



Guiding the Digital Transformation of Organizations

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Foreword



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Foreword

Information technology (IT) continues to transform our economy, firms, work and society. Traditional industries are dissolving and giving way to new industries. Digitization is creating new winners and losers within most industries, and is accelerating the gap between them. Advances in information technologies and their creative use are stimulating a heightened level of entrepreneurship and new venture start-ups. We are writing this book to improve our readers' understanding of why and how these transformations are occurring. After having read the book, readers should be able to meaningfully contribute to efforts aimed at guiding the operational and strategic directions of their organizations.

More specifically, this book provides an understanding of: (1) how today's organizations are using IT to improve business performance, and (2) the actions that must be taken in order for envisioned performance improvements to be realized. Our fundamental view is that the truly value-adding uses of IT arise through the combined efforts of business professionals and IT professionals. Business professionals have knowledge and insight about business processes, products and services, customers, suppliers, and product-markets. IT professionals have knowledge and insight about currently available technologies, emerging technologies, already-installed technologies, anticipated costs and resource requirements, vendors and service providers, consultants, and competitors' use of technology.

The critical challenge for most organizations involves facilitating a dialog and shared understanding between business professionals and IT professionals. Our selection of topics (e.g., terms, concepts, frameworks, methodologies, etc.) to

include in this book has been driven by the goal of providing a common ground for such collaborations between business professionals and IT professionals.

Two themes are present in our book: the strategic implications of IT and the business value of IT. Each one of these themes covers material that is tightly interconnected (see Figure 1).

Figure 1

Guiding the Digital Transformation of Organizations

Strategic Implications of IT

- **Enhancing Competitiveness through IT**
- **Competing in Digital Markets**
- **Business Platforms**
- **IT Infrastructure**
- **The Digitized Enterprise**
- **The Extended Digitized Enterprise**

Business Value Implications of IT

- **IT Investment Value Pathways**
- **Building Business Cases for IT Investment Proposals**
- **Implementation and Change Management**
- **Project Management**
- **IT Risk Management**
- **IT Governance**

The *strategic implications of IT* theme focuses on: (i) blending together an organization's business strategies and IT strategies in creating and evolving business models that produce value for customers, while ensuring that some of this value is retained by the organization; (ii) relating these business models to enabling business platforms (integrated sets of digitized work processes and digitized tools) and technical platforms (integrated sets of technical services); and (iii) illustrating how these business and technical platforms provide the operational capabilities and

managerial capabilities required for business model execution and evolution. Figure 2 illustrates the relationships among the chapters that comprise this theme, while Table 1 lists the key concepts covered in these chapters.

