

IT GOVERNANCE DOMAIN PRACTICES AND COMPETENCIES

EXCERPT

# Optimising Value Creation From IT Investments



**The IT Governance Institute®**

The IT Governance Institute (ITGI) ([www.itgi.org](http://www.itgi.org)) was established in 1998 to advance international thinking and standards in directing and controlling an enterprise's information technology. Effective IT governance helps ensure that IT supports business goals, optimises business investment in IT, and appropriately manages IT-related risks and opportunities. The IT Governance Institute offers original research, electronic resources and case studies to assist enterprise leaders and boards of directors in their IT governance responsibilities.

**Information Systems Audit and Control Association®**

With more than 47,000 members in more than 100 countries, the Information Systems Audit and Control Association (ISACA®) ([www.isaca.org](http://www.isaca.org)) is a recognised worldwide leader in IT governance, control, security and assurance. Founded in 1969, ISACA sponsors international conferences, publishes the *Information Systems Control Journal*®, develops international information systems auditing and control standards, and administers the globally respected Certified Information Systems Auditor™ (CISA®) designation, earned by more than 38,000 professionals since inception, and the Certified Information Security Manager® (CISM®) designation, a groundbreaking credential earned by 5,100 professionals in its first two years.

**Disclaimer**

IT Governance Institute (the "Owner") has designed and created this publication, titled *Optimising Value Creation From IT Investments* (the "Work"), primarily as an educational resource for chief information officers, senior management and IT management. The Owner makes no claim that use of any of the Work will assure a successful outcome. The Work should not be considered inclusive of any proper information, procedures and tests or exclusive of other information, procedures and tests that are reasonably directed to obtaining the same results. In determining the propriety of any specific information, procedure or test, chief information officers, senior management and IT management should apply their own professional judgement to the specific circumstances presented by the particular systems or information technology environment.

**Disclosure**

Copyright © 2005 by the IT Governance Institute. All rights reserved. No part of this publication may be used, copied, reproduced, modified, distributed, displayed, stored in a retrieval system, or transmitted in any form by any means (electronic, mechanical, photocopying, recording or otherwise), without the prior written authorisation of the IT Governance Institute. Reproduction of selections of this publication, for internal and noncommercial or academic use only, is permitted and must include full attribution of the material's source. No other right or permission is granted with respect to this work.

**IT Governance Institute**

3701 Algonquin Road, Suite 1010  
Rolling Meadows, IL 60008 USA  
Phone: +1.847.253.7491  
Fax: +1.847.253.1443  
E-mail: [info@itgi.org](mailto:info@itgi.org)  
Web site: [www.itgi.org](http://www.itgi.org)

ISBN 1-933284-11-0

*Optimising Value Creation From IT Investments*

Printed in the United States of America

## Acknowledgements

### From the Publisher

#### The IT Governance Institute wishes to recognise:

##### The ITGI Board of Trustees

Marios Damianides, CISA, CISM, CA, CPA, Ernst & Young LLP, USA, International President  
 Abdul Hamid Bin Abdullah, CISA, CPA, Auditor General's Office, Singapore, Vice President  
 William C. Boni, CISM, Motorola, USA, Vice President  
 Ricardo Bria, CISA, SAFE Consulting Group, Spain, Vice President  
 Everett C. Johnson, CPA, Deloitte & Touche (retired), USA, Vice President  
 Howard Nicholson, CISA, City of Salisbury, Australia, Vice President  
 Bent Poulsen, CISA, CISM, VP Securities Services, Denmark, Vice President  
 Frank Yam, CISA, FHKCS, CIA, CCP, CFE, CFSA, FFA, Focus Strategic Group Inc., Hong Kong,  
 Vice President  
 Robert S. Roussey, CPA, University of Southern California, USA, Past International President  
 Paul A. Williams, FCA, CITP, Paul Williams Consulting, UK, Past International President  
 Emil D'Angelo, CISA, CISM, Bank of Tokyo-Mitsubishi, USA, Trustee  
 Ronald Saull, CSP, Great-West Life and IGM Financial, Canada, Trustee  
 Erik Guldentops, CISA, CISM, Belgium, Advisor, IT Governance Institute

