Agenda

• Introductions
• What is IT Governance?
• The Five Elements of IT Governance
• Why should IT and Internal Audit care about IT Governance?
What is IT Governance?

• The Institute of Internal Auditors (IIA) and the IT Governance Institute (ITGI) define IT Governance as the ability for the enterprise’s IT to sustain and extend the organization’s strategies and objectives.

• IT Governance is facilitated through the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Recognition of the relationship between IT objectives and the current/strategic needs of the business by IT management, and the ability to effectively communicate this message to both IT and business personnel.</td>
</tr>
<tr>
<td>Organizational Structures</td>
<td>The enablement of dialogue and accountability between business and IT personnel through the current organizational structure. This should include the existence of necessary roles and reporting relationships to allow IT to adequately meet the needs of the business.</td>
</tr>
<tr>
<td>Processes</td>
<td>The formalization of efficient process activities, integrating key control activities, to meet the needs of the business while providing the necessary assurance over financial statements.</td>
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• Effective IT Governance is the responsibility of all of the organization’s executives and the board of directors.
<table>
<thead>
<tr>
<th>Strategic Alignment</th>
<th>Risk Management</th>
<th>Performance Management</th>
<th>Resource Management</th>
<th>Value Delivery</th>
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</thead>
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Source: IT Governance Institute. Five Elements of IT Governance
The Five Elements of IT Governance

<table>
<thead>
<tr>
<th>IT Governance Practices and Goals</th>
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<tr>
<td><strong>Strategic Alignment</strong></td>
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Source: IT Governance Institute. Five Elements of IT Governance

- The **Five Elements of IT Governance** as defined by the IT Governance Institute is used by the project team to identify the specific governance practices and goals to be reviewed during the audit.
- This industry standard framework consists of the five components listed in the graphic above.
- Additional information related to each element is available in the following slides, including:
  - Specific objectives for each component
  - Example documentation
  - Typical areas reviewed
Objective:
Determine if a relationship exists between IT and business objectives and if this relationship has been established through participation between both IT and business management.

Example Review Documents:
- IT Strategic Plan
- Third Party service provider agreements and RFP process

Typical Areas to Assess:
- Is IT management aware of the overall business strategy?
- What is IT’s involvement in defining the business strategy?
- Do current IT initiatives relate to one or more of the organization’s strategic objectives?
- Is there a clear line of communication between IT and business management?
- How do 3rd party service providers support business objectives?
- What IT archetype is necessary to support the business objectives?
Utility Provider

Process Optimizer

Revenue Enabler

Source: IT Process Institute. IT Strategic Alignment Benchmark.
ITPI Strategic Alignment Benchmark

IT Organizational Types

The IT Process Institute’s IT Strategic Alignment Benchmark study (see Appendix) can be used to better understand the current and desired future state of the IT Organization’s strategic alignment. Based on this research, IT organizations fit one of three types* when considering IT and Business Alignment:

<table>
<thead>
<tr>
<th>IT Organizational Types</th>
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</thead>
<tbody>
<tr>
<td>Utility Provider</td>
<td>Not always engaged with the business. Focused primarily on providing shared information management services and support needs.</td>
</tr>
<tr>
<td>Process Optimizer</td>
<td>Responsive to the business. Focused on shared information management services and support, plus improving business applications and business processes.</td>
</tr>
<tr>
<td>Revenue Enabler</td>
<td>Well integrated into the business. Focused on shared information management services, business process optimization, and technology enabling products and services.</td>
</tr>
</tbody>
</table>

The dominant organizational type helps to define and clarify IT’s focus and its impact on the overall business strategy

- When an IT organization focuses on adding business value without confirming the type fit, it risks becoming fragmented as it attempts to move in multiple, counterproductive directions.
- Business executives may not clearly articulate the business strategy, IT management may not be actively integrated into the business, or a combination of the two may exist.

* - Source: The ITPI IT Strategic Alignment Benchmark.
## ITPI Strategic Alignment Benchmark

