The Evolving Role of IS/IT Group (and the CIO)

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CIO Collaborative Research on IS/IT Organizational Design and Governance

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Agenda

- Define the Role and Our Interest in the Role of IS/IT
- Complementary Views (5) of the IS/IT Group’s Role
- Implications of the Evolution of the IS/IT Group’s Role
- Discussion

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Role

... describes the expectations of the organization

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History of Role Change in IS/IT

![Source: Forrester 2007](image)

- Data Processing
- MIS
- IT
- Business Technology

1960 1980 2000

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Forrester (2007) Change Perspective

- “Clients are no longer satisfied with simply aligning their technology to their business goals, but instead want to fuse them together – a concept that Forrester calls Business Technology (BT)”

- “Innovation is the latest buzzword in the IT services industry”

- “A firm’s competitiveness... is derived less from inventive technologies and more from their innovative business applications”

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Gartner (2007) Change Perspective

“At least 75% of IT organizations will change their roles in 5 years”

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Enterprise Architecture – the organizing logic for business processes and IT infrastructure reflecting the integration and standardization requirements of the company’s operating model.

“Top performing companies have more mature architectures”

“In my twenty years as a senior executive in the area of information systems and technology, I have experienced several significantly different expectations for the IS group:... Some of the variation in expectations can be related to the nature of the companies and industries in which I served. However, much of the variation reflects the evolution of technological and global competitive conditions that place an emphasis on integration and innovation in the organization. As the demands on a company evolve so must the IS organization evolve.”

Enterprise Architecture is not Information Technology Architecture:

“... internal and external factors, such as increasing organizational familiarity and expertise with core technologies, changing IT functionality, or competitive dynamics, naturally encourage both further experimentation and increasing integration of technology with core business processes. These changes trigger transition in the role of IT”

“Operations Improvement Partner”
“General Partner”
“Supporter”
“Business Innovation Partner”

Balagna, Adams, Xia 2008
Why do we care that the role of IS/IT is evolving?

Performance = f (role/capability alignment)

Analogies
- McKinsey 7S Model
- Hayes & Wheelwright Product/Process Matrix
- Ball, Adams, Xia Role Capability Matrix

Five Complementary Views of IS/IT Evolution
- Applegate, Austin & McFarlan
- Forrester
- Gartner
- Ross, Weill, Robertson
- Balagna, Adams & Xia

Applegate View
- Based on McFarlan (1984) Matrix
- Business Implications of the IT Applications Portfolio (Sustaining)
- Business Implications of the IT Project Portfolio (Growth)

Role Categories
- Factory: Efficiency & Reliability
- Strategic: Operational Discipline & Business Agility
- Support: Low Cost, Stability, Incremental Improvement
- Turnaround: Experimentation & Exploitation

Impact of IS/IT Applications on Future Industry Competitiveness

McFarlan, 1984
Increasing familiarity and expertise with core technologies
Changing IT functionality
Competitive dynamics

Demand for Innovation
Potential for IT-enabled Innovation

IT-Business Relationship Concerns
- IT are business process specialists
- IT are key integrators
- IT is concerned for architectural coherence, technology mastery, and shared services
- Business users are sophisticated in IT
- Important to react to consumer technology
- Web 2.0 makes collaborative creativity important
- Mobile technology is important to business
- Governance of investment vs. support authority/ responsibility

What Kinds of Innovation Do Businesses Want?
- New business models
- New integrated, collaborative business processes
- New products
- New services and experiences

1. 40% of CEOs (2006) stress the importance of business model innovations.
2. 55% of C-level executives say new business models give greater advantage than new products.
Not to Align, but to Fuze (Business Technology)

Engaging Client as True Collaborators in Value Creation

- Discovering non-intuitive business opportunities in the "unflat" world
- Co-developing best-of-breed transformational solution
- Co-financing the solution deployment by sharing risks and rewards with clients.

Changing Business, Technology and Markets

- Globalization
  - uncertainty
  - novelty
  - variation
- New IT Frontiers
  - non-routine decisions
  - leisure and lifestyles
- Consumerization of IT
- New delivery models (SOA, RTI)

Gartner View Change Drivers

- Changing business, technology and markets
- Increased complexity
- Commoditization of services and capabilities
- Importance of process design
- Need to fuse technology, business process design and business relationships

Themes for IT service delivery – virtualization, globalization, and specialization
Analogy to business functions (payroll)

- All technology sectors (software, hardware, networking, and telecommunications)
- Multi-sector vendors will reduce sourcing integration complexity

Shift IS/IT management priorities from technology to business process and relationships (50% of large firms by 2011).

