Emerging Markets and E-Commerce in Developing Economies
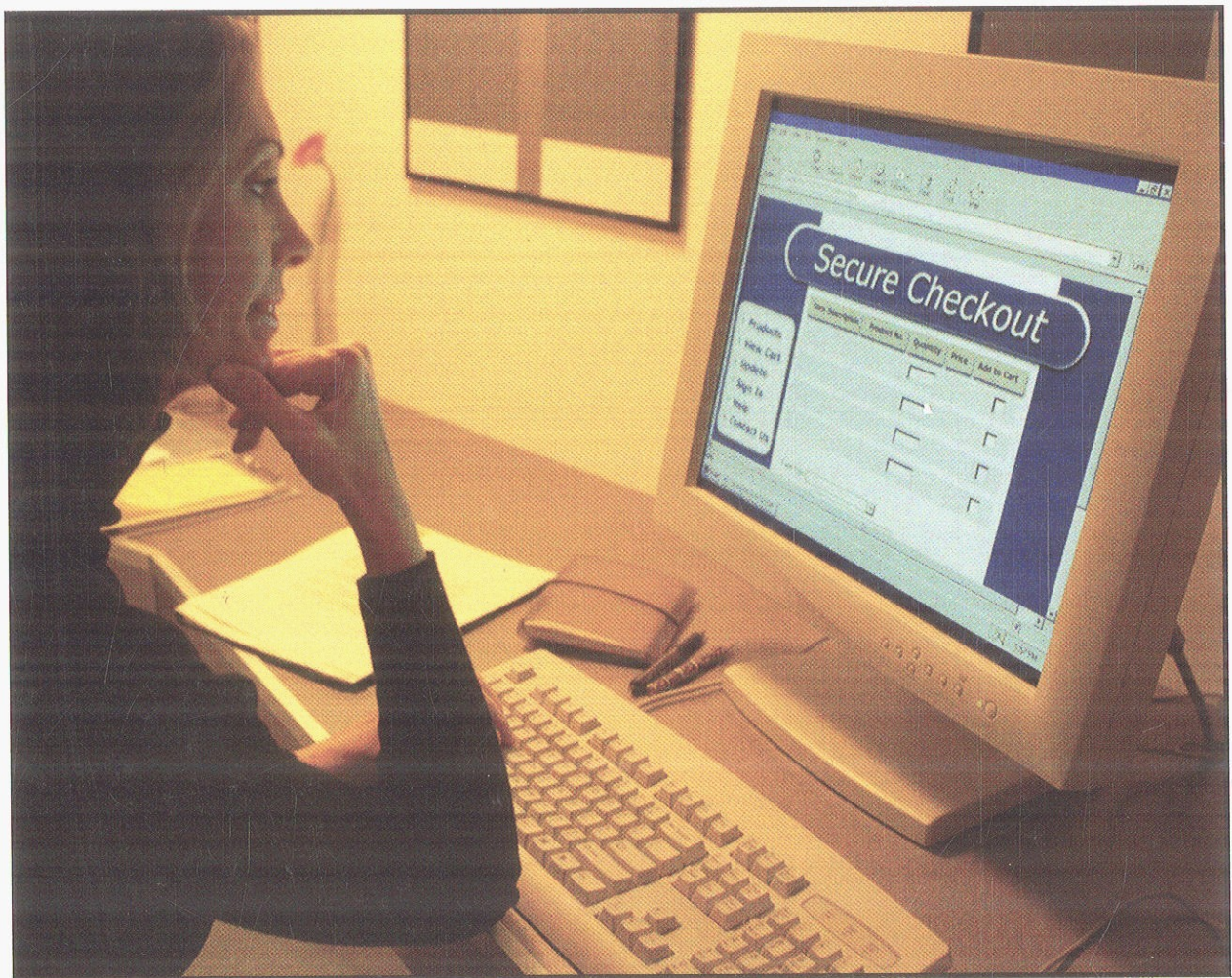
Kamel Rouibah, Omar Khalil, & Aboul Ella Hassanien