### Nine Organizational Attributes

The following chart outlines the specific organizational attributes which are used to determine the type of IT Organizational structure is in place:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Information Management</th>
<th>Business Process</th>
<th>Strategic Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purpose</td>
<td>Provides shared services—common infrastructure and information management</td>
<td>Enables business unit objectives, and focuses on application and process improvement to differentiate customer offerings</td>
<td>Enables technology-based products and services to enter new markets</td>
</tr>
<tr>
<td>2. New technology requirements</td>
<td>Improve cost and efficiency</td>
<td>Meet specific business function requirements</td>
<td>Enable new product or service</td>
</tr>
<tr>
<td>3. CIO role</td>
<td>Operations expert</td>
<td>Business manager</td>
<td>Corporate strategist</td>
</tr>
<tr>
<td>4. CIO reports to</td>
<td>Finance or Operations</td>
<td>Business unit executive</td>
<td>CEO / President</td>
</tr>
<tr>
<td>5. IT funding source</td>
<td>Independent as shared service</td>
<td>Part of business unit budget cycle</td>
<td>Part of enterprise strategic planning</td>
</tr>
<tr>
<td>6. Success metrics</td>
<td>Operating performance SLAs and user satisfaction</td>
<td>Project success and business unit executive satisfaction</td>
<td>Enterprise-level revenue contribution</td>
</tr>
<tr>
<td>7. Business strategy participation</td>
<td>IT is not involved in determining business goals and strategy</td>
<td>IT collaborates at the business-unit level</td>
<td>IT plays a proactive role in shaping corporate strategy</td>
</tr>
<tr>
<td>8. Competitive advantage contribution</td>
<td>Cutting costs, reducing inefficiencies, and enabling better decision making</td>
<td>Optimizing business functions and business processes to differentiate existing products and services</td>
<td>Creating new technology-enabled products and services that change the rules of the game</td>
</tr>
<tr>
<td>9. Investment justification</td>
<td>Cost savings and business process efficiency gain</td>
<td>Revenue or profit gains from existing products and services</td>
<td>Revenue and profit that are generated by new products or new markets</td>
</tr>
</tbody>
</table>
Risk Management
Risk Management

Objective:
Determine if activities are conducted relating to the identification and analysis of risks impacting the achievement of business objectives and the preparation of financial statements.

Example Review Documents:
- Business Continuity and Disaster Recovery Plans and Test Results
- IT Risk Assessment
- 3rd Party Service Provider Agreements and Request For Proposal Policies and Procedures

Typical Areas to Assess:
- Is a process in place to assess, address, and communicate IT risks to key stakeholders and executive management during the project, change, and release management processes?
- How does IT select and manage third party vendor relationships?
- Does a business continuity and disaster recovery plan exist and is it tested on a periodic basis?
- Does a risk management plan exist and are risk management activities incorporated into project, change, and release management process?
- Do discussions between IT, Business, and Compliance leadership occur in order to identify ways in which the IT environment can assist in strengthening the organization's control environment?
16% of companies don’t conduct IT risk assessments.
Performance Management

<table>
<thead>
<tr>
<th>Stock</th>
<th>Volume</th>
<th>Price</th>
<th>% Price Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYZ</td>
<td>1000</td>
<td>50.00</td>
<td>+2.00%</td>
</tr>
<tr>
<td>ABC</td>
<td>500</td>
<td>20.00</td>
<td>-1.50%</td>
</tr>
<tr>
<td>DEF</td>
<td>300</td>
<td>15.00</td>
<td>+0.75%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Revenue</th>
<th>Profit</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company A</td>
<td>$100M</td>
<td>$10M</td>
<td>+5%</td>
</tr>
<tr>
<td>Company B</td>
<td>$120M</td>
<td>$15M</td>
<td>+3%</td>
</tr>
<tr>
<td>Company C</td>
<td>$90M</td>
<td>$8M</td>
<td>-2%</td>
</tr>
</tbody>
</table>

Note: The above information is for illustrative purposes only.
Performance Management

Objective:
Determine if the effectiveness of IT systems, processes, and personnel, internal and external, are being monitored for alignment with business needs.

Example Review Documents:
- Performance metrics for services, projects, processes, and systems
- Reports of IT’s performance against defined metrics to key stakeholders and executive management
- 3rd Party Service Level Agreements
- Incident and Problem Management Policies and Procedures
- Cost Allocation Policies and Procedures

Typical Areas to Assess:
- Does the IT organization report performance metrics to key stakeholders?
- Are processes in place to review key performance metrics and correct items falling below a reasonable level?
- Do performance management activities consider both internal and 3rd party IT activities?
- Is IT performance reported in IT or Business terms? Are the metrics operational, strategic, or both?
- Is a process in place to establish performance metrics based on changing business needs?
- Do the Board of Directors and Executive management have an awareness of IT performance based on quantifiable data?
Resource Management

Objective:
Determine if adequate activities are being performed to align the use of resources (applications, information, infrastructure, people) to meet the needs of the business.

