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Introduction to B2C Strategies and Models

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OBJECTIVES

This book focuses on business strategies and models in business-to-consumer (B2C) Internet electronic commerce. It analyses the elements of success through intensive study of examples of successful Internet retailing. Major components of each Internet innovation, the organization, customers, website and environment, are examined holistically to identify characteristics that lead to success. Recognizing that the basis of success may differ in different countries, this is an international study. Five success stories are examined in each of six countries on four continents: Asia, Australia, Europe and North America. Through holistic analysis of each implementation of Internet retailing, the questions to be answered by this study are the following.

- Which organizational factors influenced the Internet innovation and how?
- What characteristics of their websites influenced consumer acceptance of that innovation?
- What encourages and discourages their consumers from purchasing over the Internet?
- Did environmental factors influence the innovation and, if so, how?
- What international/cultural differences arise from the study, and can generalizations be made from these?

The book sets out to investigate these questions and to identify how successful business strategies and models can be created from interaction of these varied factors. The intention is not to specify a series of golden rules that would,

inevitably, lead to success. This is certainly not achievable in an area developing as dynamically as electronic commerce, if at all. The investigation aims to address the great uncertainty that exists about Internet electronic commerce by examining examples of success. Insights arising from the study as it develops answers to the questions listed above may assist entrepreneurs, chief executives and executive management in their strategic planning and implementation for Internet-based electronic commerce.

THE INTERNATIONAL RESEARCH PROJECT

This book is based on an international research project that aimed to assist organizations seeking to apply business-to-consumer electronic commerce through a comparative international study of successful implementations. The study also sought to make a significant theoretical contribution through testing of proposed extensions to current theory on how organizations successfully adopt innovations (see also Chapter 9: Research Model and Theoretical Implications).

The study is significant owing to its intense investigation of a broad range of examples of Internet electronic commerce across different countries. The richness and completeness of the data collected help develop a holistic view of Internet innovations that, previously, has not been available. The firms investigated sell across a spectrum of the most popular Internet products, including books, gifts, groceries, music, technology, tickets and travel but also extend into less likely areas such as building products, home maintenance services, a factory outlet for name-brand fashion and fine wines.

Examination of the interaction between firm, consumer, website and the environment in a single consistent study of Internet innovation acknowledges that at this early stage in our understanding of electronic commerce a narrowly focused investigation of any area in isolation may lead to incomplete and inaccurate conclusions. A major strength of this project is its detailed analysis and direct comparison between consistent research studies conducted in a range of national markets at a comparable period in time.

A summary of the countries, firms, products and researchers is given later in this chapter.

ELECTRONIC COMMERCE DEFINITION AND SCOPE

There are numerous terms and definitions relating to electronic commerce. A simple view has been adopted that reflects its likely level of impact on business, namely as the source of fundamental change to business practice initiated by the substitution of existing arrangements by computer-aided processes. Terms such as electronic business, e-business, Internet business, e-commerce, Internet commerce and new economy are all treated as synonyms for electronic commerce.

A broad scope has been applied to include an extended transaction cycle and all parties critical to a transaction. The transaction cycle extends from a consumer's initial investigation about products and services through payment and receipt of goods to a firm's back-office processing of the transaction including inter-organizational settlement, posting of ledgers and reporting. An e-commerce order fulfilment chain from retailer to customer includes all participants that have a critical role in the transaction, potentially including specialist providers such as telecommunication companies, Internet Service Providers (ISPs), website hosting firms, website mall providers, warehousing and logistics specialists, payment processors and customer service providers. When a customer purchases over the Internet, any firm providing a service that could beneficially or adversely affect the customer's willingness or capability to purchase from an online retailer is considered as critical to the transaction.

BOOK STRUCTURE

This introductory chapter sets the scene for the book, explaining the focus and implementation of the international study and providing background details on strategies and models of electronic commerce. The researchers in each country and authors of the country chapters are introduced.

