Chapter IX

The Evolution of e.Business:
Can Technology Supply meet the Full Business Demand?

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ABSTRACT

In this chapter, the evolution of e.business is described. The ever-changing balance between demand and supply is outlined. The conclusion is reached that, while technology provides many solutions to long-standing issues, along with great opportunities to create and meet new demands, some fundamental business needs for cost-effective processes and security of communication have yet to be met. Furthermore, value chain management re-development is an essential pre-requisite of the successful application of e.business. Proposals for improvements are therefore also made.

INTRODUCTION

In the 1970s there was a growing demand to communicate trading messages electronically between customers and suppliers, in order to reduce costs and to improve customer service. However, the existing supply of technology did not then support this demand. Indeed, technology alone can never meet the communications requirements of business and administration. E.business only fulfils its potential when each business message unfailingly results in the recipient actioning precisely what the sender has asked for. Clearly, it takes more than technology alone to achieve this. Therefore, electronic technology and value chain management improvements need to develop in a mutually supportive manner[1].

A Value Chain is the overall combination of internal and external resources – human, physical, financial and data – which require to be marshalled

and managed, directly and indirectly, in order to achieve the objectives of any organisation, and especially to optimise its net value and benefit to each participant. This is achieved through enhancing performance, speed, certainty, safety and security of service at low operational, capital and through life costs. In turn, these means can be optimised through the judicious employment of e.business, provided that more simple and standard business processes and data are also used by the value chain participants.

For example, until, in the later 1970s and early 1980s, when some more standard value chain processes and business messages were agreed, supported by standard item coding, along with the development of cost-effective communication networks for electronic data interchange (EDI), e.business supply could not begin to meet well key customer demands.

Since then, the demand for e.business has continued to grow rapidly. But, the supply of technological solutions has grown faster than the ability or willingness of many organisations to utilise these fully and economically. The advent of the Internet has provided many beneficial developments, such as e.mail, e.exchanges, e.catalogues, e.collaboration and other data files, along with the facility to communicate directly with most people and places. Nevertheless, the many technical enhancements have not obviated the need for organisations to simplify and standardise their internal and external value chain processes and data if they are to derive the full potential cost-effective benefits of collaborating electronically. Too often, both public and private organisations are unwilling to alter long-standing ways of doing business in order to gain the benefits from more simple, standard, speedy, certain and low cost value chain processes. Indeed, sometimes they unwisely believe that that the introduction of e.technology will of itself improve the quality of their processes and data.

Organisations rarely demand technology. They demand real benefits which the supply of technology can help to support, provided that the appropriate process and data architectures are in place in both senders and recipients of electronic messages. Sound organisations rarely wish to exchange every type of message with everyone. Certainty, security and well specified, sound communication frameworks are as equally important as speed and universality. In this chapter, the evolution of e.business is described. The ever-changing balance between demand and supply is outlined. The conclusion is reached that, while technology provides many solutions to long-standing issues, along with great opportunities to create and meet new demands, some fundamental business needs for cost-effective processes and security of communication have yet to be met. Furthermore, value chain management re-development is an essential pre-requisite of the successful application of e.business. Proposals for improvements are therefore also made.

THE EARLY HISTORY OF e.BUSINESS

I first became involved with e.business around 1970 when my company, Rowntree Mackintosh of York, UK (confectionery and food), was examining ways to reduce the costs and to improve the accuracy of invoicing customers, and thereby to improve the speed of payment. We considered the use of magnetic tapes delivered via couriers, but there was not a widely used standard for such tapes at that time, nor an agreed standard for most paper, let alone electronic, invoices. Thus, Supply could not meet Demand.

Nine track phase encoded magnetic tape had started to become more widely used, but there were many different and incompatible electronic media (tapes, cassettes, disks etc) either being re-developed, or becoming short-lived. Even within companies, point-to-point electronic communication was difficult, despite them being all 'IBM Blue' or devoted uniquely to another computer supplier.

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