

Implementing Effective IT Governance and IT Management

A Practical Guide to World Class current and emerging Best Practices

2ND, REVISED EDITION

Areas of Work	Description/Components	Deliverables
Business Plan/ Objectives (Demand Management & Alignment)	<ul style="list-style-type: none"> Strategic Business Plan – Vision, Objectives, Financials, Operations, SWOT, Imperatives (Must Do's), Initiatives (Alternatives that Support Imperatives), etc. Capital Planning/Expense Planning & Budgeting Business Performance Management (Key Metrics) Executive and Other Steering & Review Councils; Organization Structure 	<ul style="list-style-type: none"> Plan Finan Balar BCG; Dave
IT Plan, Objectives, Portfolio Investment and Approvals (Demand Management & Alignment)	<ul style="list-style-type: none"> IT Plan is aligned with the Business Plan – IT Capital/Expense Budget IT portfolio investment, rationalization, selection, prioritization, funding and approval Portfolio Management Model (for New, Change Programs and Projects and/or Operational and Infrastructure Functions) Fund major initiatives IT Performance Management (Define Metrics and Measurement Criteria) 	<ul style="list-style-type: none"> IT Str Portfo (Inve Enga Busin Auth McFa Selig
IT Plan Execution & Delivery (Resource & Execution Management)	<ul style="list-style-type: none"> Program, Project and Operating Plans (Capital Plans, Project Plans and Budgets) Policies, Standards, Guidelines & Processes (e.g. Management Control, Enterprise Architecture, Security, PMO, ITIL, Privacy, Cloud Computing, Data Management, etc.) Processes (PMO, Help Desk, Security, Administrative SOPs, Workflows, Change, Risk, Data Management, etc.) Financial, program, project, application, maintenance and operational accountability 	<ul style="list-style-type: none"> Asses PMB SCRU Lean ISO s etc. Infras Integ
Performance Management, Controls, Risk, Compliance and Vendor Management (Execution Management)	<ul style="list-style-type: none"> Manage and measure plans, budgets, programs, projects, operations & risks Define and track key performance indicators (KPI) Compare plans to actuals and take appropriate corrective actions Outsourcing and Vendor Selection, Tracking, Measurement Business and IT Continuity, Security, Privacy, Contingency and Disaster Recovery 	<ul style="list-style-type: none"> Balar Perfo RFI, F Mana Sarba Mana
People Development, Continuous Process Improvement & Learning	<ul style="list-style-type: none"> Human capital development/Leadership Succession Organizational, Project & Operational Maturity Models and Standards Managing Change and Transformation (e.g. culture, interoperability) Training and Certification (e.g. Individual and Organizational) 	<ul style="list-style-type: none"> Adop Indus Pract PCMI Six Si Caree Succ Certif

Dr. Gad J. Selig PMP, COP

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Implementing Effective IT Governance and IT Management

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Implementing Effective IT Governance and IT Management

**A Practical Guide to World Class Current
and Emerging Best Practices**

**Expanding the IT Ruler on How to Align, Plan, Deploy and Govern Information
Technology Resources for Improved Competitive Advantage, Integration with
the Business, Profitability and Control in Global Enterprises**

2nd Edition

Dr. Gad J. Selig, PMP, COP



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Foreword One

Effective IT governance and management, that is closely aligned to the business needs and supported by a strong business partnership, is extremely vital to the success of the IT function within corporate enterprises and on a global basis. Dr. Selig's book on this very topic is a great resource for all IT practitioners, senior business professionals and brings together every critical aspect relating to IT governance.

The second edition lays out a roadmap to executing within a solid governance model. It looks at all aspects of establishing, planning, implementing, growing and sustaining an IT ecosystem. The combination of case studies and disciplined approaches to building well-structured processes, committed leaders and change agents will help the board, executive management and most of all, CIOs and IT professionals think through what has worked, what can work and how to deploy IT governance successfully.