Chapters 2–7 focus on Internet retailing in a single country: Australia, Denmark, Greece, Hong Kong (China), the United Kingdom and the United States. These chapters provide an overview of the environmental factors in the countries and the firms examined. The five case studies in each country include descriptions of the background, business models and strategies, implementation, critical success factors, innovation factors and processes, website developments and consumer issues. The chapters conclude with a summary of the most important innovation issues in each country.

Chapter 8 looks at the research tools developed specifically for this project to support analysis of website characteristics and consumer experiences. To identify factors leading to success it is necessary to be able to distinguish between firms and to analyse how they implemented the Internet innovation. The Centre for Electronic Commerce (CEC) website evaluation framework was developed for this purpose. A view of consumers' experiences with particular websites helps clarify the most important issues for Internet retailers to address. An Internet-based customer survey was developed for this purpose. Full details of the CEC website evaluation framework and the customer surveys are provided to enable executives to compare their own Internet innovations and customer experiences with those of the firms included in this study.

A secondary aim of this research study was to consider theoretical implications of the examples of Internet electronic commerce. Chapter 9 explains the research model applied by the project teams in each country and, based on the research findings and analysis, proposes an integrated research model for electronic commerce.

Chapter 10, the conclusion, brings together the research findings and analysis and looks at lessons for firms. Details of the key factors and processes leading to successful adoption of Internet retailing are described, business models and strategies developed from these factors explained and a conceptual model illustrating the integration required between innovation elements and processes proposed. A comparison of how two products, books and technology, are sold over the Internet by firms in different countries demonstrates similarities and differences in implementations of electronic business.

Finally, a reference list and index complete the book.

TARGET AUDIENCES

This book is intended for several discrete audiences. The primary audience is practitioners—executives and entrepreneurs who see business opportunities from the Internet but who are uncertain how best to proceed to realize those opportunities. The examination of how 30 examples of successful Internet commerce in six countries came to be successful captures the experiences, both good and bad, of those who have led the way. For executives commencing their engagement with e-business, the minicase examples also identify lessons learned and contain advice from the successful companies for other firms. Analysis of the cases reveals further lessons and suggestions for good practice.

Executives can also benefit from the description of the tools developed for this international project. Full details of the CEC website evaluation framework and the Internet consumer survey are shown in Chapter 8. These tools can be used by firms with websites to analyse their current situation and to compare their web features and functions with those of the firms examined.

The second audience segment is comprised of e-business researchers. In parallel with the uncertainty of business leaders about e-commerce is uncertainty within the ranks of researchers. Current theory in many areas of business research is unable to explain the phenomenon of e-commerce and is unable to assist industry to anticipate the directions and outcomes of the transforming impact of the Internet. Researchers may benefit from the intensive, holistic details and analysis of successful Internet firms across different countries and cultures. The research tools for website evaluation and surveying customers provided for executives may be equally important for researchers. An important outcome of this project is the proposal of an integrated, multi-disciplinary research model for e-business that may help a wide range of researchers to place their investigations into context.

The third audience group is students of e-business. The variety of examples and the range of experiences of Internet retailers in different countries will assist students to better understand the transforming impact of e-business, the opportunities for firms and the ways that firms can address these challenges. In many respects the current students of e-business are the most important audience

since this group, as graduate employees, will be the people open to new ideas who work to transform firms from 'old economy' organizations into dynamic e-businesses.

SELECTION OF COUNTRIES, SECTORS AND FIRMS

As mentioned above, the objective of this research project was to assist organizations seeking to successfully exploit business-to-consumer electronic commerce through an international, comparative study of successful implementations. The experiences of both firms and their customers were examined in a single, consistent and integrated study in six economies: the United States, the United Kingdom, Denmark, Greece, Hong Kong (China) and Australia. A reasonable question arises: Why these countries?

