

IT Internal Audit: *The Evolving Role of a Technologist*

August 7, 2008

Presented to: The Dallas Chapter of the Institute of Internal Auditors

These slides are incomplete without the benefit of the comments made at the session. The information and considerations presented herein do not constitute legal or any other type of professional advice.

Today's Agenda

- Brief History of Profession
- Stereotypes & Value Perception
- CIO Agenda- *what does it mean to IT audit?*
- IT Auditor's Evolution
- Strategic Controls Advisor
- Key Considerations

Questions to contemplate

- Do I have the right skill sets to deliver the “new value proposition” for IT Internal Audit?
- Have I been appropriately delivering the right messages to the various stakeholders on my past audits?
- What immediate impact can IT Internal Audit have on the organization if we are delivering the right messages at the right level?

Brief History of Profession

A look Back ...a brief timeline

- Prior to late 1950's, audits had very little, if any, focus on computers
- The advent of GE's 1st accounting system led to a new genre of auditors, EDP auditors (electronic data processing auditors)
- Mid 1960s brought on more new computers and increased use of computers within businesses, thereby escalating the need of IT savvy auditors
- The AICPA and the major accounting firms introduced the concept of EDP auditing around late 1960s
- Into the 70s, associations specific to IT audit professionals and COBIT framework were created
- As the decades passed on, technology developed rapidly and IT auditors were expected to be the technical wing of the Internal audit department
- Sarbanes-Oxley brought about an unprecedented demand for IT auditors ...

So Why Look Back?

- The events that drove the need for technical auditors who understood complex computer systems, also placed IT auditors in silos
- IT auditors understood the details of a computerized landscape as only those who created it could; the rest of the business only understood the basics
- Technology Risks were viewed as technical risks vs. business risk...therefore..
- IT auditors began to be viewed as technologists vs. business savvy auditors with a technology focus

Stereotypes & Value Perception

General Perceptions (& Misconceptions)

- Highly technical individuals
- Unable to translate IT risk to business risk
- Very focused/narrow view:
 - Project Driven (pre & post implementation reviews)
 - Technology driven (security audits)
 - Event driven (DRP)
 - Legislation/compliance driven (SOX, HIPAA, PCI)

