

Enhancing CPA Competencies for Internal Audit Roles: Project Insights

Adam Vitalis
University of Waterloo
avitalis@uwaterloo.ca

Efrim Boritz
University of Waterloo
jeboritz@uwaterloo.ca

Laura Simeoni
University of Waterloo
lsimeoni@uwaterloo.ca

September 2021

Preliminary Draft – Please Do Not Cite

We acknowledge the support of CPA Canada and the University of Waterloo Centre for Information Integrity and Information Systems Assurance (“UWCISA”). We thank our advisory group members as well as interview participants for their time and insights. In addition, we benefitted from comments provided by Rebecca Villmann and Irene Wiecek of CPA Canada and Paul Forgues of the Institute of Internal Auditors. We also thank Linda Liu for her invaluable support as our co-op student on this project.

Keywords: auditing; assurance; internal audit; recruiting; internal audit skills, qualitative research, early-career internal auditors skills development challenges

Enhancing CPA Competencies for Internal Audit Roles: Project Insights

Abstract

Many accounting students pursue careers in internal audit and related management positions after obtaining their CPAs. This paper summarizes the findings from a study designed to identify knowledge, skills and attitudes (competencies) for entry-level internal audit professionals that could be used to develop a curriculum for CPA-bound students to pursue fulfilling careers in internal audit and related management positions. We built a survey on the current IIA's Competency Framework as modified by insights from an advisory group of internal audit professionals and 13 interviews with experienced internal auditors. This process identified the need to expand the current IIA competency map to include a new information technology category and additional emerging skills. Responses from 641 internal audit professionals who responded to our 20-minute survey inform our project insights. We summarize these insights in a two-dimensional visualization by category to highlight the changes from currently identified skills and one decade in the future expected changes in skill importance. The results highlight that future internal auditors will need to have a broader set of skills than simply accounting and finance knowledge. Given the future focus of this project, we believe that the results are valuable to academics and practitioners alike.

Many accounting students pursue careers in internal audit and related management positions after obtaining their CPAs. This paper summarizes the findings from a study designed to identify knowledge, skills and attitudes (competencies) for entry-level internal audit professionals that could be used to develop a curriculum for CPA-bound students to pursue fulfilling careers in internal audit and related management positions.¹

The Institute of Internal Auditors (IIA) defines internal auditing as “an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes” (IIA (a) 2021). According to the IIA, “The global demand for internal auditors today is unprecedented and is expected to increase annually as public and private companies, and government entities continue to expand their audit needs in response to corporate reforms” (IIA (b) 2021). In addition, the 2021 Robert Half Salary Guide for Accounting and Finance Professionals points out that the internal auditor is one of the most in-demand positions in today’s hiring market (Robert Half 2021). As organizations push to improve internal controls and transparency, they also look for internal auditors and information technology (IT) auditors.

Further, recent discussions with internal audit professionals indicate that these demands are moving past the more technical external audit requirements of external auditors.

Increasingly, internal auditors are being asked to evaluate a broader set of risks – both from an

¹ This project was undertaken to support the Competency Map Task Force (CMTF), which is updating the CPA Competency Map to a version 2.0 (“CM 2.0”). As part of this process, the CMTF enlisted assistance from various constituents to inform them as they considered how to evolve to the future CPA Competency Map. See: <https://www.cpacanada.ca/en/become-a-cpa/why-become-a-cpa/the-cpa-certification-program/the-cpa-competency-map/competency-map-task-force>

operational as well as technology-based perspective – in adding value to the company. While it seems intuitive that the training based on an external audit perspective would be transferable to internal audit, recent discussions with internal audit professionals indicated that the training of CPA students heading into an internal audit path is lacking. While similar in nature to the external audit focus, internal audit additionally moves beyond the scope of the traditional CPA path. However, most students receive minimal or no exposure to internal audit education. This lack of exposure makes them less qualified to participate in internal audit career paths. Therefore, it is vital to provide an educational path for CPAs that includes the relevant competencies to compete for entry-level internal audit jobs and eventually prepare for the Certified Internal Auditor examinations.

The current project sought to gain insights into potential knowledge, skills, and attitudes (competencies) for entry-level internal audit professionals for inclusion into the accounting curriculum to meet these challenges. From a pragmatic perspective, we focused on those skills that will be necessary approximately ten years in the future. The reason for this timeframe is practical – that is, we assumed that this is the length of time between proposing changes to the accounting curriculum and graduating the first cohorts.