Any international study of leading examples of electronic commerce or electronic business must examine United States firms. In effect, United States firms such as Amazon, eBay and Yahoo initiated and defined Internet business. In less than seven years, these companies have become household names not only in the United States but internationally. While United States firms are generally considered to lead the world in e-business, some international evaluations (e.g. LSE/Novell 1999, 2000) have ranked European firms as at least equal to the best United States examples. Despite the efforts of the European Union, Europe cannot be viewed currently as a single coherent market. Wide variations in national economies, interests and lifestyles are apparent. Similarly, Internet activity varies markedly in different countries. Scandinavia has had high levels of Internet use for several years while Southern Europe in general has appreciably lower levels of e-business use and experience.

Studies such as the one by NetValue (2000) show Denmark has the highest level of Internet penetration in Europe with over 50% of households connected, the United Kingdom is in second position, with nearly 30%, Germany is in third place with 25.7%, followed by France (17.5%) and Spain (12.7%). Other studies place Italy, Spain and Portugal at the lowest levels of Internet use. Greece is of particular interest since it has been ignored in studies of European Internet activity. Researchers appear to presume that Greek Internet activity is so low as to be of little significance. While acknowledging that Greek firms have been slow to establish themselves in this area, the research team in Athens found significant examples of Internet retailing that add a valuable perspective to the study.

Consequently, countries from north (Denmark) and south (Greece) were examined to capture the range of European experiences and to support analysis of the diversity of success factors. With the largest volume of e-business activity in Europe and several of the top rated Internet sites internationally, the United Kingdom was also included in the study.

Hong Kong's contribution is as a major international business centre, a source of cultural diversity for the international study and a market with a low level of

Internet adoption. Australia provides diversity as a developed country with a very high level of Internet adoption that has a small domestic market and is remote from the major markets of Europe and North America.

To help identify the best firms to study, surveys of industry sectors that were most used for Internet purchases were consulted. In the United States these included (in order of significance) travel, books, music CDs, technology sales, gifts, groceries and general merchandise. These sectors were similarly popular in other countries, although the order varied (GVA 1999, Forrester Research 2000a) and *www.consult* research series). Financial service providers were not examined since they were not identified in surveys at the time as being leaders in Internet use. Lessons from firms in sectors most experienced with Internet retailing were seen to be most significant in clearing the fog of uncertainty. In addition, firms that were identified by the research teams in each country as making a significant contribution to Internet retailing from other sectors were identified to ensure a broad base for analysis.

In selecting the firms in each sector, efforts were made to include startups and traditional 'bricks and clicks'. The question of which of the thousands of e-tailers to examine was a challenge. The influence of major United States pioneers such as Amazon and eBay extends across the breadth of the Internet. Startups and traditional businesses alike sought to emulate the business models first developed and implemented by these firms. This project did not, however, examine these well-known companies. Details on these firms have already been exhaustively reported to the point of reader fatigue. This project sought to contribute through expanding the level of knowledge in an area of uncertainty rather than rehashing old news. Therefore, the United States, authors selected other examples of lesser known but successful e-tailers.

Firms were selected for investigation based on their success and their likely significance to other firms. Although there is a valid argument that much can be learned from failure, no failed Internet ventures were studied in detail. Reasons for failure are clearer after the event when the implications of actions taken become apparent. Reasons for success are often more complex and reliant on the interaction of many elements that change over time. Consequently, this book has focused on the more complex and dynamic aspects of successful innovation to address the documented uncertainties of business and consumers with Internet retailing.

STRUCTURE OF EACH INVESTIGATION

Each firm's Internet innovation was examined holistically to identify the most important factors determining success. As shown in Chapter 9 in the development of the research model, the factors were grouped into four categories: environmental, organizational, innovation and consumer. Most of the theory of innovation focuses on organizational issues and the characteristics of the actual innovation. Environmental issues are frequently assumed to be constant and

consumer issues have received too little attention in innovations research. The international research project reported in this book attests to the importance of all categories of factors. This anecdote illustrates why.

