

Chapter 1

Introduction

The purposes of this book are threefold. It examines the key characteristics of the new business environment, which provides the context for e-Business. It then explores some new strategies and business models that have been developed as responses to changes in the business environment, and highlights the critical role of the Internet and related technologies in the process. Following that, the book introduces a series of organizational innovations that have been developed to translate new strategies and business models into manageable activities and processes, and to improve the efficiency, effectiveness and responsiveness of the organization through innovative application of ICTs. One of the main objectives of the book is to introduce a robust, coherent, yet broadly focused conceptual framework, together with a range of theories and techniques, to help the readers understand and exploit emerging opportunities and challenges posed by the Internet and e-Business in the increasingly networked, information economy.

What Is E-Business? Does It Still Matter?

E-Business is one of those unfortunate concepts where everyone has a view on what it is, but everyone's definition is somewhat different from the next person's. Although this is usually unproblematic in everyday conversations, it creates challenging problems for researchers, policy makers and business practitioners who need to communicate their views precisely and make important decisions on the basis of those views. The problem is particularly acute when measuring the size of e-Business activities, which is like measuring the length of a rubber band: the result depends on how far you stretch it. The next chapter will explore what is (and isn't) e-Business in more detail.

E-Business is not just about dot.com or Internet-only companies; or selling and buying via electronic channels (which is often referred to as e-Commerce). Fundamentally, e-Business is a much broader concept and it is concerned with using the Internet and related technologies to integrate and redesign an organization's internal activities, processes and external relations, and create new ways of working that are significantly different from, and very often far superior to, what was possible (or conceivable)

in the past. In other words, e-Business is about developing new ways of working by innovatively exploiting the new capabilities of ICTs in general and the Internet and related technologies in particular.¹

This means that even though e-Business developments since the mid-1990s have been spectacular in many ways, the origin of e-Business could go back several decades. There have been numerous studies in the past few decades on the use of ICTs and changes in the visions, strategies, business models, organizational designs and inter-organizational relations of private and public sector organizations, supported by robust theoretical conceptualization and intensive and extensive empirical evidence. Despite various step changes in recent years, in many aspects of organizations continuity from the past needs to be maintained. Valuable lessons can be learnt from previous research.

The second part of the question is therefore not '*does it still matter?*' but how it matters, to whom, and most of all, what we can do about it. To answer this question, it is necessary to explore the context for e-Business, the strategic innovations and organizational transformation it generates, and the implications for organizations, their employees and customers, and for society and the economy as a whole.

What Is New in the New Business Environment?

There are at least two fundamental changes in the business environment. The nature of the economy has changed, as measured by the informational (intangible) elements of our products, services and production processes; and by the proportion of the workforce whose primary activities are informational rather than physical, often known as information workers or knowledge workers. Information (or knowledge, intelligence) has become the most important resource upon which the efficiency and competitiveness of all organizations depend, and the main source of future 'value-added'. This is true not only in services or high-tech industries, but also in primary and manufacturing industries – and in both private and public sectors. In other words, all activities, products and production processes have become information intensive – even in traditional industries.

In the meantime, the so-called 'Information and Communication Technologies (ICTs) Revolution' continues to gather pace, providing us with increasingly more powerful, versatile, affordable and convenient tools in the forms of technologies, infrastructure and services. From the users' perspective, the *only* purpose of these technologies is to deal with 'information' – to capture, store and retrieve, manipulate, transmit and present information. As a result of the technological advances we are able to deal with information in ways not even possible only a few years ago.

The combination of these two intertwined processes is extremely powerful. On the one hand, the most important resource in the economy has changed, from land, raw materials, capital and money to 'information' (broadly defined). On the other hand, we have at our fingertips increasingly more powerful yet affordable tools and techniques to deal with the most important resource of the economy (i.e. information), often in ways impossible in the past. This combination redefines many basic assumptions about our economy and organizations, creating new rules for all to follow. Most importantly,

it means that today, organizations large and small can, should and indeed must do things differently in order to survive and thrive in the new economy. This gives rise to the need for a new generation of organization and management theories. These theories should be embedded in the context of new economics of information, and explicitly exploit the unique capabilities of the Internet and related technologies (and that of ICTs in general). These issues will be discussed in more detail later in the book.

