

Benchmarking Internal Audit Maturity

GLOBAL
PERSPECTIVE



Core Report

A High-Level Look at Audit Planning and Processes Worldwide

Mohammad Abdolmohammadi

DBA, CPA

Giuseppe D'Onza

PhD

Gerrit Sarens

PhD, CIA



About CBOK

SURVEY FACTS

Respondents	14,518*
Countries	166
Languages	23

EMPLOYEE LEVELS

Chief audit executive (CAE)	26%
Director	13%
Manager	17%
Staff	44%

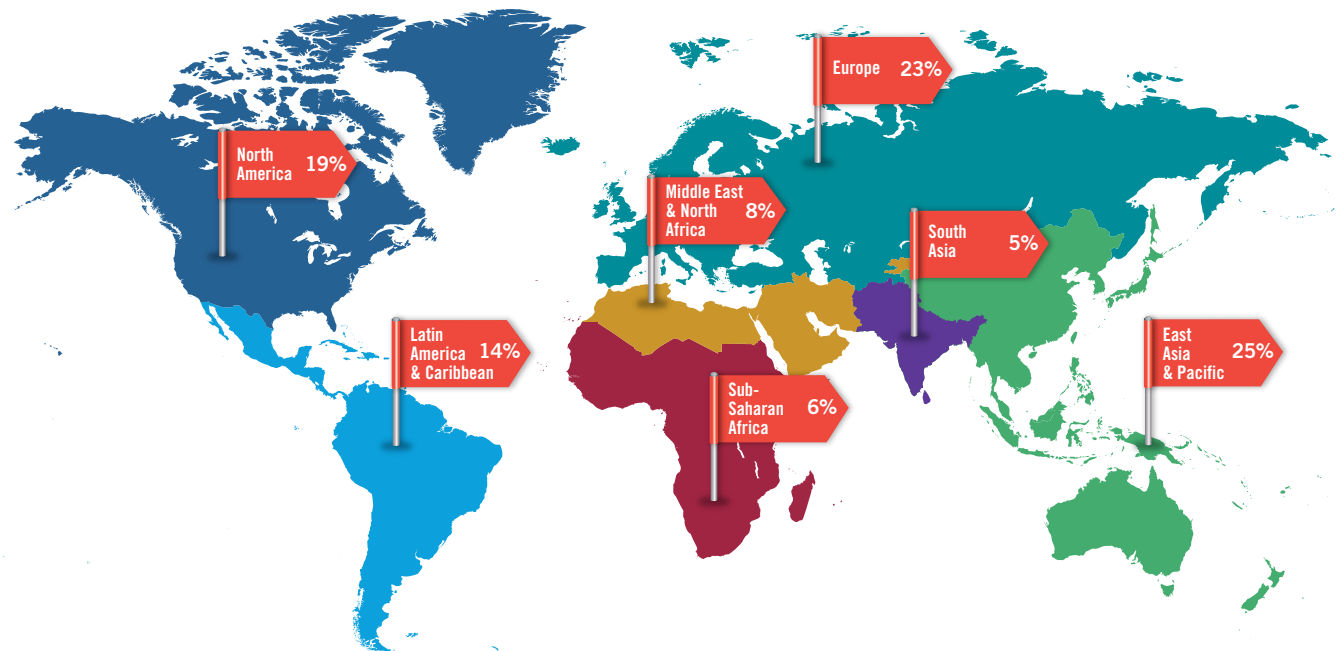
*Response rates vary per question.

The Global Internal Audit Common Body of Knowledge (CBOK) is the world's largest ongoing study of the internal audit profession, including studies of internal audit practitioners and their stakeholders. One of the key components of CBOK 2015 is the global practitioner survey, which provides a comprehensive look at the activities and characteristics of internal auditors worldwide. This project builds on two previous global surveys of internal audit practitioners conducted by The IIA Research Foundation in 2006 (9,366 responses) and 2010 (13,582 responses).

Reports will be released on a monthly basis through July 2016 and can be downloaded free of charge thanks to the generous contributions and support from individuals, professional organizations, IIA chapters, and IIA institutes. More than 25 reports are planned in three formats: 1) core reports, which discuss broad topics, 2) closer looks, which dive deeper into key issues, and 3) fast facts, which focus on a specific region or idea. These reports will explore different aspects of eight knowledge tracks, including technology, risk, talent, and others.

Visit the CBOK Resource Exchange at www.theiia.org/goto/CBOK to download the latest reports as they become available.

CBOK 2015 Practitioner Survey: Participation from Global Regions



Note: Global regions are based on World Bank categories. For Europe, fewer than 1% of respondents were from Central Asia. Survey responses were collected from February 2, 2015, to April 1, 2015. The online survey link was distributed via institute email lists, IIA websites, newsletters, and social media. Partially completed surveys were included in analysis as long as the demographic questions were fully completed. In CBOK 2015 reports, specific questions are referenced as Q1, Q2, and so on. A complete list of survey questions can be downloaded from the CBOK Resource Exchange.

**CBOK
Knowledge
Tracks**

Future



**Global
Perspective**



Governance



Management



Risk



**Standards &
Certifications**



Talent



Technology



Contents

Executive Summary	4
Introduction	6
1 Alignment of Internal Audit with the Organization's Strategic Plan	7
2 Risk Assessment	12
3 Internal Audit Competence	16
4 Internal Audit Planning	23
5 Audit Procedures	27
6 Use of Technology	31
7 Quality Assurance and Improvement Program	35
Summary, Conclusions, and Additional Reflections	39

Executive Summary

How mature is your internal audit department (or how mature can it be)? This subject is explored using responses from more than 2,500 chief audit executives (CAEs) in The IIA's CBOK (Common Body of Knowledge) database. The findings were further supplemented through interviews with a small sample of CAEs from different regions in the world who commented on internal audit department maturity.

Assessment of the internal audit department maturity is important because it helps build strategies to bridge the gaps between expected and realized internal audit quality. Maturity indicators are introduced to support principal stakeholders in deciding whether and how they can rely on internal audit departments' services and guide CAEs in developing more mature internal audit departments.

This report spans various industries in several global regions. It also reports on the influences of internal audit departments' age and size, organization size, and degree of conformance with The IIA's *International Standards for the Professional Practice of Internal Auditing (Standards)*, among others. The report is organized in seven sections. Data was available to measure internal audit departmental maturity on the following indicators:

- Is almost fully aligned with the strategic plan of the organization
- Demonstrates agility and flexibility to adapt the internal audit planning and priorities to important changes in the strategic objectives of an organization
- Relies on a holistic risk assessment to build sufficient knowledge and understanding of the organization's business at micro and macro levels
- Has an internal audit staff with a mixed background of traditional auditing skills and industry knowledge complemented with general business competence, critical thinking, and leadership skills
- Provides structured, documented, and diversified training programs for the internal audit staff
- Documents and continuously monitors the audit procedures to adapt them to the evolving environment
- Makes the internal audit strategy explicit and translates the strategy into key performance indicators (KPIs), which allow continuous monitoring of the achievement of the internal audit strategy

- Uses leading technology (like data mining, data analytics, and continuous/real-time auditing) across the entire audit process to increase internal audit's efficiency and effectiveness
- Has a Quality Assurance and Improvement Program (QAIP) for the internal audit department, which is aligned with the internal audit strategy and supported by a culture around continuous quality assurance and improvement

In addition to these main findings, key action items are included in each section to help establish guidance in improving internal audit department maturity.

Introduction

A series of CBOK surveys by The IIARF has created a rich dataset on various topics of interest to professionals and academics alike. For example, the CBOK 2015 Global Practitioner Survey asked 11 questions on potential indicators of internal audit department maturity. In this report, the indicators are analyzed in a variety of situations, such as global regions, internal audit department age and size,¹ organization size,² and degree of conformance with the *Standards*. The report offers summary discussion and graphical depiction of key findings around these variables.

Specifically, 11 indicators of maturity are analyzed in relation to:

1. Geographical region
2. Age of the internal audit department
3. Size of the internal audit department
4. Size of the organization
5. Different types of organizations
6. Public versus private³
7. Scope of the organization
8. Industry
9. Whether the internal audit department is mandated by statutory law
10. Whether internal audit activities are used as a management training ground
11. Conformance with the *Standards*

The report provides analysis, descriptive information, and data from nine interviewees⁴—highly knowledgeable CAEs who offer their opinions and insights. Several conclusions are also included at the end of the report.

¹ The internal audit department size is measured as full-time equivalent (FTE) employees.

² Organization size is defined in terms of full-time equivalent (FTE) employees, total assets, and total revenue.

³ Public organizations refer to listed companies. Private organizations are non-listed.

⁴ The word “interviewees” is used broadly. A number of open-ended questions were emailed to CAEs asking them if they wanted to be interviewed or respond by email. They all preferred to respond by email.

1 Alignment of Internal Audit with the Organization's Strategic Plan

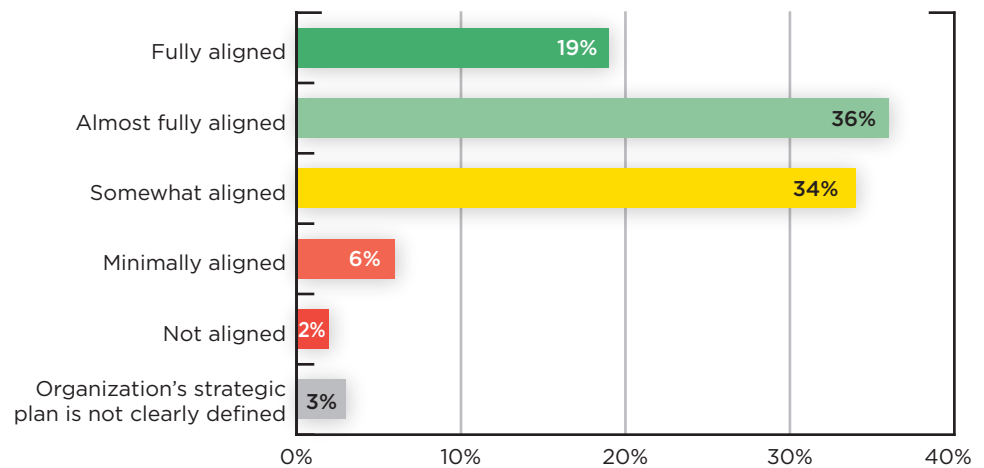
On average, 55% of the responding CAEs indicate that their internal audit department is fully aligned or almost fully aligned with the strategic plan of their organization (see **exhibit 1-1**). This is an indicator of internal audit maturity. Aligning the internal audit department with the strategic plan of the organization is a strategy to assure synergy between the department and the organization as a whole. Several CAE interviewees confirm that supporting the strategic business objectives and having a close contact with the business is important for guaranteeing internal audit maturity.

Survey responses indicate differences between various regions of the world,

with the highest proportion of internal audit departments being fully or almost fully aligned with the strategic plan of the organization in Latin America & Caribbean (70%) and Sub-Saharan Africa (65%) (see **exhibit 1-2**). The lowest proportion is found in South Asia (42%) and East Asia & Pacific (44%). These results are interesting, perhaps indicating that the countries that more recently adopted the Western practice of internal auditing have chosen alignment with the strategic plan. However, the result may be due to small samples, indicating a need for additional research.

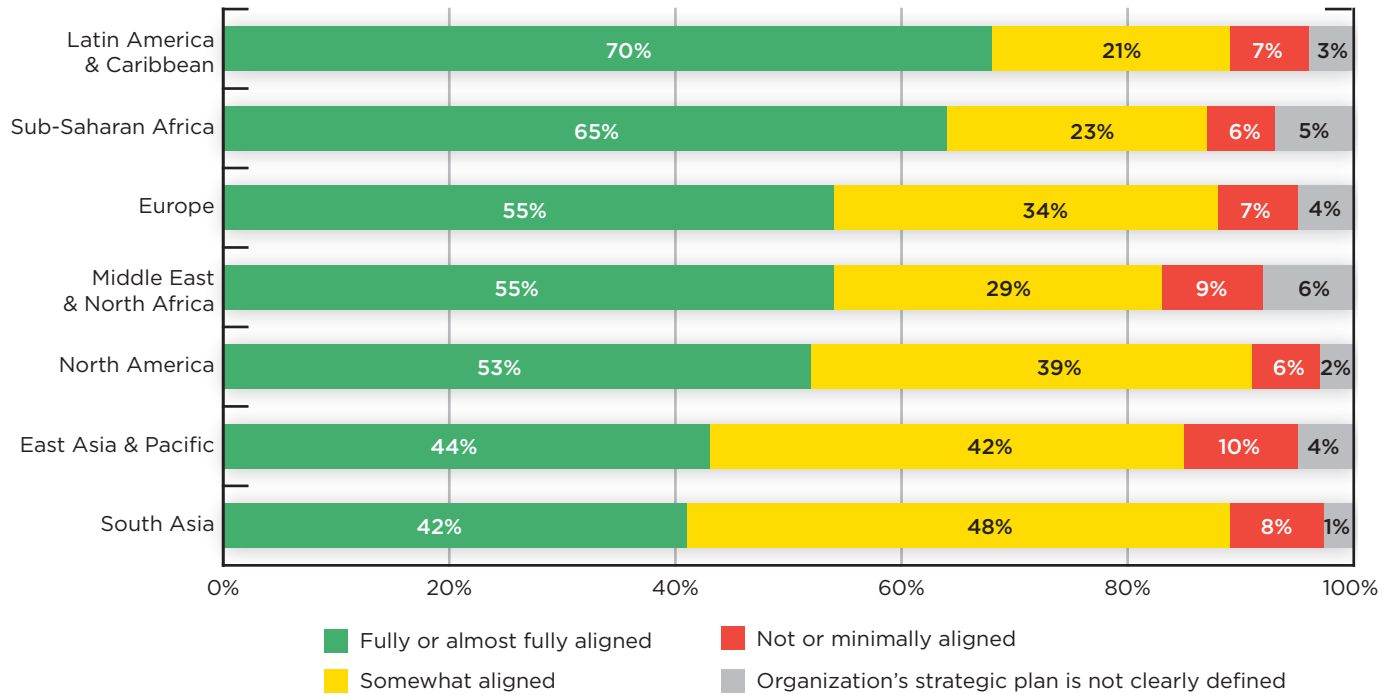
When alignment with the strategic plan of the organization is analyzed by

Exhibit 1-1 Alignment of the Internal Audit Department with the Strategic Plan of the Organization



Note: Q57: To what extent do you believe your internal audit department is aligned with the strategic plan of your organization? CAEs only. Those who answered "I don't know" were excluded from analysis. $n = 2,814$.

