2011 IT Audit Benchmarking Survey

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Introduction

Technology is permeating virtually every aspect of business today. From email and mobile communication tools to global complex ERP systems and extensive online activities, most companies today rely on technology to the point that without it, their operations would grind to a halt.

Of course, such a heavy reliance on technology also creates a high volume of significant risks that companies must assess, manage and monitor appropriately. This was the case before the introduction of social media channels such as LinkedIn, Facebook, Twitter and now Google+ that employees can access any time of the day, if not on company systems then certainly on personal computers or mobile devices. This has created an entirely new realm of IT risks that companies today are just now beginning to define and understand how to manage.

It is in this dynamic IT environment that Protiviti conducted its inaugural *IT Audit Benchmarking Survey*, seeking to analyze some of the many underlying IT audit trends and gaps evident in organizations today.

For the purposes of this study, we define "IT audit" as the process of collecting and evaluating evidence of the management of controls over an organization's information systems, practices, controls and operations. The evaluation of evidence obtained through the IT audit process determines if the information systems are safeguarding assets, maintaining data integrity, and operating effectively to achieve the organization's goals and objectives. This may include traditional audits of technology processes and components as well as integrated audits for audit activities, technology-dependent regulatory processes (e.g., privacy) or data analytics support.

Among the key trends and takeaways from the study that are discussed further in our report:

- The growth and prevalence of technology throughout most operations in a company are outpacing the assessment, management and monitoring of related IT risks.
- IT risks do not garner nearly enough attention in organizations today, and in small companies in particular.
- A large percentage of organizations are not complying with IIA Standard 2110.A2, which requires the internal audit function (usually through IT audit) to assess whether the organization's information technology governance sustains and supports its strategies and objectives.
- Many organizations do not have the requisite skills and capabilities to assess their key IT risks adequately.
- A surprisingly large number of organizations fail to conduct an annual IT risk assessment.
- IT audit functions in North America invest significantly more time on compliance-related activities than these functions do in other regions of the world.

We would like to thank the close to 500 professionals, including chief audit executives, audit directors, and IT audit directors and managers, among many others, who participated in this year's survey. We appreciate both their time and the insights they provided. We also would like to acknowledge the continued leadership of The Institute of Internal Auditors and ISACA. These organizations continue to deliver strong guidance for IT auditors and provide global standards and materials to drive our profession forward.

Protiviti
September 2011

Notes: This publication reports on notable findings from our *IT Audit Benchmarking Survey* by company size (four categories) and region (North America, and Europe/Middle East/Africa and Asia-Pacific, or EMEA/APAC). For reporting purposes, organizations outside of North America were combined into one group because of the number of respondents (see Survey Demographics section). Each section includes analysis and commentary focusing on key findings and areas of interest that largely are based on these categories. Please note that, upon request, we can provide more detailed and customized data and results based on findings for specific groups – industry, company size, region, etc. – or based on the overall results from all respondents.
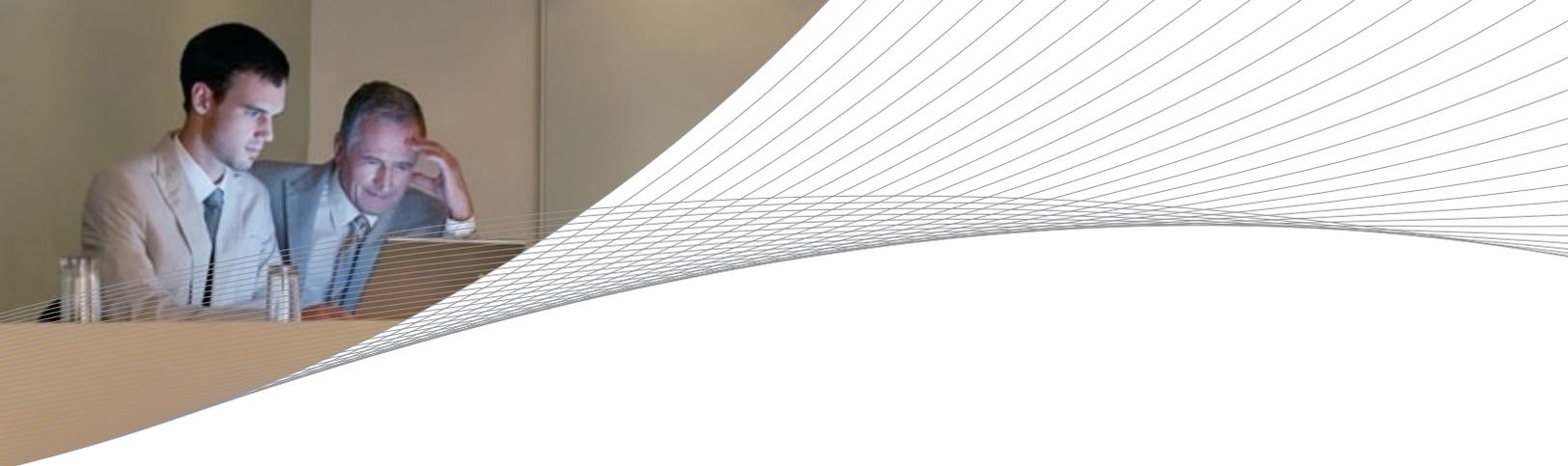
IT Audit in Relation to the Internal Audit Department

Existence of IT Audit Function and Leader

To lead off the survey, respondents were asked whether an IT audit function exists within their internal audit department, and also whether their organization has a designated IT audit director (or equivalent position).

Does an IT audit function exist within your internal audit department?

	Yes	No
Company Size (Annual Revenue)		
Greater than $5 billion	94%	6%
$1 billion - $4.99 billion	86%	14%
$100 million - $999.99 million	71%	29%
Less than $100 million	57%	43%
Region		
EMEA/APAC	74%	26%
North America	84%	16%

Does your organization have a designated IT audit director (or equivalent position)?

	Yes	No
Company Size (Annual Revenue)		
Greater than $5 billion	49%	51%
$1 billion - $4.99 billion	36%	64%
$100 million - $999.99 million	18%	82%
Less than $100 million	25%	75%
Region		
EMEA/APAC	30%	70%
North America	35%	65%

Results by Company Size

Perhaps as expected but by no means acceptable, as the size of company becomes smaller, the percentage of those without an IT audit function grows. For companies with less than $100 million in annual revenue, 43 percent have no such function. Even more notably, 82 percent of organizations with annual revenue of $100 million to $1 billion lack a designated IT audit director or someone in an equivalent position.

Often, the unfortunate reality is that IT audit is an area that companies become willing to sacrifice. This could be due to lack of understanding among top management of the duties and responsibilities of these professionals, or perhaps more concerning, of the IT risks the organization faces. Moreover, even if they have a small IT audit department, smaller companies cannot retain the skills needed to focus effectively on IT on a continuing basis. Clearly, these organizations appear more willing to sacrifice the IT audit portion of their audit plans.

With regard to the IT audit director position, it is to be expected that smaller companies may not have this as a defined role in the organization. It is therefore a positive development to see that one out of four companies with under $100 million in annual revenue have an IT audit director in place. On the other hand, it is curious to find that more than half of larger companies, most of which have IT audit functions, do not have an IT audit director. A key question for them is: How strategic are their IT audit functions in assessing IT risks without a designated leader in place?

It is possible, and even likely, that in those organizations without an IT audit director, the chief audit executive (CAE) has assumed this role. However, to ensure the IT audit function and myriad IT controls in an organization are operating properly, it is imperative that someone under the CAE be specifically focused and competent to oversee these audits and have direct ownership of the process.