We created an advisory group of internal audit professionals to advise the research team. From there, we grounded our internal audit skills review on the current version of the IIA's Competency Framework (IIA (c) 2020).² As we were focused on skills a decade in the future, we needed to validate the IIA's current framework with emerging skills. Thus, we started with the IIA Competency Framework, vetted it with our advisory group to include an initial set of modifications. From there, we interviewed a set of internal audit professionals to gain their

² Note: as we refer to the IIA Competency Map continually in this manuscript, we will only cite the original IIA Competency Map source this first time to reduce expositional clutter.

insights into the future relevance of the IIA Competency Framework. Then, we created a survey based on the compiled skills. The survey took approximately 20 minutes, and we distributed it to three large membership-based organizations in Canadian. In total, we received 641 responses. The survey insights inform our project results reported herein. However, we have supplemented, as applicable, the survey results with insights from our interviews and advisory group, as well as a supplemental review of internal audit job postings.

For each skill, we asked participants to provide a measure of its current importance and how they believed those values would change in the future. On average, the participants believe that *all* skills will be more critical in the future. This observation is particularly notable given that the measure related to the depth of accounting and finance knowledge necessary was low relative to other values. However, other areas, such as corporate social responsibility (CSR), were low in the current period and much higher in the future. In our conversations with the advisory group and interviewees, one explanation for this contrast is an acknowledgement that future internal auditors will need to have a broader set of skills than simply accounting and finance knowledge.

This observation leads to a broader discussion related to the changing environment of internal auditors. That is, both our interviewees and the advisory group noted that there is a move from a more compliance and external audit supportive focus to a more consultative one. In this way, the internal auditor of the future will be required to have a broader knowledge of the business with their ability to interact with business units. One outcome of this change is that we repeatedly heard that while technical skills will be assumed, “soft” skills are increasing in importance. Our Job Posting Exercise also supports this dynamic. That is, a consistent theme is

an expectation of audit skills. However, there is an emergence of hiring advantages to those with skills that allow for better interaction with the businesses.

The current IIA competency framework includes one reference to Information Technology (IT) within the Environment category. It became clear early in our discussions that we needed to expand the IT area. Based on the feedback from both our advisory group and the interviewees, we added a new section to our survey related to IT. This section reflects an awareness that, while IT skills are lower ranked currently, the expectation is that they will grow in importance in the future. In fact, the difference, on average, between the current values and future values for this new category is larger than most other areas. It is important to note that this increase is for data analytics (DA), data infrastructure, and information security/privacy. The advisory group noted that as data governance matures, internal auditors will likely be increasingly looked to for leadership in this area.

There is a notable difference between the average measures of objectivity and independence. In talking with our interviewees and advisory group, the overarching response is an acknowledgment that the increased scope of the internal auditor beyond the more traditional compliance focus to a more supportive role requires a more nuanced understanding of the critical need to be objective. This focus on objectivity leads to a lessened need for formal structural independence. This topic is an active discussion in the internal audit space. From a pedagogical perspective, one suggestion might be to provide an overview of different assurance types and where to find the relevant standards and guidelines instead of providing a deeper understanding of different assurance engagements. This would free up more class time to gain a deeper understanding of the nuance between objectivity and independence (or, said another way, independence in fact versus appearance).

Given the future focus of this project, we believe that the results are valuable to academics and practitioners alike. In addition, while we focused on the Canadian setting, the foundational document was the international version of the IIA's Competency Framework. Thus, our insights into the potential updates to this framework and emerging skills should be transferable to any jurisdiction.

Background

On behalf of CPA Canada and the CPA provincial bodies, the Competency Map Task Force (CMTF) is updating the CPA Competency Map to version 2.0 ("CM 2.0"). As part of this process, the CMTF enlisted assistance from various constituents to inform them while considering how to evolve the future CPA Competency Map (see footnote 1). Further, recent discussions with internal audit professionals indicate that these demands are moving past the more technical external audit requirements of external auditors. Increasingly, internal auditors are being asked to evaluate a broader set of risks – both from an operational and technology-based perspective - in adding value to the company (Eulerich and Eulerich 2020). In fact, "the requirements assigned to the IA function by internal and external stakeholders are constantly increasing and changing the attention given to this function" (Turetken et al. 2020).