Exhibit 1-2 Alignment of the Internal Audit Department with the Strategic Plan of the Organization by Global Region



Note: Q57: To what extent do you believe your internal audit department is aligned with the strategic plan of your organization? CAEs only. Those who answered “I don’t know” were excluded from analysis. *n* = 2,814.

the age of the internal audit department, the older the department, the more likely it is to be almost fully aligned.

When analyzing the relationship between alignment with the strategic plan of the organization and the size of the internal audit department, an inverted U is found. This finding indicates that the proportion of internal audit departments that are almost fully aligned with the strategic plan goes up in a linear way to a certain point (299 full-time equivalent employees in the internal audit department) and then drops for extremely large

departments with more than 300 full-time equivalents (see **exhibit 1-3**).⁵

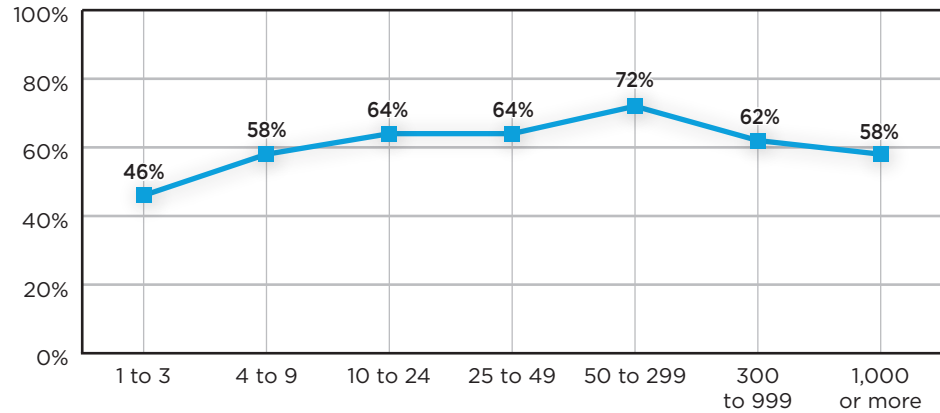
The proportion of internal audit departments that are almost fully aligned with the strategic plan of the organization does not vary significantly between private and public organizations or between local/national and multinational organizations. When analyzing the data by

⁵ We note that 1,000 full-time equivalent employees (FTEs) or more indicates extremely large internal audit departments. Nevertheless, we included this category in our analysis because there was a relatively large number of these departments in the CBOK database (*n* = 56) and the differences between various FTE-size categories were highly significant according to the result of the Chi-square statistical test (*p* = 0.001).

“Organizations across the world are increasingly undergoing transformation, and markets are no longer constrained by geographic or legal boundaries. Many of these transformations take place on a large scale and over many years. “Agility” has emerged as a key driver for enhancing shareholder value and ensuring sustainability. Therefore, “too small” might not meet this, while “too large” might also not be flexible enough.”

—Lesedi Lesetedi,
 Director of Internal Audit,
 BIUST, Sub-Saharan Africa

Exhibit 1-3 Alignment of the Internal Audit Department with the Strategic Plan of the Organization by Internal Audit Size



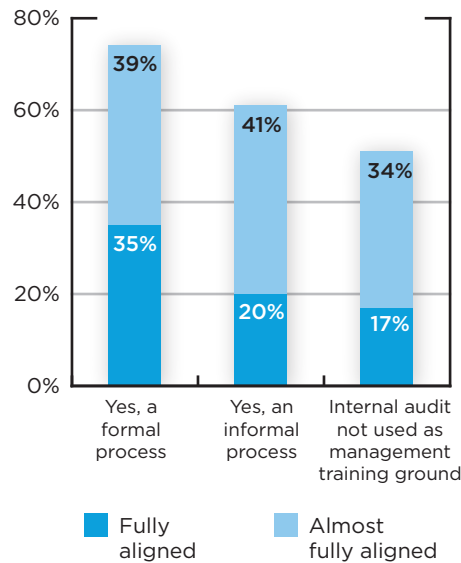
Note: Combination of Q57 and Q24. Q57: To what extent do you believe your internal audit department is aligned with the strategic plan of your organization? and Q24: Approximately how many fulltime equivalent employees make up your internal audit department? CAEs only. n = 2,769.

industry, the proportion of departments that are almost fully aligned with the strategic plan of the organization is 55%, with the highest being utilities (67%) and the finance and insurance industry (63%). The lowest proportion can be found in the administrative and support and waste management and remediation services (12%). The manufacturing industry (40%) and the arts, entertainment, and recreation industry (40%) are also low. However, the alignment with

the strategic plan of the organization does not differ by organization size or organizations where the internal audit department is mandated by law.⁶

⁶ While there is not a significant difference in strategic alignment by whether or not the existence of the internal audit department is mandated by law, regulated industries such as financial services typically are more likely to be the target of legal mandate to have an internal audit department than less-regulated industries.

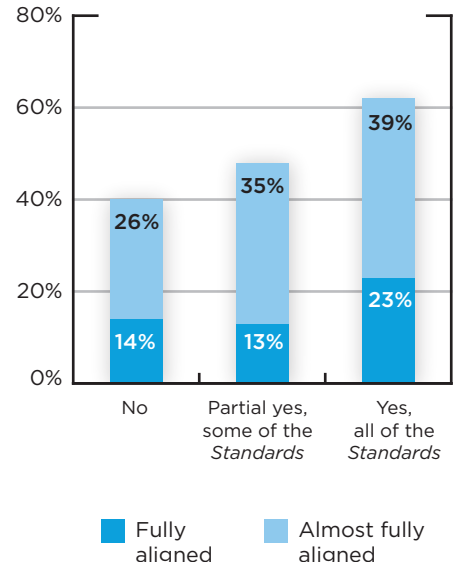
Exhibit 1-4 The Internal Audit Function Is Aligned with the Strategic Plan of the Organization and is Used as a Management Training Ground



Note: Combination of Q57 and Q35. Q57: To what extent do you believe your internal audit department is aligned with the strategic plan of your organization? and Q35: Does your organization have a process in place to rotate staff through the internal audit department as part of training them for management in other parts of the organization? CAEs only. *n* = 2,814.

Exhibit 1-4 illustrates an interesting finding. Internal audit departments with a formal process to rotate staff through the department as a part of management training are significantly more aligned with the strategic plan of the organization (74%) than those without a formal training program.

Exhibit 1-5 The Internal Audit Function Is Aligned with the Strategic Plan of the Organization and in Conformance with IIA Standards



Note: Combination of Q57 and Q98. Q57: To what extent do you believe your internal audit department is aligned with the strategic plan of your organization? and Q98: Does your organization use the *International Standards for the Professional Practice of Internal Auditing (Standards)*? CAEs only. *n* = 2,495.

Finally, as detailed in **exhibit 1-5**, we find a significant relationship between conformance with IIA *Standards* and alignment with strategic plans. Specifically, internal audit departments that fully conform with the *Standards* are also aligned with the strategic plan of their organization (62%), compared to those who only partially conform (48%) or do not conform with the *Standards* (40%).

Action Items

- ✓ Build a strong network with the c-suite and make sure you are regularly informed about the strategy of the organization.
- ✓ Be ready to adapt the internal audit planning and priorities to important changes in the strategic objectives of the organization. Agility and flexibility are important for becoming/remaining a mature internal audit department.

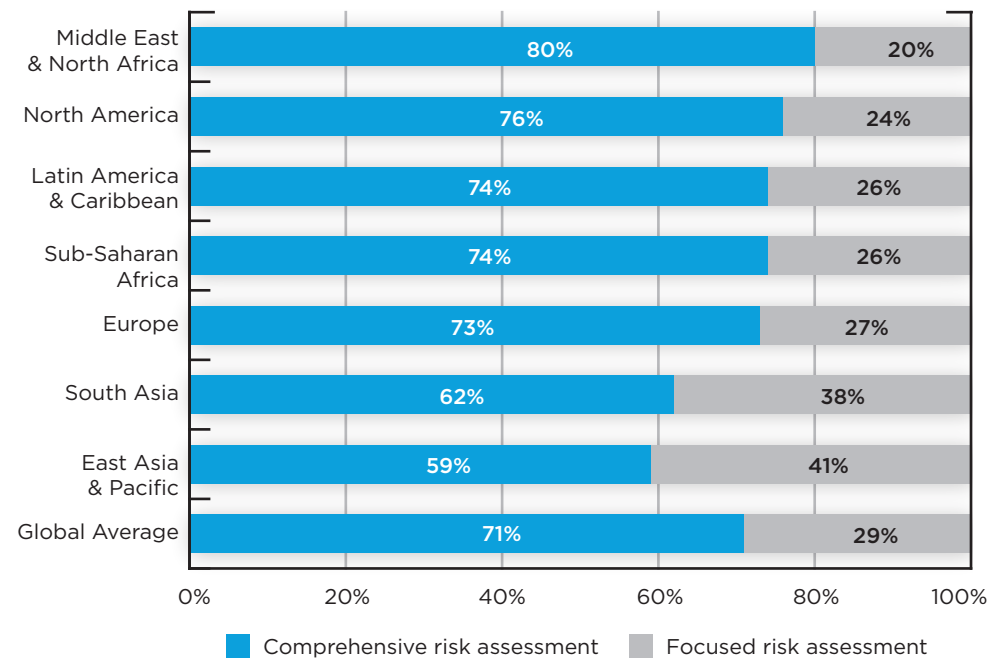
2 Risk Assessment

C BOK uses the terminology “comprehensive” and “focused risk assessment” (see Q41) for data collection. This is meant to indicate a holistic assessment of various risks compared with focusing on assessing various risks one at a time.

Comprehensive risk assessment as a sign of internal audit department maturity compared with focused risk assessment is confirmed by most of the CAE interviewees. For example, some

interviewees commented that comprehensive risk assessment should be sufficiently proactive and forward-looking. Mary Ludford, CAE at Exelon, North America, said, “The ‘non-negotiable’ of providing assurance on the riskiest areas in the company must be done. Yet, a mature organization must also look forward and understand the business and the emerging risks where the effectiveness of controls becomes critical to success.”

Exhibit 2-1 Type of Risk Assessment the Internal Audit Function Relies Upon by Global Region



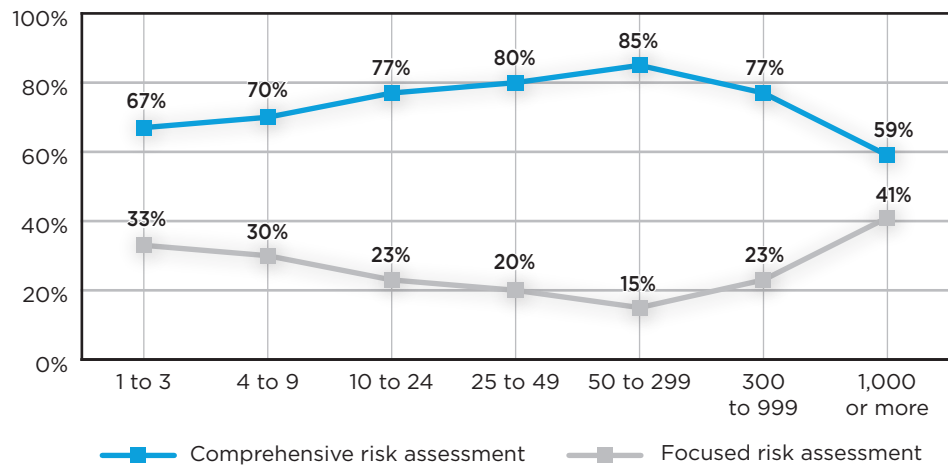
Note: Q41. What kind of risk assessment does internal audit rely upon at your organization? CAEs only. Those who answered “Other/Not applicable” were excluded from the calculations. n = 2,869.

As shown in **exhibit 2-1**, a global average of 71% of the responding CAEs indicates that they use comprehensive risk assessment. The current complex business environment requires internal audit departments to adopt comprehensive risk assessment if they have not already done so. This is important so as to have a broad view of the risks that their organizations face. This broad view mitigates the chances of missed risks when focused risk assessment is used. This is because organizations that use focused risk assessment focus only on certain specific risks.

Exhibit 2-1 also shows some important differences by global region. Middle East & North Africa (80%) and North America (76%) have the highest proportions of relying on comprehensive risk assessment, while East Asia & Pacific (59%) and South Asia (62%) rely on it less.

There is also a positive relationship between the use of comprehensive risk assessment and the age of the internal audit department, where older departments are more likely to rely on comprehensive risk assessment.

