Sustainability in E-Commerce Adoption in Small and Medium Enterprises (SMEs): A Case Study in Odisha, India

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ABSTRACT

The objective of this study is to identify the factors that will make e-commerce adoption a sustainable one in a developing country like India. Using secondary research, variables that influence decision for e-commerce adoption were determined. Then using primary research, these variables were tested in different small and medium enterprises (SMEs) in Odisha, India. Data from 50 organizations were collected using a structured interview process. The results of data analysis using discriminant analysis indicate that organizational readiness, managerial productivity, external pressure, decision aids, compatibility, and perceived usefulness were factors found are important determinants of adoption.

Keywords: Electronic Commerce (e-Commerce), India, Information Technology (IT) Adoption, IS Implementation, Odisha, Small and Medium Business (SMEs), Sustainable e-Commerce

INTRODUCTION

SMEs are defined as businesses that employ fewer than 250 people and are independent from other organizations. However, SMEs are diverse: some are dynamic and flexible, with a great Power to innovate and a vast range of diversity, others traditional, based on family involvement, embedded in local business environments, and others are start-ups, fragile organizations striving for life and subsistence. Based on MSME Act, 2006, in India, SMEs are classified broadly into:

1. Manufacturing SMEs engaged in the manufacture/production of goods pertaining to any industry;
2. Service industry SMEs, which have been defined in terms of their investment in equipment (excluding land & buildings) and further classified into small Enterprises with investment above Rs. 10 lakh (USD 45 million) & up to Rs.2 crore (USD 900 million) and medium Enterprises- investment above Rs.2 crore (USD 45 million) & up to Rs. 5 crore (2250 million USD).

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The use of Information Technology has become almost inevitable in business. The small and medium enterprises (SMEs) lag far behind in terms of applications of information technology (IT) through the World. The proposed study focuses on examining the levels of IT interventions in SMEs and the fruits there of. It will also address the issues like what benefit the firm is going to get by investing in IT and its impact on productivity, profitability and customer surplus of the firm. It is to be considered as a source of strategic value of the firm in terms of operational support, managerial productivity and strategic decision aids in the state of Odisha in India.

Electronic commerce (e-commerce), one of the specific examples of IT application, has been defined in several ways depending on the context and objectives. For the proposed study, two definitions of e-commerce has been adapted in a B2C context “the process of buying and selling products or services using electronic data transmission via the Internet and the www” (Joseph, 2009). E-commerce provides many benefits to both sellers and buyers; e.g. Napier et al. (2001), pointed out that by implementing and using e-commerce sellers can access narrow markets segments that arc widely distributed while buyers can benefit by accessing global markets with larger product availability from a variety of sellers at reduced costs. Improvement in product quality and the creation of new methods of selling existing products are also benefits. The benefits of e-commerce are not only for large firms, small and medium sized enterprises can also benefit from e-commerce. In addition, it can “level the playing field” with big business, provide location and time independence, and ease communication. However, in spite of the many potential advantages of e-commerce, its adoption by business houses remains limited. For example, a survey conducted by Verizon found that 36% of small businesses established web sites primarily to advertise and promote their business, compared to 9% who established one to sell or market online. Similarly, in a survey of 444 SMEs during 2002, Pratt found that many SMEs were reluctant to conduct transactions online, more than 80% were only using the Internet to communicate (via e-mail) and gather business information. Does this mean that top managers/owners of SMEs do not realize the strategic value e-commerce to their business or does this mean that they encounter significant barriers to implementing it? Ballantine et al. identified unique characteristics of SMEs as lack of business and IT strategy, limited access to capital resources, greater emphasis on using IT and IS to automate rather than informate, influence of major customers, and limited information skills. The scenario is still worse in India, and more specifically in Odisha. This study tries to find the factors that influence decisions related to e-commerce implementation in Odisha in India.

The proposed study will represent a fusion of two independent research streams, viz. the perceived strategic value of certain information technologies to top managers and factors that influence the adoption IT. The following section reviews literature available related to adoption of e-commerce in SME sector.

**LITERATURE REVIEW**

For an SME to have a sustainable business model, Temi et al. (2007) in their study proposed that the SME should build their reputation by being predictable in their performance. One of the way to be predictable (as proposed by the study) is to have automation in customer engagements. Similar studies by Helena et al. (2011) contend that the prevailing economic environment makes it difficult for SMEs, irrespective of size, to actively pursue a sustainable and green model. This can be possible only when they use technology for selling their products to their customers.

Berthon, et al. (2008) and Wong et al. (2005) conducted a quantitative study on small to Medium-sized Enterprises in order to assess the nature and scope of sustainable management within an SME context. Findings suggested that in the long run, the organization can continue to exist if they take care of all stakeholders and
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