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Section 1
E-Commerce in DCs: An Overview

Chapter I

> *Richard Boateng, University of Manchester, UK*
> *Alemayehu Molla, RMIT University, Australia*
> *Richard Heeks, University of Manchester, UK*

This chapter provides a synthesis of the current research on e-commerce in DCs and serves as a road map providing future directions for both academics and practitioners. Authors undertook a meta-analysis of the published literature on e-commerce in DCs. The analysis covered 245 articles published between 1993 and 2006 in seventy-six different journals on electronic commerce, information systems, global information technology, development and developing countries. In taking stock of this literature, the chapter identifies enduring research themes, classifies the existing research based on such themes, and reviews the theoretical and conceptual approaches used by researchers. The findings suggest that e-commerce research to date has mainly focused on outlining e-commerce potential and assessing adoption and implementation issues in DCs. The authors call for future research to focus more on measuring the benefits of e-commerce for DCs and on strategic understanding of how to achieve and sustain these benefits.

Chapter II

> *Reinholder Decker, Bielefeld University, Germany*
> *Frank Kroll, Bielefeld University, Germany*

This chapter delineates and discusses empirical findings and conceptual ideas concerning the current and future prospects of e-commerce in emerging markets, with a special focus on China and Russia. Besides their own empirical evidence drawn from two online-surveys covering business companies from different industries as well as management consultancies in these countries, authors report the findings from a meta-analysis of a number of recent relevant studies. The resulting managerial implications are primarily based on those factors, which determine the success of e-commerce activities and the corresponding value creation.

Section II
Challenges to E-Commerce Adoption in DCs

Chapter III

Sushil K. Sharma, Ball State University, USA
Jatinder N. D. Gupta, University of Alabama in Huntsville, USA

This chapter emphasizes the fact that the past few years have seen a rise in the number of companies embracing e-commerce technologies in developing countries. However, as compared to developed nations, DCs still lag behind in e-commerce. Sharma and Gupta identify some of the reasons that may be responsible for lack of e-commerce in developing countries. For the scope of their study, they limited developing countries to China, India, Indonesia, Philippines and Sri Lanka. Their study identifies factors at the macro level to understand why the adoption of e-commerce in developing countries has not taken off as expected.

Chapter IV

Antonis C. Stylianou, University of North Carolina at Charlotte, USA
Stephanie S. Robbins, University of North Carolina at Charlotte, USA
Pamela Jackson, Fayetteville State University, USA

This chapter posit that, with over 1.3 billion people and double-digit economic growth, China could potentially emerge as the largest Internet and telecommunications market in the world, if certain economic, environmental, and organizational barriers are effectively addressed. They developed and used a profile to describe the Chinese business managers' awareness of the technological infrastructure as well as their perceptions and attitudes regarding e-commerce. Their findings on the managers' views on a variety of environmental, organizational, and personal factors provide insight into the future of e-commerce in China. Chinese firms that are interested in engaging in e-commerce will likely find a knowledgeable and supportive business climate. However, e-commerce initiatives may be hindered by constraints imposed by the existing technological infrastructure and political environment.

Chapter V

Mahesha Kapurubandara, University of Western Sydney, Australia

Robyn Lawson, University of Western Sydney, Australia

This chapter presents a framework, proposed by Kapurubandara and Lawson, for e-commerce adoption by small and midsized enterprises (SMEs) in Sri Lanka. The framework has been developed based on an initial exploratory study of seventeen SMEs, followed by a regional survey of 625 SMEs from various industry sectors, along with interviews with the SME intermediary organizations. The framework helps an SME to identify its ICT and e-commerce sophistication maturity stages using five-stage variables, the barriers it faces in the adoption of e-commerce, and the support necessary to overcome the identified barriers. The authors argue that their framework is a preliminary framework to e-transform SMEs in DCs.

Chapter VI

Alev M. Efendioglu, University of San Francisco, USA

This chapter speculates that different characteristics (e.g., infrastructure and socio-economic) of the local environment create significant levels of variation in the acceptance and growth of e-commerce in different regions of the world. The findings of his research on e-commerce development in China provide insights into some of the impediments for the development and use of e-commerce. Efendioglu then discusses the impediments and proposes a number of strategies for a successful development of e-commerce in developing countries.