Exhibit 2-2 Type of Risk Assessment the Internal Audit Department Relies Upon and Internal Audit Department Size

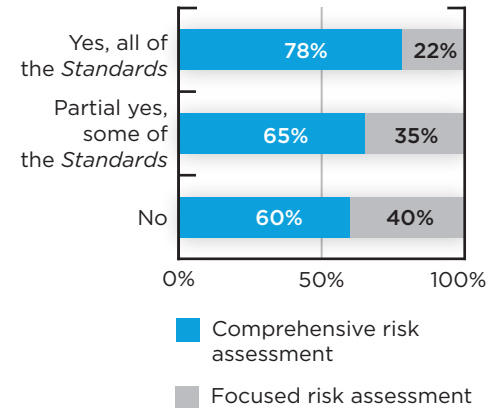


Note: Combination of Q41 and Q24. Q41: What kind of risk assessment does internal audit rely upon at your organization? and Q24: Approximately how many fulltime equivalent employees make up your internal audit department? CAEs only. *n* = 2,835.

As reported in **exhibit 2-2**, the relationship between comprehensive risk assessment and the size of the internal audit department is an inverted U shape. Specifically, for audit departments with full-time equivalents up to 299, the use of comprehensive risk assessment increases and then drops beyond 299. Thus, while medium-sized internal audit departments have a positive relationship with comprehensive risk assessment, smaller and larger internal audit departments have lower use of comprehensive risk assessment, which is an interesting finding.

The type of organization (public versus private; local/national versus multinational) does not seem to be related to the use of comprehensive risk assessments, but industry differences are indicated by the data, where comprehensive risk assessments are more commonly used in the finance and insurance industry (81%) and in the accommodation and food services industry (75%). On the other hand, manufacturing (60%) and wholesale and trade (63%) have the lowest use of comprehensive risk assessments. However, organization size and whether or not the internal audit department is mandated by law do not indicate significant differences.

Exhibit 2-3 Type of Risk Assessment that Internal Audit Departments Use and Conformance with IIA Standards



Note: Combination of Q41 and Q98. Q41: What kind of risk assessment does internal audit rely upon at your organization? and Q98: Does your organization use the *International Standards for the Professional Practice of Internal Auditing (Standards)*? CAEs only. n = 2,320.

Exhibit 2-3 shows the positive relationship between the use of comprehensive risk assessment and conformance with IIA Standards.

Also interesting, and important to report, is a positive relationship between the use of the internal audit department as a management training ground and comprehensive risk assessment. Specifically, comprehensive risk assessments are most commonly used in internal audit departments that have a formal process in place to rotate staff through the department as a part of a training program for management in other parts of the organization.

Action Items

- ✓ Promote discussions across lines of business to build a holistic view of the organization.
- ✓ Make sure the risk assessment is as holistic as possible to avoid black spots.
- ✓ Build sufficient knowledge and understanding of the business at both micro and macro levels to create awareness for the “unknown unknowns.”⁷

⁷ Unknowns are future events that cannot be forecast because there is no prior experience or theoretical basis for expecting the phenomena.

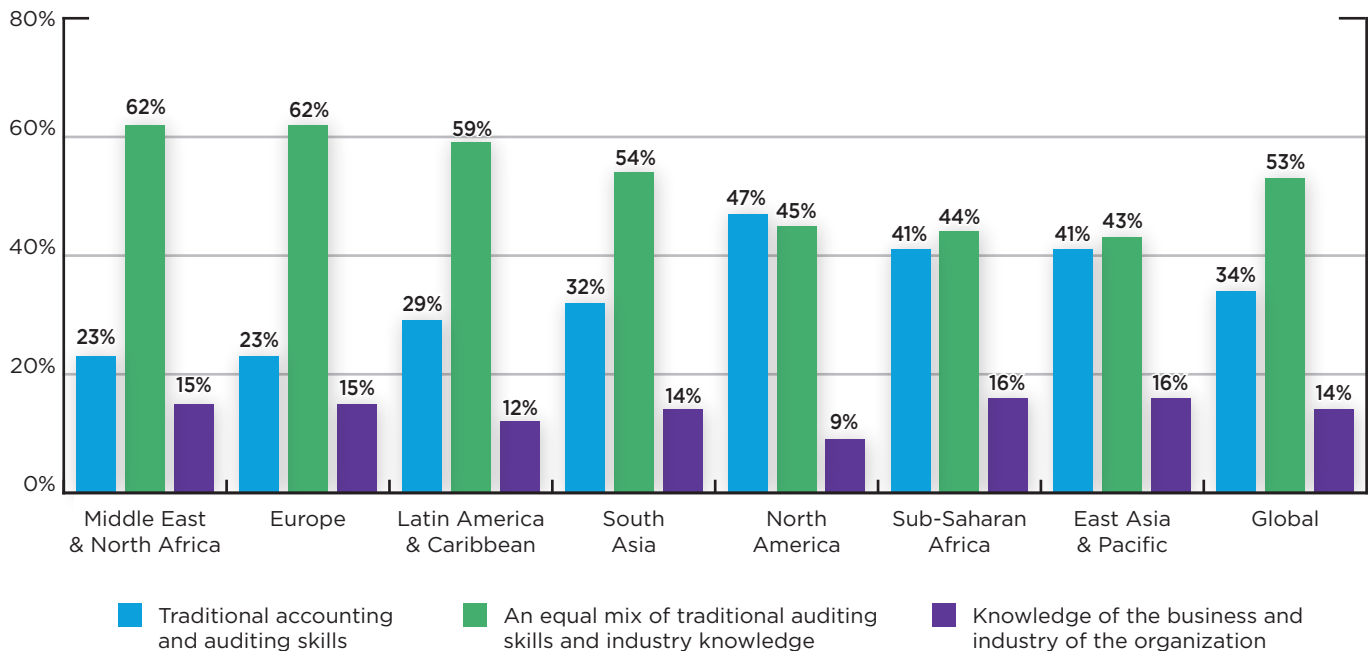
3 Internal Audit Competence

Background of Internal Audit Staff

The relevant background of the internal audit department staff is an indicator of the department's maturity. As **exhibit 3-1** shows, a global average of 53% of the CAEs report that their staff has an equal mix of traditional auditing skills and industry knowledge. In 34% of the cases, the staff has a more traditional accounting and auditing profile. Several CAE interviewees confirm that staff

members with varied backgrounds are important maturity indicators. Firsthand business knowledge and an understanding of the drivers of operations are key advantages to an entrant to the internal audit department. This background mix is most common in the Middle East & North Africa (62%) and Europe (62%) and least common in Sub-Saharan Africa (44%) and East Asia & Pacific (43%).

Exhibit 3-1 Most Dominant Background of Internal Audit Staff by Global Region

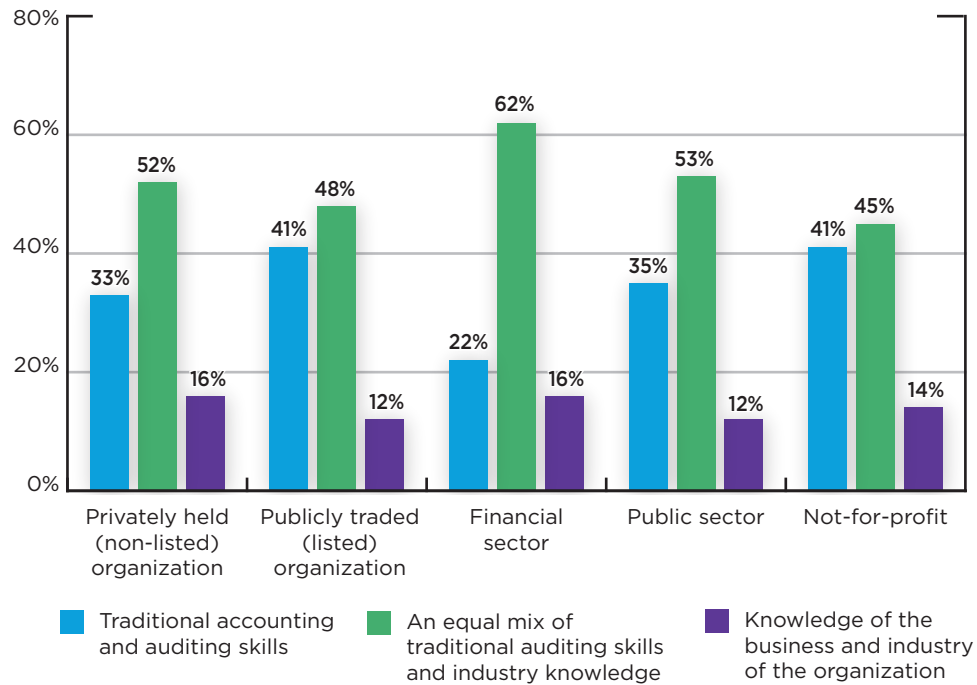


Note: Q40: Which skill background is most dominant within the internal audit staff of your organization? CAEs only. Those who answered "Not applicable" were excluded from the calculations. *n* = 3,036.

The older the internal audit department, the more common this equal mix of traditional auditing skills and industry knowledge becomes, ranging from 47% for the youngest to 60% for the oldest.

An equal mix of backgrounds generally becomes more likely with department size but significantly less likely for the last category (the largest internal audit departments).

Exhibit 3-2 Most Dominant Background of Internal Audit Staff by Type of Organization



Note: Combination of Q40 and Q15. Q40: Which skill background is most dominant within the internal audit staff of your organization? and Q15: What is the type of organization for which you currently work? CAEs only. n = 2,806.

Regarding organizational type, note that internal audit departments in the financial sector have significantly more internal audit staff (62%) with an equal mix of traditional auditing skills and industry knowledge (see exhibit 3-2). Those in not-for-profit organizations have significantly less internal audit staff with this equal mix of backgrounds (45%).

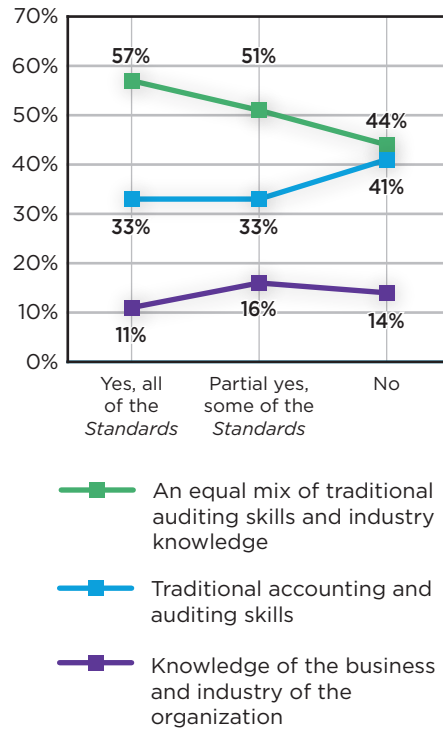
The geographical scope of the organization does not seem to be related to the

background of the internal audit staff. In the finance and insurance industry (60%) and the utilities industry (58%), this proportion is significantly higher. In the educational services industry (39%) and agriculture, forestry, fishing, and hunting industry (40%), this proportion is significantly lower. The organization size and legal mandate for the internal audit department are not related to the background of the internal audit staff.

“In my opinion, knowledge and alignment with international auditing practices is a basic requirement for an internal audit department that wants to be considered mature, but the main difference is when the expertise is aligned to the organization’s business knowledge.”

—Cesar Santos Brunetto, former Internal Auditor at Lojas Renner, Latin America & Caribbean

Exhibit 3-3 Most Dominant Background of Internal Audit and Conformance with IIA Standards



Note: Combination of Q40 and Q98. Q40: Which skill background is most dominant within the internal audit staff of your organization? and Q98: Does your organization use the *International Standards for the Professional Practice of Internal Auditing (Standards)*? CAEs only. n = 2,463.

Internal audit departments that fully conform with The IIA’s *Standards* seem to have a significantly larger proportion of staff (57%) with an equal mix of traditional auditing skills and industry knowledge compared to those that do not conform (44%) or only partially conform (51%) (see **exhibit 3-3**). Similarly, internal audit departments that are a management training ground also have a significantly larger proportion of staff with this equal mix of backgrounds (61%).

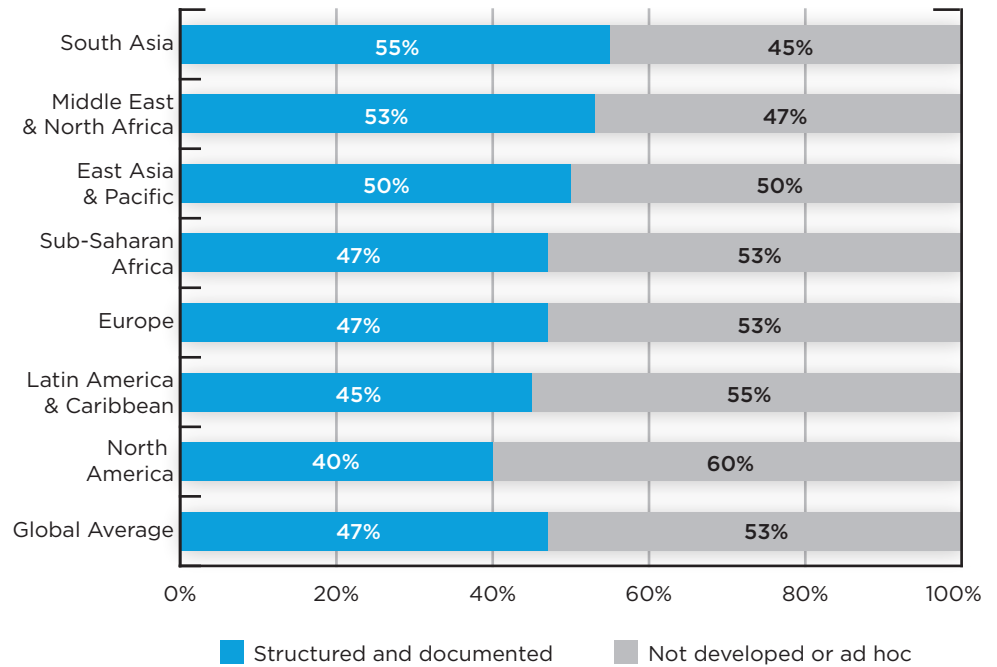
Formalization of Training Programs

Another human resources-related maturity indicator is the existence of a structured and documented training program for internal auditors. **Exhibit 3-4** shows a global average of 47% of the CAEs indicate that their training program is structured and documented. In the other 53% of the cases, the training program is either not developed or developed only on an ad hoc basis. Related to training programs, one interviewee stresses the importance of a professional certification program. The proportion of internal audit departments where the training program is structured and documented is highest in South Asia (55%) and Middle East & North Africa (53%) and lowest in North America (40%).