Figure 2
Strategic Implications of IT

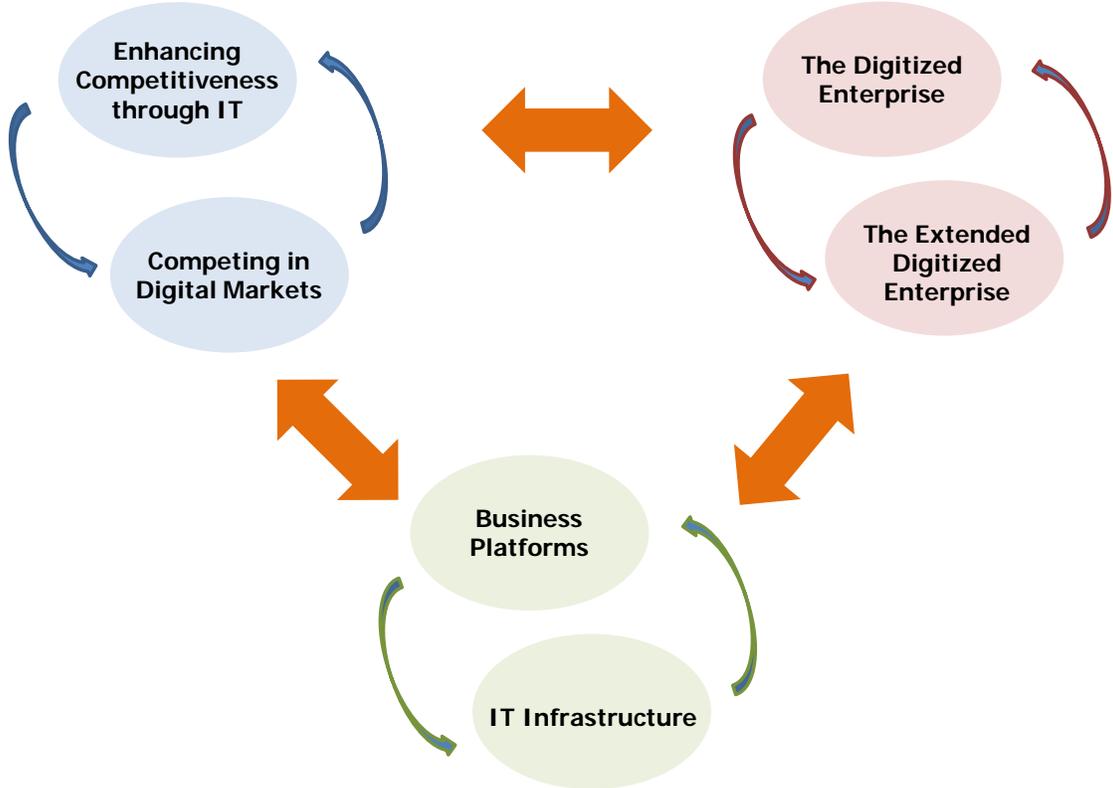
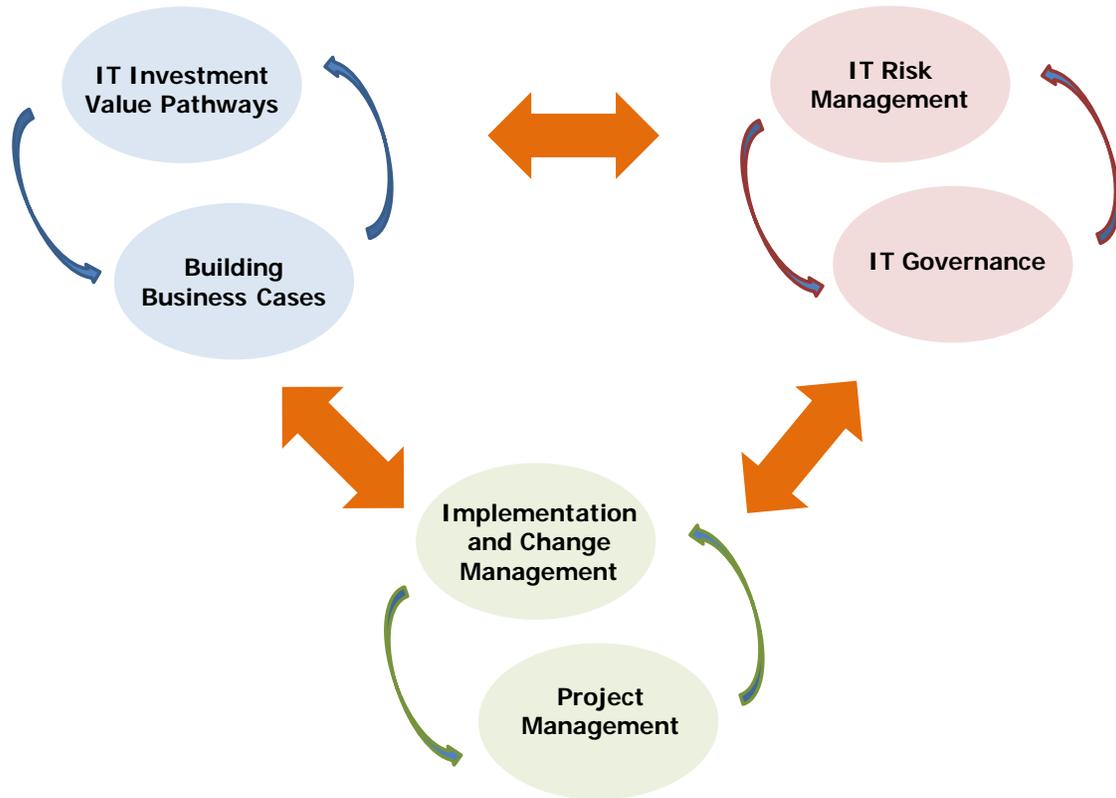


Table 1
Strategic Implications of IT: Key Concepts

Enhancing Competitiveness	Digital Markets	Business Platforms	IT Infrastructure	Digitized Enterprise	Extended Enterprise
Business Model <ul style="list-style-type: none"> • Customer value proposition • Profit model • Business capabilities • Business processes Business Model Innovation <ul style="list-style-type: none"> • Operational excellence • Customer intimacy • Product leadership IT Strategic Role <ul style="list-style-type: none"> • Automation • Control • Empowerment • Collaboration Sustainability of IT Competitive Actions	Digital Good <ul style="list-style-type: none"> • First copy costs • Replication costs Digital Markets <ul style="list-style-type: none"> • Long tail effect • Network effects • Same-side vs. cross-side • One-sided vs. two-sided • Merchant vs. two-sided platform builder Competitive Dynamics <ul style="list-style-type: none"> • Tipping point • Winner-take-all 	Value Chain Business Platform Business Process <ul style="list-style-type: none"> • End-to-end • Rationalization • Modeling Business Process Specification <ul style="list-style-type: none"> • Operating procedures • Business rules Global Database <ul style="list-style-type: none"> • Operational database • Data warehouse Global Business Platform <ul style="list-style-type: none"> • Standardization • Integration 	Organizational IT Infrastructure <ul style="list-style-type: none"> • Technical platform • Business Platform IT infrastructure Resources <ul style="list-style-type: none"> • Physical • Design • Data • Human • Social Global vs. Local Evolution Stages <ul style="list-style-type: none"> • Local optimization • Technology standardization • Process optimization Information Systems Integration ERP Systems Political & Funding Issues	Make vs. Buy Decision Intermediation Interconnecting Information Systems <ul style="list-style-type: none"> • Tight vs. loose coupling • Middleware Operational Domain <ul style="list-style-type: none"> • Visibility • Channel multiplicity Analytical Domain <ul style="list-style-type: none"> • Business intelligence Collaborative Domain <ul style="list-style-type: none"> • Predictive markets 	Unbundling Outsourcing <ul style="list-style-type: none"> • Benefits • Risks • Onshore • Offshore Contracts Vendor Management Outsourcing Governance <ul style="list-style-type: none"> • Tight vs. loose governance IT Outsourcing Value Networks Social Technologies <ul style="list-style-type: none"> • Megaphone • Magnet • Monitor