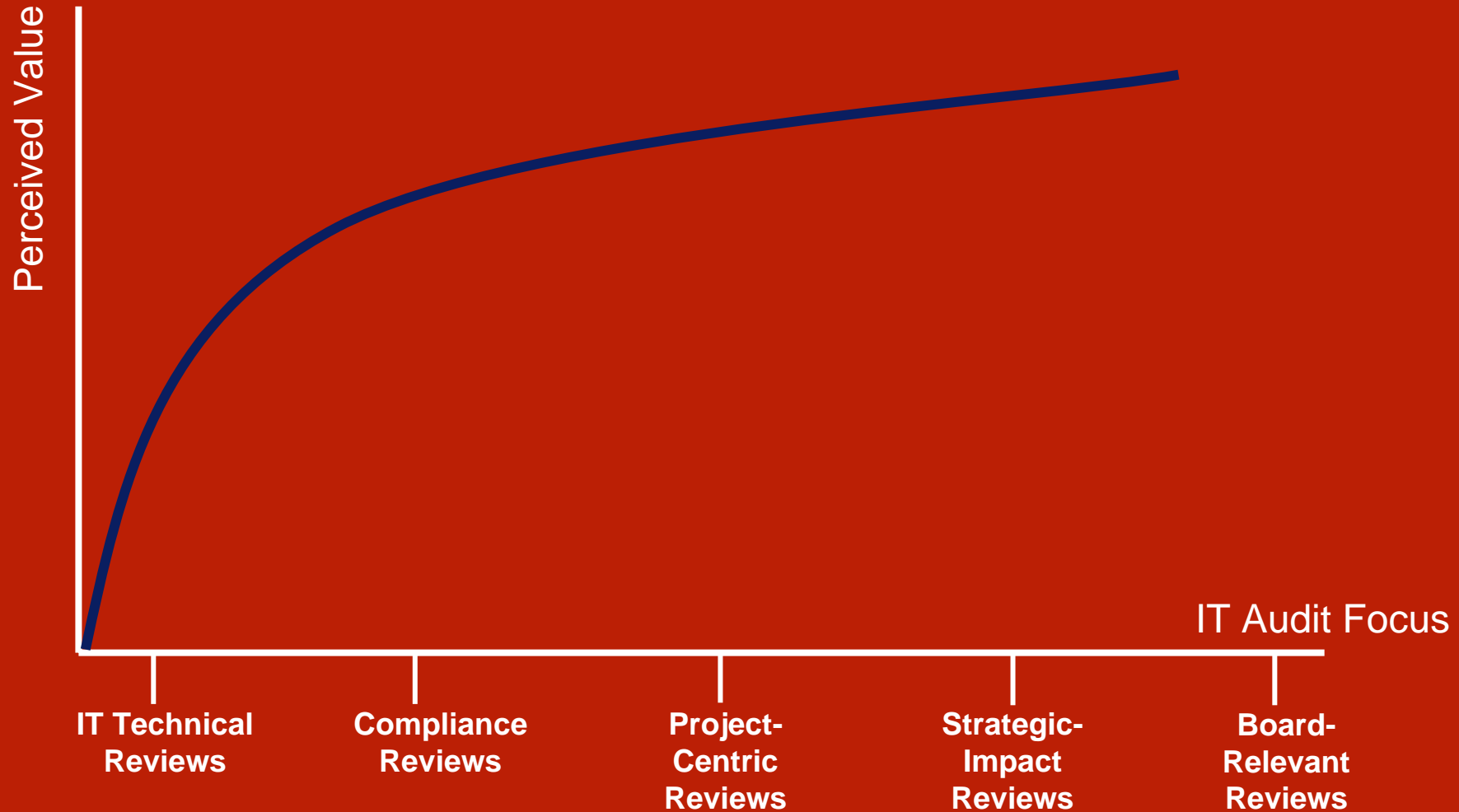
“The traditional IT auditor is more comfortable at the detailed level and, if left to their own devices, will test and test and test!”

Head of Internal Audit

PwC Survey-“IT Risk- Closing the Gap”-2007

PricewaterhouseCoopers

Value Proposition is defined by the varied focus of Internal Audit Functions



Actual Value is determined based on business priorities

Should IT auditors only focus on those audits typically seen as “high value”?

- Yes and No
- As IT Auditors’ value perception changes in the marketplace, mature internal audit functions are learning to develop a balance
- IT Risk assessments should focus on a balanced portfolio of risks: operational, strategic & technical
- Generally, management and boards do not have a clear understanding of IT Risk; more importantly, they do not understand the impacts IT risks can have on the business...

Is this a gap that IT internal audit can fill?

Do IT Internal Auditors have a clear understanding of what is on the CIO’s, Board’s and Key Management’s Agenda?

CIO Agenda-*What does it mean to IT audit?*

What is the CIO Agenda?

- Simply put, the CIO agenda are key priorities for an IT organization
- CIOs are driven more than ever before to leverage technology and drive business performance & customer value through:
 - Technology Integration
 - Strategy
 - Architecture
 - People
 - Performance
 - Processes



The CIO Agenda

KEY IT PRIORITIES	DESCRIPTION
Aligning IT Strategy to Business Imperatives	IT organization with the business analytic, design and implementation skills to relate to the business and help the business with insights into how to better achieve the business
Enterprise Data Management & Business Intelligence	An Enterprise Data Management (EDM) program enables organizations to organize, design, and safeguard information assets throughout the information lifecycle, from acquisition to distribution and ultimately retirement. A successful EDM program is build upon a foundation focused on Standards and Architecture, Governance, Organizational Design, Process, and Monitoring/Measurement.
Improving IT ROI	IT spend and performance is made truly visible and transparent to the business, thereby instilling increased accountability within the business.
Driving Supply Chain Efficiencies	Improving procurement organizational model; standardizing and optimizing procure-to-pay processes; maximizing use of technology and data management