There is a significant linear relationship with the age of the internal audit department. The older the department, the more likely it is to have a structured and documented training program for the internal audit staff (33% for the youngest departments versus 66% for the oldest). The same pattern is found when it comes to the size of the department. In the largest departments, it is less common to have a structured and documented training program for the internal audit staff.

The type of organization is highly correlated with the nature of the training program. Specifically, internal audit departments in listed companies (48%) and in the public sector (50%) have more structured and documented training programs for their staff compared to those in the not-for-profit organizations (30%). However, the geographic scope

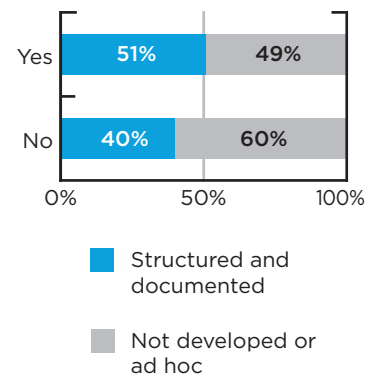
Exhibit 3-4 Level of Formalization of the Training Program for Internal Audit by Global Region



Note: Q45: What is the level of formalization for the training program for internal audit at your organization? CAEs only. Those who answered “Not Applicable” were excluded from the calculations. *n* = 2,866.

of the organization is not related to this maturity indicator. Regarding industry, internal audit departments in the utilities industry (53%) and public administration (52%) have more structured and documented training programs for their staff. Internal audit departments in the health-care and social assistance (38%) and wholesale and trade industry (38%) have less structured and documented training programs. The size of the organization is not related to the formality of training programs.

Exhibit 3-5 Level of Formalization for the Training Program for Internal Audit and the Internal Audit Department Mandated by Law

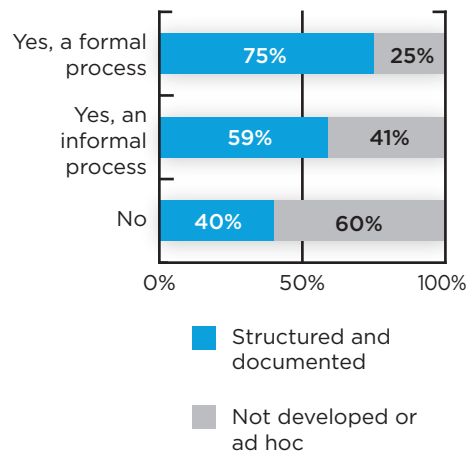


Note: Combination of Q45 and Q68. Q45: What is the level of formalization for the training program for internal audit at your organization? and Q68: Is the existence of an internal audit department mandated by law for your organization? CAEs only. *n* = 2,524.

Internal audit departments that are mandated by law have significantly more structured and documented training programs than those that are not (51% versus 40%) (see **exhibit 3-5**).

Conformance to the *Standards* also is highly related to the nature of training programs. Internal audit departments that fully conform to the *Standards* have significantly more structured and documented training programs (56%) compared to those that do not (27%) or only partially conform (39%).

Exhibit 3-6 Level of Formalization for the Training Program for Internal Audit and the Internal Audit Department as Management Training Ground



Note: Combination of Q45 and Q35. Q45: What is the level of formalization for the training program for internal audit at your organization? and Q35: Does your organization have a process in place to rotate staff through the internal audit department as part of training them for management in other parts of the organization? CAEs only. *n* = 2,685.

A similar relationship is found for using internal audit departments as a management training ground. Those

that are used have more structured and documented training programs for the internal audit staff (75%) compared to those that are not (40%) (see **exhibit 3-6**).

Content of the Training Programs

According to the data, most training programs still focus on the development of internal audit skills (68%). Slightly more than half of the CAEs indicate that their internal audit departments also offer training to develop business knowledge (53%). In 46% of the cases, orientation for new internal audit employees is organized. About one-third provides general business competencies training (34%). Less than one-third provides training to develop skills in critical thinking (30%) and leadership (27%). A more diversified training program for the internal audit staff is considered an indicator of maturity. Therefore, an additive variable that counts the number of different trainings (ranging from 0 to 6) has been created for this report. Overall, only 17% of the internal audit departments offer five or six different types of training to their staff. South Asia (27%) and Sub-Saharan Africa (24%) score the highest. Europe (11%) and East Asia & Pacific (15%) are the regions that score the lowest.

The diversification of the training program is significantly and positively related to the age of the internal audit department. Of those that offer different types of training, 11% of the youngest offer at least five different types of training for their staff compared to 27% of the oldest departments. The relationship between the diversification of the training program and the size of the internal audit

department is significant and positive (the larger the department, the more diversified the training program).

The type of organization is not related to the diversification of the internal audit training program. Regarding the geographical scope, the training programs of international/multinational organizations are significantly more diversified (18%) compared to those in local organizations (13%). Industries where the internal audit departments have the most diversified training programs are agriculture, forestry, fishing, and hunting (25%) and mining, quarrying, oil and gas extraction (23%). The lowest degree of diversification is found in the information (9%)

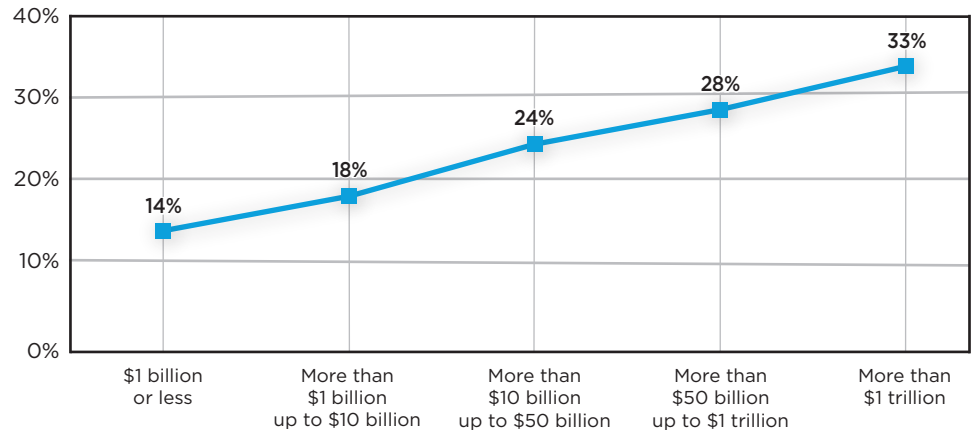
and manufacturing industries (12%). Legal mandate for the department does not make a significant difference.

Internal audit departments in larger organizations also have a more diversified training program for their staff than smaller organizations (see **exhibit 3-7**).

Conformance to the *Standards* also plays a role. Significantly more internal audit departments that fully conform to the *Standards* have a highly diversified training program for their staff (22%) compared to those that do not conform (7%) or partially conform (14%).

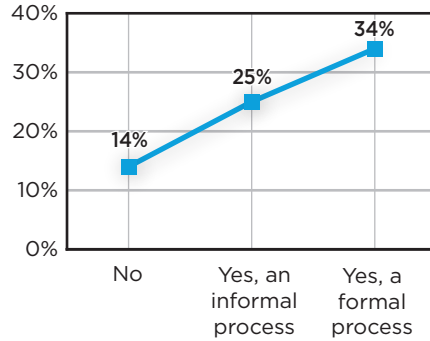
Finally, internal audit departments that are a management training ground are more likely to offer a more diversified

Exhibit 3-7 Diversification of the Training Program and Organization Size (Total Assets)



Note: Combination of Q46 and Q20. Q46: What is included in the training program for internal audit? and Q20: What are the approximate total assets of your organization in U.S. dollars? CAEs only. $n = 2,141$.

Exhibit 3-8 Diversification of the Training Program and the Internal Audit Department as Management Training Ground



Note: Combination of Q46 and Q35. Q46: What is included in the training program for internal audit? and Q35: Does your organization have a process in place to rotate staff through the internal audit department as part of training them for management in other parts of the organization? CAEs only. *n* = 2,853.

training program for their staff than those that are not mandated (34% of them offer at least five different types of training compared to 19% for the others) (see **exhibit 3-8**).

Action Items

- Build an internal audit staff with varied backgrounds (traditional auditing skills and industry knowledge) via appropriate recruiting and on-the-job training.
- Continuous training and development is key to develop internal audit department maturity. To this end, ensure there is a structured and documented training program in place for staff. Make training a persistent practice of the internal audit department.
- Ensure the training program is sufficiently diversified to offer the right training to the right people.
- Make sure the staff is able to follow training outside the normal internal audit field to further develop skills in critical thinking and leadership.

4 Internal Audit Planning

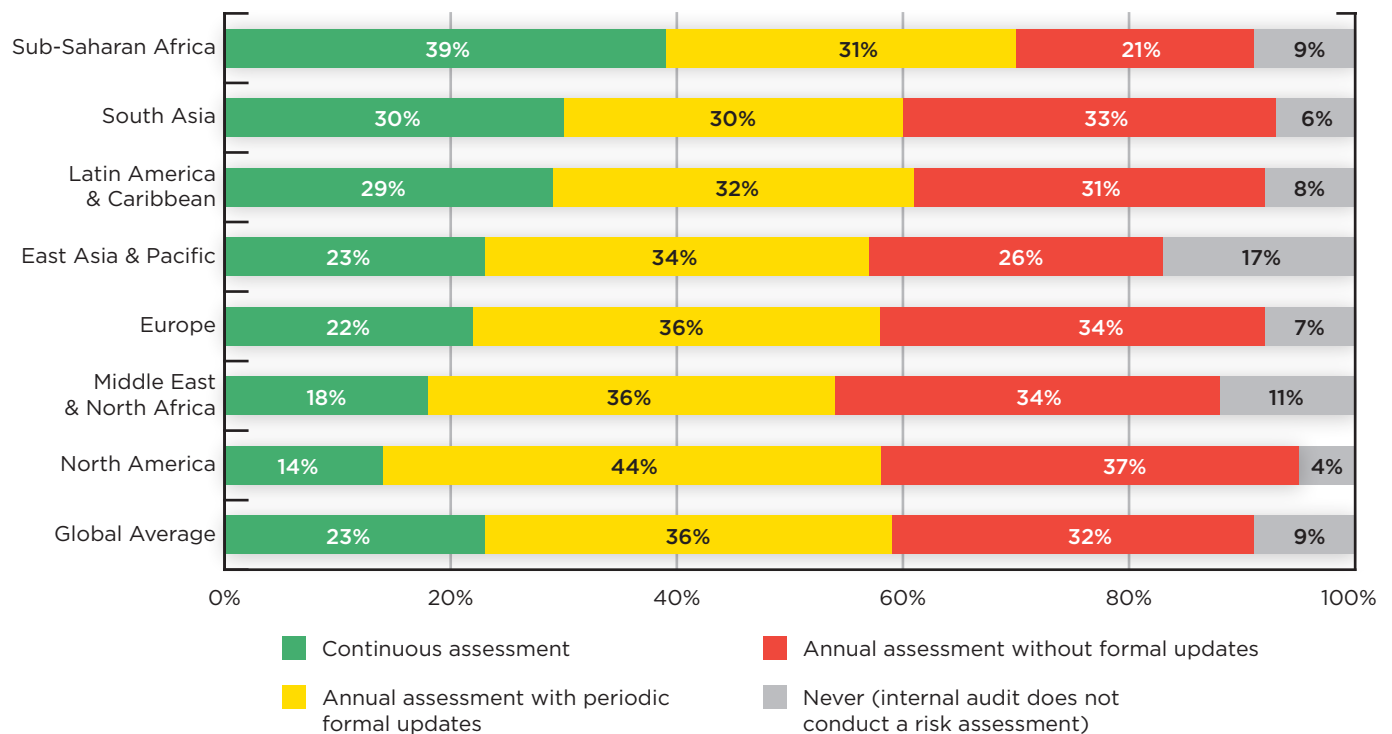
Frequency of Updating Risk Assessment

Dynamic business environments require periodic updates of the risk assessment to stay in touch with organizational developments. Therefore, continuously updating the risk input would be an indicator of internal audit department maturity.

