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In Global Electronic Commerce: Theory and Case Studies (MIT Press, Cambridge, MA, 1999), J. Christopher Westland and Theodore H. K. Clark offer their perspectives on e-commerce business models for the globally-networked world. The book is unique in its balanced mix of theoretical perspectives and real-world case studies from seven countries, including Chile, China, Hong Kong, the Netherlands, the Philippines, Russia, and the United States. The book focuses on the recurring theme of a shift in wealth creation and wealth redistribution brought about by information technology and e-commerce. The Digital Economy has resulted in a shift from value in physical production to value in information processing, information ownership, and information services. Wealth redistribution, in turn, is captured through innovative ways to establish and maintain relationships between business and business (e.g., supply chain management) as well as business and consumers (e.g., personalization and recommendation services). Westland and Clark discuss four major issues in global e-commerce: electronic channels, technology infrastructure, electronic markets, and e-commerce business process supporting functions. (See Table 1.)

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Electronic channels

Electronic channels through global e-commerce systems have revolutionized the structure of channel functions to the benefit of consumers. Internet technologies have reduced consumers’ costs to find product features, prices, and sellers that match their needs (Bakos, 2001). Westland and Clark’s argument that e-commerce does not totally banish the intermediary function as was previously expected, but rather eliminates some intermediary institutions by means of substitution or consolidation, is substantially supported by findings in academic research. For example, Bakos (2001) and Kauffman and Walden (2001) suggest that the elimination of intermediaries (disintermediation) is likely to occur in information product markets where goods can be delivered directly from a producer to a consumer. On the other hand, new kinds of intermediaries that provide useful information to a consumer (e.g., price comparison services, product and aggregation offerings) now are being introduced into other retail markets.

Trust and sharing are critical in the business-to-business e-commerce environment. Westland and Clark’s suggestions to instill trust and encourage information sharing through ownership structure and open platforms are in line with findings in academic research (e.g., Bakos and Nault, 1997). A non-proprietary technology platform network owned by an independent third party or an industry consortium can reduce business partners’ concerns about lock-in and high switching costs.

The case studies take readers from the fundamental theoretical concepts to strategic and operational levels of business actions. Practitioners may find that some of the cases are too long and seem to have been written for academic audiences, and some have stronger managerial messages than others. For example, a case study on the Financial Times shows how the firm used the Internet to restructure its distribution channels for syndicated news and
management articles to give its readers a sense of the leading issues. Product pricing, information security, information distribution and control, and interface design all are in play in their global technology project. Another case discusses Procter and Gamble's restructuring of its entire value chain. It shows how information technology can be used to transform channels, as well as organizational structures and business processes, to the benefit of all participants. On the other hand, a case study on Security First Network Bank, the world's first Internet-only bank, fails to discuss important issues facing the first mover and ultimately how they manage them. In fact, it misses the most critical point in time for the bank when it had to choose to position itself as a software licensor or a retail bank, or a combination of both. The article discusses the creation of Security First Technologies, which ultimately sold its Security First Network Bank operation to the Royal Bank of Canada in March 1998, but retained its banking software products and services.

**Technology infrastructure**

The growth of e-commerce is primarily due to advances in computer and communications technology, combined with rapidly declining costs of digital networks. The authors, however, largely ignore the important role of infrastructure to e-commerce development and the fact that the disparity in infrastructure will lead to a *digital divide* (Iyer et al., 2002). Instead they spend the chapter discussing the historical development of the Internet and World Wide Web.

Academic researchers have appropriately recognized for some time that telecommunications infrastructure and related government policies are important drivers of a country's e-commerce development (Wong, 2001). In fact, reasonable telecommunications policies along with sound economic and social plans are necessary to prepare countries for the Digital Economy, as well as to help bridge the Digital Divide. Among the top priority are policies toward telecommunications licensing and regulation, telecommunications
privatization, spectrum allocation, standards setting and Internet domain management. (For more discussion and studies on global issues of e-commerce diffusion, interested readers should visit Center for Research on Information Technology and Organization (CRITO) at the University of California, Irvine at www.crito.uci.edu.) Likewise, practitioner research firms, such as the Economist Intelligence Unit (www.ebusinessforum.com), and McConnell International (www.mcconnellinternational.com) have also used connectivity and infrastructure to rank countries’ different levels of ability to facilitate e-commerce.

Readers, who look for insights in business case studies to compensate for the lack of the theoretical rigor, will be equally disappointed. First, most of the case studies are concentrated in one tightly knitted market of Hong Kong and China. Second, these cases were written in either a chronological or descriptive fashion with limited analytical insights for readers.

Electronic markets

The important concept that Westland and Clark convey is that various forms of electronic auctions (e.g., the English and Dutch auction formats) and digital retail markets will be central strategies in e-commerce. The authors, however, spend too many pages describing fundamental mechanisms underlying various auction models. They fail to discuss other important issues in auction markets, such as buyer bidding behaviors and the critical success factors for electronic auctions, which are suggested elsewhere by Kauffman and Walden (2001). The case study on electronic auctions in the Dutch flower industry provides some reasons about why some auction mechanisms fail and others succeed. They include the levels of trust that are achieved between buyers and sellers, the alignment of incentives between the market providers and the market participants, and the quality of the goods or services in which the market enables transactions to be made.
Westland and Clark argue that the web can be used as a tool for *brand building* and *direct marketing* in digital retail markets. However, they also caution us against using the web to build brands for two other reasons: limited bandwidth and usage time. While Westland and Clark briefly discuss a seller's direct marketing strategies, others delve into this issue further. For example, Bakos (2001) points out that sellers can use various direct marketing approaches (e.g., recommendation strategy, easy-to-use user interfaces, customized contents) to lock in customers or increase switching costs.

**E-commerce business process supporting functions**

Supporting functions for e-commerce business processes, such as fulfillment of electronic transactions, payment methods and logistics services, are indispensable. Currently, the most commonly used payment method on the Internet is credit cards. However, new methods like electronic money have been proposed to facilitate micropayments, which support pay-per-use approaches to charging for information services. Yet, as the case study on the Mondex electronic cash in Hong Kong demonstrates, electronic money faces three significant obstacles to gain a sizable market share. First, there is a high level of *adoption inertia* to replace cash, the prevalent choice of payment. Second, the associated *technology risk* is too high for some groups of potential e-cash customers. And, third, electronic money *fails to differentiate itself* from other types of existing payment schemes, especially debit cards or phone cards.

Westland and Clark also provide an interesting explanation why pay-per-use schemes may not work in the digital economy. Pay-per-use tends to overcharge regular customers and undercharge casual customers. The pay-per-use price structure conflicts with the cost structure of information production, where there is a high fixed cost with zero or near-zero marginal cost.
Interestingly, although the pay-per-use schemes that have been discussed in this book may not be viable in e-commerce in the long-term, e-cash and electronic wallet solutions have a promising future in the wireless commerce market. Unlike e-commerce, wireless commerce is dominated by personal wireless devices (e.g., personal digital assistants, mobile phones). Also, Global System for Mobile Communications (GSM)-based mobile phones are already equipped with smart cards, which can easily function as an electronic wallet, thereby overcoming the adoption problem.

The opportunities in global e-commerce are vast and still largely unexplored. *Global Electronic Commerce: Theory and Case Studies* by Westland and Clark provides some first-step perspectives on the development of global e-commerce, with strategic insights from prior case studies for present day practitioners to take their own initiatives into the market. For academic audiences, the case studies have a ready application for MBA and undergraduate class discussion, but the accompanying theoretical discussion fails to deliver dramatically new or different theoretical insights.
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