At the foundation of such new theories are what I refer to in this book as the *strategic innovations and organizational transformation*: new visions and strategies, new business models, new organizational designs, new ways of working, and new inter-organizational relations that are intimately related to – supported, enabled or facilitated by – the Internet and related technologies. These technologies have brought about some radical changes in the last few years, although there is also a significant element of continuity from the past. These changes provide the essential context for e-Business.

Strategic Innovations for E-Business

The changing business environment requires organizations to develop new strategies and business models. The rapid development of the Internet and related technologies, combined with the changing nature of the economy, has enabled many organizations to explore new strategies and business models profoundly different from existing ones. In fact, some recent studies are challenging the basic assumptions of many widely used strategic frameworks, such as Porter's five forces of competitive analysis, or Hamel's theory of core competence, because some of the implicit, underlying assumptions and starting points of these frameworks may no longer be valid in today's new business environment.

In the meantime, many new strategies have been advocated, developed and implemented in recent years, including using the Internet to create disruptive innovations in a number of industries: the so-called web strategy or cluster (platform) strategy, where organizations cluster around a particular technological standard or customer segment to collectively deliver unique customer value; and the changing strategic orientations from products, to services, to solutions, and more recently to the co-creation of consumer experience through a network of independent product and service providers. This is not an exhaustive list, but these new strategies will be used to illustrate some radical changes that have been introduced in different industries at strategic levels, by innovatively exploiting the new capabilities of the Internet and related technologies.

Such new strategies are increasingly reflected in the business models of various organizations in a wide range of industries. This book will explore the ontology of e-Business models, and introduce a taxonomy of e-Business models that have emerged in recent years. One particular tendency that will be highlighted in this book is the deconstruction of the integrated business models and business processes through the Internet and related technologies, which is leading to the emergence of virtual organizations and other new organizational forms. These new strategies and business models are increasingly reflected in new organizational designs and emerging forms of organizations.

Organizational Transformation through the Internet and Related Technologies

The Internet and related technologies have enabled organizations to adopt new organizational designs and new ways of working, which are sometimes referred to as organizational transformation or organizational innovations. This book will examine such changes in different facets of organizations – the structure, process, work organization and inter-organizational relations. Some of the changes are incremental but others are radical.

Take structure, for example: a study of confidential compensation data from 300 large American companies gathered between 1986 and 1999 clearly indicated that the organizational hierarchy has been flattened. The number of people reporting directly to the CEO has increased steadily, but the managerial levels between the CEO and the lowest-level managers with profit centre responsibilities have decreased by more than 25 per cent. The study also found that even mergers, acquisitions and diversifications have not significantly added to the number of CEO direct reports, and lower-level managers are taking on more responsibilities. A critical reason for flattened hierarchy is that ‘technology has put information at everyone’s fingertips’ (p. 5).² However, the study also concluded that despite significant changes, the fundamental nature and characteristics of the hierarchy have been retained. From a contingency perspective, the new business environment requires organizations to adopt new organizational designs in order to achieve new fit (or alignment) between the organization and its environment. As will be explored in detail later in the book, some very radical changes have been introduced within hierarchies which significantly enhanced their flexibility and responsiveness.

Equally, from a process perspective, organizational changes have been introduced, from continuous, incremental improvements to radical revolutionary business process re-engineering. Many incremental and radical changes have also been introduced in the way people work (work organization) and in inter-organizational relations.

Before we move on to the next section, the approach adopted in this book needs to be explained briefly. Many of us have heard the ancient tale about *Four Blind Men and an Elephant*. There were four blind men who had never seen an elephant before. One day, they decided to find out what an elephant looked like, and the only way to do that was by feeling the elephant with their hands. So the first man walked up to the elephant and embraced one of its front legs with both arms. Then he announced excitedly to the rest of the men that the elephant looked like the trunk of a tree. Eager to find out directly for himself, the second blind man walked up to the elephant and touched its body, so he said that the elephant did not look anything like the trunk of a tree at all. In fact the elephant looked like a spongy wall. The third blind man was standing behind the elephant and managed to grab its tail, so he was absolutely convinced that the elephant looked like a thick rope. Then the fourth blind man touched one ear of the elephant and said the elephant looked like a palm tree leaf. They argued and argued all day long, and nobody could convince the others about their own visions of the elephant.