Results by Region

More organizations in North America have an IT audit function than do companies in the EMEA/APAC regions. One possible explanation (as discussed later in this report) is that North American companies operate under a more stringent and complex regulatory environment, compelling internal audit departments to focus more on compliance-related activities, including IT-related areas, than their counterparts in other countries. In addition, IT audit in other regions, particularly within the United Kingdom and Europe, may be viewed more as a component of internal audit than it is in countries such as the United States.

One other notable finding is the number of EMEA/APAC companies – 8 percent – in which the IT audit director reports to the CIO. While this is a relatively small percentage, it is unusual to find any company with this reporting structure as it, at the very least, calls into question the independence of the IT audit process. In these cases, the IT function in a company is essentially auditing itself.

Also, 27 percent of organizations have the IT audit director reporting to another director under the CAE. This poses a challenge for IT audit, particularly in terms of the profile of the role and engagement with senior-level peers in the IT organization and the business. Does the CAE have adequate visibility into this function? Is this reporting structure an indication that there is less of a perceived value in IT audit than in other organizations? This is another possible indicator that companies might not be doing enough IT audit as part of their overall audit plan.

Resourcing

Respondents were asked whether their organizations use outside resources to augment IT audit skills available internally.

Results by Company Size

Do you use outside resources to augment your IT audit skill set?
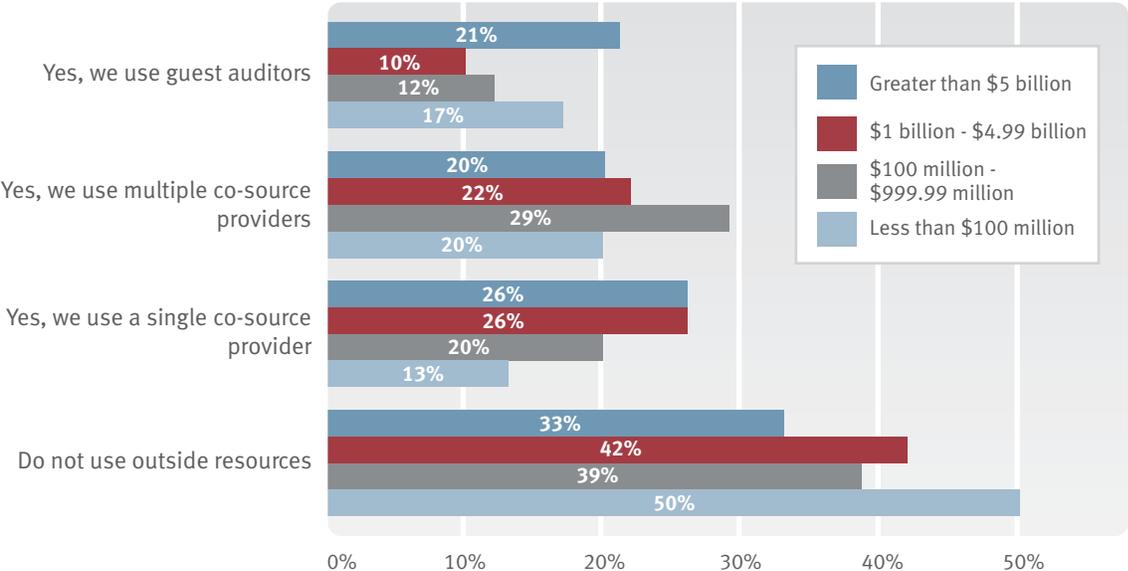
Just under half of large companies – those with greater than $5 billion in annual revenue – use co-sourced providers (single or multiple). Even though these larger companies have IT audit staff in-house (see page 5), they still recognize the importance of IT risks and augment their skills to get adequate coverage.

It is a different story among smaller companies. While a comparable number co-source their IT audit-related activities, many have little or no headcount designated as IT audit staff (see page 5). The results suggest these organizations may be de-prioritizing IT risks in order to cover other areas adequately. However, given the proliferation of technology in companies today and the resulting risks in virtually every corner of an organization that is leveraging technology to drive greater operational efficiency and productivity, such de-prioritization is a risk in and of itself.

*Please indicate the percentage of the internal audit department headcount designated as IT audit.*

Legend:
- Greater than $5 billion
- $1 billion - $4.99 billion
- $100 million - $999.99 million
- Less than $100 million

Greater than 75%
- Greater than $5 billion: 0%
- $1 billion - $4.99 billion: 1%
- $100 million - $999.99 million: 0%
- Less than $100 million: 3%

50 - 75%
- Greater than $5 billion: 1%
- $1 billion - $4.99 billion: 1%
- $100 million - $999.99 million: 3%
- Less than $100 million: 3%

20 - 49%
- Greater than $5 billion: 29%
- $1 billion - $4.99 billion: 33%
- $100 million - $999.99 million: 33%
- Less than $100 million: 13%

10 - 19%
- Greater than $5 billion: 45%
- $1 billion - $4.99 billion: 36%
- $100 million - $999.99 million: 21%
- Less than $100 million: 10%

Less than 10%
- Greater than $5 billion: 20%
- $1 billion - $4.99 billion: 16%
- $100 million - $999.99 million: 17%
- Less than $100 million: 23%

None
- Greater than $5 billion: 4%
- $1 billion - $4.99 billion: 12%
- $100 million - $999.99 million: 25%
- Less than $100 million: 35%

Don't know
- Greater than $5 billion: 1%
- $1 billion - $4.99 billion: 1%
- $100 million - $999.99 million: 1%
- Less than $100 million: 13%

With regard to guest auditors, and again looking at smaller companies, the 12 percent response among companies in the $100 million to $999.99 million revenue category, as well as the 17 percent response for organizations under $100 million, is a bit of a surprise. Higher percentages for both categories of companies would be expected since most of these companies do not have a large number of full-time IT audit resources in place. The use of guest auditors would be an extremely helpful asset for them, as they could leverage qualified resources to help audit these critical areas.

On the other hand, this could be an indicator that, within these organizations, the audit methodology is not as mature, which is necessary before any organization successfully implements a guest auditor program. Introducing guest auditors into an organization requires a certain level of maturity within the process of planning, executing and delivering an audit. Without a well-defined and repeatable methodology, guest auditors find it difficult to integrate into the program and often end up being underutilized.

Respondents also were asked to cite the percentage of outside IT resources used as compared to total hours logged by the internal audit function. Unexpectedly, for one in three small companies (less than $100 million in revenue), that figure is less than 10 percent, and in 21 percent of these organizations it is "none." Conversely, the numbers are higher for larger companies.

A reasonable person might expect that bigger companies would have more resources and therefore would do more things in-house, while small companies would outsource more. This is not the case, according to the results of the survey. Again, this speaks to maturity. Larger organizations with functioning IT audit programs are addressing the key risks to the organization and have a better understanding of the skills required to execute these audits, whether these skills come from inside or outside the company.

