Chapter IX

EDI and Small/Medium Enterprises

R.C. MacGregor
University of Wollongong, Australia

D.J. Bunker
University of New South Wales, Australia

Small/ medium enterprises (SMEs) represent a sizeable proportion of the GDP of most western economies. Not only are they the single largest employer of both skilled and unskilled labour but they make up a large proportion of the supply chain of larger enterprises.

Although there is a strong advocacy for the potential of EDI to improve the performance of those firms involved in the industrial supply chain, Lee, Clark and Tar (1999) suggest that much of the improvement—which includes areas such as: improving the bottom line; working faster and better in the organisation; gaining strategic advantage; strengthening customer relations; preparing for the future in business—benefits the EDI champion rather than those coerced into EDI use. Studies (Kilbane, 1998; Tucker, 1997) have shown that noncompliance to EDI by SMEs can result in larger enterprises being 'limited' in their own business practices often far more than the small business's economic contribution.

A number of reasons have been put forward in the literature as to why SMEs have been slow, or indeed resistant to adopt EDI. These include high set-up costs, poor security and limited EDI partners. While clearly these are important, Harvey (1992) and Mackay (1992) suggest that when attitudes to EDI are being considered, this must be taken in the context of attitudes to IT in general.

Based on the views of both Harvey (1992) and Mackay (1992), this chapter examines two studies carried out in Australia. The first study examined the attitudes of SME managers towards the acquisition of IT in their organisations. 131 small businesses were surveyed, the results suggesting small business managers considered the benefits expressed by EDI advocates (improving the bottom line; working faster and better in the organisation; gaining strategic

advantage; strengthening customer relations; preparing for the future in business) as being of little consequence. Rather, their primary considerations for the adoption of IT were cost/benefit, ease of use and performance.

A second study concentrated on 16 of the respondents from the first study who had adopted EDI in order to conduct business with Australia's largest steel-making company, Broken Hill Proprietary (BHP).

While the second study is, at best, a pilot, both suggest that designers and advocates alike need to examine the small business environment more closely. They need to realise that the operation of SMEs differs markedly from their larger counterparts and that small businesses' managers are more interested in maintaining the operational level of the firm rather than attempting to gain a strategic advantage.

INTRODUCTION

EDI has variously been described as:

The movement of business documents electronically between or within firms in a structured, machine-retrievable, data format that permits data to be transferred, without re-keying, from a business application in one location to a business application in another location. (Hansen and Hill, 1989)

The electronic transfer from computer to computer of commercial or administrative transactions using an agreed standard to structure the transaction or message data (Bamfield,1994).

A collection of standard methods of codifying certain business documents (Tucker, 1997).

EDI involves a number of basic processes. Firstly, EDI passes data to and from different applications processes. Secondly, EDI converts data from proprietary formats into standard format, the process being reversed at the receiving end. Finally, EDI transmits the standard data to and from trading partners.

Early advocates of EDI stressed that its benefits included the elimination of re-keying of errors, faster trade cycles, better customer response, reduction of inventory levels, reduced information and storage, more efficient use of information (Huttig, 1994; Pletsch, 1994; Zack, 1994; Udo and Pickett, 1994; Britt, 1995). When examining the SME environment the EDI World Institute (1995) suggested that benefits included improving the bottom line of the business, working faster and better in the organisation, gaining strategic advantage, strengthening customer relations, preparing for the future of the business. More recently, studies carried out by Tuunainen and Saarinen (1997) and Philip and Pedersen (1997) added the following benefits of EDI: both intra and interorganisational functions can be carried out more effectively and efficiently; the organisation can respond more quickly to global competition, risk, service and cost;l better cash management throughout the organisation; economies of scale can be gained when EDI is used for integration of the value chain; the ability to link and restructure organisations to enhance 'business practices'; and gains in efficiency from functional integration of the organisation.

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/edi-small-medium-enterprises/9631

Related Content

Examining the Interconnections Between E-CRM, Customer Experience, Customer Satisfaction and Customer Loyalty: A Mediation Approach
Anupreet Kaur Mokhaand Pushpender Kumar (2022). *Journal of Electronic Commerce in Organizations (pp. 1-21).*
www.irma-international.org/article/examining-the-interconnections-between-e-crm-customer-experience-customer-satisfaction-and-customer-loyalty/292474

Business Process Analysis
Jesús Arias Fisteusand Carlos Delgado Kloos (2008). *Electronic Commerce: Concepts, Methodologies, Tools, and Applications (pp. 691-697).*
www.irma-international.org/chapter/business-process-analysis/9502

Persuasive Technology and Users Acceptance of E-commerce: Users Perceptions of Website Persuasiveness
Muna M. Alhammadand Stephen R. Gulliver (2014). *Journal of Electronic Commerce in Organizations (pp. 1-13).*
www.irma-international.org/article/persuasive-technology-and-users-acceptance-of-e-commerce/111970

Vehicular Telematics Systems
Gennaro Costagliola, Sergio Di Martinoand Filomena Ferrucci (2006). *Encyclopedia of E-Commerce, E-Government, and Mobile Commerce (pp. 1146-1151).*
www.irma-international.org/chapter/vehicular-telematics-systems/12688

Personality, Emotion and Judgment in Virtual Environments: A Theoretical Framework
Steven A. Murphy, Michael J. Hine, Nathaniel C. Luptonand John M. Zelenski (2009). *Journal of Electronic Commerce in Organizations (pp. 21-43).*
www.irma-international.org/article/personality-emotion-judgment-virtual-environments/4127