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UNWIRED BUSINESS

CASES IN MOBILE BUSINESS

Stuart Barnes and Eusebio Scornavacca

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Unwired Business: Cases in Mobile Business

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Preface

Homo sapiens is by nature a very mobile animal, striving to cover new ground and push existing boundaries. However, we have certain patterns of habitual geographical movement in our lives—between home, work, study, entertainment, shopping, family, friends, and so on. This equilibrium is punctuated only by extraordinary movements, such as visiting a client overseas or going on holiday (Pica & Sørensen, 2004).

Many activities that humans perform are dependent on communication and information. Information is key to decision making, whether for a customer to buy a certain product or for a manufacturer to procure a specific quantity of raw materials, or any other activity where information can determine outcomes. Communication is an important channel for conveying information as well as fulfilling roles of social interaction, purposeful group decision-making, and many other functions.

Until very recently, the combination of mobility, information, and communication was rather staccato; not only would an individual need to move from A to B to do something, but he/she would also need access to C, a point at which he/she could obtain information or communicate in a meaningful way to complete tasks at B. For example, C could be a fixed-line telephone, a networked personal computer, or simply a person to talk to face-to-face. In this situation significant value could be added by information and communication at the point of need—what if B and C were at the same location? This would require technology for mobile communication.

With well over a billion handsets worldwide, mobile phones have been one of the fastest adopted consumer products of all time (Chen, 2000; de Haan, 2000; Emarketer, 2002; Kalakota & Robinson, 2002). According to a study by Telecom Trends International (2003), global revenues from m-commerce—that is, transactions over mobile networks—could grow from \$6.8 billion in 2003 to over \$554 billion in 2008.

Alongside mobile phones, distributed network computing has been a significant technology trend. This has put more computing power directly in the hands of networked individuals. Beyond organisational, academic, and military networks, the trend spread

rapidly to the general globalisation of distributed networking in the 1990s, spearheaded by the Internet. In 2005, it is estimated that there are more than a billion users of the Internet.

Although developing along separate paths, mobile communications and the Internet have started to converge. The products of the partnership between mobile devices and the Internet are sophisticated wireless data services, centering on mobile data access and electronic messaging on mobile devices (Yoo, Lyytinen, & Yang, 2004). The market for these services is diverse, and the most commonly cited applications are in the business-to-consumer (B2C) and business-to-employee (B2E) segments. Such applications are built on some fundamental value propositions, such as ubiquitous access to information, the personal nature of devices and customization, and contextual properties of the device and user, such as time, location, personal preferences, and the task at hand. In the consumer space, the wireless applications have included person-to-person messaging, e-mail, banking, news, games, music, shopping, ticketing, and information feeds. In the business space, applications include sales force automation, navigation, tracking, field force automation, wireless telemetry, and the mobile office (McIntosh & Baron, 2005; Scornavacca, Barnes, & Huff, 2005).

More broadly speaking, mobile (m-) business is likely to have a tremendous impact on organisations, as wireless technologies and applications begin to challenge the existing processes, strategies, structures, roles of individuals, and even cultures of organisations. Here, m-business is defined as the use of the wireless Internet and other mobile information technologies for organisational communication and coordination, and the management of the firm. Indeed, by 2004, cost savings could permit wireless business services around the world to generate annual value of up to \$80 billion, and at least as much value could be created if corporations used wireless services to improve their current offerings or to deliver new ones (Alanen & Autio, 2003).

Features of the Book

This book aims to provide a source of high-quality, practical case studies of the planning, implementation, and use of mobile and wireless data solutions in modern business. The case studies are selected both as exemplars of wireless and mobile solutions and as typical cases in a variety of areas of common development. The book provides a number of insightful analyses of business applications of mobile technologies that help the practitioner understand the nature of the technology and how its value can be best harnessed in a wide variety of organizational settings. The focus is to present how these emerging technologies can help business to create a strategic advantage in the market, typically by becoming more efficient, effective, and profitable. The examples should provide ideas and points of reference for managers as they seek to devise and implement mobile applications for business advantage.

Since the book is proposed to be an imprint of Cyber Tech Publishing, naturally it is aimed at practicing managers. In particular, it is aimed at managers who would like to better understand the implications of wireless and mobile technologies for today's organisations. By providing examples and analyses, it provides a source of ideas for managers to take with them to their workplace. In addition, the book also has value as

a source of cases for academics and students. Thus, the cases could possibly be used as the basis of classroom discussion.

