

Chapter VI

E-Commerce in Developing Countries: Impediments and Opportunities

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ABSTRACT

The number of Internet users around the world has been steadily growing and this growth has provided the impetus and the opportunities for global and regional e-commerce. However, as with Internet, different characteristics (infrastructure and socio-economic) of the local environment have created significant levels of variation in the acceptance and growth of e-commerce in different regions of the world. Our research on e-commerce development in China and the findings provide insights into some of the impediments for development and use of e-commerce. In this chapter, I present and discuss our findings, and propose some strategies for successful development of e-commerce in developing countries.

INTRODUCTION

As the number of Internet users around the world has steadily grown various studies have been conducted and models have been developed to identify diffusion of e-commerce in different environments. (Zwass, 1999; Wolcott, et. al. 2001; Travica, 2002; Hasan and Ditsa, 1999) These models have looked at “infrastructure” (e.g. connectivity hardware and software, telecommunications, product delivery and transportation

systems) and “services” (e.g. e-payment systems, secure messaging, electronic markets, etc.) as the primary diffusion factors. Furthermore, Travica (2002) study has focused on Costa Rico and its culture, and Hasan and Ditsa (1999) have tried to identify and present possible cultural factors that may impact broad based adoption of Information Technology.

Industry based organizations have also been interested in diffusion of e-commerce in different countries and have also identified similar factors,

and have rated these countries on their readiness for e-commerce. Most widely cited of these ratings are presented by IBM and the intelligence unit of The Economist (Economist Intelligence Unit, 2004), which define e-readiness by measurement in six distinct categories (1) Connectivity and technology infrastructure, (2) Business environment, (3) Consumer and business adoption, (4) Social and cultural environment, (5) Legal and policy environment, and (6) Supporting e-services.

In addition to infrastructural and business system issues, trust (I call this “transactional trust”) has been identified as one of the critical issues that confront businesses that are new businesses or utilize new business models like e-commerce. One of the most widely studied cultural classifications was originally proposed by Hofstede (1980). His cultural framework consists of four dimensions identified as: individualism-collectivism, uncertainty avoidance, power distance, and masculinity-femininity. Even though Hofstede’s framework was originally developed for national-level analyses, Oyserman *et al.* (2002) has shown that it can also be applied at individual levels. Further research by Doney *et al.* (1998) and Jarvenpaa *et al.* (1999) have suggested that individualism-collectivism effects the ways people form trust and may affect the users’ willingness to trust online vendors. Other studies have also tried to find correlations between trust and experience with a new system, concept, or relationships, including a correlation to frequency of e-commerce activity, and other researchers have noted that trust may be significantly influenced by culture of a given society. (McKnight *et al.*, 1998; McKnight and Chervany, 2001; Lee and Turban, 2001) Grabner-Kraeuter (2002) observes and states that trust is “the most significant long-term barrier for realizing the potential of e-commerce to consumers”, and others state that trust will be a “key differentiator that will determine the success or failure of many Web companies.” (Urban *et al.*, 2000) Studies by Park (1993) and Keil *et al.* (2000) have focused on the impact of

uncertainty avoidance on people’s willingness to accept uncertainty, which is an unavoidable foundation of e-commerce.

To see the impact of these factors, especially the “influence of culture on acceptance and use of e-commerce in a developing country”, we conducted a study in China. (Efendioglu and Yip, 2004) We selected China because it has unique social and cultural characteristics (Bond, 1986; Chen, 1993; Moore, 1967) and is a country with accelerated changes and growth in its economic systems, fueled and supported by both governmental and business entities.

In the following sections, the research and its findings are presented and discussed, and the changes that have taken place and their impact, since the completion of the study, are identified to provide lessons and to guide the development and use of e-commerce in other developing countries.

CHINA RESEARCH STUDY

The Efendioglu and Yip (2004) study group consisted of selected 252 individuals who would be considered to be a close match to e-commerce users in developed countries and were considered to be “early adopters” (people of means, access, and interest). Since the primary focus of the study was “impact of culture”, we wanted to get the opinions of actual participants/users of e-commerce and wanted to eliminate the infrastructure problems as much as possible. The study participants resided and worked in different regions and for different types of organizations, and had different educational levels, professions, and gender. They held professional supervisory positions in their organizations and had much higher economic means than the average income levels for the local population.

The study participants were asked about their Internet usage to identify their familiarity with technology and their access to Internet, and their

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