INTERNATIONAL BUSINESS & INFORMATION TECHNOLOGY

EDITED BY MASSOOD SAMII AND GERALD KARUSH

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Interaction and transformation in the global economy

Edited by

Massood Samii and Gerald Karush

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FOREWORD

IT and international business are two terms that are very broad, and therefore, may mean different things to different people. If searching for "Information Technology" on the *Encyclopedia Britannica* website, the suggestions returned may include: "information processing: the acquisition, recording, organization, retrieval, display, and dissemination of information. In recent years, the term has often been applied to computer-based operations." The service also recommends referring to the related terms "information science," and "information systems."

Merriam-Webster provides the following for the definition of technology: *1 a*: the practical application of knowledge especially in a particular area <medical technology> *b*: a capability given by the practical application of knowledge <a car's fuel-saving technology> *2*: a manner of accomplishing a task especially using technical processes, methods, or knowledge <new technologies for information storage> *3*: the specialized aspects of a particular field of endeavor <educational technology>

Perhaps inadequate, a summary description might be: information technology is the process of taking data or facts and creating knowledge, then storing, retrieving, manipulating, disseminating, and interpreting or applying that knowledge (or some part or combination thereof). It also encompasses the processes, the machinery, materials, and knowledge to achieve these tasks.

International business is perhaps a simpler term in that there is some agreement about what constitutes business: *Business*: a usually commercial or mercantile activity engaged in as a means of livelihood. *Synonyms*: business, commerce, trade, industry, traffic mean activity concerned with the supplying and distribution of commodities. Business may be an inclusive term but specifically designates the activities of those engaged in the purchase or sale of commodities or (goods and services) in related financial transactions.

International business might be described as transactions that occur across national boundaries (often commercial in nature, and often involving an exchange). But this too is perhaps an overly simplistic description of activities which include trade in goods and services, investments, travel, gifts, aid, ideas . . . which take place for commercial, political and altruistic reasons. (While aid may seem to fall outside the definition of "business," governments include these in statistics.)

How important are information technology (IT) and international business (IB)? World product in 2001 was approximately $31.4 trillion, and included merchandise exports of $6.2 trillion and service exports of $1.4 trillion (World Bank 2003). Estimates of the number of people who have access to the internet exceed one half billion by the end of 2003, and Spain had the largest increase in internet usage in 2002, much of which is attributed to growing use of email and retrieval of audiovisual materials. The paths of IB and IT intersect with B2C and B2B business which takes place without respect for, or in spite of national boundaries. B2B revenues are expected to surpass $1.4 trillion in 2003, and overall e-commerce revenues to exceed $2.7 trillion worldwide by the end of 2004 (Nielson NetRatings 2003; eMarketer 2003).

Advances in IT have had a dramatic impact on the lives of people around the world, whether they own or use computers, or not. IT helps us diagnose problems in cars; plot routes and guide aircraft to safely take us to faraway places; track shipments across countries and around the world; helps us control inventory costs; monitor crop production from the tractor or satellites; move capital from Beijing to Boston in the wink of an eye; provide education opportunities to people in remote locations in Mexico, Montserrat, and Morocco. IT allows us to take a picture in Mumbai, add text, and send it to our relatives in Los Angeles. We may be half a world and one day apart, but mere seconds separate us from one another.

IT is applied in many ways. We find out about how to care for people with rare diseases, or use data to identify potential foreign markets, and maps to find the location of a store that carries the brand and model of the electronics we want. Movies, music, software, and books are only a click away. We use our computers to store, search out, buy, beg, and steal. The possibilities associated with the enhancements to the machines we use, the products and services we buy seem never ending. We use IT to expand, monitor, manage, and execute international business transactions. Of the IT applications provided here, almost all are business-related. Whether business or individual, location, distance and political boundaries matter less each day. IT as an industry is a global business and it impacts the very environment in which it operates. IT and IB are not related, they are parts of the business environment.

IB and IT are broad topics. They intersect in many ways and this book provides evidence of how, when, and where they meet and influence one another. More importantly, this exciting work addresses the "why" from a theoretical

perspective, but with practical applications. Dr Samii and Dr Karush present ideas about the connections between IB and IT that are thought-provoking, yet presented in a way that will leave the reader wondering, why hasn't someone done this sooner?