Ian Shiels, a senior KPMG executive, returned to Australia after several years in the New York practice. While in New York he had been a keen purchaser of products and services over the Internet, not just books, tickets and CDs but also electronic equipment, food and clothes. Six months after his return to Sydney he had not purchased a single item over the Internet. Why? Because in New York he had a doorman who reliably received each item and securely stored the purchases even if Ian was away on business at the time. Australians typically live in houses rather than apartments and even secured apartments maintain their safety through electronic access control rather than a doorman. This sole reason for a reluctance to purchase was totally unrelated to the retailer, products or services available, cost of purchase, customer demographic or concerns over data privacy or credit card security. This vignette emphasizes the fragility of the Internet retailing transaction cycle. If even a single element is not perfectly aligned, then the transaction will not take place. It also emphasizes the critical importance for executives and researchers alike to consider Internet retailing holistically and not to become fixated on just one particular aspect.

Investigation of the innovation focused on websites, which are subject to ongoing change. Many of the websites examined were also revised as a direct result of this research project as firms reviewed the feedback from their customers and the formal assessment of their website using the CEC website evaluation framework. As a result, the website details described in this book are unlikely to reflect the current websites for the firms. The aim of this book was not to present the current website status of a range of leading Internet retailers in six countries. Given the dynamic nature of the Internet, the relentless drive for improvement in websites and the inevitable time delay between preparation of a book and its publishing, such an aim would be impossible to support. Instead, our aim is to capture the initial experiences of a diverse group of successful Internet retailers so as to better understand the complexities and to address the uncertainties of this new medium.

BUSINESS MODELS

Introduction

Business models specify the relationships between different participants in a commercial venture, the benefits and costs to each and the flows of revenue. Business strategies specify how a business model can be applied to the market to differentiate the firm from its competitors, e.g. by addressing a particular segment of the market, by competing on cost and/or levels of service. Firms may combine strategies, e.g. a bookstore may target the education segment of the market (a niche) and have the widest range of books available (service) or, alternatively, may advertise it has 'the

cheapest technology books in town'. Irrespective of the model or its level of complexity, all business models seek to address a simple equation:

$$\text{profits} = \text{revenue} - \text{costs}$$

Internet startups fail when they lack sufficient focus on this equation, where assumptions and predictions made about revenue have not been realized, or when costs have exceeded estimates or anticipated cost reductions have not been achieved.

A classic example of changing business models illustrates this formula. In its simplest form, a supermarket has relationships with consumers and suppliers with revenue flows from customers to the store and on to suppliers. Customers are mainly attracted by lower prices and larger ranges of products. Suppliers seek to sell larger volumes of products to these larger stores. Supermarket business strategies are predominantly as low-cost, high-volume operations with lower margins on each product. Supermarkets have lower costs than smaller stores because they can purchase products in bulk from their suppliers and so receive lower prices. They can further reduce costs by displaying products on shelves with consumers selecting what they want to purchase, carrying the selections to the cashier, packing their shopping into bags and taking them home. The key success factor for supermarkets is attracting consumers to the store, so they need to be in a location with easy customer access (e.g. a main street or a mall) and they may deliberately sell some products at a loss (loss-leaders).

When this supermarket develops an Internet operation it actually changes its business model—from shop to e-shop—but is often unaware of the implications. Many supermarkets set up a website to attract orders but fulfil the orders by having staff walk around the supermarket selecting the products for individual orders from the shelves, packing and then delivering. Consequently, the supermarket costs have increased substantially due to staff involvement. The low-cost, low-margin, high-volume strategy is endangered. The loss-leader concept is applied to all products purchased online but the supermarket cannot recover its full costs for Internet sales since consumers expect (unrealistically) that all Internet operations will have lower costs than traditional retailing. Any firm that charges more than its normal shelf prices must be exploiting its customers. At this stage, losing money with its core business threatened by alienated customers, the supermarket declares it is throwing out the Internet operation since it cannot make a profit and because it always knew that the Internet wouldn't work for this type of business anyway!