Example Review Documents:
- IT Organization Chart
- IT Job Descriptions
- Sourcing Strategy for IT projects
- IT Segregation of Duties Requirements
- IT Asset Management Policies and Procedures

Typical Areas to Assess:
- Are processes in place to assess and implement IT segregation of duties?
- Has an IT sourcing strategy been established that align with business objectives?
- Do IT resource dedicate more time to operational or strategic objectives?
- Does the IT department have processes in place to facilitate knowledge sharing within the department and with the business?
- Have IT resources (employees, applications, hardware) been optimized to support business objectives?
- Have formal job descriptions and reporting relationships been created and communicated for all IT positions?
- Has an asset management program has been established?
Value Delivery

Objective:
Determine if IT is effectively managing costs as they relate to meeting business objectives and communicating this management to the appropriate individuals.

Example Review Documents:
- IT Steering Committee Meeting Minutes
- Policies and Procedures for the Development and Management of IT projects
- IT Budget

Typical Areas to Assess:
- Is there a clear relationship between IT project performance indicators and business objectives?
- Has the IT budget been communicated to business leadership? Does business leadership understand the investments that have been made in IT?
- Does IT actively communicate the expected and realized value of IT projects?
- Does the business rely on the integrity and accuracy of data captured and reported by IT systems?
- Do IT and business leaders meet on a periodic basis to review the current and upcoming IT initiatives to reassess alignment with business objectives?
Why should IT and IA care?
Why should Internal Audit care about IT Governance?

• In January 2009, the IIA released its revised International Professional Practices framework which requires that:

  The internal audit activity should evaluate risk exposures relating to the organization’s governance, operations, and information systems regarding:
  • Reliability and integrity of financial and operational information
  • Effectiveness and efficiency of operations
  • Safeguarding of assets
  • Compliance with laws, regulations, and contracts

• Subsection A2 further clarifies this requirement as it applies to Information Technology

  The internal audit activity must assess whether the information technology (IT) governance of the organization sustains and supports the organization’s strategies and objectives.

• This new requirement can be achieved through:
  • Findings from individual internal audit projects (both process and IT)
  • Deliverables from the IT Risk Assessment used to create the annual internal audit plan
  • Completion of a separate and discrete IT Governance audit or review
Why should Internal Audit care about IT Governance?

• While organizations should audit their IT governance in accordance with the IIA’s International Standards, there are many more compelling reasons to assess these capabilities.

• IT governance has the ability to significantly impact the organization as a whole, including the:
  – Relationship between the business and IT
  – Balancing of Demand and Service capabilities
  – Visibility into IT management’s ability to achieve its objectives
  – Adaptability of IT to a changing business environment
  – Management of risks and identify continuous improvement opportunities for business and IT outcomes

• In fact, recent research from the MIT Sloan Center for Information Research found that “firms with superior IT governance have (on average) 20% higher profits”
70% of companies have not evaluated and assessed their IT governance process.
The following are typical indicators of need for an IT Governance Audit:

- The business and IT do not work in conjunction to define IT objectives
- IT and Business objectives are not aligned
- IT does not effectively manage costs to meet business objectives
- IT risks are not identified, assessed, or mitigated to meet business objectives
- IT resources are not effectively aligned to meet business objectives
- Internal and external IT systems, processes, and personnel are not monitored for determine if business needs are being met
- The business does not recognize the value from its IT investments
- Applications are acquired and/or managed without the involvement of IT personnel
For More Information

For additional information, please contact:

Timothy Maloney

protiviti®

Risk & Business Consulting.
Internal Audit.

One PPG Place, Suite 2350
Pittsburgh, PA 15222

Direct: 412.402.1720
Mobile: 412.303.6338
Fax: 412.402.1791
Timothy.Maloney@protiviti.com

Additional information can be found through our online services:

- Protiviti.com
- KnowledgeLeader.com
- Twitter.com/protiviti
- Protiviti’s Powerful Insights Podcast
  (available through iTunes and Protiviti.com)
Appendix

About the IT Process Institute & the IT Strategic Alignment Benchmark Study

Powerful Insights. Proven Delivery.
About the IT Process Institute

The IT Process Institute, founded in 2002, is a not-for-profit organization formed by IT practitioners and academics (Carnegie Mellon, FSU) to support IT audit, security, and operations professionals.

Focus: Research, benchmarking, and prescriptive guidance
Goal: To measurably enhance efficiency & effectiveness of IT operations & controls
Approach: Pairing industry based volunteers with leading university researchers, to identify and study top performing IT organizations

The Visible Ops Handbook™
- Based on 5 years studying high-performing IT Operations & Security organizations
- Over 40,000 copies in print
- 100 pages long, dense type but easy to read
- Owned by the ITPI, jointly developed by IT practitioners and academic research

*TM, 2004 IT Process Institute, Inc. Visible Ops is a registered trademark of IT Process Institute. All rights reserved.

Protiviti and the ITPI
Protiviti is a Managing Sponsor of the ITPI, and actively participates in the investment, development, and implementation of ITPI research in the global market.