What is the percentage of outside IT resources used compared to total audit hours?
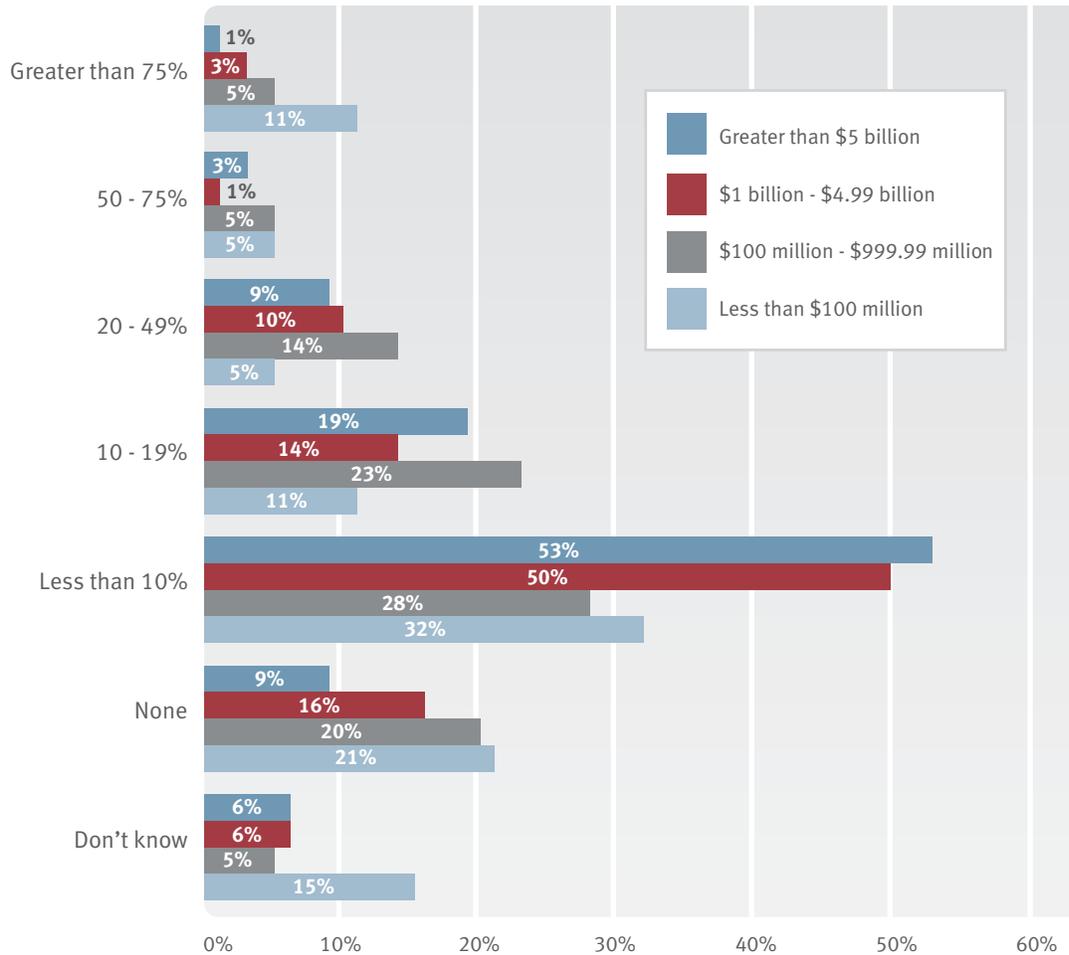
Reporting

Results by Company Size

Given the broad spectrum that technology covers in the operations of companies today, it is surprising to see such high percentages of organizations that produce few or no IT audit reports. This raises key questions as to whether these organizations understand their IT risks and are managing and monitoring them effectively.

Please indicate the number of IT audit reports issued as a percentage of the total reports issued by the internal audit department.

Legend:
- Greater than $5 billion
- $1 billion - $4.99 billion
- $100 million - $999.99 million
- Less than $100 million

Greater than 20%: 20%, 25%, 18%, 10%
15 - 20%: 29%, 29%, 25%, 20%
10 - 14%: 26%, 16%, 17%, 10%
5 - 9%: 13%, 10%, 11%, 7%
1 - 4%: 8%, 11%, 11%, 23%
None: 3%, 8%, 16%, 24%
Don't know: 1%, 1%, 2%, 6%
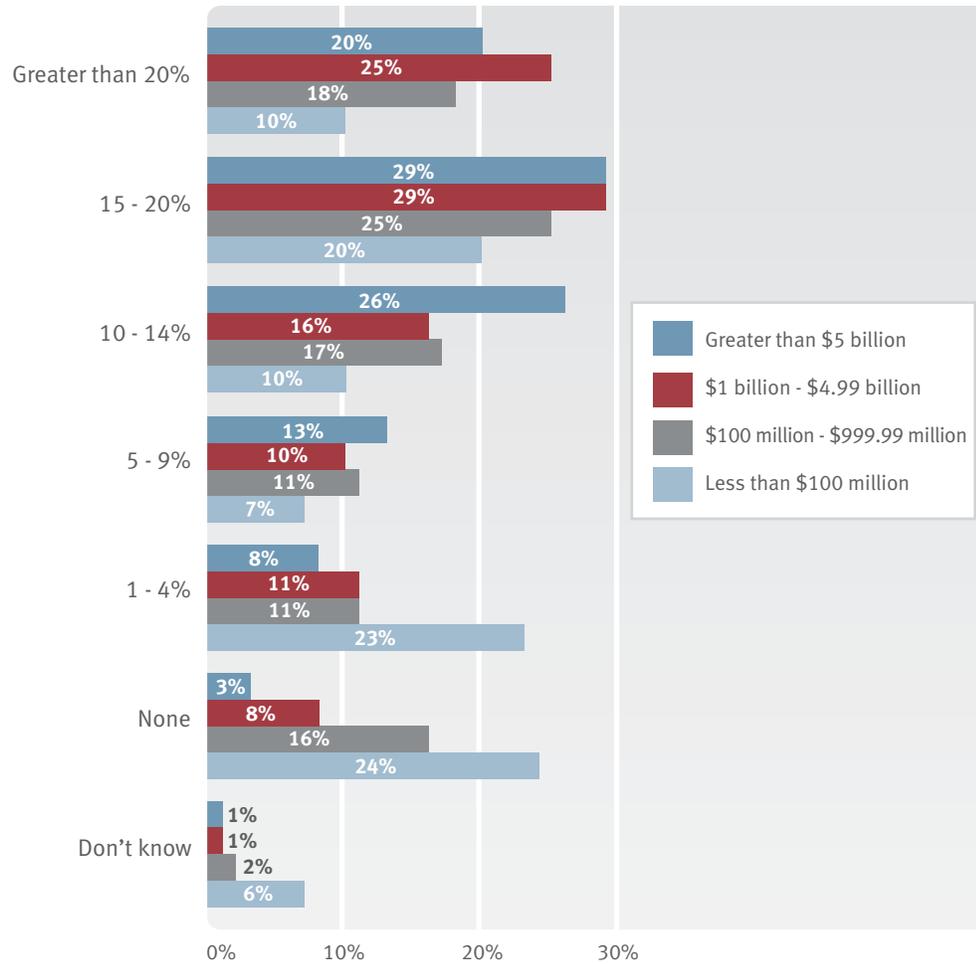
Of note, internal audit departments in large companies are issuing more IT audit reports. In nearly one in three of these organizations, IT audit reports comprise as much as 20 percent of the total reports issued by the internal audit department, but in smaller companies these numbers are much lower. These companies, in fact, tend not to issue such reports.

The IIA has a specific Standard, 1210.A3, that addresses the responsibility of the CAE to understand the IT risks the organization faces:[1]

> *Internal auditors must have sufficient knowledge of key information technology risks and controls and available technology-based audit techniques to perform their assigned work. However, not all internal auditors are expected to have the expertise of an internal auditor whose primary responsibility is information technology auditing.*

Clearly, many organizations are not in compliance with this standard, which makes the CAE and internal audit function responsible for understanding the organization's IT risks. These risks are the same as, if not greater than, other risks an organization faces and that internal audit is assessing, managing and monitoring. In fact, IT risks are largely the same for a company regardless of its size. For example, risks related to information security or social media use are the same for all companies. Yet it is clear that large organizations are focusing on these areas much more than smaller companies.

