Foreword

The information technology (IT) revolution has transformed the world at a pace and in ways that only a few had the vision to contemplate just a decade ago. In January 1996, 30 million people were using the Internet. At the dawn of the new century, however, more than 400 million people were online. This 1,333 percent change over only five years is a harbinger of how the Internet will continue to alter the way we work and play—how business is transacted, how government services are delivered, how children learn, how health care is received, even how social affairs are conducted.

The IT revolution began in the United States, but it has affected the entire world by producing a new, Internet-based, digital economy in which geographical distance and borders have become less of an obstacle to global trade. Today's era of globalization is built around falling telecommunications costs. US companies have taken great advantage of this fact to break irrevocably the link between high productivity, high technology, and high salaries by using telecommuting to tap into technical talents overseas at much lower wages. And, thanks to IT, developing countries, in every region of the world, have the opportunity to break out of the mold of raw material supplier to the developed nations and experience unprecedented growth in the Internet economy as producers too.

The challenges faced by developing countries in harnessing the full potential of IT are not really very different from those that confronted US in its journey towards the Internet economy. The responses, however, need not necessarily be the same for two reasons. First, it pays to learn from the mistakes of others. And, secondly, the cultural differences between nations demand localization of the change management process that any IT deployment requires. To fix ideas, consider the challenge of building a telecommunications infrastructure. For a developing country, following the footsteps of the US and investing heavily in the establishment of a nation-wide, fixed line, circuit-switched voice network and later abandoning it in favor of a wireless, packet-switched data (and voice) network will simply not be a prudent course of action. Similarly, the implementation of Internet commerce payment transactions in the US that was paved by a credit-based culture will meet great resistance, if not utter failure, in developing countries where credit and credit cards have not been able to make a cultural headway.

While technology leapfrogging appears to be an attractive option for developing countries, it may not provide the intended results in all circumstances. Achieving the full benefits of IT involves more than just its installation. It also demands management of the technology and its application to the contextual environment in which it is to be used. The requisite management knowledge is often gained through experience with the deployment of earlier technology. When absent, there is great danger that developing nations simply observe the benefits enjoyed through IT by industrialized nations and rush to invest their scarce resources available for IT to acquire the same technology in the blind belief that similar benefits will quickly accrue to themselves. Such will not be the case in all circumstances. To avoid this pitfall, it behooves developing countries to take measures in addition to the acquisition of technology to make it successful in the new environment.

The role of government in successful diffusion of IT in developing countries cannot be overstated. Not only does the government play the pivotal role in such fundamental decisions as IT literacy, telecommunications infrastructure, market deregulation, foreign investments, transborder data flow, global trade, and legal aspects of electronic commerce, it is also a major consumer of IT services. It is in this latter role as a customer of IT that the government can, in an unobtrusive manner, help promote innovation and best practices in information technology management.

The various surveys of key issues facing IT managers in developing countries have revealed, not surprisingly, similarities with those confronting their counterparts in other countries including the US. The concerns encompass a mix of technology management issues (building an IT infrastructure, enterprise-wide and inter-organizational application integration), strategic management issues (developing an information architecture, long-term IT planning, business process reengineering), people management issues (retaining IT human resources, organizational learning, keeping senior management educated in, and supportive of, IT), systems development and information management issues (data integrity and quality assurance, executive and decision support systems), and end-user computing issues (automating workflow and facilitating knowledge work and group collaboration). Although the issues remain the same, many aspects of the environment, of the culture, and of the organizations vary from country to country. Such differences provide a basis for exploring underlying concepts, principles, and practices that either facilitate or hinder effective utilization of IT, thus allowing the community of scholars, as represented in this volume, to search out "truths" that are fundamental versus those which are culturally shaped.

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