While it seems intuitive that the training based on an external audit perspective would be transferable to internal audit, recent discussions with internal audit professionals indicated that the training of CPA students heading into an internal audit path is lacking. Internal audit departments are less technically focused on financial reporting and more focused on the risks and value of the organization in a broader sense (s.f.e., Haig 2020 and Bartlett et al. 2017). Thus, a more technically focused external audit curriculum fails to provide the necessary skills

in such areas as data analytics, more advanced risk assessment and process documentation, root cause analysis, internal control evaluation and testing, evaluation of organizational structures, continuous monitoring, artificial intelligence, project management, soft skills, etc. (see for examples: Tang et al. 2017; Bone 2019; Christensen 2020; Plant et al. 2019; Hogan Hayes 2019; and Pan and Seow 2016). Therefore, it is vital to provide an educational path for CPAs that includes the relevant competencies to compete for entry-level internal audit jobs and eventually prepare for the Certified Internal Auditor examinations.

The challenge is that current accounting curriculums for CPA-bound students focus on knowledge, skills, and attitudes relevant to external audit careers but omit or cover only lightly important internal audit topics and competencies. Moreover, without a clear requirement for academic content in internal auditing, there is no incentive for universities and colleges to provide electives in this area. Thus, although there is a strong demand for CPAs to pursue careers in internal audit, the current CPA-focused curriculum does not adequately serve that demand. This is consistent with Christ et al.'s (2020) discussion on the future need to recruit from multi-disciplinary backgrounds as internal auditor skills are an essential input to internal audit quality (Trotman and Duncan 2017).

Method / Approach

The goal of this project is to help identify future-focused internal audit-related skills. As discussed further throughout this section, we addressed this question in the following ways: 1) Project team: the core team that planned and managed the overall project. 2) Advisory group: provided high-level insights and guidance. 3) Interviews: helped inform updates to the IIA Competency Framework necessary to create our survey. 4) Survey: primary data source for the

insights presented in this project. 5) Internal audit job descriptions: a summary of current job posting descriptions to provide an additional perspective of requirements for internal audit professionals.

In combination, the outcome of these tasks provides a view into the current and future expectations of entry-level skills necessary for internal audit professionals. Pragmatically, however, and as discussed earlier, the focus is on entry-level internal audit professionals starting in approximately ten years.

Project Team

A research team at a large Canadian University coordinated the project. The project team consisted of four core members with broad experience in both research and the profession, including a long-time accounting/auditing researcher focused on contributing to professional practice issues. His research focuses on professional practice in external and internal auditing, particularly in the context of information systems, with the goal of enhancing professional judgment through better quality information, models and processes. Before becoming a professor, the second member had over 13 years of business-related experience – including internal auditing. His research focuses on information processing and seeks to inform practical questions as well. The third member of the team is an internal audit professional with over 25 years of experience in consulting and working in various internal audit positions and she is also an adjunct faculty. Our final team member is a co-op student supporting the overall project.

Advisory group

We recruited a small group of participants with broad industry knowledge and experience. As we wanted to provide a representative picture of the skills across different industries and areas in Canada, we identified members from across geographic locations, industries, and experience levels/types. Our final group consisted of seven members representing public accounting firms, various types of governmental internal audit functions, and other consulting firms.

The advisory group supported the project in four main ways. First, they helped provide oversight and guidance for the project. The project team met with them periodically to discuss the timeline and obtain advice on the next steps. Second, the advisory group was instrumental in helping choose and facilitate our interview list. Not only did they help identify the individuals outlined in our interview section, but they also helped with gaining the commitment of the interviewees over the holiday season. Third, they helped interpret our findings from our interviews to facilitate the creation of our survey for distribution. Finally, the advisory group provided invaluable insights as we analyzed the responses of the survey material.

Interviews

The goal of the interviews was to help us focus the survey on those skills that would be essential 10-years in the future and would be relevant broadly to the industries and geographic nuances across Canada. Thus, with the support of the advisory group, the project team identified a set of interviewees that would be representative across industry, geographic location, and company size. From a timeline perspective, we needed to identify and complete all the

interviews in December 2020. As a result, we completed 13 interviews between December 12, 2020, and January 5, 2021. See Table 1 for interviewee demographics.

For each interview, the interviewee received, in advance, preparation material, including the current IIA Competency Framework and the interview script. The interview script was prepared based on the current IIA Competency Framework as updated through collaboration with the advisory group. The sessions ran approximately an hour in length. With the approval of the interviewees and in line with our Office of Ethics (ORE) requirements, all interviews were recorded and transcribed for review and reference. For each session, the interviewers introduced themselves, obtained verbal consent and began the interview. The interviewees then introduced themselves, including name, role and responsibilities. We reminded each interviewee that the goal of the interviews was to gain insights that would help us tailor the survey to skills identified and relevant now and in 10 years. Thus, the output of the interviews was to supplement to IIA Competency Framework in creating the survey. Specifically, we asked the interviewee to comment on current skills vs. expected skills for an entry-level internal auditor 10-years from today. In addition, consideration was given to the current environment where working online (at home) due to COVID 19 by explicitly addressing this in the conversations. We did this as we wanted to address those areas that may have heightened awareness under the current situation but might settle as in-person activities returned. Thus, we discussed what skills necessary under the COVID 19 setting might maintain in the future.

