

Book Review

INFORMATION TECHNOLOGY AND e-BUSINESS IN THE FINANCIAL SERVICES: A GLOBAL ANTHOLOGY OF CASE STUDIES AND ANALYTICAL RESEARCH

Edited by Steven R. Gordon

*Published in 2004, by Ivy League Publishing, Limited. ISBN: 0-9648382-5-7 XXX
pages. Hardcover. US \$74.95*

Reviewed by

Vijay K. Vemuri

Long Island University, C.W. Post Campus

The globalization of business and the reduction in barriers to capital flows has made the financial industry heavily dependent on information and communication technology. It is well known that the financial services sector, including banking, securities brokerage and insurance industries, are very information-intensive and invest heavily in information and communication technologies. Recent statistics from the Bureau of Economic Analysis show that the financial services sector has over 20 percent of fixed assets invested in information technology (IT), among the highest of any industry. During the late 1990s, a period when investing in IT was at its peak, the financial industry was investing over 12 percent of its revenues in information technology.

The resolution of straightforward research questions, such as the business value of IT, the role of IT in organizational changes and the factors that facilitate the success of IT projects turned out to be much harder than anticipated. The financial industry's heavy reliance on information technology is a fertile ground for investigating research questions found to be elusive.

Information Technology and E-Business In the Financial Services: A Global Anthology of Case Studies and Analytical Research, edited by Steven Gordon, is a collection of 13 recent papers – three of which are original papers appearing only in this volume. These papers provide a wide perspective by dealing with a variety of IT issues, various financial services and different nations in many continents. The review is organized according to various IT issues the papers address.

Business Value: The first two papers deal with the business value of IT in the banking industry. Davamanirajan, Mukhopadhyay and Kriebel (2002) demonstrate that both productivity and return on investment have increased due to IT. This research has a novel feature in that its focus is only on trade services provided by the wholesale banking industry. By moving away from the overall profitability of a firm, the research better isolates the value created by IT on processes within a firm. The paper by Navarrete and Pick (2002) investigates the business value of IT proposition at the industry level. Their results indicate that IT expenditure is positively correlated with the Mexican banking industry's profits and return on

investment. As is true with many other recent studies, correlation between IT investment and return on equity is not strong. The two papers together show that at the aggregate industry level and at disaggregated individual product level, the benefits of IT expenditure are positive. These results justify high intensity of IT expenditures in the financial services industry.

IT Adoption Decisions: Three papers deal with the determinants to IT adoption decisions in the financial services industry. Dasgupta, Ioannidis and Agarwal (2000) study IT adoption in the Greek banking industry. Their results indicate that organizational culture and both innovation and stability orientations are important determinants. In addition, government trade policies, currency exchange rates and involvement of MIS personnel are found to be important factors. Chan and Mills (2002) study electronic commerce adoption decisions by four New Zealand-based stock brokerage firms. The study identifies business strategy, perceived benefits, organizational readiness and external pressures as key factors in electronic commerce adoption decisions. Technological and financial readiness do not appear to be important factors in this decision. Tarafdar and Vaidya (2002) document IT adoption decisions at an Indian financial services firm between 1985 and 2000. During this period many important IT initiatives were implemented, including office automation, transaction processing and electronic commerce systems. The case is interesting in that the evolutionary path of IT decisions due to environmental changes, industry developments, customer demands, competitive pressures and technological progress over an extended period of time is traced. These three papers together provide a reader with a better understanding of IT adoption decisions.

IT and Value Chain Management: Two papers study customer and supplier relationships in the financial services industry. Dotan (2002) studies a life insurance company and a bank to understand the effects of electronic commerce on customer satisfaction. Using 10 dimensions of customer satisfaction previously identified in the literature, Dolan analyzes the impact of electronic commerce on each of these dimensions. In itself, electronic commerce may not unilaterally improve customer satisfaction, but a company's initial preparations for electronic commerce is important in achieving improved customer satisfaction. Mulligan and Gordon (2002) examines the role of IT in managing customer and supplier relationships in the financial services industry. Using methodologies of grounded theory, this paper finds that relationships with suppliers and customers in financial services are very different from manufacturing industries and that a high degree of interdependence exists among the sectors of the financial services industry, creating a complex, often reciprocal, set of relationships that resembles more of a network than the traditional, linear supply chain of comparably sized manufacturing and retail firms. Further, this paper maps out five steps for future research to complement these findings.

IT and Strategy: The original paper by Kuzic, Fisher and Scollary (2004) investigates the role of IT in the financial industry's strategy space. It reports survey results of the Australian banking and finance industry and concludes that data security, skilled personnel, effective partnerships, knowledge, and understanding of electronic commerce within the organization, and strong management support are important factors in successful deployment of e-commerce. Pigni, Ravarini, Tagliavini and Vitari (2002) identify 1) amount of bank charges, 2) number of bank services and 3) distribution channels as the strategic variables that determine the effectiveness of Internet services by banks. Based on the survey results of 95 Italian banks, and using Porter's approach, five strategic groups (innovative, economical, adverse, expensive and central) are identified. These grouping are compared with one another to understand the interrelationship between IT and business strategy.

IT and Decision Support: Hassanein (2002) examines the issues related to extraction of information from paper-based checks. The use of image processing and pattern-recognition techniques to gather data from checks is discussed. This data can be used to populate data warehouses, which when further analyzed can

provide insights into the needs of banking customers, enabling banks to provide targeted products and services. The ideas of the paper are illustrated with a prototype data mining system.

IT and Organizational Change: Two original papers dealing with integrated approaches to affecting organizational change round out the book. McDonagh (2004) discusses the economic, technical, human and organizational factors influencing the success probabilities of IT-enabled changes. However, human and organizational factors are largely ignored in affecting change, but are later shown to be important factors in failed IT-enabled changes. The main contribution of this paper is to convince the readers that an integrated approach to transforming organizations is needed and that human and organizational aspects may be just as important as the technical and economic aspects of change. Reijers and van der Toorn (2004) reports the study of a reengineering project for a large Dutch bank and advocate alignment of business transformation and system development for a successful change. A methodology for implementing change is developed and illustrated with a case consisting of the following steps: 1) determination of existing architecture, 2) reengineering process with product based design and 3) design of logical user interface.

In summary, the book includes current and important papers dealing with the critical aspects of IT in the financial industry. The breadth of IT issues covered in the chapters is impressive and nearly complete. What is the target market of the book? The primary groups that come to my mind: 1) CIOs and CFOs of companies in the financial services industry to ensure they're not behind in deployment of state-of-the-art IT for their services and products and for CRM; 2) MBA students taking corporate information systems classes; 3) students in graduate systems analysis and design courses; and 3) IS Professors including Ph.D. students. For groups 2 and 3), this book will serve as a supplement to their textbooks pointing to current developments in IS and avenues for analyzing specialized topics. For the last group, the book is state-of-the-art in global information technology management in identifying research questions, methods, data and current knowledge. This book's focus on the financial services industry should not be taken as a limitation. On the other hand, its strength lies in its thorough analysis of an industry that critically depends on information technology.

Vijay Vemuri is an assistant professor of Management Information Systems at C.W. Post Campus of Long Island University. He received a Ph.D. in Business Administration from the University of Illinois at Urbana-Champaign. His research interests include electronic commerce, strategic implications of information technology and networking infrastructure. He has published in the *European Journal of Operational Research*, *Journal of Information Technology Cases and Applications (JITCA)*, and *Electronic Markets*. He is currently Book Review Editor of *JITCA*. He can be reached at vvemuri@liu.edu.