##### The Author and Researcher

Paul A. Williams, FCA, CITP  
 Lighthouse Global, UK

##### The IT Governance Institute Steering Committee

Tony Hayes, Queensland Government, Australia, Chair  
 Georges Ataya, CISA, CISM, CISSP, ICT Control sa-nv, Belgium  
 Reynaldo de la Fuente, CISA, CISM, DataSec SRL, Uruguay  
 Rupert Dodds, CISA, CISM, FCA, KPMG LLP, New Zealand  
 John Ho Chi, CISA, CISM, CBCP, CFE, Ernst & Young LLP, Singapore  
 Everett C. Johnson, CPA, Deloitte & Touche (retired), USA  
 Jean-Louis Leignel, MAGE Conseil, France  
 Akira Matsuo, CISA, CPA, ChoAoyama Audit Corp., Japan  
 Serge Yablonsky, CISA, CPA, SYC SA, France  
 Tom Wong, CISA, CIA, CMA, Ernst & Young LLP TSRS, Canada

##### The Reviewers

Steven De Haes, University of Antwerp Management, Belgium  
 Stacey Hamaker, CISA, Shamrock Technologies, USA  
 Gary Hardy, IT Winners, South Africa  
 Austin Hutton, Shamrock Technologies, USA  
 Alan Simmonds, City Practitioners Ltd., UK  
 John Spangenberg, Ph.D., SeaQuation BV, The Netherlands  
 Chris Tiernan, Grosvenor Consultancy, UK  
 Wim Van Grembergen, Ph.D., University of Antwerp, Belgium

##### The author is grateful to:

SeaQuation ([www.seaquation.com](http://www.seaquation.com)), an ING spin-off specialising in enterprise portfolio intelligence to *Fortune* 500 companies, for the use of their material in this document

## Table of Contents

ACKNOWLEDGEMENTS .....	3
1. EXECUTIVE SUMMARY .....	5
2. WHY IS VALUE RELEVANT TO IT GOVERNANCE? .....	7
3. CATEGORIES OF IT INVESTMENT .....	11
4. SETTING VALUE RETURN TARGETS .....	13
5. A FOCUS ON RISK-ADJUSTED RETURNS .....	15
6. DEFINING AND QUANTIFYING EXPECTED BENEFITS .....	17
7. REALISING THE BENEFITS .....	18
8. MANAGING THE IT INVESTMENT PORTFOLIO .....	20
9. CONCLUSIONS .....	25
10. SOURCES .....	26
APPENDIX—GLOSSARY OF FINANCIAL TERMS .....	27

Note: This publication is part of the IT Governance Domain Practices and Competencies Series from the IT Governance Institute. The titles include:  
*Information Risks: Whose Business Are They?*  
*Optimising Value Creation From IT Investments*  
*Measuring and Demonstrating the Value of IT*  
*Governance of Outsourcing*  
*IT Alignment—IT Strategy Committees*

*This excerpt, provided exclusively for free download, includes the executive summary and the succeeding chapter. The full table of contents is included so that readers can see the other topics covered in the book.*

## 1. Executive Summary

Successful acquisition and deployment of information technology often require significant allocation of resources and should therefore be subject to the same initial scrutiny and ‘before, during and after’ monitoring as any other type of investment. No investment, IT included, should be undertaken without full knowledge of the expected cost and anticipated return, as related to risk. High-risk projects have a higher likelihood of failure, so to compensate for those that do fail, high-risk projects should carry a higher return expectation.

To maximise the return on IT investments, techniques such as preparation of formalised, consistent business cases; use of hurdle rates; attention to portfolio management; and application of metrics such as internal rate of return, net present value and payback period can be helpful.

