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Audit's Role in

Corporate IT Initiatives

Monitoring and Controlling System Implementation and Integration Risk

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Agenda
Audit's Role in Corporate IT Initiatives

- Initiative Definition and Risks

- Example

- Project Risk Assessment and Evaluation Framework

- Take Aways

- Questions & Discussion

Room Temperature

- **How often do your company's projects fail?**

  Never – Sometimes – Often – Always – Don't Know

- **How often do projects fail to deliver pre-defined business objectives?**

  Never – Sometimes – Often – Always – Don't Know

Key Themes

- **Projects are important and typically terribly managed**

- **This is a business issue – not only an IT or project management issue**

- **Auditors can play a key role helping secure project success, expected benefits and good governance**

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Initiative Definition and Risks

Projects: How Work Gets Done

- Companies typically have two types of activities:
  - Process or day-to-day activities and
  - Projects or activities with defined resources, timing and outcomes
  - Example projects: System implementation, process re-engineering, product launch, mergers/JV, facility consolidation, Sarbanes-Oxley
- Corporate Initiative activity is material and fluctuates over time; typical IT project spending runs from 1% to 25% of IT costs for large organizations[1]
- While incremental or marginal to overall costs, initiatives are often key to new customer or regulatory requirements – they keep the lights on or support key incremental business opportunities to increase revenue or margins
- Each business capability and process existing today was a project at one point in time
- As a project is discrete – deciding what to do, or not do, is the most critical point of control

[1] E&Y estimates, value may be considerably greater; fluctuates over time

Business evolves over time as a function of the collective results of projects.

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IT Projects—The Value Gap

- Performance Varies: "Range of effectiveness varies as much as 15 to 11"
- "Over 30% projects cancelled; less than 20% successful based on schedule, cost and quality[1]"
- The Standish Group reviewed 23,000 IT projects reporting 28% failed (abandoned) and 46% were late and over-budget.[2]
- "...only 14% of CFOs believe IT spending is under control, and only 36% believe CIOs are effective at controlling IT spending.[3]"

[1] PMO's: Projects in Harmony, Shawn Bohner
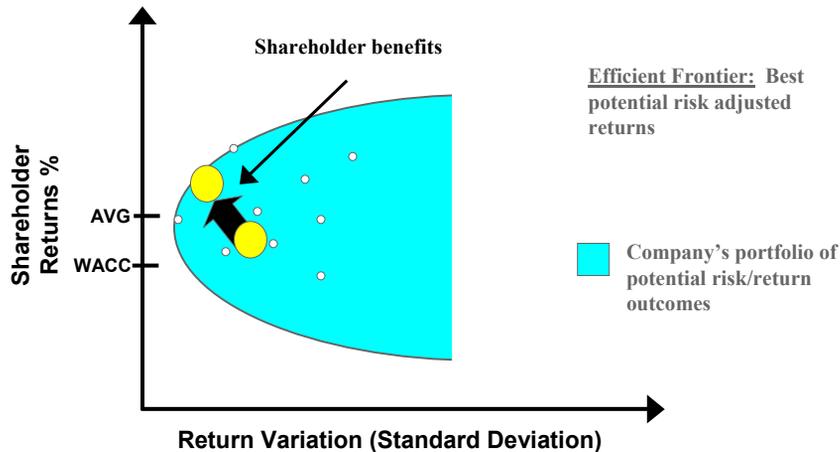[2] The Chaos Report, The Standish Group
[3] The ROI of IT, Martha Heller, PTRM Performance Measurement Group

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Drivers of Change

- Better control and planning of projects through structured planning, identified control points and effective reporting and progress tracking.
- Better optimization of skills and resources through realistic planning and estimation and resource management.
- More effective communication between project management, program manager, team members and stakeholders through clear roles, responsibilities, objectives, lines of authority and communication mechanisms.
- SOX and more specifically 404 is making this a Board Room issue.

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Increase Shareholder Returns Across the Project Portfolio

- Project Portfolio Returns and Risk -

Shareholder benefits

Efficient Frontier: Best potential risk adjusted returns

Shareholder Returns %

AVG

WACC

Company's portfolio of potential risk/return outcomes

Return Variation (Standard Deviation)

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What Could Go Wrong/Risks

- Poor project selection
- Poor project definition – wrong scope
- Poor project execution
- Wrong team
- No sponsorship
- Organization or adoption challenges
- Accountability and objective oversight
- Project risks related to time, cost and quality
- Project obsolescence

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The Balancing Act

Corporate initiatives are inherently dynamic with potentially conflicting and mutually exclusive objectives. Managing trade-offs is key.