When studying a complex entity such as the organization, we often face similar problems. Because of our physiological and methodological limitations, we are often unable to see the organization from multiple angles simultaneously. It is important that we do not take a small part of the organization as a true representation of the whole. In other words, we need to understand the limitations of investigating the organization from a particular angle while extrapolating insights into other aspects – and more importantly, of using the findings from one particular perspective to dismiss the validity of findings from other perspectives. One way to address this potential problem is to recognize the limitations, and strengths, of each of our approaches, and intelligently reassemble what we discover from each of these approaches in an attempt to come up with an understanding of the whole organization as close to the reality as we possibly can.

When we look at organizational designs, we often examine their structures (shape) and processes (how work is done), as well as their work organization and their relationships with other organizations. We also examine various other aspects such as production methods, logistics systems and so on. The theoretical and methodological approaches we adopt in exploring each aspect of organizational designs often have different underlying assumptions about organizations and their environments, different starting points, and different purposes and objectives. Comparing the results from different approaches directly can often lead to debates that are seemingly interesting and insightful but fundamentally flawed and meaningless. We need to be acutely aware of such potential problems and limitations when researching organizations.

Emerging Issues and Areas Not Covered in This Book

The rapid development of the Internet and e-Business also raises a series of other issues, including online security and privacy, individual and organizational identities in cyber space and their similarities, differences and relationships with the identities in the physical world. There are also regulatory and legal issues, ethical issues, as well as many other issues related to online marketing – such as e-mail spamming and e-mail ‘bombing’ (flooding an e-mail address with junk mails), hacking and viruses. Other important topics include m-Commerce and m-Business; e-Government and e-Public Services (including e-Health or health informatics); e-Learning and e-Business-related issues in a wide range of industries and application domains – Internet banking, the changing business models in the telecommunications industries, online stock trading, e-holidays and e-music, to name a few.

Owing to the size of the book, many of these issues will not be investigated here. However, such issues can be effectively explored within the framework introduced in this book. Many of them will also make interesting student assignments and exercises, and provide useful topics for independent research. Some discussion questions and possible assignments – together with suggested further readings – have been provided at the end of each chapter; and three major assignments are suggested at the end of this book (see appendices).

The Structure of the Book

The structure of the book reflects the conceptual framework deployed to integrate and underpin the theories and issues. The next chapter will examine what e-Business is and is not. Following that, the book will be organized into three main sections to discuss changes in the new e-Business environment (Part I); emerging strategies and business models for the network economy (Part II); and organizational innovations through information systems (Part III). Finally, the book will highlight a series of other issues not covered in the book and conclude by highlighting why e-Business matters, in what ways and what we can do about it. I will also speculate on a range of emerging issues and on where things are going. E-Business is still a rapidly evolving phenomenon and new research is clearly needed to make sense of what is happening, the opportunities and challenges it poses and how these opportunities and challenges can be effectively exploited.

Discussion Questions

- 1 In your view, what is e-Business? Why do you want to study this subject?
- 2 What main issues should be included in e-Business studies? Why? If you were to write a book on e-Business, what would the table of contents look like? Justify your answers.
- 3 How do you characterize e-Business as an emerging field of study in relation to other more established disciplines (such as strategy, marketing and human resource management)? Why?

Assignment

Visit the website of five e-Businesses you are most interested in, and investigate the ways these businesses are different from conventional businesses. Write up your main findings (one side of A4, single spaced, for each case) and report your main findings to your class.

NOTES

- 1 It should be emphasized that 'e-Business' is not limited to the private sector and that Internet technologies are increasingly applied in public sector and other non-business institutions, although more recently other terms are increasingly used to describe those specific activities, such as e-Government, e-Learning, e-Health and so on. This issue will be discussed in more detail in the next chapter.
- 2 Rajan, Raghuram G. and Julie Wulf (2003) The flattening firm: evidence from panel data on the changing nature of corporate hierarchies. Reported in *Sloan Management Review*, 44(4), 5. Full paper available from Wulf@wharton.upenn.edu.

FURTHER READING

I will not suggest any particular e-Business or e-Commerce books for this chapter. Instead, visit a bookshop and/or the library, and do some quick research on amazon.com. Flip through all books on this subject you can find and pay particular attention to the table of contents and the introductions. Identify the main themes – and the key issues – covered by these books.