Once we completed the interviews, two team members collaboratively analyzed the interviewees' opinions and comments to reconcile keywords and ideas for inclusion in the updated survey. Once we updated the survey, our co-op student reviewed all the interview

transcripts to validate the information. Any discrepancies were discussed and agreed upon by all three individuals.

While the primary goal of this process was to identify the updates necessary for the survey document, we identified one substantial update. That is, a realization that the current IIA Competency Framework was lacking with respect to information technology. In the current framework, information technology is one knowledge area under the “Environment” competency area. However, based on the feedback from our interviews, we decided to elevate this area to its own level of consideration. Thus, we added a new, Category I: Information Technology to our survey framework, as discussed in more detail in the *Survey* section.

Some interviewees expressed a concern that some graduates cannot adapt to new business processes and operational risk. This resulted in a belief that advanced accounting knowledge was less necessary for an internal auditor. Instead, they suggested that internal auditors needed a broader academic background. In addition, some interviewees (also highlighted in the survey results) discussed the concern that internal auditors need to understand the difference between being independent and being objective. Finally, a key takeaway is that internal auditors need to have technical and enabling skills to succeed. Thus, we added several additional enabling (soft) skills to the survey that were not initially considered before the interviews.

The IIA Competency Framework areas related to quality assurance and program improvement were not included in the survey since these areas were deemed not relevant for entry-level internal auditors. The updated survey outlined in the next section reflects these insights gained through our interview process.

Survey Background

The insights of our survey inform the project's main insights. As noted in the preceding sections, our goal was to create a structure where we could effectively create a survey to capture the potential future skills necessary for a new internal auditor and some calibration against skills that are currently important. Through our interview process, we validated the completeness of the various skills using the 2020 release of the IIA Competency Framework as a starting point for the survey. Given that this framework is the current IIA's vision of necessary skills, using this as the foundation provided a reasonable starting point. As noted earlier, we took that framework and updated the various skills based on feedback from our advisory group and interviews. However, we also wanted some indication as to the dynamic nature of the skills. Thus, we added two measures for each skill – a current value and a future value. This afforded us an ability to determine how skills are perceived to change over the next decade.

Survey Research Center (SRC)

We contracted with the Survey Research Centre (SRC) at a large Canadian University to help prepare, administer and provide survey results to the project team. Founded in 1999, the SRC has over 75 years of combined years of experience. Their team is an expert in survey design and methodology and has consistently provided superior service to research teams within and outside the University setting. Based on their deep experience, we contracted with them to support the survey design, methodical advice, survey administration, and data collection. Specifically, the SRC provided guidance/support with: reasonable length of survey; layout of survey questions to ensure a logical and easy read for survey respondents; appropriate use of response scales; the number of open-ended questions; security and privacy protocols;

compliance; advice related to the requirements of Office of Research Ethics (ORE); arranging translation or the survey into French; survey administration; and, preliminary data analysis. Given the very condensed timeline of this project, their guidance and professionalism were instrumental to the project's completion.

Survey distribution

We distributed the survey to members of three membership-focused organizations that have extensive internal audit memberships. The total number of responses was 641, and the Median survey length: 20.6 minutes.

The first organization sent all Canadian members a pre-notification email through their regular membership outreach to inform members about the upcoming online survey and encourage them to participate. The SRC sent an initial survey invitation by email with a unique link to the survey to a contact list of 5,039 members provided by the organization. In addition, the SRC sent two email reminders to members who had not yet completed the survey. The organization also sent a reminder to all Canadian members through their regular membership email outreach and social media posts. The response rate was approximately 10.1% (493 completed surveys). Surveys were in the field from February 16 to March 8, 2021.

For the second organization, the organization sent an email directly with an open link to the survey to a targeted sample of 8,561 members who directly interact with internal audit positions. In addition, the organization sent one email reminder. The response rate was approximately 1.2% (99 completed surveys). Surveys were in the field from February 16 to March 8, 2021.

For the final organization, they included an invitation with an open link to the survey with their regular Chapter Monthly e-Newsletter sent to 3,657 members. This organization then sent a reminder to all Chapter members. The response rate was approximately 1.2% (44 completed surveys). Surveys were in the field from February 9 to March 8, 2021.