Being a CIO for many years in a highly competitive industry, I have developed a respect for the process side of running IT like a business. There has always been a need to balance governance for IT with the demands and services needed to support the business. This requires effective implementation of guiding principles and controls to ensure corporate enterprises optimize their investments and, more importantly, ensures that all IT resources are well organized and utilized to help drive business value.

In my experience, Information Technology and its effective management is a fundamental cornerstone of any well-run business. Ensuring that the IT function is fully supporting the business strategy and goals of the company is all about ensuring that the IT organization, processes and performance are designed with a view to constantly providing and measuring business value. Successful CIOs recognize that IT has become far more than a means of increasing efficiency and reducing costs. Rather, they see IT as a prime stimulus for, and an enabler of, business innovation and transformation – and they themselves are viewed as key collaborators, facilitators and partners in a process that develops business and IT strategies in concert.

Ever since the recent economic recession, coupled with the growing reliance on social media and mobile - one thing we are sure of is that “Change is the New Norm”!

Therefore, never before has it been more critical to cultivate a holistic management model for the information technology function that is well aligned to the business needs. Business today is faced with far more rapidly changing and challenging market conditions, industry disruption, ever-changing regulations, the need for accessible analytics and more demanding and impatient customers. In parallel to this, new technology approaches such as cloud, digital, mobile, ‘big data’, Internet of Things, and visual analytics, all present new ways of doing things that, therefore, challenge the status quo. These external challenges, coupled with the new technology opportunities, along with the need to support normal business demands such as; to market and administer a new product quickly, scale and protect the core infrastructure and company data, drive company change, all taken together elevate the dependency that successful businesses today have on technology and hence highlights the need for a strong and comprehensive governance model between IT and the business. IT practitioners today have to work with an ever-changing business and IT landscape, where the pace of change is tremendous, business competition and demand for IT services is extremely high, budgets are challenged and talented technical resources are always scarce – this book should help provide some innovative insights into IT governance in an era of change and complexities!

I have known Dr. Selig for more than five years and have enrolled members of my senior staff onto an IT governance seminar led by him. He is a seasoned IT veteran who has organized a set of proven, fundamental approaches for the IT professional and has a passion for sharing these approaches. In this book, Dr. Selig combines practical business experience and practices along with academic principles, which together provide a valuable and insightful contribution to help advance the role of IT and its value to the business. Whether you are a board member, a CEO, a practicing CIO, or a student of IT, this book will provide a reference and guide to ensure that your IT function is well aligned to your business needs and is well managed and governed to achieve maximum business value for your organization.

Ursuline Foley
Enterprise/Corporate CIO
Major Insurance/Reinsurance Company

Foreword Two

Dr. Selig's second edition of the book on IT governance is an excellent addition to the knowledge base focused on the business of information technology. It is an excellent compilation of practical and useful information on the governance of IT in business and government.

The book highlights many of the concepts I have endorsed and encouraged for years as well as new ideas and information. The book is comprehensive and written in a reader-friendly way.

I look forward to recommending this book to readers at all levels in my client organizations dealing with the issues, and looking for solutions, in the complex and fast-changing world of IT governance.

IT governance offers you the who, what, where, when, and how to properly organize, plan, align, manage, and measure the effectiveness of the IT function in any organization. Dr. Selig provides a good balance between the people, technology, and process challenges essential to optimizing IT as an expensive corporate asset.

The book reinforces the fact that IT is not an independent organization silo. It must be aligned and integrated effectively with the business, and in government the mission, throughout the organization. Dr. Selig shows the balance - that IT supports the business or organization mission, but also, when properly aligned, managed, and resourced, will enable the organization to prosper, innovate, and grow effectively.

I have known Dr. Selig more than 25 years as a client, Alliance Partner, and good friend. He is a seasoned educator and business, consulting and IT veteran. He has organized a set of fundamental approaches for the IT professional and business and government executives. In this book, Dr. Selig's practical experience as a leader provides a valuable contribution to advance the field. Whether you are a board member or CEO, a practicing

CIO, or a student of IT, this book will guide you through complex business, process and technological roadmaps that work.