Ensuring that value is obtained from investment in information technology is an essential component of IT governance. It involves selecting investments wisely and managing them throughout their life cycle—from inception to final retirement. As with any facet of governance, without leadership, commitment and support from the top, it is less likely to realise success.

The behaviour of the equity markets and corporate IT spending have been closely linked in the last five years. Exuberant expectations of the potential benefits of IT-related spending went hand in hand with the late 1990s stock market boom, and retrenchment of IT spending was a central element of many companies’ response to the stock market slide of 2000–2003. Throughout that boom-bust period, the appraisal process for IT-related projects—both at the approval stage (ex-ante) and following deployment (ex-post)—was, in many companies around the world, lacking in discipline.

But now standing at an important juncture, many companies, as a result of the slashing of IT budgets in recent years, realise that they may have invested too little or might not have fully deployed a risk-based IT investment strategy. Corporate financial strength has improved and many companies now have the resources to invest more. At the same time, a greater emphasis on all aspects of corporate and IT governance means that stricter discipline is being applied to IT investment appraisal and to ensuring that the optimum investments are chosen and actual value is delivered.

Increasingly, today’s corporations and public sector bodies are becoming dependent upon IT, not just to support the traditional activities of the business but also to enable it to extend into new areas. Within many sectors, that dependence is becoming virtually total. At the same time, expenditure on IT and its supporting activities has grown to the extent that, within many businesses, the level of IT-related costs is second only to that of staff costs.

**Ensuring that value is obtained from investment in information technology is an essential component of IT governance.**

**It is not easy to determine with any confidence the extent to which IT expenditure delivers real value.**

It should be relatively straightforward for businesses to quantify and monitor how much they are spending on IT. However, it is far less easy to determine with any confidence the extent to which this expenditure delivers real value and contributes to corporate success or sustainable stakeholder value. This paper has been prepared to develop some hypotheses on value delivery from investment in IT and to promote further discussion and debate on how value might better be determined and measured. It does not provide all the answers, but it is intended to provide a good starting point for those charged with delivering, assessing and providing governance over value from IT-related business investments. It should be read in conjunction with the companion paper *Measuring and Demonstrating the Value of IT*, which contains further guidance on, in particular, the use of balanced scorecard techniques to help measure value obtained from IT.

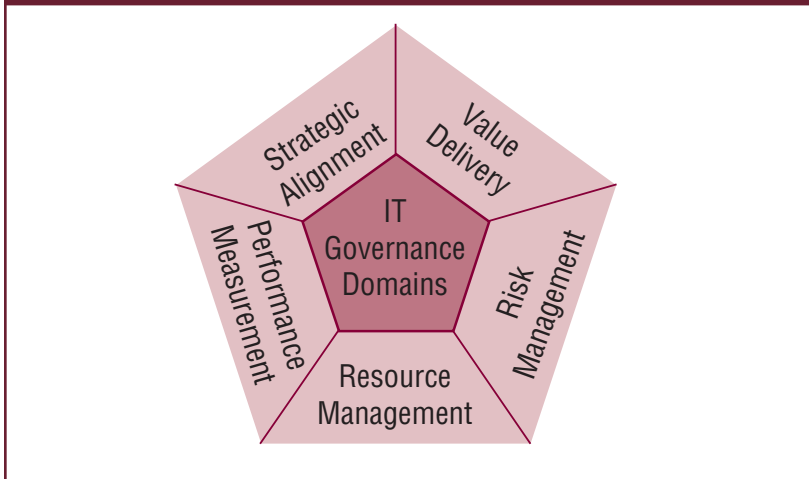
## 2. Why Is Value Relevant to IT Governance?

The IT Governance Institute regards value delivery as one of the five domains of IT governance alongside strategic alignment, performance management, resource management and risk management (**figure 1**). Indeed, it could be argued that unless success is achieved in the other four domains, achieving value delivery will remain elusive.

