Antecedents of Electronic Commerce in Developing Economies

Ismail Sila, Near East University, Nicosia, Cyprus

ABSTRACT

One of the objectives of this article is to investigate the extent to which several factors that might affect electronic commerce (EC) usage are implemented and EC is used in a developing country. The article also aims to identify the factors that actually influence the use of EC in a developing country context. The author used annual survey data obtained over a 5-year period from 2009 to 2013 to test several hypotheses. This is probably the first article to assess the changes in these factors’ effects on firms’ usage of EC over several years. Findings suggest that there are major gaps in the implementation of these factors. There were no major changes or developments in technology availability and EC infrastructure over the five-year period. In fact, there was a general deterioration in the other factors that could facilitate EC usage. In addition, there were no changes in the extent to which EC was used over the same period. Implications of these findings for managers and researchers are discussed.

KEYWORDS

Adoption and Usage Factors, Competitiveness, Developing Country, Electronic Commerce, Information and Communication Technologies, Survey

INTRODUCTION

The new century has seen a revolutionary change in the way business and trade are conducted over electronic channels. Users in least-developed and developing countries are increasingly accessing the Internet via terminals and mobile devices. The use of the Internet and mobile applications are expected to increase exponentially in the future. This provides great opportunities to utilize the power of the Internet and other forms of information and communication technology (ICT) to advance the social and economic development of developing countries around the world. Despite evidence of productivity gains in several areas, companies in developing countries are not always maximizing the use of these technologies (World Trade Organization, 2013). Developing countries should fully embrace EC to realize several important benefits, including improved economic and social development, increase in productivity, reduction in operating costs for businesses, and integration of their economies with the international markets (Alyoubi, 2015; World Trade Organization, 2013). In fact, such gains are already being evidenced in some countries such as India (Turban, King, Lee, Liang, & Turban, 2015).

Even though EC has the potential to provide greater benefits to businesses and consumers in developing countries than in developed countries, this potential has not been fulfilled in many of these countries (Kshetri, 2007; Molla & Heeks, 2007; World Trade Organization, 2013). Several factors have been cited for the developing countries’ failure to reap these benefits, including financial, legal, and physical infrastructure barriers to implementation (Kshetri, 2007; Tan, Tyler, & Manica, 2007;
Abou-Shouk, Megicks, & Lim, 2013), as well as factors such as management attitudes and culture (Abou-Shouk et al., 2013).

Most of the literature on the adoption and use of EC consists of studies conducted in developed countries such as the US, Europe, and Scandinavia. The findings of these studies are not necessarily applicable to developing economies, since the factors driving the adoption of EC and the barriers to adoption differ across countries (Kartiwi & MacGregor, 2007). Previous studies on EC in developing countries have mainly been conducted in Latin America, Asia, and Africa. However, there is still a lack of systematic research on issues related to the e-readiness of small and medium-sized enterprises (SMEs) in developing countries (Fathian, Akhavan, & Hoorali, 2008; Huy, Rowe, Truex, & Huynh, 2012; Abou-Shouk et al., 2013). Such research on small island economies has been particularly missing from the literature (Molla, Taylor, & Licker, 2006). Therefore, the objectives of this study are:

- To investigate the extent to which several factors that might affect EC usage are implemented and EC is used in a developing country. The author does this by analyzing annual survey data obtained from firms in Northern Cyprus (NC) between 2009 and 2013. The analysis of yearly data allows researchers to detect developments or changes in the characteristics of the target population. To the author’s knowledge, this is the first study in this area that used more than one year’s data on factors related to the use of EC and EC usage.

- To determine the factors that actually influence the use of EC in a developing country over a 5-year period.

- To make policy and research recommendations based on the study’s findings.

Understanding the determinants of EC usage in NC has both practical and research implications, which are discussed in more detail at the end of the article. The island of Cyprus is strategically located at the crossroads of three continents. This has allowed the southern part of the country, which has joined the EU in 2004, to become the EU’s key trading hub in the Eastern Mediterranean, providing a point of exchange between Europe, Africa, and Asia. As a major transshipment centre, the island provides important benefits to manufacturers with European, Middle Eastern, and North African export activities, allowing them to streamline their supply chain activities (Cyprus Profile, 2015).

However, the economy of NC has not nearly fulfilled its potential after the division of the island in 1974. According to several UNDP studies conducted on behalf of the European Commission, the division between the two sides of the island has created big discrepancies between the two economies in terms of GDP growth and GDP per capita. There are also big differences between the two communities in terms of private sector development. The embargoes faced by NC restrict trade and investment opportunities. To close the gap between the two sides, the EU commission has offered grant programs to NC to help develop the private sector and improve its e-readiness. The UNDP studies also identified ICT development as an important factor for increasing the productivity of all sectors, especially high potential service businesses. Accordingly, the UNDP studies identified a number of strategies in 2005 to develop E-business and ICT in NC. Furthermore, it declared that a grant scheme would be set up to support organizations implementing projects in line with the proposed E-business and ICT strategies (European Commission, 2006).

This study’s assessment of the factors influencing EC usage in NC over a 5-year period will create a better understanding of the effects of such EC and ICT initiatives over an extended period of time. With the ongoing negotiations gaining pace in 2015, the resolution of the decades-old conflict in the island will put the northern part of the island on the map for many European and other foreign companies doing business in the region. Therefore, understanding the EC climate in NC is important for both local and foreign firms. It can also help other developing countries in the region to formulate strategies to encourage adoption of EC and ICT to contribute to their economic growth.

In addition, since most of the previous empirical research in this area focused on developed countries, this study will contribute to efforts to develop stronger EC theories for developing countries.
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