Time

Cost

Quality

"The Balancing Act"

Audit's Mandate

High risk and high reward creates a mandate for oversight and an opportunity for adding value for auditors.

"Internal auditing is an independent, <u>objective assurance</u> and <u>consulting</u> activity designed to add value and improve an organization's operations." (IIA Standards)

Objective

Independent

Value Added

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Example

Initiative History

- Sporadic history of successful project/initiative implementation – ~50% _Failed_
- Audits of systems and processes identified problems that could/should have been corrected during implementation
- Board mandate for IA to provide "go/no-go" assessment for all "major initiatives"

Originally

Evolution

- Largely focused at point-in-time, deliverable 2 weeks prior to go-live

- Evolved to blend of regular monitoring coupled with traditional "point-in-time" 2 week deliverable

- Need for more frequent "points-in-time" that occur much sooner than 2 weeks prior to go-live→Continuous Approach

Today

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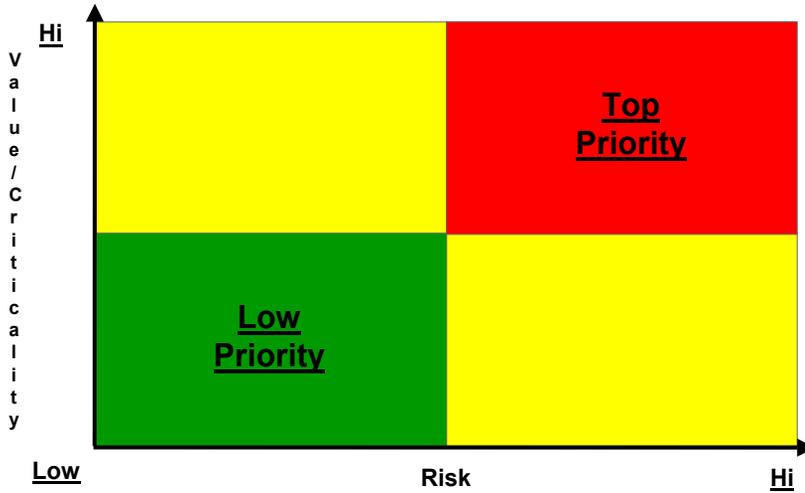**Audit's Role in Corporate IT Initiatives**

Audit Objectives

- Support the delivery of a project that meets the financial and business objectives.
- Achieve stakeholder expectations to provide continuous independent oversight and early warnings about changes to the project's risk profile.
- Help ensure well-controlled business processes are implemented the first time.
  - Financial
  - Operational
  - Compliance
  - Technology
- Assess project progress as it relates to the original business case and budget, as approved by executive management in the context of the business environment.
- Apprise Steering Committee and the Project Management Office ("PMO") about potential deviations from the original business case, timing and validation, if any.

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Key Audit Activities

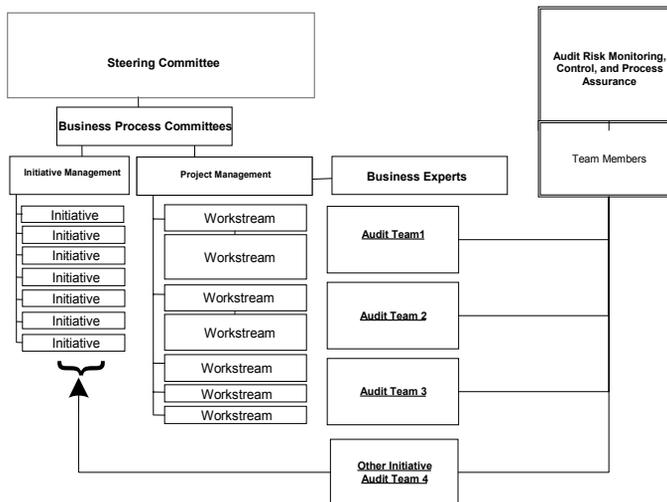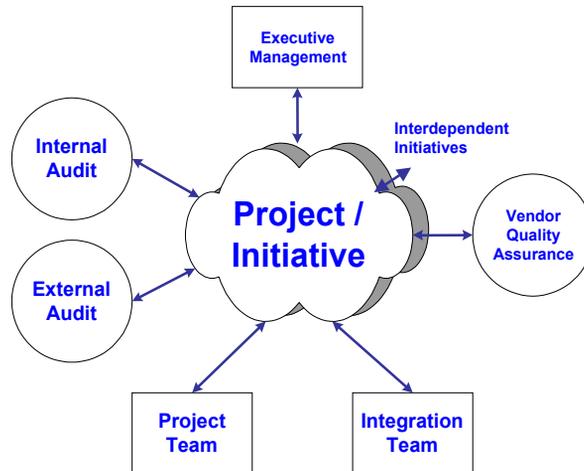|	
Assess Risk	■ Assess initiative portfolio and prioritize initiatives for review
	■ Review and validate business case and project plans
Monitor Project	■ Map Audit's organization to the Project organization structure
	■ Identify key dedicated resources from Audit to provide on-going project advisory feedback
	■ Provide ongoing feedback by participating directly in regular project team meetings
	■ Establish clear issue escalation and communication protocols for Audit
Assess Results	■ Perform post project review and embed key learnings into future efforts