One of the main cost advantages of e-shops is that firms do not need to locate themselves on expensive main streets or in shopping malls to attract customers. They can be located in low-cost warehouses since customers are attracted through the Internet site. So, a supermarket that incurs the additional order fulfilment costs of an e-shop (picking, packing, delivery) without exploiting the low-cost options available (lower rent, larger range, larger volume, lower margins—see next section below) is creating the conditions for its own failure. Note that the business

strategy of low cost, low margin and high volume may remain the same when moving a supermarket online. It is the elements of the business model, i.e. the relationship between the major players and their cost:benefit:revenue components, that change.

Types of Business Models

A comprehensive review of B2B and B2C Internet business models is examined by Paul Timmers in his book, *Electronic Commerce: Strategies and Models for Business-to-Business Trading*. Based on analysis of Porter’s Value Chain, Timmers proposes a range of 11 models appropriate for B2C operations including: e-shops, e-malls, virtual communities, third-party market-places and value-chain integrators. Figure 1.1 shows these models categorized by the degree of innovation and the level of functional integration.

Describing these business models in more detail, e-shops are single firms selling their products and services over the Internet. Increased revenues are sought from access to a larger market due to factors including broader geographical reach, the attraction of a larger range of products or longer opening hours (24 × 7). Many Internet ventures relied on anticipated additional revenue streams from Internet advertising, but this benefit has proven to be largely illusory. Lower costs may result from store location (the firm does not have to be in a premium location since customers are attracted and business conducted through the Internet), volume discounts on purchases and improved inventory management.

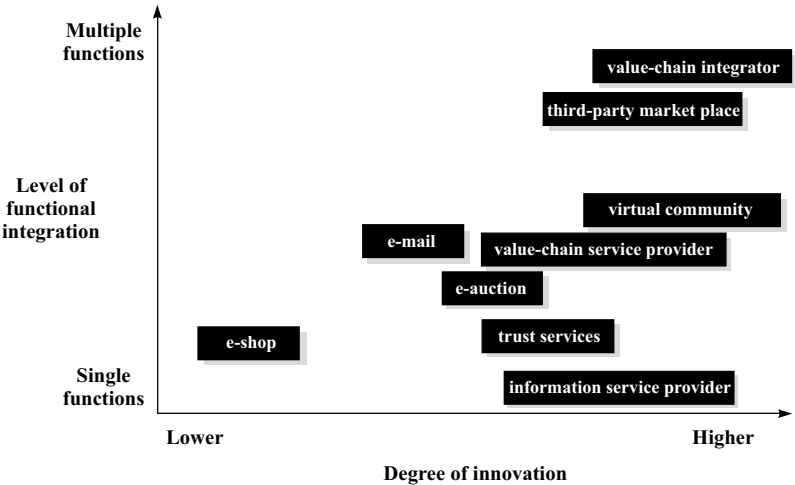


Figure 1.1 Classification of Internet business models. Reproduced from *Electronic Commerce: Strategies and Models for Business-to-Business Trading*, Paul Timmers, © copyright 1999 by John Wiley & Sons, Ltd, Chichester, with permission.

In its classic form, as originally implemented by Amazon, the e-shop business model relies on the abolition of inventory costs and risks by the firm purchasing only what it has already sold to customers and holding no inventory—deliveries are made to customers directly from a supplier's warehouse. This initial approach also enabled Amazon to pare its fixed costs to a minimum (no overhead warehouse lease or staffing costs) so that the costs of running the business were more directly related to sales. Note that this classic Internet implementation may not be scalable and that Amazon has subsequently committed to the establishment of its own warehouses, inventory and order fulfilment operations. Most commercial websites are electronic shops that sell, for example, technology, tickets, books, music CDs, groceries, gifts and flowers. Most of the minicases investigated utilized this business model. E-malls are amalgamations of e-shops where individual businesses share a common website and common transaction processes. E-malls are the electronic equivalent of department stores where the individual departments may be independently operated businesses but all function under a single name and have common transaction processes.

Virtual communities have a focus on adding value through communications between and contributions by members. A firm provides the environment within which members have unedited communications, feedback and information exchange. The firm seeks membership fees, advertising revenue and opportunities to cross-sell products and services. Firms included in this book typically implemented this model in conjunction with the e-store model.