This text has arisen from extensive investigation into the impacts of wireless technologies in a variety of areas of business and organisation, each highly dependent upon recent technological developments. It has also arisen from a review of the available professional and academic literature on this and related topics, based on experience, and in the context of recent developments in the field. The chapters of this book illustrate the wide array of business opportunities afforded by mobile business. They describe and discuss the important strategic, managerial, and technological issues that follow in the wake of an organisation deciding to embrace wireless technologies. Chapters have been created to bring a balance of conceptual and practical issues, focusing on recent and emerging trends. Where possible, the book examines wireless issues from an international perspective, pointing to specific examples from around the globe.

It is, of course, impossible to cover all aspects of this emerging topic. The focus of this book has been on attempting to cover a selection of the core, recent, or possibly more important areas of m-business, with reference to different markets, technology foundations, applications, services, and impacts for organisations. The implications are that whilst technological aspects are covered in some detail, this is always in a mode accessible to the manager.

Structure of the Book

This book's 18 chapters are structured into five sections, each emphasising different but interrelated aspects of the m-business landscape.

Section I. Consumer Applications of M-Business

The first section examines the impact of mobile communications on relationships in the consumer marketplace. The mobile medium provides significant potential for businesses to augment existing consumer products or services or even provide new ones tailored to the mobile context. This section examines case studies in some of the most popular or promising areas of consumer application development. In particular, it includes applications such as mobile ringing tones, banking, gaming, alerts, and the use of barcodes for information transfer.

Section II. Mobile Marketing

Following on from the last section, one region within the consumer space that provides significant potential is mobile marketing. The individual nature of mobile devices, along with the recognition of time, space, and personal characteristics, provides an unprecedented platform for one-to-one marketing. This section examines the nature and po-

tential of mobile advertising, including successful instances of application, as well as issues of permission and acceptance among consumers.

Section III. Organizational Applications of M-Business

The mobile applications that are currently reaping the biggest rewards are those operating within organisations. Many organisations have gained significant return on investment from their B2E mobile solutions. This section picks up on this important topic by examining specific organisational cases in a variety of industrial contexts. These include examples of wireless sales force automation (wSFA) in the food industry, a mobile knowledge management system (mKMS) in a university environment, as well as other mobile applications in the paper industry and in the supply of heavy machinery.

Section IV. Mobile Applications in Healthcare

One sector of organisational application that is worthy of specific attention is healthcare. This is an area where numerous solutions have been created and deployed for the improvement of patient care. In this section, we examine the current use and future potential of mobile health applications by utilising a number of case examples. This includes working applications in a variety of contexts, such as a handheld solution in emergency services, a clinical messaging facility, and mobile information systems for residential care.

Section V. Mobile Technologies in International Markets

The final section examines the advance of mobile technologies and markets in an international context. The examples provided in this section focus specifically on developments in Finland, Japan, and South Korea. These cases will be of interest to other countries contemplating their own trajectories for future development in mobile communications.

As you will now be aware, m-business is a complex and diverse subject. It is not simply concerned with technological issues, but it also incorporates aspects of strategic management, marketing, operations management, and behavioural science, among others. Such an interdisciplinary perspective is critical if the subject domains are to be fully understood. Recent examples of m-business offerings that overestimate technology and underestimate consumers exemplify this point. For this reason, we advocate a broader management viewpoint. The issues debated here are far too important to be left to the technologists; although technology is an important enabler, the vision, strategy,

and management of the evolution of m-business belongs to managers. To reap the real rewards of m-business, management competence is paramount.

We hope you find this book of interest and that it raises some important issues relevant to consideration in your organisation, study, or research. By harnessing the power of m-business, your organisation could become the next to step into the wireless world.

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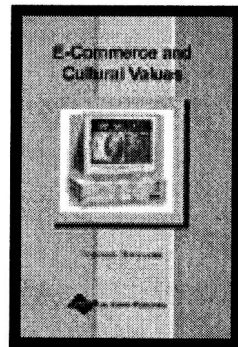
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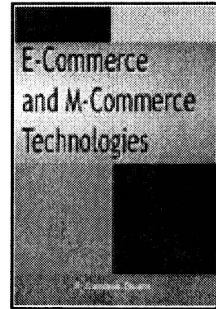
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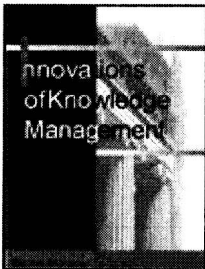
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