Dr. Selig's book is an excellent reference source in a critical area with many fast-changing parts. It is a must-have for teachers, executives, and managers dealing with IT.

John A. McCreight

Founder & Chairman

McCreight & Company, Inc. ~ CIO Group, LLC ~ Board Effectiveness Partners, LLC ~
Second Opinion, LLC

Introduction

The issues, opportunities and challenges of aligning information technology more closely with an organization and effectively governing an organization's Information Technology (IT) investments, resources, major initiatives and superior uninterrupted service is becoming a major concern of the board and executive management in enterprises on a global basis. Information technology (IT) has become an integral part of many organizations and is fundamental to sustain growth, innovation and transformation and support continuing operations in most organizations. Therefore, an integrated and comprehensive approach to IT governance is required, which includes all the activities of business/IT alignment, global resource planning, execution and governance of IT as well as the leadership of those entrusted with the task. Effective 'management' includes the activities of planning, investment, integration, measurement, innovation and business transformation, deployment and services required to manage a complex strategic asset.

The author views IT governance as the focal point for more effective IT management around which there are many important issues such as alignment, leadership, planning, execution, accountability, metrics and related topics. In other words, superior IT governance represents the path to world class IT management practices.

None of this is easy, or obvious, and this pragmatic and actionable 'how to guide' is intended to pull together, from about 200 sources, current and emerging best practices and draw from over twenty IT governance best practice case studies. Some of these case studies are included in the book.

Effective IT governance represents a journey (not an end state in itself), which focuses on sustaining value and confidence across the business. Today, many companies start on a narrow path or shotgun approach and focus on the compliance component (e.g. Sarbanes-Oxley and others) of IT governance, without developing a more comprehensive framework with a prioritized roadmap based on the highest value delivered to the organization.

In reviewing the current literature, completing over twenty case studies and conducting numerous private and public IT governance workshops and consulting assignments both domestically and internationally over the past few years, attended by thousands of executives, managers and practitioners on IT/business alignment, planning, deployment (e.g. program/project management, IT service management, outsourcing, cloud computing, data management, etc.) and governance (e.g. performance management and control), much has been written and documented about the individual components of IT governance. However, much less has been written about a comprehensive and integrated IT/business alignment, planning, execution and governance approach that represents a balanced approach consisting both of a strategic top-down framework and roadmap together with bottom-up implementation principles and practices that address the broad range of IT issues, constraints and opportunities in a planned, coordinated, prioritized, cost effective and value delivery manner.

The purpose of the book is not to repeat in greater details what has been published previously, but to describe each of the major components in an overall comprehensive framework and roadmap in sufficient detail for executives, managers and professionals. It is hoped that the book can serve as a guideline for any organization in any industry to formulate and tailor an effective approach to IT governance for its environment and to help transition the IT organization to a higher level of maturity, effectiveness and responsiveness.

The second edition of the book contains a new chapter on cloud computing, data management and governance, updates to the case studies and new material. Throughout the entire book the text has been updated on leadership, transformation, AgilePM and Scrum, ITIL 2011 Edition, performance management, risk management, CGEIT (COBIT IT Governance), cloud sourcing, security, select ISO standards related to IT governance and other topics.

■ THE MARKET FOR THE BOOK

Many executives, managers and practitioners have expressed the need for a comprehensive, yet practical guide, based on real world experiences, on the subject of implementing IT successfully.

The book has been written by a former business and IT executive and practitioner who has managed businesses and IT organizations, managed strategic change and advised major public and private organizations on business and IT strategy and governance. He has also completed numerous consulting assignments, conducted private and public workshops and graduate business and engineering courses on the fundamentals of managing and implementing strategy, innovation, management, IT strategy formulation, governance and transformation of IT to integrate seamlessly with the business.