Results by Region

Please indicate the number of IT audit reports issued as a percentage of the total reports issued by the internal audit department.
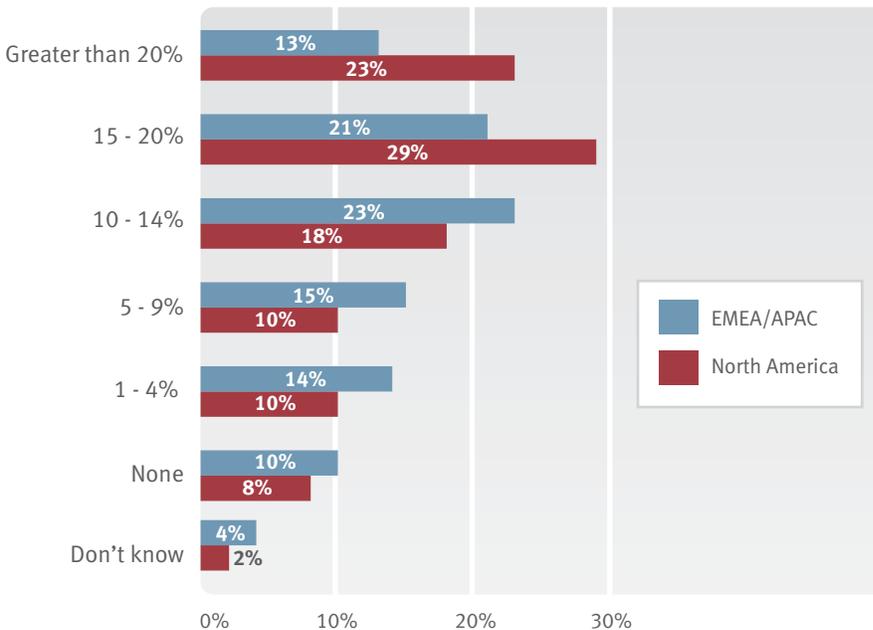
North American companies appear to be issuing IT audit reports in the "right" range of 20 percent or more. In most organizations (regardless of region), 20 to 30 percent of an organization's risks are IT-related. This percentage usually rises in organizations where there are large-scale technology projects or highly significant breaches, or in industries that are highly technology dependent. These figures should never be less than 20 percent.

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[1] From The IIA's *International Standards for the Professional Practice of Internal Auditing* (**www.theiia.org**).

Other notable findings:

- Among the companies that do not issue IT audit reports, approximately 10 percent have IT audit resources as part of their internal audit departments. Why are these organizations overlooking the significant risks associated with emerging technology? Are they properly utilizing these resources?

- One out of 10 respondents who indicated they issue IT audit reports do not have IT audit resources within their internal audit organization. If these resources are not available, who is conducting these audits? Do the skills of the internal audit staff meet the organization's needs with regard to IT auditing?

Key Questions to Consider

- Do your C-level executives know the potential technology risks that your organization faces?

- Does the organization have a clear definition of its IT risk appetite? How was this determined? Do you know how much IT risk your organization is willing to accept?

- Does your internal audit organization have adequate strategic oversight of IT risks?

- Does the CAE have adequate visibility into the IT audit function and recognize he/she is responsible for understanding the organization's IT risks?

- Does your IT audit leader have an effective communication channel to the CAE and, when necessary, the audit committee?

- Does your company leverage qualified resources from other departments to audit critical IT-related areas?

- Is an adequate audit methodology in place?
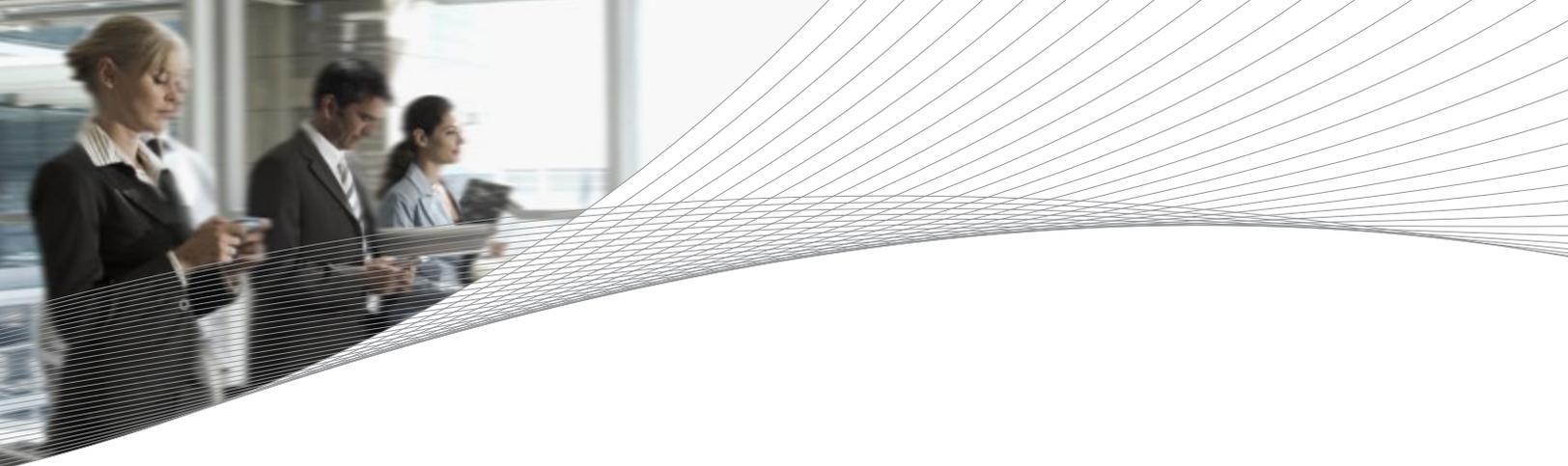
Assessing IT Risks

Conducting an IT Risk Assessment

Respondents were asked whether their organizations conduct an IT risk assessment. Viewing the results in terms of both company size and global region, the numbers are troublingly low.

Results by Company Size

While, as expected, a strong majority of large companies (greater than $5 billion) are conducting IT risk assessments, midsize and small companies do not fare as well. In fact, nearly one in four organizations with revenue up to $1 billion are not conducting this assessment.

Does your organization conduct an IT risk assessment?

Yes, it is conducted separately from the overall risk assessment	26% / 36% / 28% / 25%
Yes, it is conducted as part of the overall risk assessment process	66% / 47% / 49% / 50%
No, an IT risk assessment is not conducted	8% / 17% / 23% / 25%

Legend:
- Greater than $5 billion
- $1 billion - $4.99 billion
- $100 million - $999.99 million
- Less than $100 million

Axis: 0% 10% 20% 30% 40% 50% 60% 70%
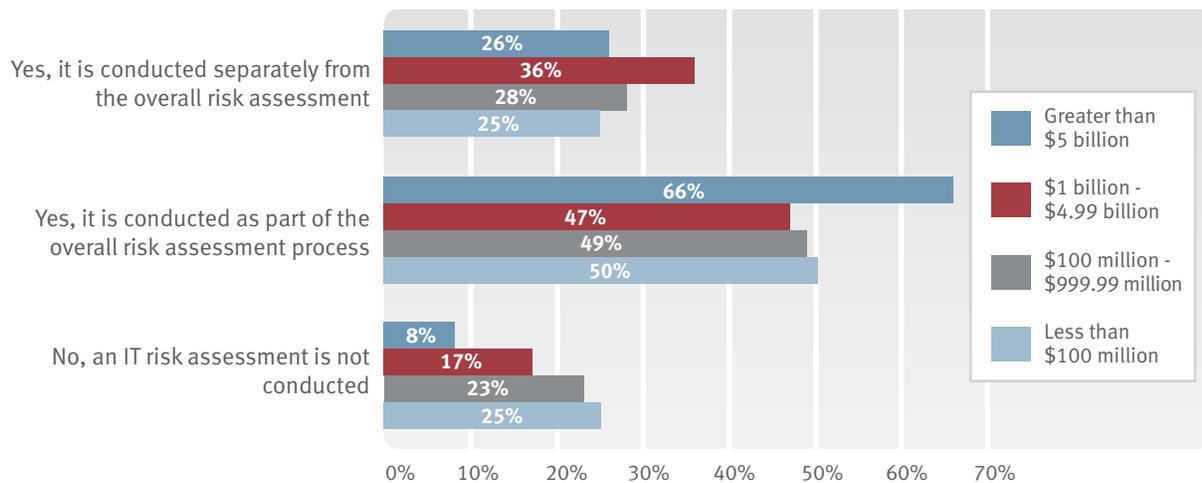
Results by Region

Based on these findings, it is clear that companies are not doing enough. While most organizations conduct IT risk assessments, the fact that 22 percent of EMEA/APAC companies and 15 percent of North American companies are not doing so should be cause for alarm.

