

Measuring Information Technology Investment Payoff: Contemporary Approaches

Table of Contents

ACKNOWLEDGMENTS *i*

INTRODUCTION *iii*

**Information Technology Investment and Organizational
Performance: New Perspectives from Information Systems
Research and Practice**

Mo Adam Mahmood, University of Texas at El Paso
Edward J. Szewczak, Canisius College

PART I. THEORETICAL BACKGROUND FOR MEASURING *1*
INFORMATION TECHNOLOGY INVESTMENT PAYOFF

Introduction to Part I

Mo Adam Mahmood, University of Texas at El Paso
Edward J. Szewczak, Canisius College

Chapter 1 *5*
**An Integrative Research Approach to Assess the
Business Value of Information Technology**

James D. McKeen & Heather A. Smith, Queen's University
Michael Parent, University of Western Ontario

Chapter 2 *24*
A Road Map For IS/IT Evaluation

William Wehrs, University of Wisconsin at La Crosse

Chapter 3 *62*
**The Relationship Between Firms' Information Systems
Policy and Business Performance: A Multivariate Analysis**

Niv Ahituv, Stan Lipovetsky, and Asher Tishler, Tel-Aviv University

Chapter 4 83

**Client Server Technology: Management Issues,
Adoption, and Investment**

Amarnath C. Prakash, Texas Tech University

Chapter 5 107

Towards an Understanding of EIS Implementation Success

Sanjay K. Singh, University of Alabama at Birmingham

Chapter 6 128

**Investments in Reusable Software: A Study of Software
Reuse Investment Success Factors**

David C. Rine, George Mason University
Robert M. Sonnemann, U.S. Air Force

Chapter 7 153

**Information Technology Investment Payoff: The
Relationship Between Performance, Information Strategy,
and the Competitive Environment**

Susan A.R. Garrod, Purdue University

**PART II. CONCEPTUAL APPROACHES TO MEASURING 178
INFORMATION TECHNOLOGY INVESTMENT PAYOFF**

Introduction to Part II

Mo Adam Mahmood, University of Texas at El Paso
Edward J. Szewczak, Canisius College

Chapter 8 182

**A Road Map for the Evaluation of Information
Technology Investment**

H. Joseph Wen, New Jersey Institute of Technology
Cheickna Sylla, New Jersey Institute of Technology

<i>Chapter 9</i>	202
------------------------	-----

**A New Efficiency Methodology for IT Investment
Analysis Studies**

Marvin D. Troutt, Kent State University
Arun Rai, Georgia State University
Suresh K. Tadisina, Southern Illinois University at Carbondale
Aimao Zhang, Southern Illinois University at Carbondale

<i>Chapter 10</i>	223
-------------------------	-----

**OSI-Based Model for the Justification of
Telecommunications Investment: A Conceptual Framework**

Kathleen K. Molnar, St. Norbert College
Ramesh Sharda, Oklahoma State University

<i>Chapter 11</i>	248
-------------------------	-----

Measuring Software Process Improvement Payoff

Rick Gibson, American University

<i>Chapter 12</i>	266
-------------------------	-----

**Enhancing Corporate Investment Decisions for IS/IT:
The Role of Leadership Strategies**

Erik Rolland, Ohio State University
Ray Maghroori, University of California at Riverside

<i>Chapter 13</i>	282
-------------------------	-----

**Using an Activity-Based Approach to Determine the Cost
of Client/Server Systems**

Murugan Anandarajan, Saint Joseph's University (Philadelphia)
Asokan Anandarajan, New Jersey Institute of Technology

<i>Chapter 14</i>	301
-------------------------	-----

**Understanding the Business Value of Information
Systems: A Flexibility-Based Perspective**

Ram L. Kumar, University of North Carolina at Charlotte

Chapter 15 321

**Evaluating Information Technology Investment:
A Methodology for Managing Risk**

Kurt J. Engemann, Iona College
Holmes E. Miller, Muhlenberg College

PART III. CASE STUDIES OF MEASURING INFORMATION 343
TECHNOLOGY INVESTMENT PAYOFF

Introduction to Part III

Mo Adam Mahmood, University of Texas at El Paso
Edward J. Szewczak, Canisius College

Chapter 16 346

**An Empirical Assessment of Financial EDI Value to
Corporate Adopters**

Marielle Bergeron, Université Laval
Albert S. Dexter, University of British Columbia

Chapter 17 365

**A Framework for Assessing IT Investment in
Reengineering Initiatives: A Case Study**

Tim Tatum, Virginia Commonwealth University
Peter Aiken, Virginia Commonwealth University and
Defense Information Systems Agency

Chapter 18 389

Achieving Information Systems Value: A Case Study Analysis

Jack D. Callon, San Jose State University

Chapter 19 423

**Measuring the Success of Implementing Multimedia
CBTs in Business**

Kathryn A. Marold, Metropolitan State College of Denver

Chapter 20 444

Business Use of the Internet

Elizabeth R. Towell, Northern Illinois University

<i>Chapter 21</i>	473
Impact of IT Supported Knowledge Work: Case of “CARVE” at Morgan Stanley	
Chrys de Almeida, St. Francis Xavier University Elizabeth Kennick, Morgan Stanley	
CONCLUSION	486
Measuring Information Technology Investment Payoff: A Summary	
Mo Adam Mahmood, University of Texas at El Paso Edward J. Szewczak, Canisius College	
A COMPREHENSIVE BIBLIOGRAPHY ON THE STRATEGIC AND ECONOMIC VALUE OF INFORMATION TECHNOLOGY	491
Section Introduction	
Mo Adam Mahmood, University of Texas at El Paso Edward J. Szewczak, Canisius College	
AUTHOR BIOGRAPHIES	542
INDEX	553