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IT Project Prioritization

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Organization Relationship

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Stakeholder Relationships

Executive Management

Internal Audit

External Audit

Project / Initiative

Interdependent Initiatives

Vendor Quality Assurance

Project Team

Integration Team

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Outcomes Can Be Astounding

- **Improved project completion for multi-million dollar initiatives from less than 50% success to approaching 100%**

- **Increased accountability and visibility for key initiatives – Real Time**

- **Reinforced project discipline**

- **Delivered results – Not issues**

- **Elevated Internal Audit visibility and relationships**

- **Improved executive confidence and reliance on Internal Audit as a business partner**

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Evaluation Framework

Initiative Governance

Business
Objectives &
Governance

Management

Cross-Project
Integration

Business
Process
Integrity

Application
Security

Infrastructure
Integrity

Implementation Integrity

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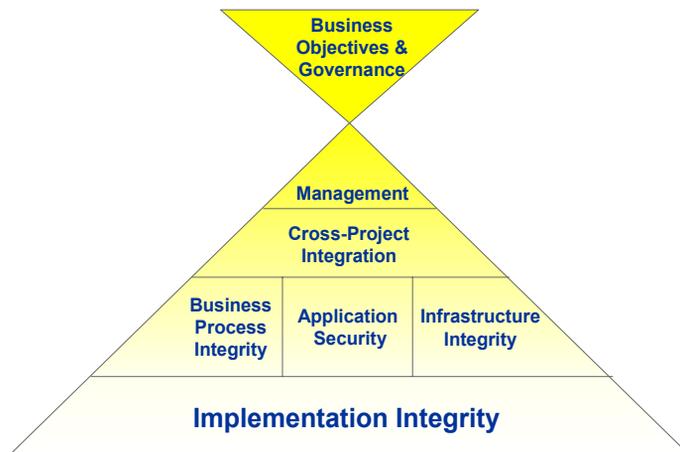
Project Risk Assessment

Project Governance and Management

- Objective: Exceeds Quality, Cost and Time Expectations
- Identify, assess and monitor control mechanisms Examples include:
  - Project charter, business case and budget
  - Project structure, roles and responsibilities
  - Project planning and project plan
  - Milestone management process
  - Project deliverables

Project Risk Assessment

Cross-Project Integration

- Objective: Coordinated and integrated project
- Identify, assess and monitor control mechanisms Examples include:
  - Design and effectiveness of communication plan
  - Requirements definition/integrated process design
  - Responsibility / ownership management
  - Milestone and critical path synchronization

Project Risk Assessment

Business Process Integrity

- Objective: Efficient, Effective and Controlled Business Processes
- Identify, assess and monitor control mechanisms Examples include:
  - Transaction integrity (security, completeness and accuracy) with interfacing systems
  - Test scenarios and script effectiveness
  - Management key performance indicators
  - Transactional and cycle level business process controls (automated and manual) to achieve financial, operational, and compliance objectives

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Project Risk Assessment

Application Security

- Objective: Security-enabled Business Processes
- Identify, assess and monitor control mechanisms Examples include:
  - Strategy and technical design
  - Security administration
  - Password controls
  - Roles and responsibilities/segregation of duties
  - Security logging, reporting and monitoring process