Does your organization conduct an IT risk assessment?
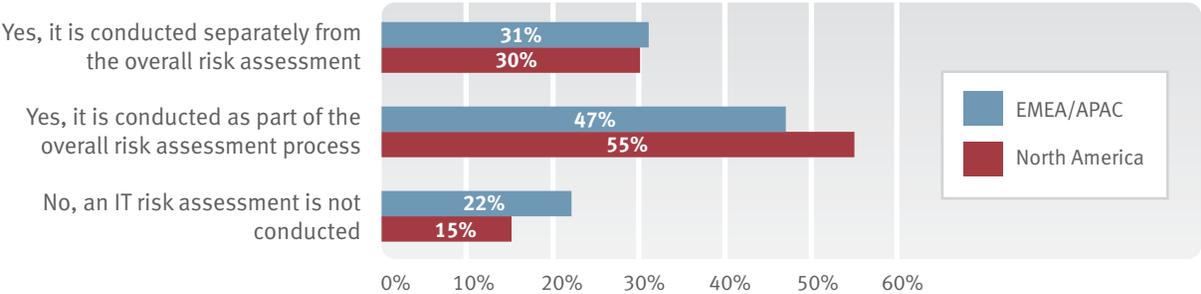
Without question, organizations need to drive the "no" responses to this question down to zero. There are simply too many risks associated with the pervasive use of emerging technology, including social media, virtualized solutions and mobile devices, to name just a few areas, as well as a heightened focus on risk management in all organizations. In addition, the growing demand from users throughout these companies for data and information generated by new technologies is increasing pressure on IT organizations. A key concern for management, and one that can be measured through an IT risk assessment, is the ability of the IT organization to respond to these demands for new technology to deliver benefits while managing the associated risks.

How exactly does a company perform constructive auditing of the organization's risks without an IT risk assessment? How do auditors know where to look? In these organizations, the use of technology very likely is outpacing the risk management related to the use of that technology. This creates a level of risk that should make every C-level executive and board member nervous.

IT must be a key component of the overall business risk assessment process. IT risk assessments must be driven down into and throughout every organization to identify, manage and monitor key IT-related risks.

Organizational Engagement/Involvement

Please indicate the level of involvement of each of the following individuals/groups in your organization's IT risk assessment process.

	Significant	Moderate	Minimal	None
EMEA/APAC				
Audit committee	10%	18%	47%	25%
Executive management	33%	40%	20%	7%
Management and/or process owners	27%	47%	22%	4%
Line of business executives (including CIOs)	30%	39%	23%	8%
Company IT organization representatives	43%	35%	15%	7%
Internal audit/IT audit	70%	12%	10%	8%
Risk management	20%	27%	28%	25%
External auditor	7%	23%	37%	33%
Third-party service provider	7%	18%	22%	53%
Other	2%	15%	7%	76%
North America				
Audit committee	8%	22%	43%	27%
Executive management	35%	40%	21%	4%
Management and/or process owners	41%	40%	16%	3%
Line of business executives (including CIOs)	32%	39%	24%	5%
Company IT organization representatives	42%	39%	14%	5%
Internal audit/IT audit	72%	20%	5%	3%
Risk management	15%	19%	22%	44%
External auditor	6%	17%	40%	37%
Third-party service provider	6%	8%	15%	71%
Other	2%	3%	6%	89%

Among the notable findings:

- In 31 percent of EMEA/APAC companies and 29 percent of North American companies, line of business executives, including CIOs, have little to no involvement with the IT risk assessment process. Under these circumstances, questions could arise regarding the effectiveness and accuracy of the IT risk assessment given that the CIO may not be involved in it.

- In 77 percent of North American companies and 70 percent of EMEA/APAC companies, the external auditor has minimal or no involvement in this process. Again, how effective can these risk assessments be if knowledgeable resources are not consulted?

- The results are similar when broken down by company size.

Frameworks

In assessing these findings, the percentages of companies reporting the use of no framework at all is noteworthy. Many of the more well-known industry frameworks – CobIT, COSO, SOGP, ISO – are tested and proven. Possible reasons why some organizations are not using any framework could include an IT risk assessment process that is informal/ad hoc and therefore not at a mature stage, or the fact that these organizations simply think they do not need to adhere to a framework.

Of note, the percentage of EMEA/APAC organizations leveraging the ISO framework is much higher than for North American companies.

Many survey participants wrote in specific answers to the question about the IT audit framework(s) their organizations employ. Among their responses (a number of which are unacceptable to use as a means to audit IT risks):

- Customized for our environment
- ERM framework
- External Audit ITGCs
- FFIEC
- FISCAM
- GLBA
- Internally developed with input from external auditor

- ISACA
- ITIL
- Multiple frameworks
- NIST
- OIG Manual
- RiskIT (from ITGI/ISACA)
- Sarbanes-Oxley
- VALIT

Key Questions to Consider

- Have you reviewed the organization's enterprise risk management (ERM) profile and how IT supports each of the top risk areas?
- Has your organization identified and considered potential emerging technology risks that could affect the organization in the future? Has this been done organizationwide or broken down by division or operating unit?
- Does your organization have the necessary IT controls in place to ensure risk appetite limits are not exceeded and that those controls are effective? Has the IT risk appetite been translated into appropriate IT risk tolerances that are cascaded down into the organization?
- Have you assessed potential IT risks related to the company's long-term strategy and mission? Have you challenged assumptions regarding underlying IT risks inherent in that strategy? Are there any assumptions underlying the strategy that may be unrealistic or invalid in view of market conditions?
- Have you considered whether any changes might be necessary in the organization's IT risk appetite given changes in the business model, regulation, competition, the overall market or the operating environment? Is there an ongoing IT risk appetite dialogue between management and the board of directors?
- Does your IT risk assessment framework measure the impact of risks according to qualitative and quantitative criteria, using inputs from different areas including, but not limited to, management brainstorming, strategic planning, past audits and other assessments?
- What steps have you taken to determine how the organization can begin to measure its IT risks on a quantitative basis?

Audit Plan

Focus of IT Audit Hours

Which activities are included within the responsibility of IT audit?*

Activity	Number of responses
IT general controls	420
IT process auditing	369
Application auditing	353
IT infrastructure auditing	328
Pre- and post-implementation auditing	281
Compliance testing	263
Integrated auditing	243
Data analytics	206
Compliance documentation	179
Other	32