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Preface

This book started as a collaboration between the faculties of the International Business and Information Technology departments at Southern New Hampshire University. A group of faculty members from each of the two departments began discussion of the synergy between the areas of international business (IB) and international technology (IT).

The driving force was the recognition that while both of these fields were emerging as an integral part of business curriculum and more important business activities of companies, there was a limited amount of work that had been done in analyzing their mutual effects and interactions. This energized the participating faculty to continue work toward the development of an interdisciplinary program, research and publication, working with small and medium-sized businesses in the region, and organization of various forums to discuss the new developments in this area. This book is the outcome of their efforts.

Many of the efforts were funded by a grant from the US Department of Education under title VI-B, Business Informational Education. The grant specifically supported development of an interdepartmental graduate certificate in IB and IT and the organization of various conferences to address related issues. As activities moved forward, others from business and other academic institutions also joined the project.

The idea to develop a book covering a variety of topics dealing with contemporary issues around IB and IT came out of the work that was done on the development of a Master's Certificate and various papers presented at sponsored conferences.

It became clear to the participants in the project that academics in each field are highly specialized. For example, faculty and students in the IB field are focused primarily on the issues of globalization and global business strategies.

However, their technical ability to address IT issues is generally very limited. IT training tends to focus more on hardware and software and does not address the consequences of the tremendous diversity and complexity that come with operating in an international environment.

IT managers who operate in an increasingly global environment often have to struggle with the challenges of having to work in diverse cultural settings without adequate understanding or training in dealing with the larger issues confronting them. For example, many companies today outsource a variety of their business applications overseas. Yet, local IT managers who are in contact with their overseas counterparts have little or no training on cross-cultural issues related to negotiations, operations, and communications. Differences in technical infrastructures, software licensing, labor practices, and privacy regulations are all important issues that influence global IT operations. At the same time, many business professionals who operate in an international environment lack a broad understanding of the advantages as well as the limitations of emerging information technologies as applied to the expansion of international business operations. The book attempts to fill these gaps by blending a theoretical approach with the practical and operational aspects of the mutual impacts of IT on international business activity. This collection of contributed chapters provides a great deal of information and insight that will appeal to both students and practicing professionals.

The book has emerged as a result of support and help from many different sources. The greatest support has come from US Department of Education title VI-B funding. In particular we are thankful for the support of Sarah Beaton, Ralph Heins, and Tanyell Richardson of the US Department of Education. Sarah Beaton especially supported and provided encouragement for the project from its inception. Jessica Brennan helped us immensely by editing and overseeing the administrative aspects of the project.

We are also thankful to our wives, Fardieh Namazi Samii and Marlene Karush, who encouraged and supported us throughout the process; also to our mothers, Guity Sheibani and Sally Karush who in our earlier years provided needed intellectual support and sacrifices for our development.

Massood Samii
Gerald Karush

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Chapter 1

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INTERNATIONAL BUSINESS AND IT

Introduction

THE DYNAMIC BUSINESS STRATEGIES and operations of many companies have become highly influenced in recent years by the forces of globalization and advances in information and communication technologies. It is apparent that firms will have difficulty in operating effectively and creating value for their owners and stakeholders unless they embrace both of these forces to their advantage. Both internationalization of business activities and IT offer opportunities and threats to companies. Opportunities involve market expansion, cost reduction, risk diversification, and potential increases in productive efficiencies and market expansion. Failure to understand and to come to grips with them may well result in a competitive disadvantage compared to those firms which have effectively integrated the new forces of technology and globalization into their business strategies.

There has been much written about globalization theory and IT, but little attention has been paid to the interaction between these two disciplines. Yet, there is a close coupling of the two areas. Information and communication technology has had profound impacts on the global operations of multinational enterprises. At the same time, information systems applications have developed and evolved mainly based on the internal operations of the firm, with little attention given to the global needs and requirements that arise when working in a multinational, cross-cultural environment.

The chapters compiled in this book address the issues mentioned above by focusing first on the impact of advances in IT on the global operations of contemporary businesses. The book then addresses a number of important impacts globalization has had on the design, implementation, and management of global

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