A strategic advantage is achieved if you can build the capability to fuse technology, business process design and business relationships.
As the firm transitions through stages of Enterprise Architecture maturity, the role of the IT group evolves.
Define/choose an Operating Model

Develop a core diagram of a “system” that encapsulates the EA.

Categories/Types of Operating Models:

Two dimensions – need for integration and need for standardization:

- Coordination
- Unification
- Diversification
- Replication

Low

High

Business Process Standardization

Elements of the Core Diagram

Core Business Processes

Shared Data

Key Customers

Linking & Automation Technology

Elements of the Delta Core Diagram

Operational pipelines

Delta nervous system

Enterprise Architecture Maturity Stages

Role of IT is to build reusable data and business process platforms that enable collaboration and innovation.

Role of IT is to provide seamless linkages between business process modules built on standard code, with process modules linked through standardized interfaces.
CIO is the key driver of Enterprise Architecture benefits.
Role changes with EA maturity

Key concept is IS/IT involvement in the business.

Types of IS/IT Group Roles

Both the primary and alternative languages are English.
Factors Affecting Role Adaptation

- CEO Assessment of CIO
- CIO Interest in Modified Role
- C-Group Acceptance of CIO Role
- Ability of IS/IT Groups to Attract and Retain Appropriate Talent

Changing Skill Set Requirements

<table>
<thead>
<tr>
<th>Required Skills</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business/Managerial</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Project Management</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>Communication</td>
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<tr>
<td>Teamwork</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>Business Expertise</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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</tr>
<tr>
<td>Technical</td>
<td>0%</td>
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Substantial Change

Drivers
- Increasing familiarity and expertise with core technologies
- Changing IT functionality
- Competitive Dynamics
- Changing Business, Technology & Markets
- Increased Complexity
- Commodity of Services
- Importance of process design

Common Threads and Themes

- Substantial Change
- Drivers
  - Increasing familiarity and expertise with core technologies
  - Changing IT functionality
  - Competitive Dynamics
  - Changing Business, Technology & Markets
  - Increased Complexity
  - Commodity of Services
  - Importance of process design

Common Threads and Themes

- Expertise
  - More business; less technology
  - Innovation
  - Integration / Standardization
  - Multi-sector Sourcing
- Issues
  - Attention to Changes
  - Interest in Change
  - Availability of Appropriate Talent

Career Strategic Planning Assumptions Year-by-Year

<table>
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<tr>
<th>Year</th>
<th>Planning Assumption</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>25% of applications will be delivered by IT-utility-style computing, enabled by real-time infrastructure (RTI), up from less than 5% in 2005.</td>
<td>0.7</td>
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Year Planning Assumption

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<tr>
<td>2011</td>
<td>50% of IT organizations will refocus on brokering services and shaping business demand, rather than on delivering IT services directly, from about 5% in 2004.</td>
<td>0.7</td>
</tr>
<tr>
<td>2011</td>
<td>Design and management of business processes and relationships will supersede the management of technology as the leading value contribution for more than 50% of former IT organizations in $1 billion-plus enterprises and for more than 30% of established IT services businesses.</td>
<td>0.7</td>
</tr>
<tr>
<td>2011</td>
<td>The IT profession will split into four domains of expertise: technology, information, process and relationships.</td>
<td>0.8</td>
</tr>
<tr>
<td>2011</td>
<td>IT organizations in 2011 will have 20% fewer people, 40% less in-house technology roles and double the number of information, process and business roles compared with those in 2005.</td>
<td>0.7</td>
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IT contribution will be cited in the top three success factors by at least half of top performing businesses; and IT barriers will be cited in the top three failure factors by at least half of the lowest performers.

Businesses that connect the design of information and business process with technology will exceed average sector performance by at least 15% until at least 2011.

Business processes, information and relationships will be more than half the value focus of most former IT organizations in large enterprises.

Business processes, information and relationships will be more than half the value focus of most former IT organizations in large enterprises.

What are the characteristics of this transformation that you have noticed in your organization?

Is your IS/IT function embracing or shunning this change?

How is your particular role changing as a result?

Thank you!