KEY IT PRIORITIES	DESCRIPTION
<p>Realize Benefits from ERP Solutions</p>	<p>ERP systems – and other enterprise apps are undergoing a structural transition over the next 5 years that will fundamentally change the nature and purpose of enterprise software (ES). It will be the end of “you can manage the process any way you like as long as it conforms to the SAP process,” and the beginning of enterprise investments in differentiating, vertical business processes designed to achieve unique value propositions for customers</p>
<p>Gaining Advantage through outsourcing, offshoring & shared services</p>	<p>Analyze and validate off shoring and shared services initiatives for business effectiveness and/or contract performance (both prior to and subsequent to agreement).</p>
<p>Deploying Enterprise Architecture</p>	<p>Optimized enterprise architecture that leverage partners and relationships are set up to provide a flexible framework that can dramatically improve business agility and therefore, expand revenue growth and market share.</p>
<p>Safeguarding Intellectual Capital & Business Critical Assets</p>	<p>There has been significant pressure in recent years with brand integrity, safeguarding intellectual capital and consumer protection being key issues; IT is dealing with the critical issues of security, privacy and compliance to maintain a secure and high-performance business infrastructure.</p>

What this means to IT audit

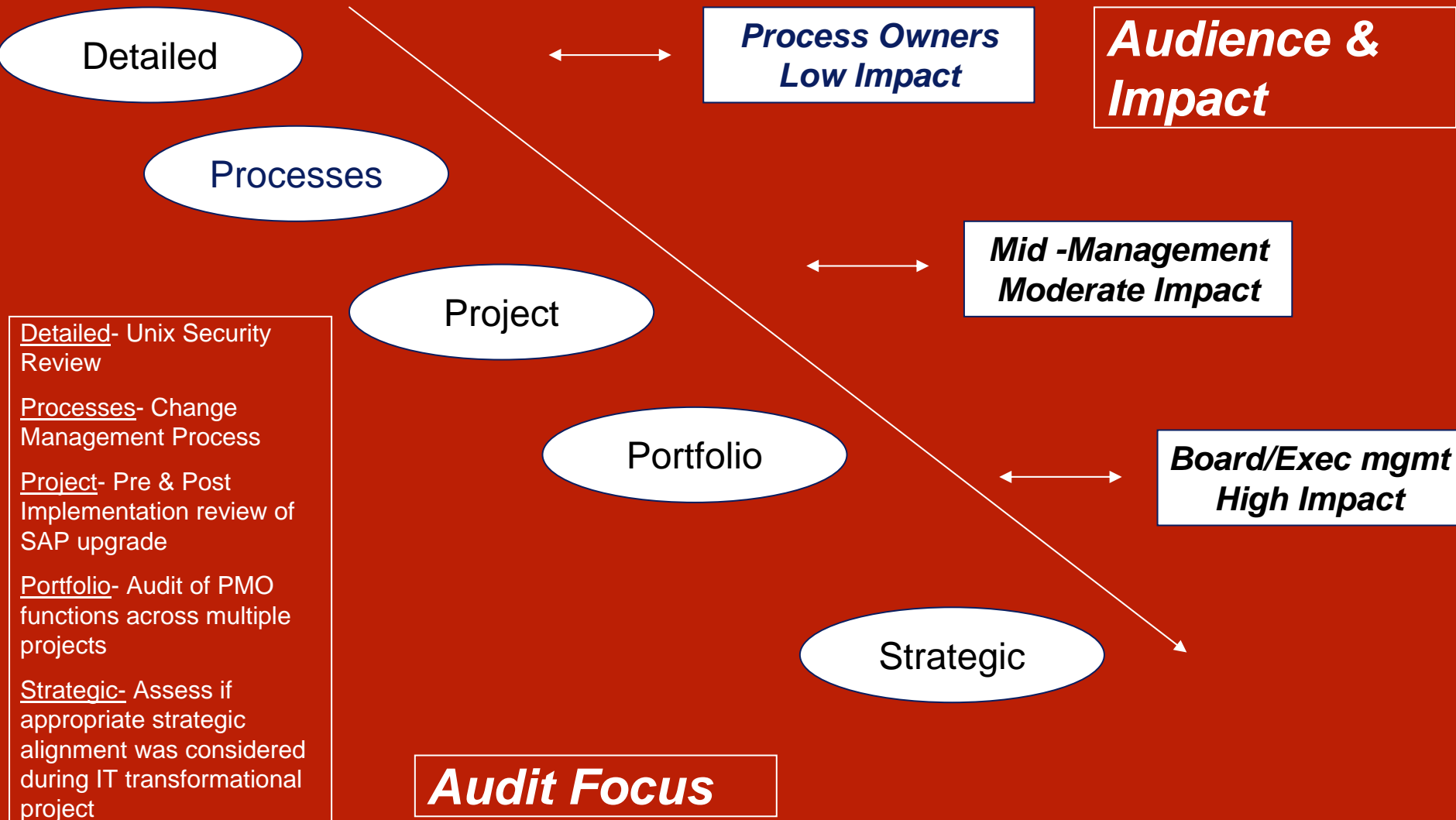
- As Boards and Executive Management are expecting IT executives to closely align to the strategic drivers of the company, so are they expecting Internal Audit to equally align and assess risk in a manner that resonates with them!