Project Risk Assessment

Infrastructure Integrity

- Objective: Secure, Reliable and Available Information
- Identify, assess and monitor control mechanisms
  Examples include:
    - Network, operating system, middleware and database management system security and administration
    - Capacity planning and performance management process and assumptions
    - Backup and recovery, business continuity plan
    - Physical security

Project Risk Assessment

Implementation Integrity

- Objective: Useful and Quality-Driven Product
- Identify, assess and monitor control mechanisms
  Examples include:
    - Testing results and approval
    - User training content and program effectiveness
    - Service level establishment and monitoring process
    - On-going maintenance process
    - Contingency Planning

Typical Deliverables

Audience	Deliverable	Planned Frequency
Capital Committee Steering Committee	Business Case Validation	Project initiation Periodically based on environment & milestones
Project Teams	Input to risk management, process redesign and controls	Ongoing
Project Teams	Updated issues log	Weekly
Project Teams Steering Committee	Milestone Status Updates and Go/No-go Memorandum	At significant milestones and At least two-weeks prior to go-live date
Steering Committee	Milestone status and risk presentations	Bi-Monthly / Monthly
Steering Committee	Validation and assessment of scorecard information	Quarterly
Audit Committee	Project Status	Audit Committee Meetings
Program Management Office Project Steering Committee Capital Committee Audit Committee	Post-Implementation Audit	90 Days After End of Project 360 Days After End of Project

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Business Case Validation
Quantitative Program Assessment

Illustrative

- Initiative Benefit Opportunities[1] -

Business Case: Performance

Potential[1] Benefit($/Yr)

- Improve reliability 1% — $12.0M
- Reduce maintenance costs 5% — 0.6M
- Reduce inventories 5% — 1.5M

Resources: Program and Project Management

- Reduce time to benefits capture 20% — 0.2M
- Reduce cost of benefits capture 10% — 0.8M

Architecture Integration: Develop, Design and Operate

- Reduce design, development and support cost — NA
- Reduce data integrity and transaction risks — NA

Total: **$15.1M**

[1] Very *high level* estimates by E&Y based on data available, directionally accurate.

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Sample Evaluation Framework

- Project Risk Assessment Dimensions
  - Process: The process is designed to efficiently achieve the underlying control objectives
  - Execution: The execution of the control objectives is occurring effectively.
  - Dependencies: Slippage at this stage of the project will have repercussions on this or other projects

- Project Risk Assessment Indicators
  - Open (White)
    - Related activity not yet started or not applicable at this time
  - Lower (**Green**)
    - No significant problems or issues identified, area appears on plan
  - Moderate (**Yellow**)
    - Issues or potential problems currently not impacting critical path or significantly impacting project economies or scope
  - Higher (**Red**)
    - Significant issues with potential impact to the critical path, project economies or scope.

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Sample Evaluation Framework

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Post-Implementation Topics

- Business Case and Benefits
- Business Process
- Infrastructure
- Application Security
- Implementation Integrity
- Lessons Learned

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Take Aways

Auditor Reality Check:
Ten Things to Think About

- Communicate, communicate, communicate
- Roles and responsibilities
- Flexibility and timing
- Chain of command
- Manage expectations
- Deliverable focus
- Facts and data supporting qualitative assessments
- Don't underestimate commitment
- Need specialists
- Politics as usual

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Lessons Learned

- A clear, objective, detailed, and measurable business case is critical before going ahead
- Post-audit outcomes to plan and learn. This is not just to time and budget – but business outcomes
- Integrating with team helps "bake in" risk and project management best practices
- Independent, executive level reporting for transparency and accountability
- Continuity counts – it is hard to meet the business objectives if you do not know or understand them
- This is Business Management - not just Project Management

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Do You Know?

- What do you spend on Corporate Initiatives?

- What is the process for managing Initiatives?
  - Selection and Definition?
  - Execution?
  - Accountability and Continuance?

- How much could this be worth to your company?

Resources

- Information Systems Audit and Control Association
  - www.ISACA.org
- Project Management Institute (PMI)
  - www.PMI.org
- Ernst & Young
  - www.ey.com
  - Tim Stephens, tim.stephens02@ey.com, 415-951-3034
  - Tom Magee, thomas.magee@ey.com, 650-849-4734
  - Jan Bono, jan.bono@ey.com, 925-977-3987

Questions/Comments