Exhibit 4-1 provides details of updating risk assessment by global region. In summary, more than half of the responding CAEs (59%) indicate that

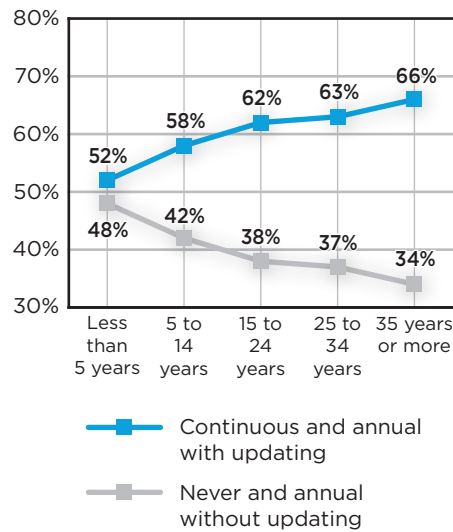
they perform annual risk assessments with periodic formal updates (36%) or continuous risk assessments (23%). This risk assessment can be a part of a plan update (high level) and updating specific risks (input/low level). It is remarkable that overall, 9% of the participating CAEs from various global regions never update their risk assessments. There are differences by global region. For example, Sub-Saharan Africa scores the highest for continuous assessment (39%) and North America scores the lowest (14%).

Exhibit 4-1 Frequency of Updating the Risk Assessment by Global Region



Note: Q42: How frequently does internal audit conduct a risk assessment? CAEs only. Those who answered "Other" were excluded from the calculations. n = 2,941.

Exhibit 4-2 Frequency of Updating Risk Assessment by Internal Audit Department Age



Note: Combination of Q42 and Q23. Q42: How frequently does internal audit conduct a risk assessment? and Q23: Approximately how many years has the internal audit department been in place at your organization? CAEs only. *n* = 2,791.

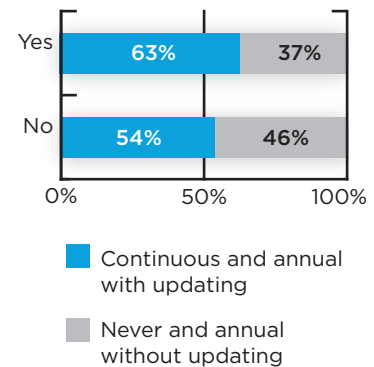
Exhibit 4-2 shows a significant linear relationship between periodic formal updates or continuous risk assessments and the age of the internal audit department. Older internal audit departments update their risk assessments more continuously than younger departments.

A similar pattern was found for the size of the internal audit department. Large departments generally update their risk assessments more continuously than smaller departments.

Additional analysis indicates that internal audit departments in listed companies update their risk assessments significantly more than the average, whereas those in public sector organizations do this significantly less than

average. The geographic scope of the organization (local/regional versus multinational) does not seem to be related to this maturity factor. Considering industry differences, financial and insurance companies (66%) and companies providing professional, scientific, and technical services (64%) score the highest, and educational services (50%) and retail/trade (51%) score the lowest updates of risk assessment. However, the relationship with organization size is not clear.

Exhibit 4-3 Updating Risk Assessment and the Internal Audit Department is Mandated by Law



Note: Combination of Q42 and Q68. Q42: How frequently does internal audit conduct a risk assessment? and Q68: Is the existence of an internal audit department mandated by law for your organization? CAEs only. *n* = 2,583.

As shown in **exhibit 4-3**, whether or not the internal audit department is mandated by law makes a difference. Those that are mandated by law update their risk assessment more continuously (63%) than those that are not mandated by law (54%).

Additional analysis shows that the departments that fully conform to the

Standards and those that are used as a management training ground update their risk assessments continuously (66% and 71% respectively) compared with those that have low conformance with the *Standards* and those not used as a management training ground.

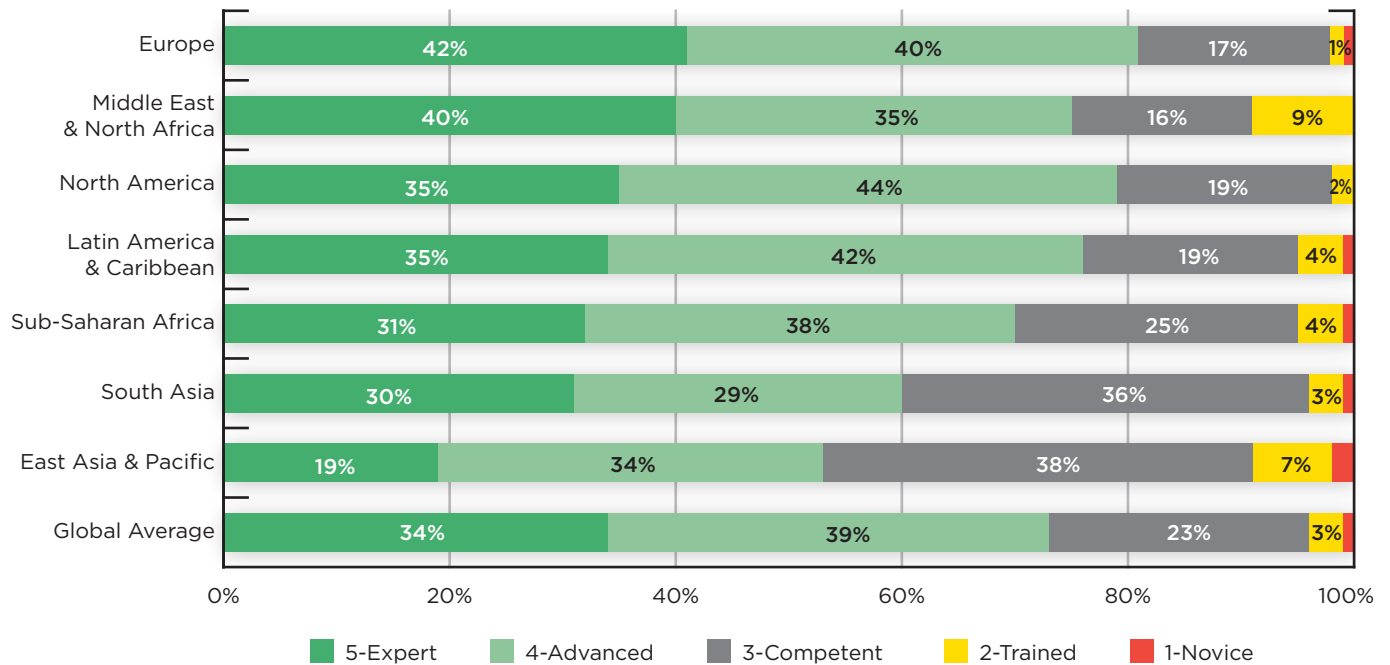
Adaptation of the Audit Plans to Support Organizational Change

Complementary to updating risk assessment, this section shows how the CAEs assess themselves to adapt the audit plans to support organizational change. As shown in **exhibit 4-4**, a global average of 73% of CAEs assess themselves as advanced or expert when it comes to adapting the audit plans to support organizational change. This percentage is significantly higher in Europe (82%)

and North America (79%) and lower in South Asia (59%) and East Asia & Pacific (53%).

Further analysis also shows that CAEs working in multinational organizations (77%) assess themselves as significantly more competent in adapting audit plans to support organizational change compared to CAEs working in local organizations (63%). When analyzing different industries, CAEs working in the utilities industry (82%) and the wholesale and trade industry (79%) assess themselves as significantly more competent, whereas CAEs from agriculture (54%) and the information industry (59%) assess themselves as significantly less competent to deal with organizational change.

Exhibit 4-4 Self-Assessed Competence to Adapt the Audit Plans to Support Organizational Change (CAEs Only)



Note: Q88-1: Adapt audit plans to support organizational change. CAEs only. n = 2,579.

Action Items

- Make the risk assessment as updated and dynamic as needed for the organization.
- Build sufficient business knowledge at all levels within the internal audit department and a strong network with the c-suite to ensure awareness of important changes in the risk profile of the organization.
- Update the risk assessment when there are important changes in the risk profile of the organization. Agility and flexibility of the internal audit department is important to support important organizational changes.

5 Audit Procedures

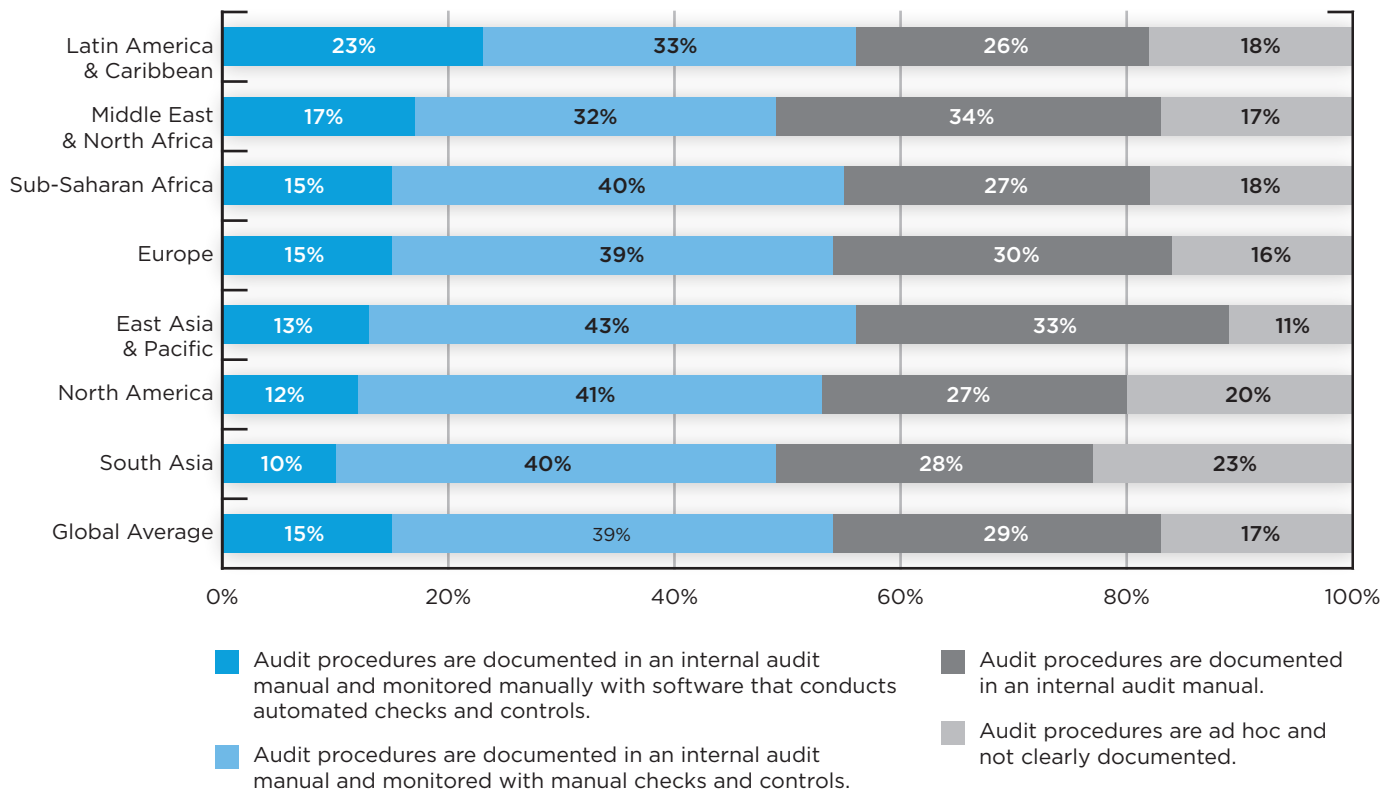
Documentation and Monitoring of Internal Audit Operating Procedures

As shown in **exhibit 5-1**, a global average of 54% of the CAEs indicates that audit procedures in their departments are documented in an internal audit manual and monitored. Documentation and its continuous monitoring are indicators of internal audit maturity. At the other

end of the continuum, 17% of the CAEs reported that their audit procedures are ad hoc in nature and not clearly documented, and 29% said that their audit procedures are documented in a manual but not monitored.

There are some regional differences, where East Asia & Pacific (56%) and Sub-Saharan Africa (55%) score the highest. The lowest frequencies are found in the

Exhibit 5-1 Documentation and Monitoring of Internal Audit Operating Procedures by Global Region



Note: Q39: How would you describe internal audit operating procedures at your organization? CAEs only. n = 3,018.

Middle East & North Africa (49%) and South Asia (50%). Not much difference for any sort of conclusion was noted. Regional data seems to be useable only in very few instances. When analyzing the relationship between documentation and monitoring of the audit procedures and the age of the internal audit department, a significant linear relationship is found: the older the internal audit department, the more likely that audit procedures are documented and monitored (73% for the oldest internal audit departments versus 42% for the youngest).