KEY QUESTIONS TO CONSIDER:

- How do you validate that the right IT risks are appearing on the Board's and Audit Committee's agenda?
- Does IT have the capability to adequately define the business risk relative to IT initiatives?
- Does Internal Audit have a key role in defining the risk and level of assurance required, with a strategic, operational and technical lens?

IT auditor's evolution

The Evolution of the IT Internal Auditor has Begun



A Balanced Approach to IT Audits

- IT Auditors should consider strategic, operational and business risk more than ever before.
- The resulting analysis of the IT auditor should increase credibility within the business.

Detailed	✓
Processes	✓
Project	✓
Portfolio	✓
Strategic	✓



Balanced View

Strategic Controls Advisor

The IT Audit Role

- Internal Audit Organizations are at the verge of transformational change as audit committees, boards and executive management are looking for internal audit functions to emerge beyond the “audit finding” philosophy.
- IT Auditors and the IT audit function is NO DIFFERENT.
- Expect to transition beyond the technical auditor to a strategic controls advisor.
- Core competencies should include: detailed IT risk mgmt insight, business savvy and strong communication credentials.

Example

- Series of Audit Reports Indicate the following:
 - *IT did not obtain formal sign-offs during key stages of ERP implementation*
 - *PMO function is not formal within organization*
 - *Key controls for SOX were not formally identified during blueprint phases*
 - *4 key IT driven projects were deemed “high risk”*
 - *Documentation retained during significant implementation varied across projects*
 - *Significant turnover took place within “project implementation” group*

Example Contd..

<p>Compliance view</p>	<p>A lack of well defined SDLC controls and a lack of focus on application controls during implementation could heighten the risk of design gaps for key financial processes and within ITGC environment- further analysis deemed necessary for SOX impact</p>
<p>IT centric view</p>	<p>IT management should focus on creating formal and repeatable processes and controls for key systems development life cycle stages; Application controls should be a key requirement during “requirements analysis” phase</p>
<p>Operational View</p>	<p>IT’s lack of strong controls over implementation projects has led to significant delays to key business initiatives (optimized supply chain, outsourcing key functions, etc.)</p>
<p>Strategic View</p>	<p>Key strategic initiatives such as “decreased time to market”, lower supply chain costs, new brands to market , have been significantly impacted due to weak IT governance structure, lack of a strong project implementation processes and IT’s inability to align project priorities to key business strategies and deadlines.</p>

Strategic IT controls advisor

- The expectation is for the savvy IT auditor to be able to synthesize the various data points of an audit into key risks, impacts at operational and strategic level as needed by management and the board.
- The inability to deliver the right message to the right audience lessens the value perception of the IT audit function.
- IT auditors should be able to skillfully maneuver within the latest technology landscape, while being keenly aware of the spectrum of IT risks and business implications.
- The old days of the wall between IT and operational auditors are gone..IT auditors need to be business controls advisors with a focus on IT risk.