The *business value implications of IT* theme focuses on: (i) communicating the business performance improvements anticipated from IT investment proposals; (ii) managing the implementation of the technical systems and information systems associated with funded IT investment proposals such that the expected gains are realized; and (iii) managing an organization's portfolio of IT investments so as to optimize benefits while controlling both costs and risks. Figure 3 illustrates the relationships among the chapters that comprise this theme and Table 2 lists the key concepts covered in these chapters.

Figure 3
Business Value Implications of IT



**Table 2
Business Value Implications of IT: Key Concepts**

IT Value Pathways	Business Case	Implementation Management	Project Management	IT Risk Management	IT Governance
IT Productivity Paradox Performance Targets <ul style="list-style-type: none"> IT operations and IT services Business process efficiency Business process effectiveness Business model Financial Performance <ul style="list-style-type: none"> Value Risk IT Value Pathways <ul style="list-style-type: none"> Mandated Technology renewal Business process improvement Competitive necessity Competitive advantage Options generator Capability Map	Innovation Cycle <ul style="list-style-type: none"> Champion Executive sponsor Business Case <ul style="list-style-type: none"> Strategic Financial Benefits/Costs <ul style="list-style-type: none"> One-time vs. recurring Tangible vs. intangible Benefit Types <ul style="list-style-type: none"> Cost reduction Cost avoidance Value enhancement Monetizing Benefits <ul style="list-style-type: none"> Touch point Impact path Valuation Methods	Implementation Stages <ul style="list-style-type: none"> Approval and funding Configuration Installation and shakedown Lethargy Onward and upward Technology Adoption and Use <ul style="list-style-type: none"> Facilitators Three-stage adoption model Organization Design <ul style="list-style-type: none"> Strategies Structures Business processes Employee skills & roles Technology Estimating the Extent of Organization Change Managing Organization Change	Projects Project Teams Project Risks Estimating Outcome Specification Uncertainty Project Success & Failure Project Scoping Project Planning Project Organization <ul style="list-style-type: none"> Steering committee Project manager Project Stage-Gating Project Control Post-Project Review	IT Risk <ul style="list-style-type: none"> Sources Consequences Operational Investment Outsourcing IT Risk Planning IT Risk Exposure IT Risk Assessment <ul style="list-style-type: none"> Assumption Deterrence Ongoing control Tactics for IT Risk Management <ul style="list-style-type: none"> Operational risk Investment risk Education for IT Risk Management	IT Governance <ul style="list-style-type: none"> Objectives Critical IT Decisions Assigning Decision Rights Structures Processes IT Function Organization Designs <ul style="list-style-type: none"> Partner model Platform model Scalable model Board of Directors Roles <ul style="list-style-type: none"> Business continuity Regulatory compliance Competitive success

Given the intertwined relations that tend to exist between strategies and outcomes, numerous interconnections are observed across these two themes. The scenario depicted in Figure 4 illustrates such interconnections. In this scenario, an organization is considering an IT investment to establish a *business intelligence* [a]¹ capability within its marketing and sales processes to improve the financial performance outcomes [c] associated with these business processes [a→c]². The *IT strategic roles* [b] of control and empowerment serve as *touch points* [c] in devising the *impact paths* [c] describing how the financial performance outcomes occur [b→c]. This financial business case can be supplemented with a strategic business case to communicate the strategic desirability of the IT investment. In

¹ Bracketed letters correspond to associated bubbles in Figure 4.

² Bracketed arrows correspond to relationships between the bubbles in Figure 4.

order to increase the likelihood that the performance outcomes described in the *impact paths* [c] are realized, the implementation of the *business intelligence* [a] capability is required to conform with existing *global technical platforms* [d] and *global business platforms* [d], [c→d]. In order to ensure conformance to these *global platforms* [d], specific *IT governance structures and processes* [e] are applied [e→d, e→a]. Finally, the implementation of the *business intelligence* [a] capability and the requirements to conform to specific *global technical platforms* [d] and *global business platforms* [d] result in *organization changes* [f], [a→f, d→f]; and, these requirements to conform to the *global platforms* [d] have implications for the financial *business case* [c] put together in support of the *business intelligence* [a] IT investment [d→c].

Figure 4
Illustrative Interconnections between the Two Themes