The third-party market place business model is useful where companies see advantages in having a third-party firm provide Internet marketing and transaction services for them. The third-party firm may also provide aggregation of consumers' demands. Most often this is applicable when established companies seek an entry level Internet exposure without major cost or time commitments. Third-party revenues may be generated by membership fees for companies, fees on each transaction or a percentage of transaction value. Provider companies pursue reductions in their marketing and other costs of attracting new business.

As an example of a third-party market-place, HomeToDo saw a role in creating a market between homeowners requiring maintenance and home repairers seeking work. Aggregating requests for home maintenance and matching those with fixed price bids from pre-qualified service providers appeared to be a business opportunity. Homeowners received a free service, maintainers paid a small fee based on the successful fixed price bid. This model was not ultimately successful for HomeToDo in the market and was subsequently revised.

Value-chain service providers specialize in a particular function within the value chain, e.g. electronic payments, inventory management or logistics. Providers accrue fee income or a percentage of services provided. UPS is an example of this model. The range of Internet ventures examined in this book have been categorized by their apparent business models; see Figure 1.2. As will be seen in Chapter 10, the actual business models implemented were much broader than anticipated.

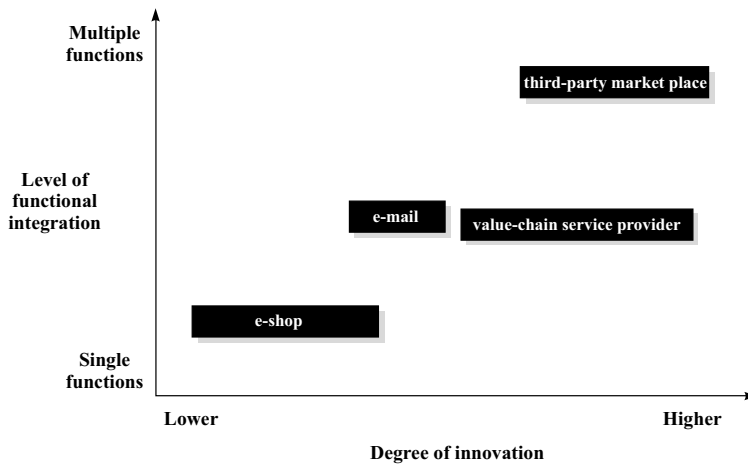


Figure 1.2 Primary Internet business models examined. Reproduced from *Electronic Commerce: Strategies and Models for Business-to-Business Trading*, Paul Timmers, © copyright 1999 by John Wiley & Sons, Ltd, Chichester, with permission.

Tech-wreck, the Death of the Internet and Business Models

Any examination of e-commerce business models after the NASDAQ crash in April 2000 and the widespread stock market upheavals in 2000 and 2001 should address some of the sweeping criticisms directed at Internet business in general and B2C in particular. In a complete reversal of their previously unreserved adoration of all Internet-related business ventures, since April 2000 critics have slammed the same ventures with all the savagery of rejected suitors. Neither position is sustainable. Uncritical support for business ventures that relied on activity, novelty and enthusiasm instead of more traditional business success factors such as customer service, revenue streams and cost containment is as unhelpful as the rejection of all Internet ventures irrespective of their business fundamentals that followed.

Much of the criticism was simply uninformed. Contention that the Internet is not suitable for any consumer-focused business model ignores the diversity of successful business models applied by traditional firms. These range from fashion boutiques to supermarkets and convenience stores and from hair or beauty salons to motor repairers and roadside vehicle assistance. All are viable with different target markets, cost factors, revenue streams and competitive threats. Each of the Internet business models shown in Figure 1.1 has similarly different business factors. Every venture implementing a business model must be considered on its merits.

Online retailing was further criticized due to the type of products sold over the Internet. The proposition was that 'old economy' (i.e. physical) products were unsuitable for 'new economy' firms. Consumers expect lower prices over the

Internet but these firms have high costs due to marketing and delivery. As seen above, cost models for Internet firms can realize savings due to lower fixed costs and by linking operating costs to increased sales. Marketing and fulfilment costs are certainly substantial but each firm must analyse its business factors to determine how the firm can best compete with traditional and online firms.