Our intended audiences include the following groups:

- **Directors of corporate boards** – who have overall fiduciary accountability to provide oversight for the business and key functions of the business.
- **Executives** – who are primarily responsible for developing and/or approving business/IT strategy and then overseeing its implementation and governance (the ‘C’ suite of corporate officers).
- **Managers and professionals** – who are primarily responsible for implementing and governing IT in their organizations and institutions,
- **Consultants and other advisors** – who are involved in advising, planning, organizing, directing and governing IT initiatives to help transform businesses and organizations to compete more effectively around the world
- **Academics, graduate and upper level undergraduate students** – who must teach and master a fundamental understanding of IT and how it impacts businesses, management, employees, the regulators and investors.

The demand for an updated comprehensive, pragmatic and actionable ‘how to’ guide to help managers and practitioners plan, deploy and sustain an effective IT governance and management environment and culture has been expressed by many managers and professionals in the private, public and academic sectors.

■ ORGANIZATION OF THE BOOK

The book is divided into two parts and ten chapters, which cover the three critical pillars necessary to develop, execute and sustain a robust and effective IT governance and management environment - leadership, people and organization, flexible and scalable processes and enabling technologies.

Part I covers the overview, business/IT alignment, strategic planning, demand management, the integrated IT governance framework and leadership, teams and organization. Part II covers the process and technology topics including: execution and delivery management (includes program/project management, IT service management and delivery with IT Infrastructure Library {ITIL} and strategic sourcing and outsourcing); performance measurements, risk and contingency management (e.g. includes COBIT, the balanced scorecard and other metrics and controls), cloud computing, data management and enabling technologies.

Part I Business/IT Strategy, Alignment, Leadership, Teams and Organization

Part I of the book focuses on the chapters covering business/IT strategy, alignment, leadership, teams and organization required to develop and execute an effective IT governance environment. It focuses on the strategy formulation, people and organizational aspects.

Chapter 1 Introduction to IT/Business Alignment, Planning, Execution and Governance

Covers the key IT/business alignment, integration, planning, execution, governance issues, constraints and opportunities; discusses the roles of the board, executive management and practitioners; reviews the value propositions for IT governance, provides an overview of demand management, decision rights, balanced scorecard metrics and how much governance is required; reviews select regulations and their compliance requirements; identifies the steps in making IT governance real and provides an assessment technique to determine the current level of IT governance maturity in an organization and illustrates a blueprint of a future state of IT governance. It also covers functional and IT components related to governance such as platform, infrastructure, application development, operations, security and related topics.

Chapter 2 Overview of a Comprehensive IT Governance and Management Framework and Select Industry Current and Emerging Best Practice Frameworks, Standards and Guidelines

Describes and illustrates a comprehensive IT alignment, execution framework and its major components. References and brief descriptions of related current and emerging industry best practices, standards and guidelines, including maturity models are discussed such as COBIT, Strategic Planning, ISO 9001 (Quality), ISO 20000 (IT Service Management), ISO 27002 (IT Security), ISO 38500 (IT Governance) and ISO 31000 (Risk Management), PMI's PMBOK Guide v5, PMI's Standard for Program Management v3, PMI's Standard for Portfolio Management v3, Project and Portfolio Management, AgilePM (Project Management) and Scrum, CMMI, People-CMM, ITIL 2011 Edition, PRINCE2, PMMM, ITIM, VAL-IT, ISO 21500 (Guidance on Project Management), SDLC/IDLC, Lean & Six Sigma, eSCM, OPBOK, Baldrige, Lean IT, TOGAF, BABOK Guide, BISL, the balanced scorecard, related professional certifications and others and how, if followed, they can result in more effective IT governance and management.

Chapter 3 Business and IT Alignment, Strategic/Operating Planning and Portfolio Investment Management Excellence (Demand Management)

Covers the business and IT strategic planning cycle, executive steering groups, business/IT integration maturity model, IT planning through execution management flow, IT investment portfolio selection and prioritization attributes and VOC engagement model.

Chapter 4 Principles for Managing Successful Organizational Change, Prerequisites for World Class Leadership and Developing High Performance Teams

Covers key leadership, talent, people and soft skills and competencies required for success. It also covers the attributes of successful traditional and virtual teams in a global environment. It discusses technologies used by virtual teams located anywhere. It also reviews a framework for managing successful change in helping to transition and transform organizations to higher levels of IT maturity and effectiveness. It also covers

the shadow IT organization and structure and how to strength the partnership between more sophisticated IT technology users and the IT organization.

