

## Chapter 4

# Examining the Factors that Influence ICT Adoption in SMEs: A Research Preliminary Findings

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### ABSTRACT

*Many opportunities have been made available through the use of Information communication technologies (ICT) in organizations in general, and particularly in Small to medium-sized enterprises (SMEs) with the early adopters' successes well publicized. Thus, many organizations not taking advantages of the ICT are currently examining their options. The purpose of this study is to examine the factors that influence SMEs' decision in adopting ICT in business. The diffusion theory, the technology acceptance model and information richness will provide the theoretical foundation for this study. Currently in the data collection phase, the owner/manager or someone responsible for IT employed by the SMEs will be surveyed in this cross-industry study. Preliminary results from the study are reported as well as sample questions resulting from the study to be used in the final survey questionnaire.*

### INTRODUCTION

Information communication technologies (ICT) are radically changing the face of business and organizations. ICTs (especially the computer, Internet, mobile telephony) provide a great deal of opportunities, as well as challenges for SMEs. ICTs seem to be giving a significant leverage to organisations in general, particularly SMEs. The impacts manifest themselves in many ways, ranging from virtual communication through mobile phone and web technology which increase awareness due to better quality information and images. Technologies are being adopted and incorporated into nearly all organizations, particularly the Internet which has the potential to radically change the way business is conducted. The Internet offers a competitive edge and a gateway to the global marketplace. Electronic commerce is enabled by the wide spread presence of information technology and the increasing use of networks, especially the Internet which have the ability to deliver cost effective on-line services for SMEs.

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The use of ICT is widely seen as critical for the competitiveness of SMEs in the emerging global market. In an increasingly global world, both information and information technology are of great significance to organisations of all sizes. Businesses both large and small need information to succeed in today's rapidly changing environment. SMEs need to be able to process data and use information effectively when conducting their day-to-day operations.

The use of IT has the potential to play an increasingly important role in organisations by enabling them to substantially gain competitive advantage and compete successfully. The effective use of ICT can add significant value to an organisation in terms of productivity increase and performance improvements (Lawrence, 2009).

The role of information technology has been seen as increasingly important amongst companies as a mechanism to increase productivity, reduce costs and facilitate flexibility.

There is a growing interest in the use of ecommerce as a means to perform business transactions. Through the use of ecommerce, organisations are able to connect with their trading partners for "just in time production" and "just in time delivery", which improve their competitiveness globally. Lawrence (2002) clearly demonstrates that the use of ICT provides SMEs with substantial benefits in several areas crucial for their business success. Subsequent study by Lawrence (2013) shows that the appropriate use of electronic commerce technologies by SMEs can be an important factor in facilitating business growth, contribute to productivity, efficiency, and enable access to global markets.

As Kalakota and Whinston (1997) suggest, the role of SMEs is a key factor in the growth of economies in general and the emerging electronic marketplace in particular. The growth of the Internet has opened up a vast arena. The Internet provides more opportunities for businesses, particularly SMEs to sell their products and services to a global audience than they would have been able to afford to reach using the traditional methods. It offers a new paradigm for business that allows global trading and there are potentially few limits to growth (Levy and Powell 1999). The use of Internet technology presents a unique opportunity for SMEs to participate in electronic commerce and extend their capabilities and grow in a global market.

The establishment of an environment in which SMEs are able to grow and prosper in the emerging global business is considered critical to the development and expansion of businesses in the economy. The identification and encouragement of new business opportunities for SMEs based on ICT has been the priority of most governments, particularly the British government. ICTs are seen as playing an increasingly important role in the growth performance of SMEs and these are taking on new significance in most countries of the world (OECD, 2000). The advent of Internet-based electronic commerce allows smaller firms to expand their customer base, enter new product markets and rationalize their businesses (Lawrence, 2009). The paper is structured as follows. The section following this introduction discusses the main research area of concern, followed by literature review, then the methodology and finally, the paper presents some conclusions.

## **Conceptual Background**

Literature search shows that SMEs possess specific attributes (Auger and Gallagher, 1997) that distinguish them from the large organisations most often studied in regards to information systems usage (Cragg and King 1993). Other studies (Lawrence, 2013, 2009; MacGregor et al, 1998; Auger and Gallagher, 1997) have shown that SMEs' characteristics are different from larger organizations. It is argued that SMEs differ from large companies in the way they develop their corporate strategies and their technology policies

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