We assist clients by applying ITPI research to improve their overall performance through:
- Awareness of research / study findings
- Controls / performance benchmarking vs. market & industry leaders
- Advising on improving IT alignment and performance
Stakeholder Benefits of the ITPI’s Research

The ITPI’s Research and Benchmarking tools focus on how IT controls improve operations, security, and audit results at top performing IT organizations:

- Identifies specific IT controls and processes that have the greatest impact on performance
- Quantifies the types of performance improvements organizations achieved by investing in certain controls and activities
- Outlines the specific differentiators between high, medium and low performers
- Presents many concepts/benefits in terms of risk reduction, enhanced asset ROI, improved performance, not just good-better-best

Value for the CIO and IT:

- Unique empirically-based content that demonstrates how formalized processes and IT controls can be a source of value creation not merely a cost of doing business
- Compelling statistics that empower IT executives to make the business case for spending on formalized process and IT control activities
- Clear messaging about how effective management of key process and controls not only reduce risks, but measurably improves IT performance, value, and ROI

Value for the CFO and the Business:

- Provides the data needed to quantify the hard costs of a poorly performing IT Depts.
- Provides a tool for identifying IT productivity leaks and identifies the controls necessary to measure and plug them
- Provides a comparative framework for judging the performance of IT assets
- Provides the necessary information to calculate hard dollar ROI for certain:
  - IT Control improvements
  - IT Process improvements
IT Strategic Alignment Study

Research Approach

**Basic Question:** How can organizations manage IT for competitive advantage?

**Focus:** Determine the specific practices that enable IT strategic alignment success.

**Study Approach:**
- Cluster participants into one of three IT Value Archetypes based on answers to nine attribute questions
- Identify alignment challenges faced by each archetype
- Identify practices that optimize strategic alignment for each archetype
- Establish recommendations on how organization’s can transition to other archetypes
IT Strategic Alignment Study

Key Facts

Study Demographics . . .

– 269 North American companies represented across various industries

– Respondent company annual revenues greater than $100 million
  • 33% - $100M to $250M
  • 34% - $251M to $1B
  • 21% - $1B to $10B
  • 12% - >$10B

– IT managers and executives
  • 21% - Managers
  • 42% - Directors
  • 33% - VP/Executive
  • 4% - Individuals

Study Details . . .

– Benchmark surveys completed October 2007

– 49 alignment practices
  • Strategy/Prioritization
  • Use of business-linked performance metrics
  • Governance, Budget, and Prioritization practices
  • Use of common architecture/standards
  • Business skills of IT organization

– 16 alignment measures on 1-10 scale
  • Business Alignment
  • Service Delivery
  • Cost Efficiency
  • Agility
  • Innovation
How did the ITPI determine what data and performance measures to study?

9 Value Archetype Attributes
- Purpose
- Technology Requirements
- CIO Role
- CIO Reporting Structure
- IT Funding Source
- Success Metrics
- Business Strategy Participation
- Competitive Advantage Contribution
- Investment Justification

49 Strategic Alignment Practices in 5 Categories
- Strategy and Prioritization
- Use of Business-linked Performance Metrics
- Governance, Budget, & Prioritization Practices
- Use of Architecture and Standards
- Business Skills of IT Organization

16 Performance Measures in Five Areas
- Business Alignment
- Service Delivery
- Cost Efficiency
- Agility
- Innovation

IT Strategic Alignment Study
Measuring Activities & Performance
IT Strategic Alignment Study

The Three IT Value Archetypes

Study participants were placed into one of three IT value archetypes based on their answers to nine attribute questions. The IT value archetypes are:

- **Utility Providers** are not actively engaged with the business. They focus primarily on providing shared information management services.

- **Process Optimizers** are responsive to the business. They focus on shared information management services plus business applications and business process optimization.

- **Revenue Enablers** are well integrated into the business. They focus on shared information management services, business process optimization, and technology-enabled products and services.
IT Strategic Alignment Study

Key Takeaways

The study revealed that:

- Mixed objectives suggest that each archetype group requires scaled sets of competencies as the organization focuses on more than shared information management services.
- Specific technologies, IT strategies, and best practices do not apply equally well to all business strategies in all organizations.
- Practice alignment can be assessed only after verifying that the current IT archetype fits appropriately with the current business strategy.

Further, there is a distinction between Business Alignment versus Business Integration

- **Revenue Enablers** have the highest alignment performance scores:
  - They are tightly integrated with the business
  - They have the least control over their budget, but have the highest budget growth

- **Utility Providers** have the lowest alignment performance scores:
  - They are more loosely aligned with the business
  - They have the most control over their budget, but have the lowest budget growth
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