The UCLA Anderson Business and Information Technologies (BIT) Project

A Global Study of Business Practice (2012)
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editors

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The size of the Information Economy in the United States has been growing steadily from forty-six percent of the GNP in 1967 to fifty-six percent in 1992 to sixty-three percent in 1997, with Information Services dominating (Apte and Nath, 2007). Similar trends have also been observed in other countries such as Korea and Taiwan (Choi, Rhim and Park 2009; Lee and Chu 2009, Perez 2009). The trend towards information services is accompanied by 'industrialization' which is primarily technology driven and has significant implications at various levels of the economy including the individual, the organization, the sector, the economy and, globally (Karmarkar, 2004). These impacts are focused and far reaching, and, need to be measured to understand how business practices and industry sectors are being impacted.

The Business and Information Technologies (BIT) project was started in 2003 and follows the changes occurring in firms and industry sectors over an extended time horizon. BIT is repeated at appropriate time intervals to track the changes that are actually occurring, to provide hard information on what is really happening across the economic landscape as a result of changes in information technologies. In addition, BIT has been executed in several countries, by research teams from those countries. This global perspective combined with the longitudinal view provides a unique and comparative picture of technology and business practice over time and in various countries across the world.

The BIT project at the UCLA Anderson School of Management now has twenty partnering research institutions in sixteen countries. Partnering institutions are from Korea, Italy, Switzerland, Taiwan, Malaysia, Chile, Germany, Spain, Colombia, India, New Zealand, Argentina, Greece, Peru, Portugal and USA.

The BIT project attempts to measure both, far-reaching broad changes as well as focused in-depth changes occurring at multiple levels of economic and business activity. These changes are captured through (i) a survey of chief information officers who have an understanding of technology and business, to capture broad firm-level impacts across all sectors and firm sizes (ii) analysis of GNP data to understand impacts at the level of the economy and (iii) case studies to understand in-depth impacts at the level of a sector, technology or business issue.
Two books have been published on the BIT Project, in 2007 and 2009 (Karmarkar and Mangal, 2007, Karmarkar and Mangal, 2009). The first book includes BIT survey reports and Related Studies. Five countries including USA, Italy, India, Korea and Spain report on their surveys. The Related Studies section looks at various sectors including entertainment-media, mortgage and retail. It also includes studies with path analysis models and a review of internet technologies. The second book on the BIT project includes BIT survey reports from seven countries — USA, Chile, India, Korea, Germany, Taiwan and Colombia. The second section of the book describes findings from GNP studies conducted in five countries — Colombia, Taiwan, Korea, Spain and Chile. The third section includes related studies in the healthcare and tourism sectors; RFID and e-procurement technologies and, a study looking at the business issue of diffusion of information technology. This is the third in the series of books on the BIT Project. This book includes two sections with Part I discussing country reports of BIT surveys and Part II describing related studies on specific sectors, issues or technologies.

Part I includes reports from surveys conducted by Malaysia and New Zealand for the first time and Taiwan, USA and Germany that have conducted the survey at least once before. Each of the survey reports is described briefly below.

While it is accepted that information technology adoption has grown over the years, the New Zealand survey attempts to highlight the degree and success of the adoption of specific information technologies and their organizational impacts. Findings from the analysis of 100 firms across multiple sectors are discussed for New Zealand and select trends are compared for New Zealand (Australasia) with Taiwan (Asia), Germany (Europe) and the United States (America).

With the Malaysian government providing incentives to businesses to adopt information technologies and businesses in Malaysia, an important player in the Asian market, becoming increasingly aware of the benefits ensuing from the adoption of information technologies, the Malaysian report discusses findings from a survey of 104 SMEs (small and medium enterprises) in the service sector. SMEs comprise 99% of business establishments in Malaysia and contribute about 31% of the country’s GDP while employing 65% of the nation’s workforce (according to the Malaysia SME Business Directory, as of August 2009).

