A Comparison of American and Indian Consumers’ Perceptions of Electronic Commerce

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ABSTRACT

Electronic commerce is often touted as a global phenomenon. However, most studies of e-commerce have focused on more developed countries. While it is important to understand e-commerce in the context of richer, more developed countries, it also impacts developing countries. Using diffusion of innovation theory, and literature on trustworthiness in e-commerce and dimensions of national culture as theoretical bases, this research investigates how consumers perceive e-commerce differently in India and the United States. Results indicate that Indian and American consumers perceive the relative advantage, ease of use, compatibility, and the demonstrability of results of e-commerce differently. Post hoc analyses reveal there is an association between perceptions of e-commerce and use intentions. This result holds across nationalities, although the pattern of influence differs according to country.

Keywords: diffusion of innovation theory; electronic commerce; India; national culture; survey; technology adoption; United States

INTRODUCTION

Web-based e-commerce is becoming an important aspect of worldwide commerce. The United Nations predicts 18% of purchases by firms and individuals will be conducted online by 2006 (UNCTAD, 2002). During the 2003 holiday season alone, American consumers spent US$18.5 billion online (Ricadela, 2004). While the future of Web-based e-commerce in developed areas appears bright, consumers in developing countries, such as India, face a number of obstacles that may impact their view of e-commerce. Consumers and merchants in developing countries face a number of barriers to successful e-commerce, including less reliable telecommunications infrastructures and power supplies, less access to online payment mechanisms, and
relatively high costs for personal computers and Internet access. These problems may cause consumers in developing countries to view e-commerce differently than consumers in developed countries. How should managers in charge of e-commerce prepare for a global implementation? What can they do to reach consumers in developing countries? What factors influence the adoption of consumer-oriented e-commerce in various countries? These concepts are captured in the general research question that guided this study: How do consumers in developed and developing countries differ in their views of e-commerce?

We explore this question using a diffusion of innovation framework to compare consumer attitudes towards e-commerce in the United States and India. The USA is rated as one of the most e-business-ready countries in the world (Economist Intelligence Unit, 2003) and enjoys a large consumer economy, relative wealth, and high Internet and personal computer penetration rates, which combine to make an ideal consumer e-commerce environment. India makes an interesting contrast. Even though India is rated as one of the low-income economies by the World Bank, India’s software and services export is more than US$6.4 billion, employing about 415,000 software professionals in more than 900 firms (Edwards & Sridhar, 2003). Further, there are signs that the environment for e-business may be improving. With more than a billion people, India is a potentially huge market for consumer e-commerce.

BACKGROUND

Much of the extant information technology (IT) literature focuses on developed countries. Less attention has been paid to IT in developing countries. As e-commerce continues to spread worldwide, it becomes important to understand e-commerce in the context of developing countries. To better understand perceptions of e-commerce in India, we compare them to perceptions of consumers in the USA. By using these as a benchmark, we gain additional understanding over that which could be gained from looking at Indian consumers’ perceptions in isolation. Past research has made similar comparisons (Chau, Cole, Massey, Montoya-Weiss, & O’Keefe, 2002; Jarvenpaa & Tractinsky, 1999; Straub, 1994; Straub, Keil, & Brenner, 1997).

Local Conditions

Local conditions such as a weak telecommunications infrastructure, the relative expense of PCs and Internet access, weaknesses in payment infrastructures and dispute resolution systems, and weaker consumer rights are potential reasons for the lower penetration of e-commerce in India (Bélanger & Van Slyke, 2000). It is important to consider the influence of local conditions on the adoption and assimilation of new technologies (Hebert & Benbasat, 1994). India lacks a strong, reliable telecommunications infrastructure (Banerjee, 1997; Reuters, 2001), which may be a necessary condition for Web-based e-commerce. While Bangalore is ranked fourth in the world as a global hub for technology innovation (UNDP, 2001), the country has a very low teledensity of 26.50 telephone mainlines per 1,000 population (compared to 689 in the USA) and PC penetration of 4.5 per 1,000 population (compared to 585 in the USA) (CIA, 2003). In addition, connection quality when using a dial-up account is often poor, resulting in slow Web page downloads and a degraded Web shopping experience.
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