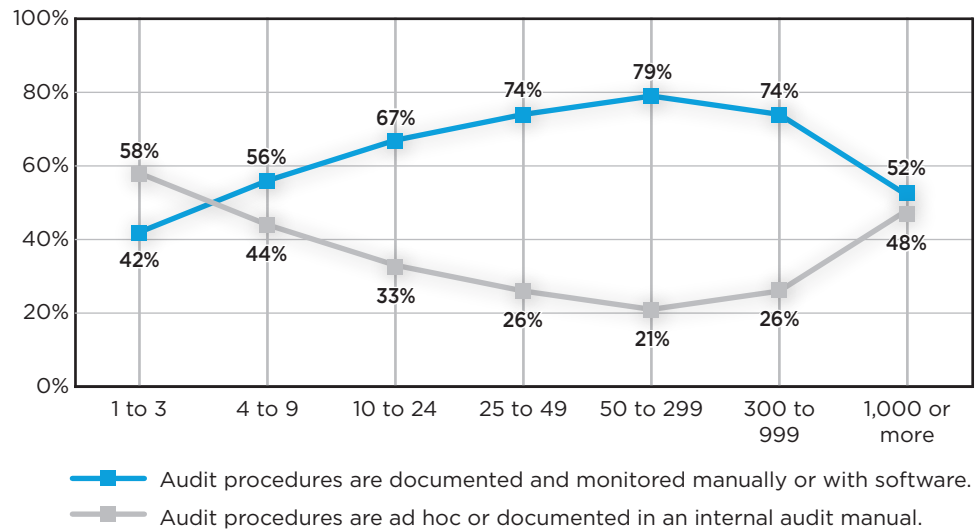
When plotting the relationship with the size of the internal audit department, an inverted U shape is indicated (see exhibit 5-2). This finding indicates that the proportion of internal audit departments that have documented and monitored audit procedures goes up in

a linear way to a certain point (299 full-time equivalent employees in the internal audit department) and then drops for extremely large departments with more than 300 full-time equivalents

A similar relationship is found with organization size when using total assets, where internal audit departments in very large organizations (total assets > \$50 billion) have less documented and monitored audit procedures than medium-sized organizations. This interesting result is discussed further at the end of the report.

Turning to the type of organization, we observe that documented and monitored audit procedures are significantly more common in listed companies (59%) and significantly less common in not-for-profit organizations (49%). Moreover, audit procedures in internal

Exhibit 5-2 Documentation and Monitoring of Internal Audit Operating Procedures by Internal Audit Department Size



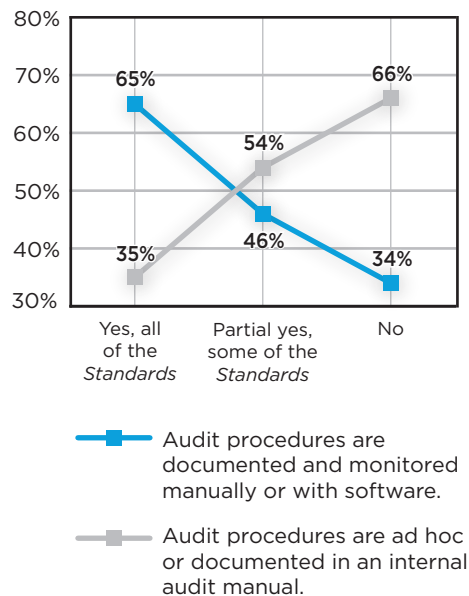
Note: Combination of Q39 and Q24. Q39: How would you describe internal audit operating procedures at your organization? and Q24: Approximately how many fulltime equivalent employees make up your internal audit department? CAEs only. n = 2,976.

“The IIA’s Standards are a good and useful benchmark for conducting competent internal audit services, and I would expect high-performing internal audit departments to utilize those standards as a key baseline for their internal audit operational requirements.”

—Carl Blecher, Senior Vice President and CAE, Aon Corporation, North America

audit departments in national and international (multinational) organizations are significantly more documented and monitored (57% and 56% respectively) compared to those in local organizations (44%). In terms of industry differences, the finance and insurance industry has the highest score (62%) and the agriculture industry (42%) and arts, entertainment, and recreation industry (42%) have the lowest scores. Internal audit departments that are mandated by law also have more documented and monitored audit procedures (58%) compared to those that are not mandated by law (49%).

Exhibit 5-3 Documentation and Monitoring of Internal Audit Operating Procedures and Conformance with IIA Standards



Note: Combination of Q39 and Q98. Q39: How would you describe internal audit operating procedures at your organization? and Q98: Does your organization use the *International Standards for the Professional Practice of Internal Auditing (Standards)*? CAEs only. n = 2,454.

As in the previous sections, a clear positive and significant relationship is found with conformance with the *Standards*. Internal audit departments that fully conform with the *Standards* score significantly higher on the existence of documented and monitored audit procedures (65%) compared to those that do not conform (34%) or only partially conform (46%) (see **exhibit 5-3**).

Another pattern that is consistent with the previous chapters is the positive and significant relationship with internal audit being considered as a management training ground. Specifically, internal audit departments with a formal process in place to rotate staff through the department as part of training them for management positions also have more documented and monitored audit procedures (71%) compared to those that do not (50%).

Internal Audit Policies and Documents

According to the data, a large majority of the CAEs indicate that their internal audit departments have an internal audit charter (85%), internal audit operating manuals (71%), and codes of conduct/ethics (70%). However, only half of the responding CAEs (52%) indicate that they have a separate written mission statement for their internal audit department. Finally, key process indicators (40%) and internal audit strategy description (36%) are the least common.

For all of these internal audit policies and documents, a positive and significant relationship is found with the age of the department. However, this relationship with the size of the internal audit departments is an inverted U shaped. That is,

for these audit policies and documents, the likelihood goes up in internal audit departments with up to 299 full-time equivalent employees. Beyond 299, the likelihood goes down.

Some of these internal audit policies and documents are significantly more common in listed organizations—internal audit charter, code of conduct/ethics, and key performance indicators (KPIs). Considering industry differences, most internal audit policies and documents are

more commonly present in the mining, quarrying, oil and gas extraction, the financial and insurance industry, and retail and trade. Whether or not the internal audit department is mandated by law does not make much of a difference for most of these policies and documents. However, it is more common to find them in internal audit departments that are used as a management training ground and in internal audit departments that fully conform with the *Standards*.

Action Items

- ☑ Make sure the audit procedures are documented and continuously monitored so that they can be adapted to the changing context if needed. The monitoring aspect should be integrated into the Quality Assurance and Improvement Program (QAIP) (see section 7).
- ☑ Take the time to reflect on internal audit strategy and make sure it is explicit, documented, and communicated throughout the organization.
- ☑ Translate the internal audit strategy into KPIs, which allows continuous monitoring of the achievement of the strategy. These KPIs should be a central part of the QAIP.
- ☑ Review annually the catalog of audit procedures and align to the current entity risk profile and emerging risks.

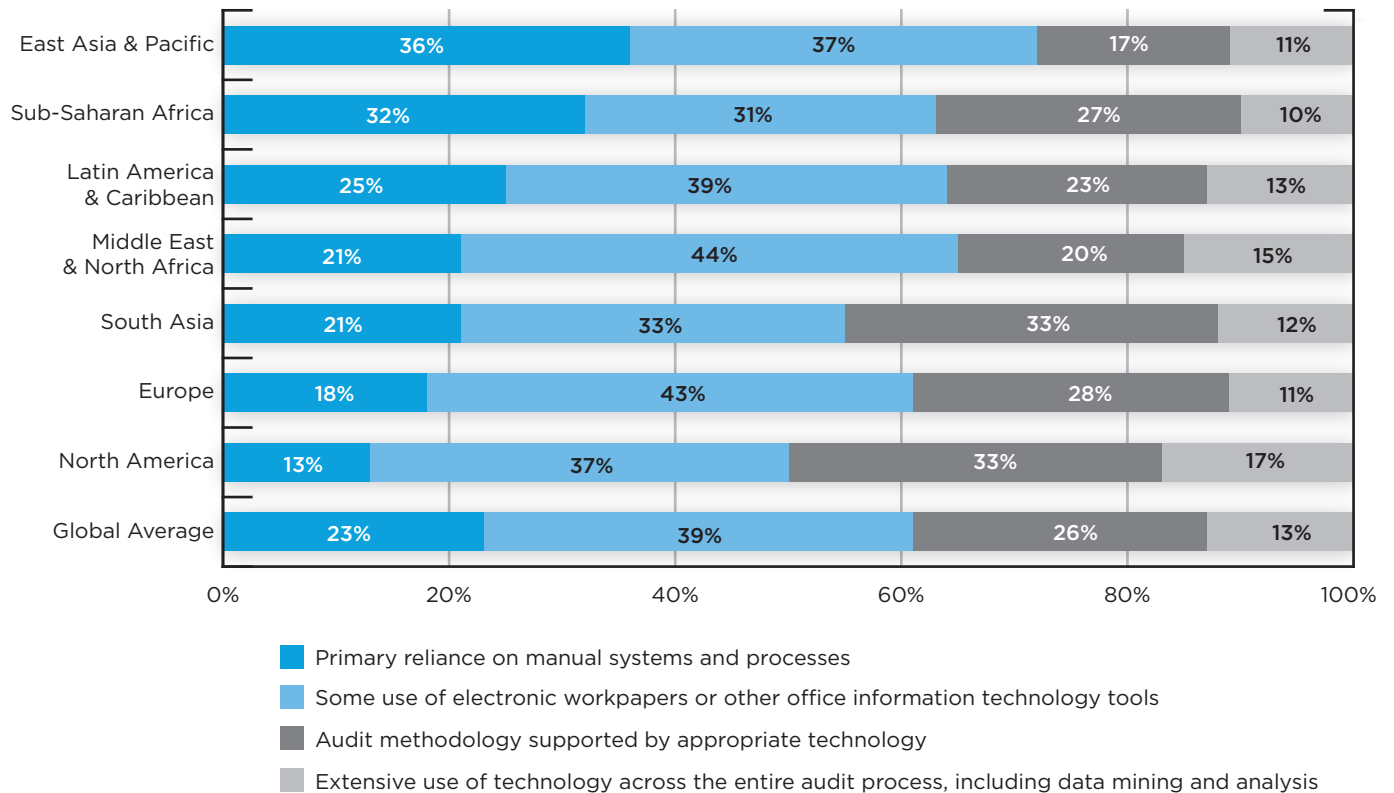
6 Use of Technology

Use of Technology to Support Internal Audit Activities

The use of technology is an indicator of internal audit department maturity. **Exhibit 6-1** shows that 39% of the responding CAEs say their internal audit departments are supported by appropriate technology, or they use extensive technology across the entire

audit process, including data mining and analysis. Almost one-fourth (23%) of the participating CAEs indicate that they only use manual systems and processes. The use of more advanced technology allows identifying in an objective way root causes of control failures (stated by two of the interviewees). Analyzing by global regions, we find that North

Exhibit 6-1 Use of Technology to Support Internal Audit Processes by Global Region



Note: Q44: How would you describe the use of technology to support internal audit processes at your organization? CAEs only. n = 2,959.

America (50%) and South Asia (45%) are the regions where internal audit departments use a significantly higher level of technology, whereas East Asia & Pacific score significantly lower (28%).

This maturity indicator has a significant linear relationship with the age of the internal audit department. The older the department, the more extensively it uses technology to support the internal audit processes (see **exhibit 6-2**). Indeed, the percentages for the extended use of technology and the use of appropriate technology increase with internal audit department age. Consequently, reliance on manual systems decreases.

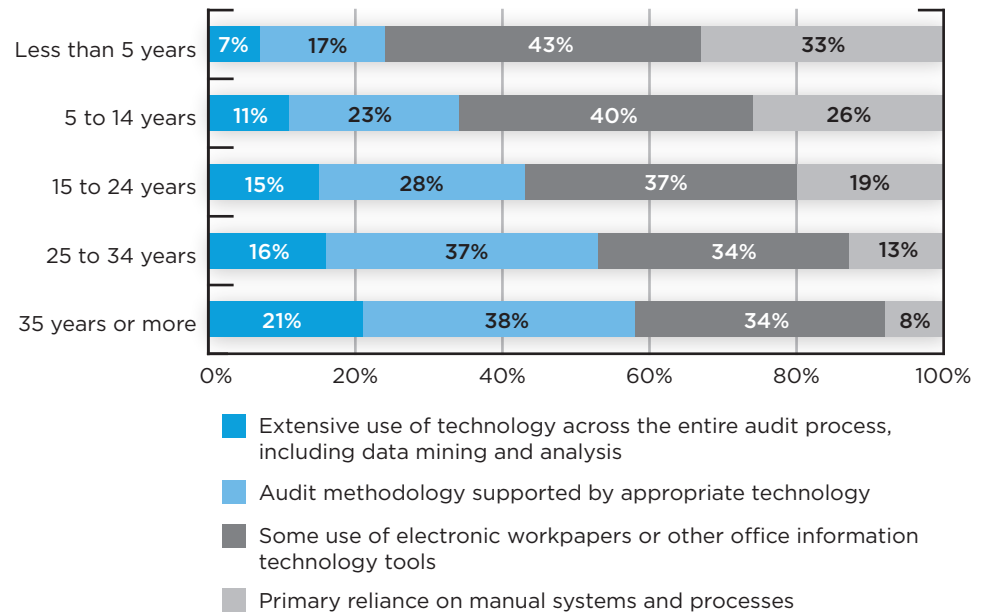
A similar significant relationship is indicated for the size of the internal audit department, where use of extensive

technology to support the internal audit processes increases in a linear way by internal audit department size. With respect to the type of organization, whether or not the organization is private or public does not make a difference, but internal audit departments in international or multinational organizations use significantly more information technology (IT) to support their processes (43%) compared to local organizations (33%).

The use of IT is positively related to organization size. The larger the organization, the more the internal audit department uses IT to support its internal audit processes (see **exhibit 6-3**).