*All respondents — Number of responses
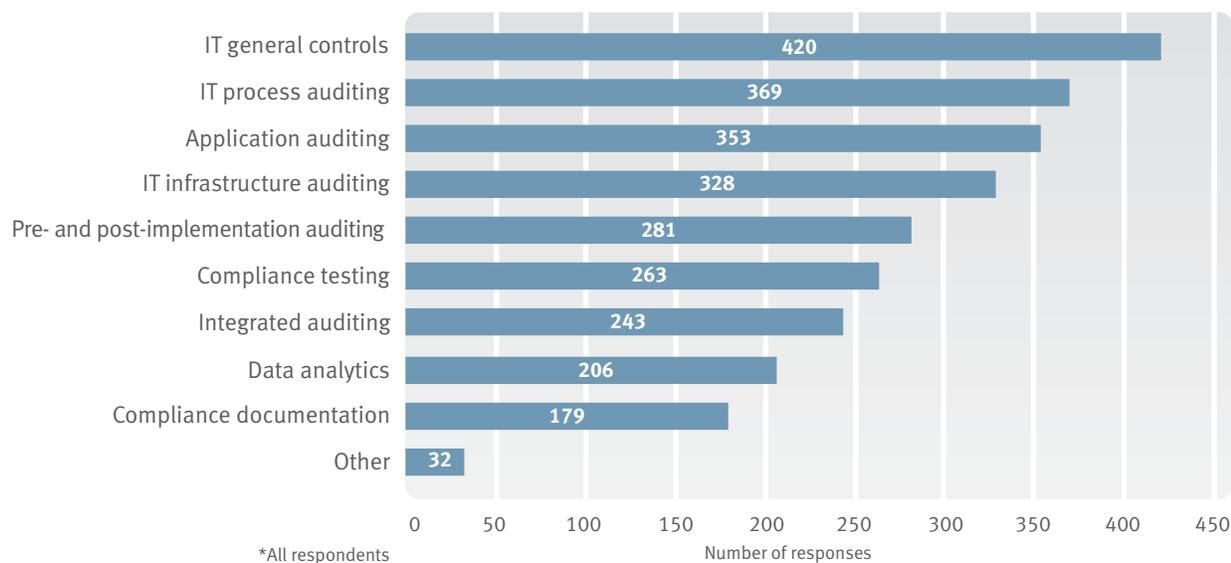
There are a number of notable findings in the accompanying chart. In virtually all organizations, IT audit has responsibility for IT general controls. Clearly, IT auditors continue to spend a lot of time on these activities. However, while necessary, it is fair to say these efforts are not as value-added as other, more strategic duties that IT auditors could perform. As an example, for more strategic areas such as data analytics, the response is much lower – less than 50 percent. Integrated auditing, another strategic area, also had a relatively low response.

Many IT audit functions focus a disproportionate amount of time in their plans on IT "basics" – e.g., IT general controls, IT infrastructure – and fail to address fully areas of IT governance, change or more strategic performance. IT audit increasingly is being asked to assess questions about the strategic performance of IT and to consider the appropriateness of the IT organization's response to new and emerging areas such as cloud computing and social media. IT audit has an important role to play in successful organizations by providing a variety of services to support the achievement of strategic objectives while providing assurance on the effectiveness of IT risk management and controls.

IT auditors may not be spending as much time on these strategic areas as on activities such as auditing IT general controls, but they likely feel a need to do so. As detailed in Protiviti's *2011 Internal Audit Capabilities and Needs Survey* report, data analytics is a high priority for internal audit functions and a key area in need of improvement.[2] Integrated auditing also is a growing priority as more organizations seek to establish global ERM programs.

However, as noted earlier, there are some organizations that still do not conduct an IT risk assessment, while others may not devote the necessary time and resources to ensure this assessment is thorough. Without a strong risk assessment to identify where the specific risks are, it is easy for internal and IT auditors to focus on more convenient areas like IT general controls.

Respondents also were asked to identify the amount of time spent on activities related to assurance, compliance and consulting.

Results by Company Size

What percentage of planned IT audit hours are dedicated to consultative activities versus assurance activities?

	Greater than 20%	15 - 20%	10 - 14%	5 - 9%	1 - 4%	None	Don't know
Greater than $5 billion							
Consulting	14%	18%	27%	16%	13%	8%	4%
Compliance	40%	15%	15%	9%	8%	7%	6%
Assurance	68%	10%	8%	4%	2%	4%	4%
$1 billion - $4.99 billion							
Consulting	15%	17%	23%	15%	12%	10%	8%
Compliance	41%	11%	11%	10%	9%	11%	7%
Assurance	62%	13%	3%	2%	5%	6%	9%
$100 million - $999.99 million							
Consulting	18%	15%	14%	9%	14%	20%	10%
Compliance	42%	9%	10%	6%	7%	14%	12%
Assurance	55%	7%	4%	9%	6%	7%	9%
Less than $100 million							
Consulting	23%	5%	5%	14%	9%	32%	12%
Compliance	36%	9%	14%	0%	14%	14%	13%
Assurance	45%	5%	0%	9%	9%	18%	14%

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[2] For more information, read Protiviti's *2011 Internal Audit Capabilities and Needs Survey*, available at **www.protiviti.com/IAsurvey**.

As noted in the accompanying tables, IT audit functions in large companies tend to spend more time on assurance and less on consulting. Assurance percentages trend down as company sizes become smaller, while the percentage of time spent on consultative activities is relatively consistent across company size.

Assurance-related activities focus on whether controls are designed and operating effectively and in compliance with company policies and procedures. A large company, as reported earlier, is more likely to have an established and mature IT audit function that needs to invest more time in assessing a larger number of complex controls. This certainly could be the case within global, geographically dispersed organizations.

Results by Region

What percentage of planned IT audit hours are dedicated to consultative activities versus assurance activities?

	Greater than 20%	15 - 20%	10 - 14%	5 - 9%	1 - 4%	None	Don't know
EMEA/APAC							
Consulting	14%	16%	19%	10%	12%	22%	7%
Compliance	20%	16%	19%	12%	9%	16%	8%
Assurance	55%	13%	4%	9%	4%	7%	8%
North America							
Consulting	16%	16%	21%	14%	13%	12%	8%
Compliance	45%	11%	11%	7%	8%	10%	8%
Assurance	62%	9%	5%	4%	5%	7%	8%

Not surprisingly, companies in North America dedicate far more IT audit hours to compliance than do companies in the EMEA/APAC regions. U.S. laws and regulations such as Sarbanes-Oxley and the Dodd-Frank Act likely influence these percentages significantly.

IT Governance

Has your IT audit activity completed an evaluation and assessment of your organization's IT governance process, in accordance with IIA Standard 2110.A2?

Results by Company Size

Company Size	Yes	No
Greater than $5 billion	36%	64%
$1 billion - $4.99 billion	32%	68%
$100 million - $999.99 million	24%	76%
Less than $100 million	23%	77%

Results by Region

| Region	Yes	No
EMEA/APAC	22%	78%
North America	32%	68%
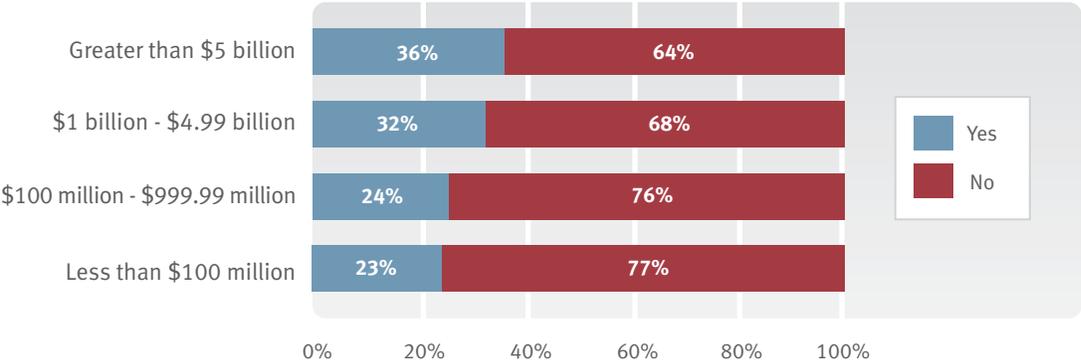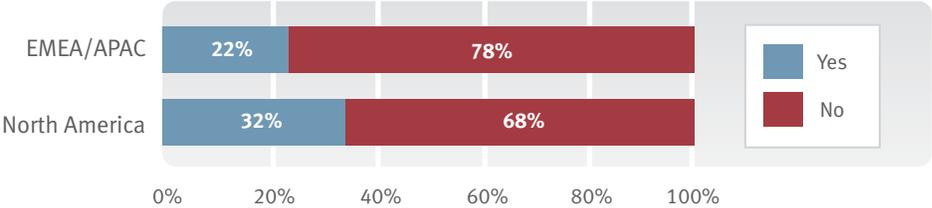
IIA Standard 2110.A2 requires internal audit to assess whether the IT governance of the organization sustains and supports the organization's strategies and objectives. It is very surprising to find that so many organizations have yet to complete an evaluation and assessment of their IT governance process.