The essential components of IT governance might therefore be expressed as follows:

1. IT governance overall is about delivering value and managing risk.
2. Value delivery, which embodies the concept of risk-related returns, is perhaps the most important.
3. Value delivery is not possible without strategic alignment and resource management.
4. It is impossible to provide transparency of success or failure without performance measurement.

**Figure 1—Five Domains of IT Governance**



ITGI defines value delivery as follows: ‘Value delivery is about executing the value proposition throughout the delivery cycle, ensuring that IT delivers the promised benefits against the strategy, concentrating on optimising costs and proving the intrinsic value of IT’.<sup>1</sup>

A key responsibility for all directors and senior managers of any enterprise is to ensure that stakeholder value is obtained from the investments and the allocation of resources that are the subject of many of their key decisions. The

<sup>1</sup> IT Governance Institute, *Board Briefing on IT Governance, 2<sup>nd</sup> Edition*, 2003, USA, [www.itgi.org](http://www.itgi.org)

same principles apply for any type of investment, whether it is in, for example, real estate, merger and acquisition activity, equity investment or any other activity that involves the deployment of shareholder funds. Successful acquisition and deployment of information technology often require significant allocation of resources and therefore must be subject to the same type of initial scrutiny and monitoring as any other type of investment. However, there is much anecdotal evidence to suggest that IT-related investments often are reviewed and approved with significantly less vigour than other types of investment. There are many reasons for this, including what is regarded as the often esoteric nature of IT in all its forms and the consequent lack of confidence that non-IT specialists have in understanding both its opportunities and its risks.

A study carried out within global financial services group ING<sup>2</sup> indicates that IT-related business investments have the potential to deliver far greater returns than almost any other conventional investment. This research, carried out in the summer of 2004, indicated that, in comparison to more traditional investments such as commercial real estate, publicly traded equities and sovereign bonds, the return on a well-balanced portfolio of IT-related business investments can be expected to be significantly higher.

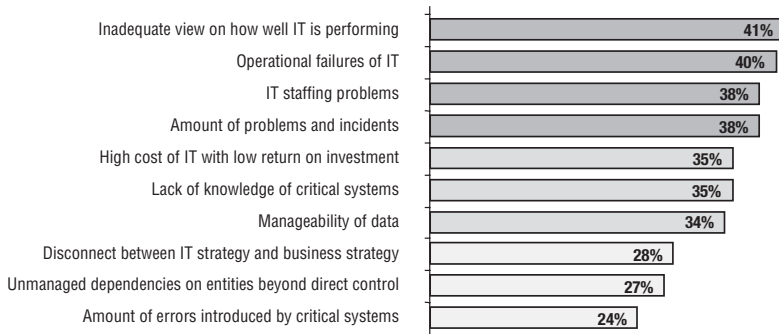
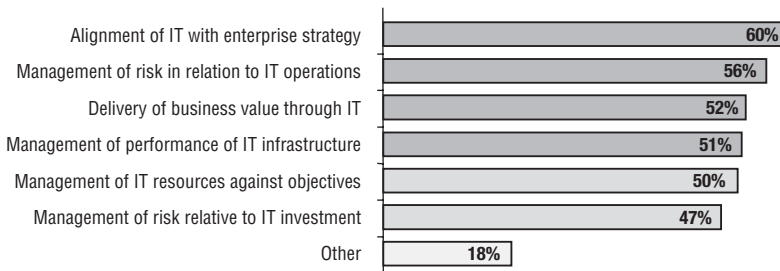
However, although the potential for large returns is self-evident, history does remind us that the actual achievement of that potential can be elusive and disappointing, highlighting the continued vigilance needed to ensure that all of the five domains of IT governance are given equal priority and attention. This is in contrast to the opinions of those IT professionals participating in a recent IT Governance Institute study,<sup>3</sup> 71 percent of whom reported that they consider their organisation's ability to obtain real value from its investment in IT either 'excellent' or 'good'. An earlier survey by ITGI (March 2004),<sup>4</sup> covering a broader base of both business and IT management, indicated that the inability to fully determine the value achieved from IT is one of the respondents' key issues and uncertainties (**figures 2 and 3**). The table in **figure 2** ranks the issues as identified by the respondents, showing clearly their concerns not only about proving the value obtained from IT but also the lack of understanding of how well IT is performing. The table in **figure 3** indicates the confidence that the respondents have in their ability to overcome these issues if a robust and comprehensive IT governance structure were properly implemented.