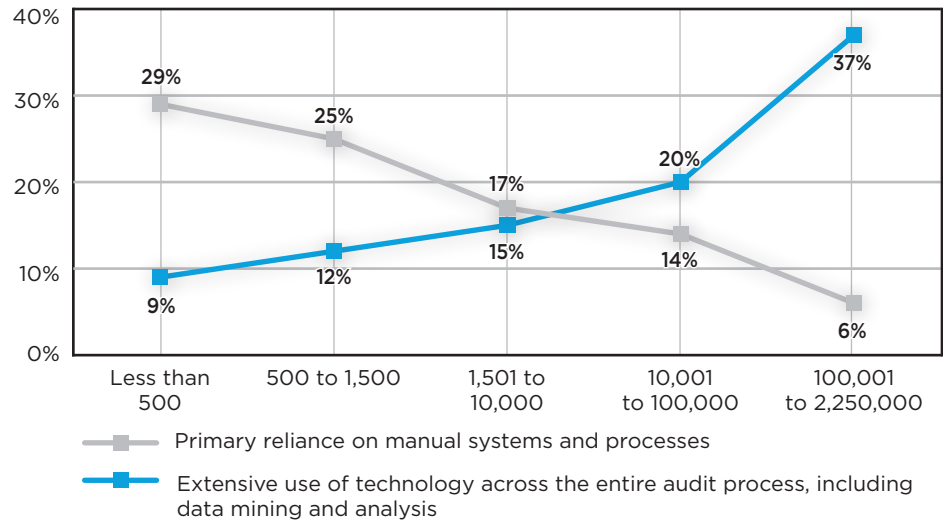
Analysis by industry shows that internal audit departments in the finance and insurance industry (46%) and

Exhibit 6-2 Use of Technology to Support Internal Audit Processes by Internal Audit Department Age



Note: Combination of Q44 and Q23. Q44: How would you describe the use of technology to support internal audit processes at your organization? and Q23: Approximately how many years has the internal audit department been in place at your organization? CAEs only. *n* = 2,735.

Exhibit 6-3 Use of Technology to Support Internal Audit Processes by Number of Employees in the Organization



Note: Combination of Q44 and Q19. Q44: How would you describe the use of technology to support internal audit processes at your organization? and Q19: For the entire organization in which you work, what was the approximate total number of fulltime equivalent employees as of the end of the last fiscal year? CAEs only. n = 3,002.

professional, scientific, and technical services industry (42%) use significantly more IT when compared with internal audit departments in the construction (29%) and manufacturing (29%) industries. Whether or not the internal audit department is mandated by law does not seem to be related to the use of IT to support the internal audit processes.

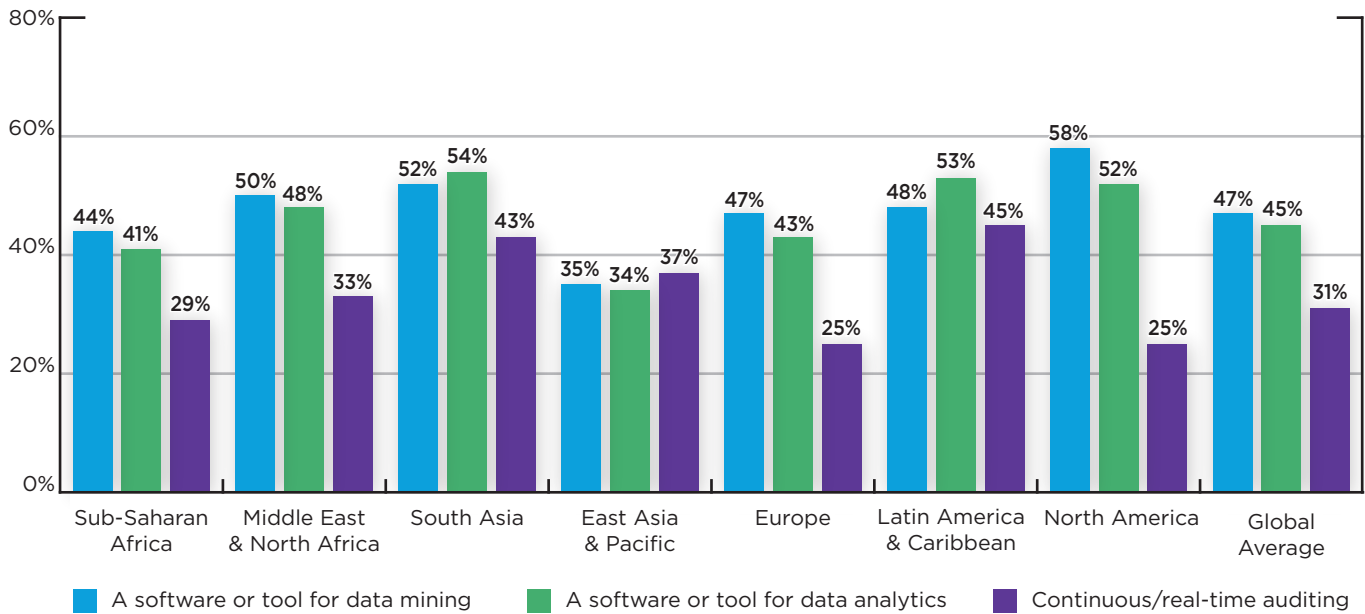
Use of IT is also significantly related to the conformance with the *Standards*. Internal audit departments that fully conform with the *Standards* use significantly more IT (47%) compared to those who do not conform (23%) or only partially conform (32%). A similar positive and significant relationship is indicated with use of the internal audit department as a management training ground.

Use of Specific Internal Audit Tools and Techniques

In this section, the focus is on the use of three specific tools and techniques that internal audit departments can use to support internal audit processes.

The use of data mining is an indicator of internal audit maturity. As shown in **exhibit 6-4**, a global average of 47% of the CAEs indicates that they moderately or extensively use data mining tools in their internal audit departments. Secondly, data analytics are moderately or extensively used by a similar proportion of internal audit departments (45%). Only 31% of the internal audit departments moderately or extensively use continuous or real-time auditing in their audit activities. All three of these tools and techniques were also mentioned by some of our interviewees.

Exhibit 6-4 Use of Software for Data Mining, Data Analytics, and Continuous/Real-Time Auditing to Support Internal Audit Processes (Moderate or Extensive Use)



Note: Q95: What is the extent of activity for your internal audit department related to the use of the following information technology (IT) tools and techniques? CAEs only. $n = 2,437$.

Action Items

- Use technology across the entire audit process to increase efficiency and effectiveness and obtain broader risk assessment coverage, including data mining and analysis tools.
- Build in some elements of continuous or real-time auditing to increase efficiency and effectiveness to the extent that the control and IT environment allows.

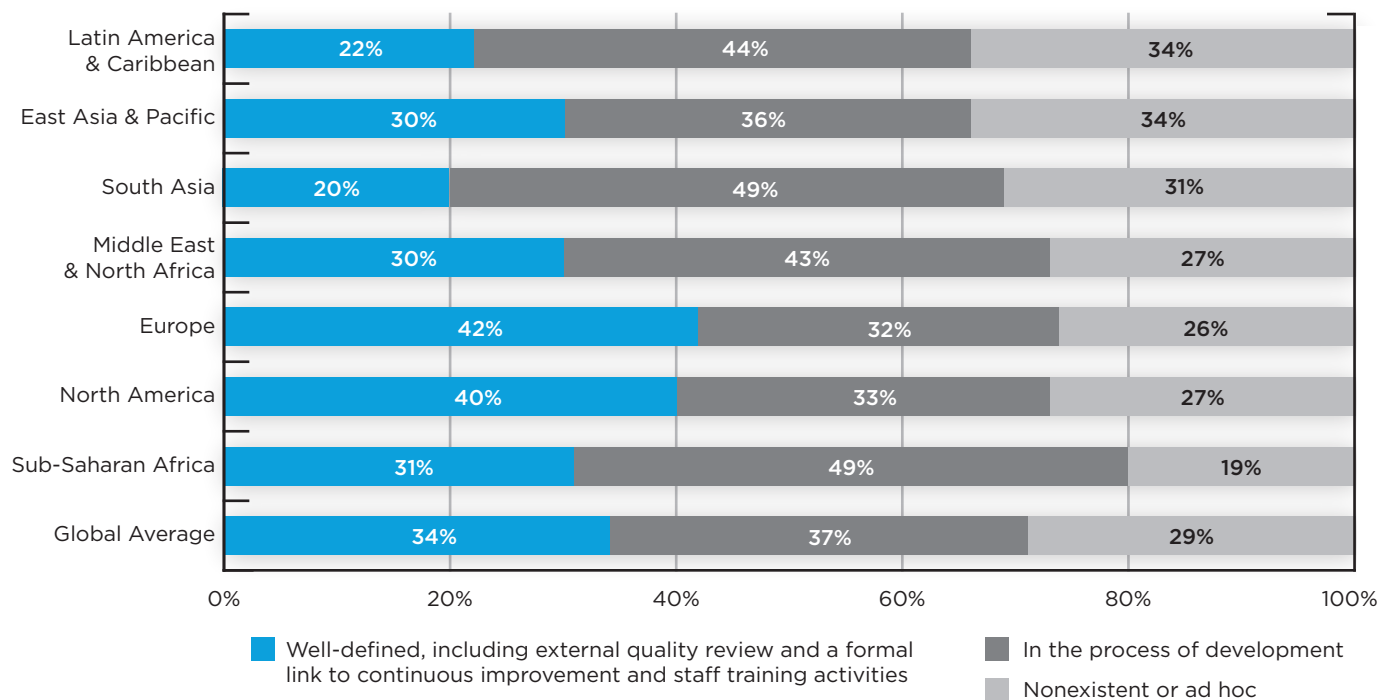
7 Quality Assurance and Improvement Program

The last section analyzed the status of a QAIP, which is required by the *Standards*. As reported in **exhibit 7-1**, about one-third of the CAEs (34%) indicate that they have a well-defined QAIP in place, including an external quality review (some with a formal link to continuous improvement and staff training activities), which is an indicator of internal audit maturity. All interviewees confirm the importance of a QAIP for maturity of the internal audit department. There is a consensus among the

interviewees that continuous refinement of approach, methodology, and tools is crucial to delivering high-quality services.

Several of the maturity indicators are directly or indirectly measured and managed via a QAIP. A robust performance management system that includes, for example, multidimensional KPIs (see chapter 5), regular benchmarking, and stakeholder satisfaction surveys were cited by several CAE interviewees as important elements of such a QAIP. An interviewee stated that the integration of quality

Exhibit 7-1 Development of the Quality Assurance and Improvement Program (QAIP) by Global Region



Note: Q47: How developed is the Quality Assurance and Improvement Program (QAIP) at your organization? CAEs only. n = 2,833.

reviews into the audit methodology is an important step forward for internal audit maturity. Another interviewee stressed the strong efforts that The IIA has put forth to promote QAIP in recent years.

Europe (42%) and North America (40%) are the regions where the QAIP of the participating internal audit departments is significantly more developed. South Asia (20%) and Latin America & Caribbean (22%) are at the lower end of the continuum.

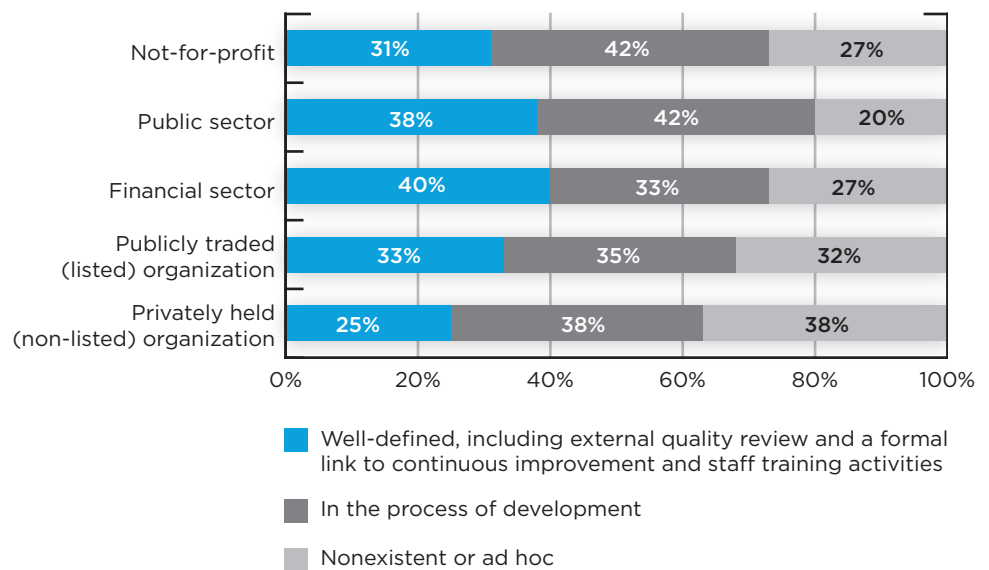
The use of QAIP increases significantly with the internal audit department age. More than half of the oldest departments (56%) have a QAIP in place, including external quality review, compared to only 15% of the youngest internal audit departments. For the size of the department, as for several of the other maturity indicators covered in previous chapters,

there is a significant positive relationship with the level of development of the QAIP program, except for the largest internal audit departments. Just as an illustration, 73% of the internal audit departments with between 300 and 999 full-time equivalent employees have a well-defined QAIP in place, compared to only 34% of internal audit departments with up to 24 full-time equivalents.

Significantly more internal audit departments in the financial sector (40%) and public sector organizations (38%) have a well-defined QAIP in place, including external quality reviews, than departments in other types of organizations (see **exhibit 7-2**).