Talent Risks

- The demand for the IT auditor with a holistic toolkit of technical and business acumen continues to grow..
- PwC's 2008 "State of the Internal Audit Profession" Survey identified the following talent-related risk:

“Seventy-one percent of total respondents view the lack of adequate IT audit skills as a medium to high risk”

- It is important for Internal audit functions to continue to focus on the skills needed for IT auditors to balance the technical training with industry/business focused training.

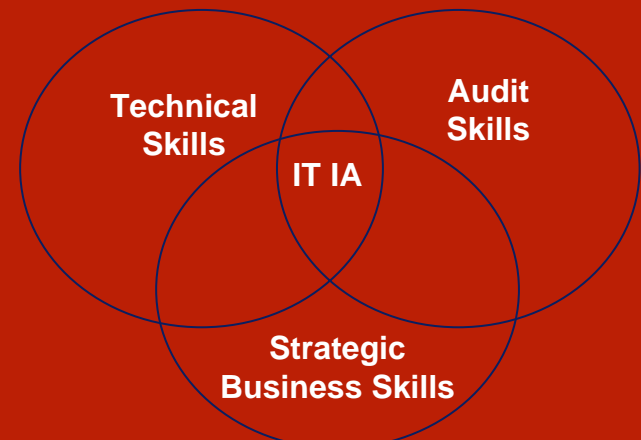
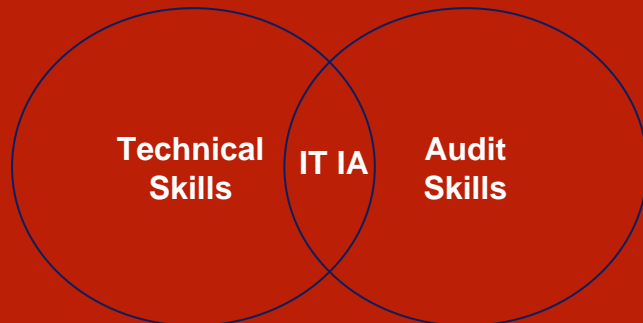
Talent Profile- Complement of Skills within IT audit function