The Taiwan report discusses findings from a survey of 356 private and government organizations with greater emphasis on the ‘internet phenomenon’ due to its significant role in information technology innovations. In addition to the standardized BIT survey questions, they also gauge the adoption and perceived benefits from Cloud Computing.
With information technology adoption leading to business innovations (BITKOM, November 2011) and the increasing demand for information technology services (BITCOM, March 2010), the German report conducts firm level analysis of 220 large firms across all sectors. A framework inspired by Porter’s value chain (Porter 1985) to explain the structure of the BIT survey is also presented.

The USA report analyzes and presents findings from survey data collected by ten BIT partner research institutions in their respective counties over the time period 2004–2009. The authors recommend further analysis of the data by firm size and sector and of issues such as front office empowerment with information technology adoption.

Part II of the book describes studies related to business and information technology issues. Sectors studied include advertising, parking, and tourism; business issues studied include telework and trade growth.

According to Karmarkar (Karmarkar, 2004), today, physical components can be separated from the information components in supply chains allowing the reorganization of tasks with organizations as well as networks. Mandelli and Mari employ case analysis to study the impact of digital technology on the advertising sector. This sector is selected as the creativity and communication in this sector could both be impacted by the adoption of new information technologies.

Baglieri and Fiorillo study the changes in the parking management sector as a case, with the adoption of RFID technology. Findings provide support for the potential benefits of reduction in congestion and improved management of parking in a very short time through the deployment of RFID technology.

With the increased popularity of online social interactions, consumers share their experiences on various products and services which then become independent sources of information and feedback or eWord-of-Mouth. The study by Mandelli, Marchiori and Cantoni focuses on the tourism sector to determine the readiness of this sector to deal with this innovation and the gap in social media maturity between the tourism sector and its consumers.

Neirotti, Paolucci and Raguseo study the business issue of telework to determine if activities are separating into core, which are kept inhouse, and non-core, which can be performed off-site. They employ a case study and conduct a survey to study this phenomenon in SMEs and to understand the relationship between telework, service industrialization and offshoring of services.

Information-intensive services involve the creation, processing and communication of information without requiring physical proximity and can include professional and financial services. Innovations in information technology have made information-intensive services feasible and prevalent. Nath and Apte look at trade growth for information-intensive services.
Bibliography

CONTENTS

Preface v

Part I — BIT Survey Reports 1

1. Global Trends for Technology Adoption — Results of the BIT Survey across Ten Countries 3
   
   Vandana Mangal and Uday S. Karmarkar

2. A Survey on Business and Information Technology in Taiwan Annual Report 2010 29
   
   Ya-Ching Lee and Ting-Peng Liang

3. The Business and Information Technologies Project: The New Zealand Perspective 51
   
   Margo Buchanan-Oliver and Ananth Srinivasan

4. A Survey on the Level of Utilization in Using Information Technology by Malaysia’s Small and Medium Enterprises 65
   
   Sulaiman Ainin, Tengku Mohamed Faziharudean, Shamsul Bahri and Noor Akma Salleh

5. Information Technology and Business Practices in Germany: Results From the 2011 Bit Survey 81
   
   Till J. Winkler, Christoph Goebel, Francis Bidault and Oliver Günther

Part II — Related Studies 115

6. U.S. Trade in Information-Intensive Services 117
   
   Uday M. Apte and Hiranya K. Nath
Contents

7. A Framework for Servitization of Manufacturing Companies 145
   Jihee Ryu, Hosun Rhim, Kwangtae Park and Hong-Il Kim

8. The Impact of Digital Technology on Service Networks: Studying a Case in the Advertising Sector 165
   Andreina Mandelli and Alessandro Mari

9. Is Work Moving Out of Firms’ Boundaries? Evidence on Telework Adoption and Services Industrialization in Italian Enterprises 177
   Paolo Neirotti, Emilio Paolucci and Elisabetta Raguseo

10. Industrializing Parking Management: Evidences from the Park-ID Project 207
    Enzo Baglieri and Vitaliano Fiorillo

11. Tourists and Destination Management Organizations Facing Social Media and eWord-of-Mouth. A Research in Italy 225
    Andreina Mandelli, Elena Marchiori and Lorenzo Cantoni

Index 249