---

<sup>2</sup> ING, originally through its IT performance measurement and investment management department, and now in its new incarnation as SeaQuation, an ING spin-off, has invested significant research and development into IT's contribution to value creation from a risk-weighted perspective. Therefore, this publication contains a number of references to the work of SeaQuation.

<sup>3</sup> In 2004, the IT Governance Institute, in conjunction with Lighthouse Global, surveyed 200 IT professionals from 14 countries in the Americas, Asia/Pacific and Europe. The respondents included CIOs, IT directors and IT managers from companies with a turnover in excess of US \$50 million.

<sup>4</sup> IT Governance Institute, *IT Governance Global Status Report*, 2004, [www.itgi.org](http://www.itgi.org)

**Figure 2—Problems Encountered With IT in Last 12 Months****Figure 3—Issues Those Who Implement IT Governance Hope to Resolve**

These issues are also highlighted in a META survey from July 2004<sup>5</sup> where the conclusions included:

- Although 85 percent of organisations do demand business cases for change projects, only 40 percent of those projects that are approved have valid and realistic benefits statements.
- Fewer than 10 percent of organisations ensure that benefits are realised postproject.
- Fewer than 5 percent of organisations hold project stakeholders responsible for benefit attainment.

Whatever the true level of confidence in these issues currently, it is hoped that the thoughts developed within this publication will help those charged with governance responsibilities over IT investments to better understand how value may be achieved and monitored, thus maximising value creation and avoiding value destruction.

<sup>5</sup> META Group, 2004

Success in understanding cost and measuring value can be achieved only with business and IT working together in partnership. Martin Curley, director of innovation at Intel, in his book *Managing Information Technology for Business Value*<sup>6</sup> states:

*A strategic alignment between IT and the business is a crucial factor in business value generation. Good strategic alignment implies a virtuous circle, that is, a positive bi-directional relationship between IT and business strategy. Within this context IT and business alignment should be measured not only by the extent to which IT supports the business, but also by the extent to which business strategy capitalizes on IT capabilities.*

In his book, Curley defines four strategies that can contribute to achieving and measuring business value from IT. These are:

- Manage for IT business value to maximise benefits such as corporate profitability and growth with existing and future IT investments.
- Manage the IT budget to enable continuous cost reduction and the flexibility to shift budgeted funds from low-yield investments to investments that will deliver competitive advantage.
- Manage the IT capability to enable sustainable competitive advantage to be delivered from IT.
- Manage IT like a business so that winning business practices enable IT organisations to succeed in their missions.

All of these strategies make sound sense. The right IT investments have to be chosen and managed throughout their life cycle if they are to create value. The IT capability must be understood, must be appropriate to the demands of the business, and must be leveraged to deliver that value.

This concludes this excerpt. If you wish to read the entire volume, please return to the IT Governance Institute web site, [www.itgi.org](http://www.itgi.org), and click the links provided for the book. The sale of hard copy and e-books is handled through the ISACA Bookstore, [www.isaca.org/bookstore](http://www.isaca.org/bookstore). ISACA members may download the book for free; nonmembers may purchase an e-book or hard copy book for a minimal price. Thank you for your interest in IT Governance Institute's research. We hope you have enjoyed this excerpt, and we encourage you to review the excerpts of the other publications in this five-volume series as they are released. And, if you have not already, we invite you to view ITGI's many (complete) research publications available for free download from the site. A list, with links, is available on the About ITGI—Recent Publications page.