Phases in Application of Business Models

Ill-informed criticism aside, many Internet startups failed because their business models and strategies were flawed. In their purest form, the initial (pioneering) phase in the application of business models and strategies for an Internet startup is the perceived opportunity to transform an industry. New Internet-based firms would challenge the established firms in an industry or sector and drive change based on the innovative use of technology to deliver lower pricing and radical improvements in service levels. Most startups obtained equity-based funding through initial placement offers (IPOs) or venture capital support and ran at an operating loss as they spent massive amounts of money on advertising to attract customers. The principle was to grow rapidly to control the market through this first-mover advantage. Profits would flow once market control had been established.

In the second (startup proliferation) phase other startups entered the market in recognition of the potential advantages from industry transformation to compete with the pioneers for ultimate control. These fast followers mirrored the pioneers' business models and fine-tuned their business strategies. Traditional firms, losing market share to the startups, responded to these new competitors with limited Internet operations.

The third (consolidation) phase was initiated by the technology crash in April 2000 when funding sources dried up, but was inevitable. This phase was characterized by failures, mergers and acquisitions. Many startups lost their focus with unconstrained cash-burn in pursuit of new customers. This led to the spectacle of small startups advertising at the US Super Bowl—amongst the highest advertising costs in the world for any event or medium. Some pioneers reliant on self-funding or with limited funding were unable to grow rapidly enough to control the market and so had to focus on developing operating profits. Expectations of profitability were not always well founded. In many cases, anticipated profitability was based on assumptions about future revenues from advertising to Internet consumers visiting the website rather than from margins on actual business operations.

Online advertisers became more sceptical about returns from their banner ads on websites and consumer concerns about security, privacy and timely fulfilment of their orders reduced the growth rates of Internet purchases. Rather than driving rapid transformation of industry sectors through new types of products and services, the startups found themselves in a war of attrition with established, traditional firms. The winners in this phase were always going to be those having

the largest capital reserves. Profitable and successful startups were equally at risk. The drastic fall in share prices for Internet firms provided traditional firms with an opportunity for entry into Internet retailing through low-cost acquisition.

A fourth (organizational transformation) phase is under way with traditional firms applying the lessons learned by startups to their own organizations. The objective is for the traditional firms to become more nimble in a dynamic and uncertain retail market. The focus is in applying the Internet to improve market responsiveness and to achieve economies by more tightly integrating the supply chain and the transaction cycle. These actions will inevitably alter relationships with suppliers and customers and will, therefore, result in the necessity for a revised business model.

CONTRIBUTIONS

This book is the collective effort of a large number of people in six countries. Details of the primary authors of each chapter are shown below. Additional acknowledgements are made within the chapters, as appropriate.

Chapter 1 Introduction, Chapter 2 Australia, Chapter 8 Evaluating websites (jointly with Niels Bjørn-Andersen) and Surveying customers, Chapter 9 Research model and theoretical implications, and Chapter 10 Conclusions.

Steve Elliot (selliot@mail.newcastle.edu.au) commenced his career in the computer industry in 1972 and has worked in Australia, Europe and Asia in business, government, education and with the United Nations. He is Professor and Head of the School of eBusiness at the University of Newcastle, Australia. He was previously Director of the Information Technology Research Centre at the University of New South Wales in Sydney. Steve has degrees in economics and information systems from the University of Sydney and the University of Technology, Sydney, and a PhD in strategic information systems planning from Warwick Business School at the University of Warwick, UK. His enduring research interest is the strategic management of technology-enabled innovation by organizations, particularly the management of innovation in electronic business. Steve initiated and managed the international study of successful implementations of business-to-consumer electronic commerce on which this book is based. He is currently exploring the impact of e-business on the banking industry.