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Section III
E-Government in DCs

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Chapter VII

Victor van Reijswoud, Uganda Martyrs University, Uganda

Arjan de Jager, International Institute for Communication and Development (IICD),
  The Netherlands

This chapter posits that e-government, which operates at the crossroads between information and communication technology (ICT) and government processes, can be divided into three overlapping domains: e-administration, e-services and e-society. To succeed, e-governance must be firmly embedded in the existing government processes, be supported politically and technically by the governments, and provide users with reasons to use these on-line domains. The authors used these three e-governance criteria to evaluate the achievements of the DistrictNet e-governance program in Uganda which started in 2002. The program aimed at providing transparency at the local government level and improving the provision of public information using information and communication technology (ICT). Based on the evaluation, the authors present a number of lessons that can be used to guide smaller programs at the local government level in other DCs.

This chapter illustrates the impact of e-government on e-commerce development and implementation in the DCs. Rabaiah, and Vandijck argue that since e-government is about enhancing efficiency and transparency of government operations, research efforts should explore new perspectives on how and where e-commerce can prevail in this shift in government operation paradigm. There are new opportunities for DCs to utilize new ICT offerings to achieve growth, efficiency, and cost reduction. The authors then discuss a number of these opportunities and draw a connection between e-government and e-commerce in such a way that helps decision makers in DCs to understand the potential of e-government for a better implementation of e-commerce.

Section IV
National Culture and E-Commerce Adoption in DCs

This chapter presents one of a few studies that is aimed at testing the possible influence of cultural values on the acceptance of e-commerce in the two developing countries which exhibit two distinct national cultures (Malaysia and Algeria). Based on a synthesis of the technology acceptance models and cultural theories, Belkhamza and Wafa incorporated cultural values into a TAM model. The model testing results indicate that the four cultural values of individualism/collectivism, power distance, uncertainty avoidance, and masculinity/femininity identified by Hofstede are posited to explain the e-commerce acceptance in the context of these two developing countries. The role of cultural differences was found to be a noteworthy moderator in the proposed e-commerce acceptance model, emphasizing the role of cultural aspects in multi-national e-commerce research. The authors therefore suggest to look more into the social influence on the behavioral intention, which calls for attention in understanding benefits of e-commerce adoption based on cultural, rather than cognitive and norms criteria. The authors also suggest that e-commerce companies attempting to penetrate and assist the Algerian e-commerce companies should focus on creating and fostering a secure e-commerce image, and investigate the attitude of those organizations. The Malaysian culture, similar to that of Algeria, exhibits a strong relationship between usefulness and usage intention. It should be important therefore to make it a business priority to establish a strong local identity and presence in the local country.

Chapter X

Cultural Differences, Information Technology Infrastructure, and E-Commerce Behavior:

Ahu Genis-Gruber, TOBB University of Economics and Technology Ankara, Turkey
Bedri Kamil Onur Tas, TOBB University of Economics and Technology Ankara, Turkey

This chapter presents a study by Genis-Gruber and Tas that was designed to investigate the role of cultural differences and information technology infrastructure on e-commerce usage in developed and developing countries. They used Hofstede's national culture taxonomy to classify the investigated countries according to both Hofstede's cultural indices and their technological and economic development. Their research design controlled for the possible impact of information infrastructure and education level on e-commerce usage. The authors found culture to play an incremental role in e-commerce usage and in the relationship between infrastructure and e-commerce.