One possible reason: Conducting this evaluation is difficult and most companies probably have not done it before. They may not have the skills or expertise to do so, thus they have elected not to address it. However, in doing so, they are failing to comply with The IIA's *International Standards for the Professional Practice of Internal Auditing.*

Regardless of region, the results are rather poor, though for EMEA/APAC-based organizations they are worse. Could these results be because IT audit is not an individual line item in the audit plan or even part of the overall audit plan? Even if this were true, however, this is still a requirement for internal audit functions.

Results by Region

Please indicate whether you intend to complete an evaluation and assessment of your organization's IT governance process.

	Yes, within the next year	Yes, but not within the next year	No plans to conduct such a review
EMEA/APAC	42%	28%	30%
North America	31%	33%	36%
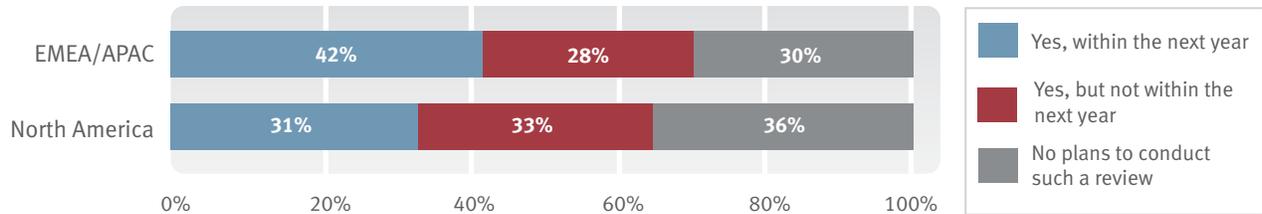
Those who stated they have not completed this activity were asked if they intended to do so. The "no" responses to this follow-up question are surprising. There are a large number of companies that not only have failed to complete an evaluation and assessment of their IT governance process, but also have no plans to do so. Again, while this is a requirement under The IIA Standards, it is possible this process may intimidate some organizations that do not know how to do it.

Results by Company Size

Please indicate whether you intend to complete an evaluation and assessment of your organization's IT governance process.

	Yes, within the next year	Yes, but not within the next year	No plans to conduct such a review
Greater than $5 billion	34%	34%	32%
$1 billion - $4.99 billion	33%	40%	27%
$100 million - $999.99 million	32%	27%	41%
Less than $100 million	33%	6%	61%
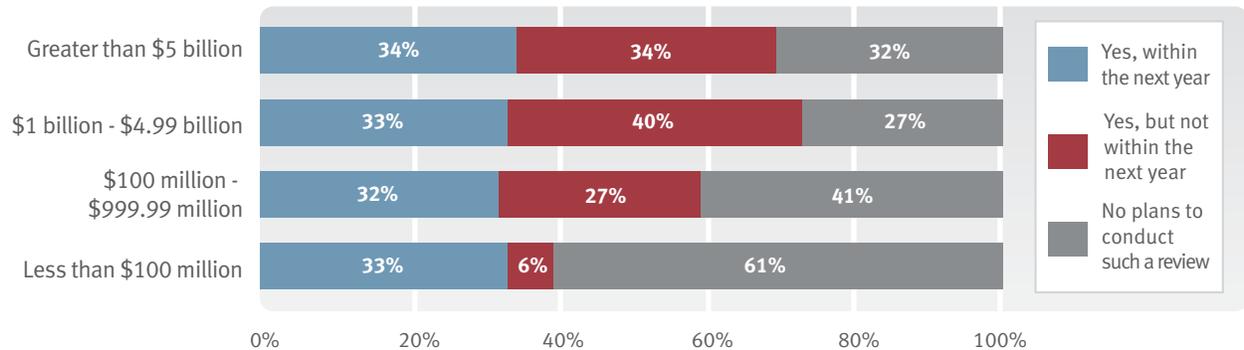
The key takeaway is this: If an organization or internal audit function is not thinking about IT governance, IT risks and, specifically, IT risk assessment, it should be. Otherwise, the organization is at a significant competitive disadvantage. The nature and increased use of technology, the increased amount of data being generated by organizations today, the increased demand for information, the increased demand for technology tools and mobile technology tools specifically – these factors, among many others, compel companies to review how these technologies are being leveraged and the risks they are creating.

Key Questions to Consider

- Does a quality audit plan exist in your organization for significant IT functions (e.g., system development and deployment)? Does it provide a consistent approach to address both general and project-specific quality assurance activities?

- Have you prepared strategic plans for IT that align business objectives with IT strategies?

- Is your level of information security appropriate in today's highly automated world? Are you evaluating the sensitivity of this information adequately and protecting it from internal and external threats?

- Do you invest time periodically to focus on the organization's overall strategy and how IT audit supports it?

- As the pace of technological innovation continues to escalate, does executive management understand the implications of such innovations to both the business and financial reporting?

- Does leadership understand how technology can influence, positively or negatively, the quality of financial reporting processes and the effectiveness of the overall IT entity-level control environment?

- Does your audit department have a mechanism in place to capture and reflect emerging IT risks in your audit plan?

Skills and Capabilities

Gaps in IT Audit Plan

Results by Company Size

Are there specific areas of your current IT audit plan that you are not able to address sufficiently due to lack of resources/skills?
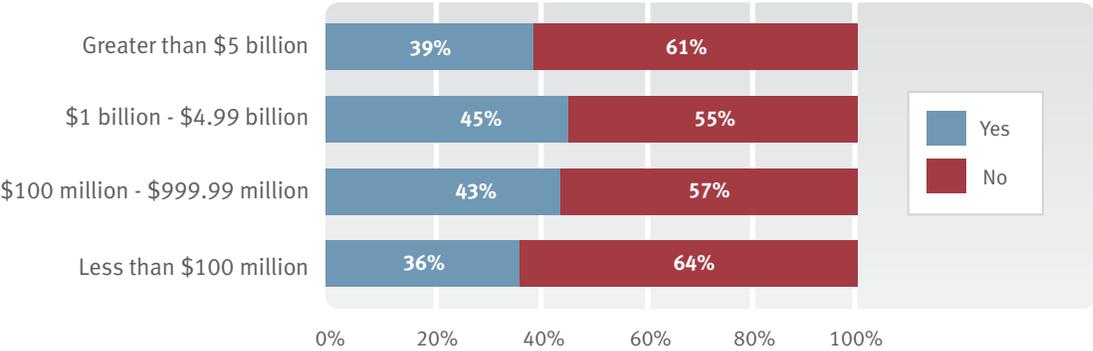
The high percentage of "yes" responses is worth noting. Even though a majority of organizations, regardless of size, indicated they are able to address sufficiently their IT audit plans, many report lacking the necessary resources and skills to do so.

There is an interesting comparison between these results and those on pages 4 and 5 that cover the use of outside resources and in-house IT audit staff. For example, while 36 percent of small companies (less than $100 million) lack the resources and/or skills to address specific areas of their IT audit plans, 50 percent do not use any outside resources to augment their IT audit efforts. This raises two key questions. First, are companies that lack the resources or skills to address certain areas of their IT audit plans considering the use of outside resources as a viable option? And second, of the 64 percent of small companies that report they are addressing all areas of their IT audit plans, how many are confident of this given that many of them do not use outside resources or have designated IT audit staff in-house? There are similar gaps between the findings above for other categories of companies and their reported use of guest auditors and co-sourced providers.