Chapter 3 Denmark and Chapter 8 Evaluating websites (jointly with Steve Elliot)

Niels Bjørn-Andersen (nba.inf@cbs.dk) is full professor in informatics at Copenhagen Business School, where he is director of the Center for Electronic Commerce (CEC) and the director of the part-time executive MBA program: global e-management. He has published 15 books and more than 50 refereed articles. He was the president of AIS in 1996 and has been key-note speaker at

over ten international conferences. His main interests include 'organizational issues of IT', 'e-business/e-management' and 'management of IT'. He is on the editorial board of several international journals including *Information Systems Research*, *Information Systems Journal* and *Journal of Strategic Information Systems*. Currently he is directing a million euro large research program on transformation of traditional companies to the digital economy.

Chapter 4 (Greece)

Nikolaos Mylonopoulos is assistant professor of information systems at ALBA (Athens Laboratory of Business Administration), Greece. He has teaching and research interests in the areas of information systems management, electronic commerce and applications of economic theory in these areas. He has taught at Loughborough University Business School, Warwick Business School, Birkbeck College (University of London) and the Athens University of Economics and Business. His work has been published in international refereed journals and conferences, including the *International Transactions in OR*, the *Journal of Logistics and Information Management*, The European Conference on IS and the UK Academy for IS conference. He has acted as referee for journals and conferences such as the *Journal of Strategic Information Systems* and the European Conference of Information Systems. Dr Mylonopoulos has been actively involved in over seven national and European funded research projects in the areas of telematics, electronic commerce and recently mobile commerce.

Katherine Pramataris is PhD student at Athens University of Economics and Business (AUEB), Greece, and research officer at eLTRUN (Electronic Trading Research Unit), working on marketing information systems in the electronic retail environment. She has worked as a systems analyst for Procter & Gamble European Headquarters for two years, on the development of global category management applications, and another year in the Marketing Department of Procter & Gamble Greece. During her studies she has been granted eight state and school scholarships and has published more than twenty journal and conference articles. During the 5th European ECR Conference in Turin she received the Silver Academic Award by ECR Europe for her work in the field of electronic retailing.

Chapter 5 (Hong Kong, China)

Matthew K.O. Lee is professor and Head of the Information Systems Department at the City University of Hong Kong. Prior to joining the City University, Dr Lee was a lecturer at the University of London and a research scientist at British Petroleum Research International in the United Kingdom. Dr Lee holds a first class honours bachelor's degree in electronic engineering, a doctorate in computer science, an MBA, and two law degrees from London University. He is qualified as a barrister-at-law (Lincoln's Inn), a chartered engineer and is a professional member of both the Hong Kong Computer Society and the British Computer Society.

Dr Lee has a research and professional interest in electronic commerce, information technology adoption and diffusion (focusing on systems implementation management issues) and legal informatics, which encompasses both the legal, ethical and policy aspects of information technology. He is a member of the IT Projects Vetting Committee of the Innovation and Technology Fund, Innovation and Technology Commission of the HKSAR Government. He is also a member of the IT Training Committee of the Vocational Training Council. Dr Lee is a founding vice-chairperson of the HK Computer Society's Special Interest Group on e-buisness. His publications in the information systems area include a book as well as over 60 articles in international journals (e.g. *Communications of the ACM* and the *International Journal of Electronic Commerce*) and conference proceedings (e.g. HICSS and ICIS). He is also on the editorial board of *Information Systems Journal*. Dr Lee is a non-executive director of Computer and Technologies Holding Limited, which is a major systems integration and e-business company listed on the main board of the Hong Kong Stock Exchange.

Chapter 6 (United Kingdom)

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Anne Wiggins (a.wiggins@lse.ac.uk) is currently researching her PhD at the Department of Information Systems of the London School of Economics. The main focus of her research has been the strategic implications of e-business on small and medium sized enterprises. She also holds an undergraduate degree from the University of Sydney and a masters degree from the University of London's Birkbeck College. As a consultant in the fields of IT and the Internet she has worked at public and commercial cultural organizations and corporations in the United States, Australia and the United Kingdom.

Chapter 7 (United States)

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