Chapter XI

Kamel Rouibah, Kuwait University, Kuwait
Samia Ould-Ali, Kuwait University, Kuwait

This chapter presents a study that Rouibah and Ould-Ali conducted in order to test a number of models-namely, the theory of reasoned action, the theory of planned behavior, the technology acceptance model (TAM), the decomposed theory of planed behavior, Nyvseen's et al., (2005) model, as well as a revised version of TAM proposed by the authors—in explaining the intention to use short messaging systems (SMS) on banking transactions in Kuwait. A convenient sample of 171 users was used. The results suggest that the decomposed theory of planned behavior has the largest explanatory power, followed by the author's revised version of TAM. On the other hand, TAM and the theory of reasoned action have had the least explanatory power. In addition, results indicate the absence of a dominant factor (i.e. a variable that exerts the strongest effect on behavioral intention to use SMS) across the six models, which may reveal a unique characteristic of the local culture. Such a result calls for caution when applying different technology adoption models across different cultures and regions.

Section V
Strategies for Successful E-Commerce Development in DCs

Chapter XII

Ayoub Yousefi, King's University College at the University of Western Ontario, Canada

This chapter presents a theoretically-based model for economic analysis of e-commerce in DCs. The Porter diamond model is adopted in order to economically examine the factors that affect e-commerce.

The model does not only capture factors that are considered the driving forces for e-commerce, but it also facilitates the assessment of e-commerce and the identification of the global competitive advantages of the firms. Therefore, the model can be used as a framework that guides policy making and predicts the changes in the rapidly expanding e-commerce in DCs.

Chapter XIII

This chapter proposes a "tool" for managing the critical success factors (CSFs) in B2B development. The tool has been developed based on an existing framework and experiences drawn from B2B developments in the well developed countries. It includes a set of concrete and detailed guidelines that directs the actions needed during the preparation stage of B2B projects. The guidelines are further discussed considering the problems and conditions that are relevant to DCs.

Chapter XIV

This chapter emphasizes the importance of having well-designed Web sites as a requisite for successful e-commerce practices. Xanthidis, Nicholas, and Argyrides propose a template aiming at standardizing Web site evaluation. The template has been developed based on a thorough review of the relevant literature, which is rich in ideas and opinions of different professionals involved in Web site design. The template consists of fifty-three items that the design strategies of the Web sites can be checked against. The results of testing the template on 232 Websites of Greek companies suggest its appropriateness in measuring Web site quality. The authors believe that the proposed template is a step forward towards the standardization of the Web site evaluation process, which could be useful for companies in DCs.

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Section VI
Case Studies on E-Commerce in DCs

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Chapter XV

This chapter profiles e-commerce practices and challenges in Tunisia. The profile focuses on two distinct e-commerce experiences: e-commerce transactions via the Tunisian Post Office (known as the ONP), and e-commerce operations via the Banking Association (known as the SMT). The authors explore the problems facing e-commerce in Tunisia and propose solutions that help e-commerce expansion.

This chapter introduces four sets of prerequisites for successful e-commerce development, including national factors, related and supporting industries, firm strategy, structure and rivalry factors, and demand conditions. Li and Suomi further discuss the status of e-commerce development in China, along with the four sets of success prerequisites, with the purpose of identifying the influential factors which impede e-commerce development in China.

This chapter presents a case of an Internet startup that capitalizes on the opportunities presented by the information economy in Egypt. Since its inception in 2001, the B2B platform of speedsend.com has pioneered the electronic procurement industry in Egypt through a customized Web-based platform. The case focuses on the models deployed by the company demonstrating the internal and external challenges faced and lessons learnt. The author, Kamel, stresses that the Internet company's success is attributed to its capability to transform the classical emerging markets challenges into opportunities, including technology infrastructure deployment, community awareness, information availability, and cultural adaptation of the online business, amongst others.

This chapter introduces a multidimensional model for the assessment of e-commerce diffusion in a country. Jošanov and his colleagues used the model to evaluation the state of e-commerce diffusion in *Serbia.* After the breakdown of Yugoslavia and 10 years of conflicts and stagnation, Serbia started an economic reform program, and was pronounced the leading reformer in 2005 by The World Bank. The

authors found that, in general, some progress was made in e-commerce diffusion in Serbia; however, progress varied along the different dimensions of the model with problems about the need for new laws and lack of e-payment system. The chapter further discusses a B2B strategy that puts together the facilitating conditions that enable Serbia to engage in the global electronic economy.