Part II IT Governance and Its Critical Processes and Enabling Technologies

Part II of the book focuses on the chapters covering project management, IT service management, outsourcing, cloud computing, big data management, analytics and metrics related to IT governance.

Chapter 5 Program and Project Management Excellence (Execution Management)

Program and project management is a major component of effective IT execution management. It discusses the right and pragmatic ways to manage programs and projects within a flexible and scalable process, accommodating both fast track and complex initiatives. It provides multiple checklists, templates and metrics to help deliver programs and projects on time, within scope, within budget, with high quality and to the customer's satisfaction and/or get them back on track. It references a self-assessment maturity model that can be used to assess the current and target the future maturity level of an organization and suggests a transition plan to get there. It also covers Agile project management and Scrum.

Chapter 6 IT Service Management (ITSM) Excellence (Execution Management)

Describes the principles and practices of IT service management and operations providing an overview of ITIL 2011 Edition (IT Infrastructure Library), its processes and components. Specific objectives, benefits, and key performance indicators are covered. It illustrates a self-assessment maturity model that can be used to assess the current and target the future maturity level of an organization and suggests a transition plan to get there.

Chapter 7 Strategic Sourcing, Outsourcing, Vendor Management and Excellence

Provides the fundamentals of strategic sourcing and outsourcing such as issues, concerns, opportunities, value propositions, outsourcing lifecycle, the outsourcing business case, risks, modes of outsourcing (e.g. on-shore, rural shore, near shore, off shore, best shore, etc.), vendor selection, due diligence, contract negotiations and ongoing management roles, including relationship management, metrics, escalation and disengagement considerations. It also covers key components of crowd sourcing.

Chapter 8 Performance Management, Metrics, Management Controls, COBIT®, Risk Management, Business Continuity and Enabling Technology Excellence

Covers the principles and practices of achieving IT performance excellence using balanced scorecard metrics and linking critical success factors to historic and predictive key performance indicators (KPIs). It reviews COBIT. It also covers risk management, assessment and mitigation strategies, and business and IT continuity planning and disaster recovery. Finally, it describes a suite of technology tools that support and enable the key IT alignment, execution and governance functions and processes.

Chapter 9 Cloud Computing, Data Management and Governance Issues, Opportunities, Considerations and Strategies

Cloud computing usually involves a large number of computers connected through a real-time communication network such as the Internet. The phrase is often used in reference to network-based services which appear to be provided by real server hardware, simulated by software running on one or more real machines. Cloud computing is a form of outsourcing with its own issues, opportunities, risks and metrics. Big data, analytics, business intelligence and decision support system are components of data management and require the use of databases, statistics and software tools and analytical skills to extract information to help make decisions to reduce costs, improve quality, reduce risks and assist in focusing on the most valuable customers. The data management and governance issues and strategies are addressed in this chapter.

Chapter 10 Summary, Lessons Learned, Critical Success Factors and Future Challenges

Summarizes the components required to anticipate and proactively implement IT governance and management effectively. It provides a summary checklist of all of the key components and critical success factors identified in each chapter to make IT governance real, effective and sustainable.

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I gratefully acknowledge the help and support of a number of individuals, organizations and their members in the private, public and academic sectors in conducting the research, editing the book, participating in developing the case studies, allowing me to consult and/or teach for them and influencing, reinforcing and validating the findings, recommendations, critical success factors and lessons learned.

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I would like to dedicate this book to my wife, mate and life-long partner, Phyllis, for her love, dedication, understanding, and support that she has given me throughout our time together. Our children, Camy, Dan, Gabe, our children through marriage, Beth and Andy and our grandchildren, Jason, Jacob, Jesse, Samantha and Zachery who also inspired me to finish the project so that I could devote more time to them.

Dr. Gad J. Selig, PMP, COP
Fairfield, CT

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