The geographical scope of the organization is not related to the presence of a QAIP. However, significantly more internal audit departments in the utilities

Exhibit 7-2 Level of Quality Assurance and Improvement Program (QAIP) Development by Organization Type



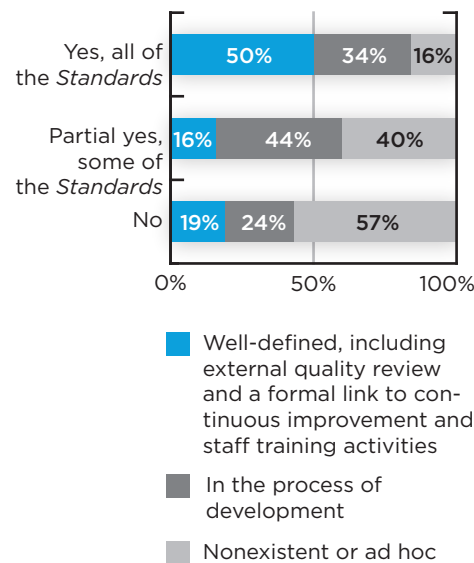
Note: Combination of Q47 and Q15. Q47: How developed is the Quality Assurance and Improvement Program (QAIP) at your organization? and Q15: What is the type of organization for which you currently work? CAEs only. *n* = 2,875.

(48%) and the finance and insurance industry (42%) have a well-defined QAIP in place. Internal audit departments in the retail and trade (23%) and agriculture, forestry, fishing, and hunting industry (23%) do not have a well-defined QAIP. Also, significantly more internal audit departments that are mandated by law also have a well-defined QAIP in place, including external quality review (38%), compared to those that are not mandated by law (31%). There also is a significant and positive relationship with the size of the organization. The larger the organization becomes, the more common it is to have a well-defined QAIP in place, including external quality review.

Conformance with the *Standards* is also strongly related to the development of a QAIP. Half of the internal audit departments that fully conform to the *Standards* (50%) have a well-defined QAIP in place, including external quality reviews, compared to only about 17% of the internal audit departments that do not fully or partially conform to the *Standards* (see **exhibit 7-3**).

Similarly, significantly more internal audit departments that are a management training ground have a well-defined QAIP in place compared with those that are not management training grounds (29% compared to 15%).

Exhibit 7-3 Levels of Quality Assurance and Improvement Program (QAIP) Development and Conformance with IIA Standards



Note: Combination of Q47 and Q98. Q47: How developed is the Quality Assurance and Improvement Program (QAIP) at your organization? and Q98: Does your organization use the *International Standards for the Professional Practice of Internal Auditing (Standards)*? CAEs only. n = 2,373.

Action Items

- Build a QAIP for the internal audit department, including a robust performance management system, according to the guidelines provided in The IIA's *Standards* and Practice Advisories.
- Adapt the QAIP to the internal audit strategy by basing it on the KPIs that have been defined (see chapter 5).
- Create a culture within the internal audit department around continuous quality assurance and improvement.

Summary, Conclusions, and Additional Reflections

Eleven indicators were used to assess internal audit department maturity and test their relationship with organizational and internal audit department characteristics. The CBOK 2015 survey data was primarily used to test these relationships, but data was also collected from CAE interviewees. One of the interviewees provides a summary of the arguments built based on the quantitative analysis (without knowing the 11 indicators).

Mary Ludford said, “A mature department must have the right people with the right credentials—solid training to keep skills sharp—co-sourcing to bring in the right subject matter resources; the ability to be nimble and address changes to the audit plan at least quarterly; never compromise independence; look to technology to help drive completeness and the analytical capability, through data analytics, that the changing data intensive environment requires; stay aligned with the company’s strategic goals and the operating company’s business plans; align with other assurance groups to provide broader coverage to the most important risks, such as cybersecurity, and, finally, keep current on trends by staying close to IIA practices and CAE roundtables to learn more changing risks.”

An interesting finding in the CBOK analysis is that the relationship between most of the maturity indicators and the size of the internal audit department (and, in one case, the firm size) is in the

shape of an inverted U. This means that the existence of the maturity indicators increases up to a medium level of size and then drops for very large departments (and firms, in one case). While it was difficult to find a reason for this finding in the CBOK data, some interviewees came up with possible explanations based on their personal experience. “We can probably explain the small one by the fact that small shops often do not have the ability to provide wide-ranging experience, which could be a contributor to the perception that the internal audit department is not mature,” said Phil Tarling, vice president, Internal Audit Centre of Excellence, Huawei Technologies Co. Ltd. and former chairman of The IIA, East Asia & Pacific.

Mary Ludford said, “Typically, I have a difficult time getting resources both from a people and a financial perspective. They are required to wear many hats on the assurance front and I wonder if that doesn’t contribute to the inability to focus on some of the important attributes of maturity.”

“When the internal audit department is too small, it does not have the resources to develop advanced methodologies and practices; the competencies are not enough to expand the activities to satisfy the stakeholders’ expectations. These situations do not help to be perceived as a mature function,” said Ahmed Laroussi, CAE at SEA Aeroporti Milano, Europe.

Other interviewees suggested that for the very large internal audit departments, the lower level of maturity may be due to a rather bureaucratic and rigid way of functioning that may create a lot of internal complexity, which makes the internal audit department hard to manage.

Others indicated that they do not recognize this inverted U pattern in their experience. For example, Jenitha John, CAE at Firstrand, Sub-Saharan Africa, stated, “Maturity is not driven by size of the department but rather by a strong leader who believes in and can articulate the benefits of maturity to the wider team—the CAE must cultivate the buy-in and passion from the team to make a difference in the organization.”

Some global regions have more mature internal audit departments than others. For example, Sub-Saharan Africa (which includes South Africa) shows high maturity. This finding may reflect the fact that some countries in this region have only recently established their internal audit departments and have arguably adopted best practices from the more advanced departments. In other countries, however, this argument may be speculative in nature, requiring explanations through more detailed future research.

Most interviewees confirm that there are substantial internal audit maturity differences around the world. Phil Tarling said, “The factor that explains the differences is the stage of development of the economy or the company. All types of economic models will have a type of inspection function and, as economies and entrepreneurship develop, the inspection function needs to develop from being a negative critical force to a

positive guidance function to assist the drive for business improvement.”

Other interviewees suggest that culture and the legal system also play a role in the way the internal audit profession develops around the globe. However, one interviewee used personal experience. “We expect that the Western world would be more mature, but I have seen or heard of internal audit departments that are there as a tick box to meet SEC [U.S. Securities and Exchange Commission] regulations, etc. And I have seen others that are very mature but in regions where you would expect low maturity. I would say the maturity is very dependent on the CAE personally and the tone at the top (CEO/board) in an organization,” said Harsh Mohan, senior vice president, audit risk & compliance, at Etihad Airways, Middle East & North Africa.

Our study shows that internal audit department age is a strong proxy for internal audit maturity; the older the department, the more mature. Several interviewees stressed that age as such is not a driver of internal audit maturity. The data only shows that in a large sample of internal audit departments worldwide, the maturity indicators as described in this report become more common the older the internal audit department becomes. This is probably the result of a natural development process as suggested by Mary Ludford, who said, “It’s like anything else, it takes a while to develop a good process; understand what “good” looks like; become consistent in expectations and objectives; and grow the stakeholder relationships to be successful.”

Related to this issue, two interviewees suggested an interesting avenue for future research linking internal audit maturity to the maturity and success of the company as a whole. “Internal audit department maturity may be following the overall maturity of the business enterprise in which the internal audit department exists,” said Carl Blecher, senior vice president and CAE, Aon Corporation, North America. Harsh Mohan said, “In other organizations—mainly successful companies—internal audit is mature and more focused on strategy, risk, and assurance that management is working toward the company’s strategy as defined by the shareholders.”

Internal audit departments in regulated industries such as finance and insurance and utilities are more mature⁸ than less-regulated industries. Most interviewees confirm this based on their personal experience. Several interviewees suggest that the risks driving the regulations in these industries as well as the influence of supervisory authorities and the resulting need for conformance make the need for a mature internal audit department critical.

Full conformance with the *Standards* is highly associated with more mature internal audit departments, which is broadly confirmed by our interviewees. Mary Ludford said, “However, the ability to have an organization like The IIA to provide guidance and a quick understanding of the standards behind the internal audit

department discipline accelerates the value of how the *Standards*, and especially independence, brings to the organization, its board, and its shareholders.”

An internal audit department that is used as a management training ground by the organization is an indicator of internal audit department maturity. Most interviewees agree with this statement. For example, Carl Blecher said, “...colleagues within a mature internal audit department may get a series of business experiences and receive organizational exposure, which can lead to prospective career opportunities.”

However, not all interviewees fully share this opinion. Phil Tarling said, “...if that was true, every CEO [chief executive officer], CFO [chief financial officer], and COO [chief operating officer] would be an ex-internal auditor and they are not. Perhaps we have become a self-fulfilling prophecy; we say it often enough, everyone believes it.” Ahmed Laroussi added, “To increase in its maturity, the internal audit department needs stability in terms of human resources.”

In summary, this study suggests indicators of internal audit department maturity. However, it is limited to 11 indicators that were subjected to data collection by CBOOK 2015. Thus, at this point, it is not clear what other indicators should be recommended. Future studies can find additional indicators and formulate the effects of the totalities of indicators on internal audit department maturity.

⁸ More mature” means at least half of the maturity indicators.

This limitation aside, some overall implications were indicated by the interviewees who noted higher maturity to be associated with:

1. More support and respect for internal auditors and their authority (creating a feeling of trust toward the internal audit department)
2. Larger mobilization of the internal audit department on current sensitive business issues and strategically important projects
3. More attention devoted to the internal auditors' voice when reporting to the stakeholders. That can lead to having the internal audit voice heard with the resulting ability to influence outcomes.

According to the CAE interviewees, this can be measured by:

1. The number of meetings and contacts with top management and members of the board and/or audit committee
2. The nature of the topics that are dealt with by the auditors
3. If stakeholders regularly request the involvement of the internal audit department on issues that matter to the company
4. If stakeholders actively involve the internal auditors as change agents

However, some interviewees remain skeptical when it comes to measuring the stakeholders' perceptions of internal audit maturity because of its subjective nature. As Carl Blecher said, "Measurement may be more art than science."

About the Authors

Mohammad Abdolmohammadi, DBA, CPA, is the John E. Rhodes Professor of Accounting at Bentley University. He has published more than 100 articles in academic and professional journals and several books. He has performed his research under numerous grants from various sources, including several from The IIARE. These grants have resulted in publication of several monographs and more than a dozen academic and professional articles on various issues of internal auditing that have earned prestigious awards, such as the Larry Sawyer IIA Research Foundation Project of the Year in 2014 and the best paper award at the 11th European Academic Conference on Internal Audit and Corporate Governance (Oslo, Norway, April 2013).

Giuseppe D’Onza, PhD, is an associate professor of risk management at the University of Pisa, Italy, where he is chairman of the MSc in Auditing and Internal Control. He also lectures on the courses organized by the Italian Institute of Internal Auditors. He is an advisor of the Italian Authority for the prevention of corruption. He has published articles in the *International Journal of Auditing and Managerial Auditing Journal*. He has contributed to all three CBOK projects (2006, 2010 and 2015) as well as a research monograph funded by the European Confederation of Institutes of Internal Auditing (ECIIA) (2008). He is a member of the Scientific Committee of the European Academic Conference on Internal Auditing and Corporate Governance.

Gerrit Sarens, PhD, CIA, is a full professor and vice-dean at the Louvain School of Management, which is part of the Université Catholique de Louvain, Belgium. He has teaching experience in internal and external auditing, management accounting, and financial accounting. His major research areas are internal auditing and corporate governance. He has a well-recognized track record of articles on internal auditing published in international academic journals, and has contributed to all three CBOK projects (2006, 2010 and 2015) as well as a research monograph funded by the ECIIA (2008). Moreover, Gerrit has co-authored two research monographs published by The IIARE. Both of them won the Larry Sawyer IIA Research Foundation Project of the Year Award (2013 and 2014). He is also associate editor of the *International Journal of Auditing*.



Your Donation Dollars at Work

CBOK reports are available free to the public thanks to generous contributions from individuals, organizations, IIA chapters, and IIA institutes around the world.

Donate to CBOK

[www.theiia.org/
goto/CBOK](http://www.theiia.org/goto/CBOK)

Contact Us

The Institute of
Internal Auditors
Global Headquarters
247 Maitland Avenue
Altamonte Springs,
Florida 32701-4201,
USA

About The IIA Research Foundation

CBOK is administered through The IIA Research Foundation (IIARF), which has provided groundbreaking research for the internal audit profession for the past four decades. Through initiatives that explore current issues, emerging trends, and future needs, The IIARF has been a driving force behind the evolution and advancement of the profession.

CBOK Development Team

CBOK Co-Chairs:

Dick Anderson (United States)

Jean Coroller (France)

Practitioner Survey Subcommittee Chair:

Michael Parkinson (Australia)

IIARF Vice President: Bonnie Ulmer

Primary Data Analyst: Dr. Po-ju Chen

Content Developer: Deborah Poulalion

Project Managers: Selma Kuurstra and

Kayla Manning

Senior Editor: Lee Ann Campbell

Report Review Committee

Farah Araj (United Arab Emirates)

Ulrich Hahn (Germany)

Jenitha John (South Africa)

Jason Philibert (United States)

Bismark Rodríguez (Panama)

Jasna Turković (Croatia)

Joyce Vassiliou, IIA Staff (United States)

Deepak Wadhawan (India)

Limit of Liability

The IIARF publishes this document for information and educational purposes only. IIARF does not provide legal or accounting advice and makes no warranty as to any legal or accounting results through its publication of this document. When legal or accounting issues arise, professional assistance should be sought and retained.

Copyright © 2016 by The Institute of Internal Auditors Research Foundation (IIARF). All rights reserved. For permission to reproduce or quote, contact research@theiia.org. ID #2016-1493