Training

Respondents were asked about the amount of specific IT skills training that IT audit staff receive annually. The positive news is that, among companies with $1 billion or more in annual revenue, a majority are ensuring that their IT audit staff members obtain more than 40 hours of training per year. The same is true among all companies in North America.

Some of the less-than-positive results include the following:

- 18 percent of respondents from EMEA/APAC organizations report there is no IT skills training for IT audit staff.
- 32 percent of small companies (less than $100 million) and 20 percent of companies at the $100 million-$999.99 million level provide no IT skills training for these staff members.

A prevalent theme in this report has been the gap between the prevalence of technology in companies and the efforts of many organizations to identify and manage the IT risks being created by the greater use of this technology. Without question, a key component to addressing these risks is ensuring that IT audit staff receive the necessary training to keep pace with a rapidly changing IT environment that includes everything from data security and intrusion detection to the use of social media and mobile devices by company personnel.

Key Questions to Consider

- Does your organization offer adequate training for IT internal auditors so that they can work more effectively and be knowledgeable about the latest technology developments and risks?
- Are your IT auditors keeping apprised of current and relevant GTAG Standards?
- Are your IT auditors familiar with the various auditing tools and technologies in the marketplace? Are you satisfied that they are leveraging those that are best for your organization and internal audit function?
- In what areas of data analysis can your internal audit function benefit from further training or guidance in order to audit the enterprise and business unit data in the most effective manner?
- Do you feel you have a strong network of outside IT experts and contacts to whom you can reach out regularly for counsel, guidance and resources?
- Is your IT audit team acquiring, developing and maturing the skills they need to be effective?

Closing Comments

Finally, in a verbatim question, survey participants were asked to name the top IT audit challenges their organizations currently face. The most-cited responses fall under four key areas:

- Resources
- Keeping pace with changing technology
- Privacy issues
- Training

Perhaps most notably, IT risks related to security and privacy appear to be garnering less attention than they should be given the significant impact such risks can have on an organization.

The good news is that more and more organizations are recognizing the critical importance of identifying and managing their IT risks. These companies understand the prevalence of technology in their daily operations as well as in the day-to-day activities of most, if not all, of their employees. These risks cannot be ignored or receive anything less than a comprehensive review and careful monitoring.

We look forward with great interest to assessing and reviewing the progress companies worldwide continue to make in managing their IT risks. Despite the areas for improvement identified in the results of this survey, we are confident that more companies are committed to understanding and managing the seemingly endless number of IT risks being created as they incorporate new systems and technologies into their operations in order to achieve competitive advantage.

Survey Methodology

Close to 500 respondents participated in Protiviti's inaugural *IT Audit Benchmarking Survey*, which was conducted in the fourth quarter of 2010 and first quarter of 2011. The survey consisted of a series of questions grouped into four divisions: IT Audit in Relation to the Internal Audit Department; Assessing IT Risk; Audit Plan; and Skills and Capabilities.

Survey participants also were asked to provide demographic information about the nature, size and location of their businesses, and their titles or positions within the internal audit department. All demographic information was provided voluntarily by respondents.

Sources of Respondents

- **Web-based survey at KnowledgeLeader**[SM] – Electronic surveys were made available online to KnowledgeLeader (**www.knowledgeleader.com**) subscribers, including those with trial subscriptions. KnowledgeLeader is a subscription-based Protiviti website designed to assist internal audit professionals with finding information, tools and best practices they can use to improve the efficiency and quality of their work.
- **Electronic surveys** – Surveys also were forwarded to other internal audit professionals who expressed an interest in participating.

Survey Demographics

Position

Chief Audit Executive (or equivalent)	26%
IT Audit Director	11%
Audit Director	10%
IT Audit Manager	21%
Audit Manager	12%
Audit Staff	15%
Other	5%

Certification

Certified Information Systems Auditor	51%
Certified Internal Auditor	34%
Certified Public Accountant/Chartered Accountant	31%
Certified Fraud Examiner	8%
Certified Financial Services Auditor	4%
Certified Government Auditing Professional	1%
Other	34%

Industry

Financial Services	21%
Manufacturing	14%
Healthcare	10%
Government/Education/Not-for-profit	9%
Insurance	8%
Retail	5%
Utility	5%
Energy	5%
Technology	3%
Telecommunications	3%
Hospitality	2%
Services	2%
Other	13%

Size of Organization (by Gross Annual Revenue)

$20 billion or greater	10%
$10 billion - $19.99 billion	7%
$5 billion - $9.99 billion	13%
$1 billion - $4.99 billion	37%
$500 million - $999.99 million	13%
$100 million - $499.99 million	14%
Less than $100 million	6%

Type of Organization

Public	54%
Private	21%
Not-for-profit	12%
Government	8%
Other	5%

Experience (in Current Position)

Greater than 10 years	18%
5-10 years	29%
1-4 years	43%
Less than 1 year	10%

Company Location

North America	86%
Europe	9%
Asia-Pacific	3%
Africa	1%
Middle East	1%

About Protiviti

Protiviti (www.protiviti.com) is a global consulting firm that helps companies solve problems in finance, technology, operations, governance, risk and internal audit. Through our network of more than 70 offices in over 20 countries, we have served more than 35 percent of FORTUNE® 1000 and Global 500 companies. We also work with smaller, growing companies, including those looking to go public, as well as with government agencies.

Protiviti is a wholly owned subsidiary of Robert Half International Inc. (NYSE: RHI). Founded in 1948, Robert Half International is a member of the S&P 500 index.

About Our IT Internal Audit Services

Protiviti's IT internal audit services help organizations understand their key technology risks and how well they are mitigating and controlling those risks. We also provide insight into the threats inherent in today's highly complex technologies. Protiviti provides a wide range of services for IT internal audit outsourcing and co-sourcing. The Protiviti methodology, which is both COSO- and CobIT-based, facilitates an overall IT internal audit management team (either Protiviti-led, client-led, or in combination) with execution of individual projects by subject-matter experts in each IT audit area.

Other Thought Leadership from Protiviti

Visit www.protiviti.com to obtain copies of these and other thought leadership materials from Protiviti.

- *Using High Value IT Audits to Add Value and Evaluate Key Risks and Controls*
- Powerful Insights (Protiviti's podcast series)
  - IT Audit – Assessing and Managing Risks Effectively within the IT Environment
  - The Importance of Strong IT Governance During a Financial Crisis
  - Social Media Use in Companies – Managing the Risks Effectively
  - Technology-enabled Audits – Increasing Productivity and Delivering More Timely and Reliable Results
  - Internal Audit Quality Assessment Reviews – Required as well as Beneficial
  - Sarbanes-Oxley Compliance: Where U.S.-listed Companies Stand Today
  - The Benefits of Outsourcing the Internal Audit Function
- *Board Risk Oversight – A Progress Report (from COSO and Protiviti): Where Boards of Directors Currently Stand in Executing Their Risk Oversight Responsibilities*
- *2011 Internal Audit Capabilities and Needs Survey*
- *Changes to the IIA Standards: What Board Members and Executive Management Need to Know*
- *Testing the Reporting Process – Validating Critical Information*
- *Guide to Internal Audit: Frequently Asked Questions about Developing and Maintaining an Effective Internal Audit Function* (Second Edition)
- *2011 Sarbanes-Oxley Compliance Survey – Where U.S.-Listed Companies Stand: Reviewing Cost, Time, Effort and Processes*
- *Guide to the Sarbanes-Oxley Act: Internal Control Reporting Requirements* (Fourth Edition)
- *Internal Auditing Around the World* (Volumes 1-7)

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