global digital economy we call e-business. To understand the likely future of e-business, you need a basic understanding of the information technologies upon which it is built.

　　E-business is above all else a technologically driven phenomenon that relies on a host of information technologies as well as fundamental concepts from computer science developed over a 50-year period. At the core of e-business are the Internet and the Web, which we describe in detail in Chapter 3 and Chapter 4.

　　Underlying these technologies are a host of complementary technologies: cloud computing, personal computers, smart phone, tablet computers, local area networks, relational and non-relational databases, client/server computing, data mining, and fiber-optic switches, to name just a few.

　　These technologies lie at the heart of sophisticated business computing applications, such as enterprise-wide computing systems, *supply chain management*① systems, manufacturing

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　　① **Supply chain management** is the coordination of production, inventory, location, and transportation among the participants in a supply chain to achieve the efficiency for the market being served. (供应链管理, SCM)

resource planning systems, and *customer relationship management*① systems. E-business relies on all these basic technologies—not just the Internet. The Internet, while representing a sharp break from prior corporate computing and communications technologies, is nevertheless just the latest development in the evolution of corporate computing and part of the continuing chain of computer-based innovations in business.

To truly understand e-business, you will need to know something about packet-switched communications, protocols, such as TCP/IP, client/server and cloud computing, mobile digital platforms, Web servers, HTML5, CSS, and software programming tools, such as flash and JavaScript on the client side, and JSP, PHP on the server side. (All of these topics are described fully in Chapter 4.)

(2) Business: Basic concepts

While technology provides the infrastructure, it is the business applications—the potential for extraordinary returns on investment—that create the interest and excitement in e-business. To truly understand e-business, you will need to be familiar with some key business concepts, such as the nature of digital markets, digital goods, business models, firm and industry value chains, value webs, industry structure, digital disruption, and consumer behavior in digital markets, as well as basic concepts of financial analysis.

(3) Society: Taming the juggernaut

With more than 243 million Americans now using the Internet, and more than 2.5 billion users worldwide, the impact of the Internet and e-business on society is significant and global. Increasingly, e-business is subject to the laws of nations and global entities. You will need to understand the pressures that global e-business places on contemporary society in order to conduct a successful e-business business or understand the e-business phenomenon, such as individual privacy, intellectual property, and public welfare policy.

1.2.2　Understanding E-business: Views of Experts

For computer scientists and information technologists, the success of e-business was a powerful vindication of a set of information technologies that had developed over a period of 40 years—extending from the development of the early Internet, to the PC, to local area networks. The vision was of a universal communications and computing environment that everyone on Earth could access with cheap, inexpensive computers—a worldwide universe of knowledge stored on HTML pages created by

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① **Customer relationship management** is a system for managing a company's interactions with current and future customers. It often involves using technology to organize, automate and synchronize sales, marketing, customer service, and technical support. (客户关系管理，CRM)

hundreds of millions of individuals and thousands of libraries, governments, and scientific institutes. They believed the Internet—and the e-business that rose on this infrastructure—should remain a self-governed, self-regulated environment.

For economists, the years of e-business raised the realistic prospect of a nearly perfect competitive market: Where price, cost, and quality information are equally distributed, a nearly infinite set of suppliers compete against one another, and customers have access to all relevant market information worldwide. The Internet would spawn digital markets where information would be nearly perfect—something that is rarely true in other real-world markets. Merchants in turn would have equal direct access to hundreds of millions of customers. In this near-perfect information *marketspace*①, transaction costs would plummet because search costs—the cost of searching for prices, product descriptions, payment settlement, and order fulfillment—would all fall drastically.

For real-world entrepreneurs, their financial backers, and marketing professionals, e-business represented an extraordinary opportunity to earn far above normal returns on investment. The e-business market space represented access to millions of consumers worldwide who used the Internet and a set of marketing communications technologies (e-mail and Web pages) that was universal, inexpensive, and powerful. These new technologies would permit marketers to practice what they always had done—segmenting the market into groups with different needs and price sensitivity, targeting the segments with branding and promotional messages, and positioning the product and pricing for each group—but with even more precision. In this new market space, extraordinary profits would go to *first movers*②—those firms who were first to market in a particular area and who moved quickly to gather market share. In a "winner take all" market, first movers could establish a large customer base quickly, build brand name recognition early, create an entirely new distribution channel, and then inhibit competitors (new entrants) by building in *switching costs*③ for their customers through proprietary interface designs and features available only at one site. The idea for entrepreneurs was to create near monopolies online based on size, convenience, selection, and brand. Online businesses using the new technology could create informative, community-like features unavailable to traditional

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① **Marketspace** is the area of actual or potential commercial value in which a company intends to operate. (市场空间)

② **First mover** is a firm that is first to market in a particular area and that moves quickly to gather market share. (第一推动者)

③ **Switching cost** refers to the cost that a consumer would have to incur by switching from one supplier's product to another's. Although most prevalent switching costs are monetary in nature, there are also psychological, effort- and time-based switching costs. (转换成本)

merchants. These "communities of consumption" also would add value and be difficult for traditional merchants to imitate. The thinking was that once customers became accustomed to using a company's unique Web interface and feature set, they could not easily be switched to competitors (see Diagram 1.2).
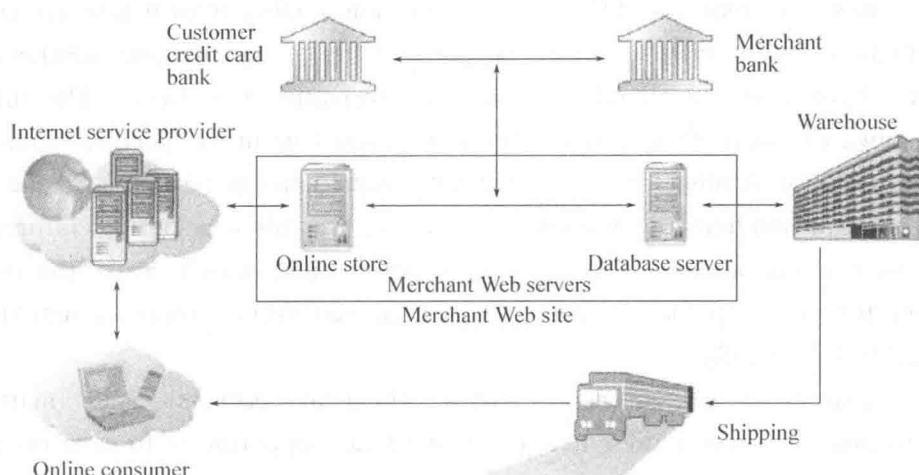

Diagram 1.2　Typical e-business transaction

1.3　Key Drivers to E-business

It is important to identify the key drivers of e-business. The criteria that can determine the level of advancement of e-business are summarized in Table 1.1 and can be categorized as:

- **Technological factors**—the degree of advancement of the telecommunications infrastructure which provides access to the new technology for business and consumers;
- **Political factors**—including the role of government in creating government legislation, initiatives and funding to support the use and development of e-business and information technology;
- **Social factors**—incorporating the level and advancement in IT education and training which will enable both potential buyers and the workforce to understand and use the new technology;
- **Economic factors**—including the general wealth and commercial health of the nation and the elements that contribute to it.