Traditional Profile

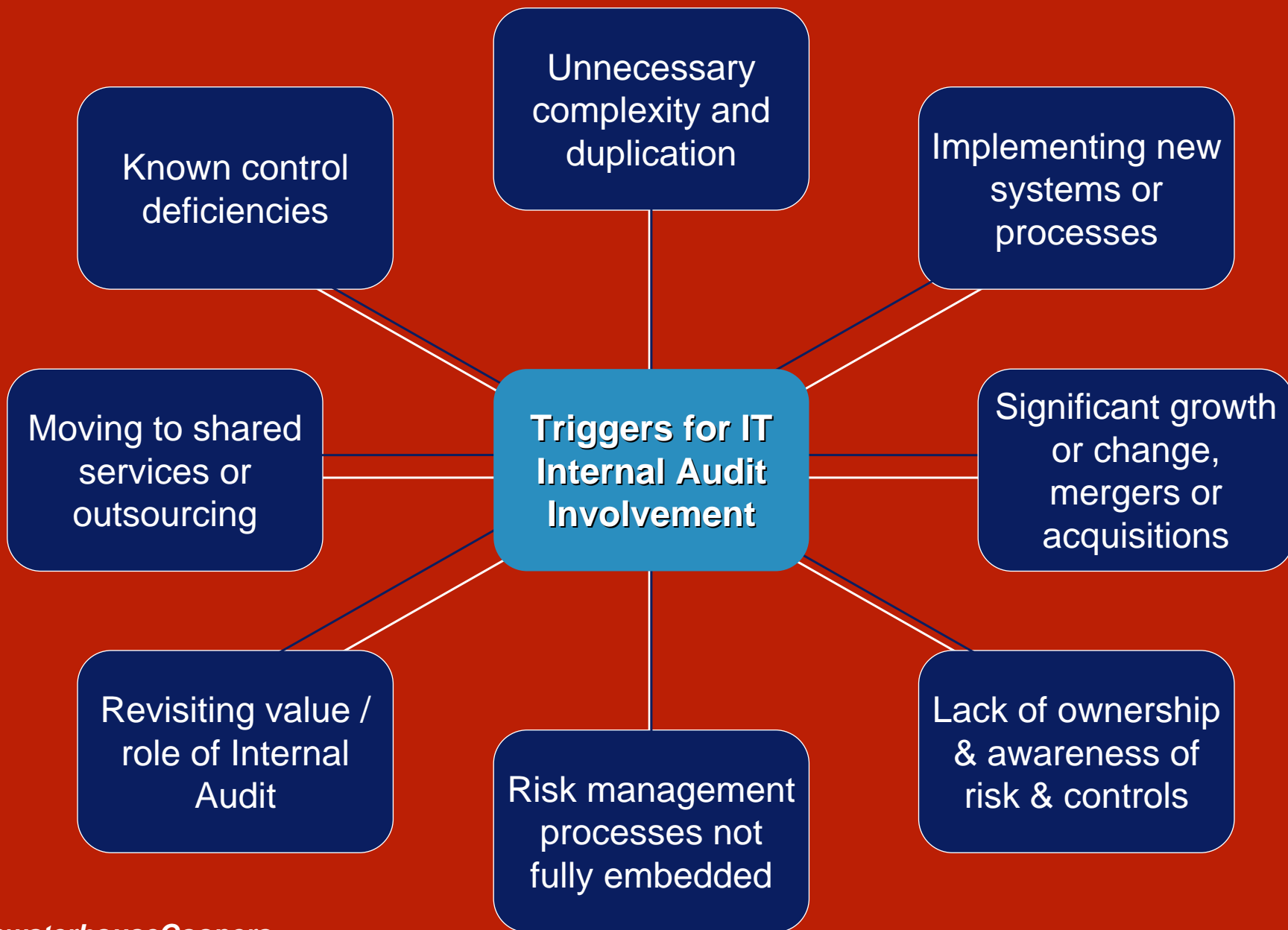
- MIS/Computer Science Degree
- Technical Expertise within ERP, Various Platforms, Good understanding of overall IT landscapes
- Compliance/Audit Experience
- Previous Industry or Big X experience
- CISA, MS Certifications

New Profile:

- MIS, Accounting, Finance or Dual Degree
- Technical Expertise within ERPs and Various IT environments
- Previous experience with Business, PMO functions, systems/business analysts, consulting
- Strong communication Skills
- Holistic Business and Industry Sector views
- View of IT risks and implications



Key Considerations



Value of IT Internal Audit Involvement

- Early indicators of Key Risks emerging within strategic initiatives
- Strategic controls guidance that creates early controls awareness within the organization
- Insight into alignment of cost, business goals and IT workstreams
- Process enhancement opportunities
- Board level communications to clearly define business impact on transformational IT projects
- Controls assurance at various levels
- Benchmarking opportunities at an IT organization and industry level
- Control optimization opportunities
- And Much More...

Closing Thoughts

- **Value awakening**- what value can IT controls advisors bring to organizations- NOW IS THE TIME
- **Alignment**- integration to the business and Industry
- **Holistic View**- Enables IT Controls professionals to infuse thought leadership

Questions to contemplate....

- Do I have the right skill sets to deliver the “new value proposition” for IT Internal Audit?
- Have I been appropriately delivering the right messages to the various stakeholders on my past audits?
- What immediate impact can Internal Audit have on the organization if we are delivering the right messages at the right level?

Questions?

Contact information

Maanasa Jain, Senior Manager

(214) 754-5313

Maanasa.Jain@us.pwc.com



This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, PricewaterhouseCoopers LLP, its members, employees and agents accept no liability, and disclaim all responsibility, for the consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

© 2007 PricewaterhouseCoopers LLP. All rights reserved. "PricewaterhouseCoopers" refers to PricewaterhouseCoopers LLP (a Delaware limited liability partnership) or, as the context requires, other member firms of PricewaterhouseCoopers International Ltd., each of which is a separate and independent legal entity. *connectedthinking is a trademark of PricewaterhouseCoopers LLP.