Job Posting Summary

As we desired to understand the internal audit skills necessary for entry-level internal auditors, we included a review of 100 job postings from December 2020 through March 2021. We used this longer window to include a wider variety of responses and decreased the risk that a short-window time period would have anomalous results. The goal of this exercise was to add some perspective to our survey and interview insights. That is, to explore what is currently being requested in job postings to search for outlying information that might not be identified in the survey results.

To complete this summary, we asked our co-op student to review 100 job postings. LinkedIn was the primary source of the platform to extract the 100 job postings. To identify the internal audit job postings, she used the keywords “internal audit” and “internal control.” Next, she restricted all job postings to Canada and, for each posting, she downloaded the web page of the job posting as a PDF for future references. She then summarized the extracted information from job postings within an excel spreadsheet. Finally, to validate the findings, the co-op student and another research team member randomly selected 30 of the summarized job postings for review, with any discrepancies reviewed and updated across all other postings.

Job Posting Insights

Insights from our job posting exercise suggest that internal auditors need both technical and soft skills. Further, all job postings require the applicant to know basic technical skills, and most job postings require technical skills related to accounting and finance. Many job postings require a basic understanding of data analytic skills and tools; however, candidates do not necessarily need to apply the tools when performing internal auditing jobs. Most job postings require the applicant to know the different audit phases from planning to reporting, including the need to document the work and findings.

Interestingly, but maybe not surprising, *not* many job postings mention the need for the skills identified in our survey as necessary in the future. Further, *not* many job postings mention the need for skills from the section Professionalism (outside of understanding IIA's standards, building relationships, and understanding of different audits) and section Environment (e.g., CSR) of the survey. Overall, we noted that the job postings appear to be short-term focused, potentially out of date, and may not be a useful source for visioning future requirements.

In the next section, we provide a summary of our survey results.

Results

Survey Demographics

As noted earlier, we received 641 survey responses, as detailed in Table 2, Survey Demographics, about 50% were male, 50% live in Ontario, 28% lived in the Western Canadian Provinces, 15% live in Quebec, with 5% living in the Eastern Provinces. The majority of the participants were from 35 to 65 years old. However, about 8% of the population was less than 35 years old. The majority of the participants were either in financial services or governmental

industries. However, about 7% were in professional services, and about 6% were in education. The majority (approximately 86%) are employed full-time, and about 85% have internal audit experience.

Survey Background Discussion

The following section provides insights summarized from our survey results. These insights have also been informed through our conversations with our advisory group and supplemented with insights from our interviews. Table 3, Panel A summarizes the skills with the three highest percent counts for each current and future scale responses. Interestingly, the item with the highest Essential value (on a five-point scale where “1” was “Not Important at All” and “5” was “Essential”) in the current period relates to objectivity, with the third-highest Essential rating related to independence. This is likely unsurprising for internal auditors to see that objectivity is ranked higher. However, it highlights the importance of potentially expanding the independence discussion during the course curriculum to include a nuanced objectivity discussion. From a future perspective, the skill that has the highest percentage of selections as Significantly More Important (on a five-point scale where “1” is “Significantly Less Important” and “5” is “Significantly More Important”) is, likely unsurprisingly, the ability to work in an online environment. Maybe more interesting is that the second-highest skill in this category is related to audit data analytics, with the third item related to evaluating information security risks. This is consistent with our conversations that lead to the addition of a new information technology category. It is clear from both our conversations as well as the survey responses that there is a general expectation that skills related to information technology will continue to grow in importance.

From a mirrored perspective, Panel B provides the three lowest percent counts for each scale response for both the current and future responses. The skill that had the lowest percentage of Essential (and, consistently, the highest percentage of Not at all Important, Slightly Important, and Fairly Important) is Entrepreneurial Mindset. While it was a term that came out in our interviews as important, this was clearly was not supported in the survey results. In discussing this discrepancy with our advisory group, it was noted that this term was hard to define by the advisory group, so it may be that these rankings reflect confusion as to the term. Regardless, however, the term is the lowest valued skill in the survey. From a future perspective, we find the core audit skills (engagement planning, audit selection skills, documentation requirements) as having a low percentage of Somewhat More Important and Significantly More Important. While on the surface this may seem concerning, this is consistent with a number of discussions with our interviewees and advisory group regarding the need to differentiate those skills that are just “table steaks” versus emerging ones. In fact, it should be noted that during our interviews, many of the interviewees noted that they would just expect a new internal audit professional to know the basics of *how* to audit. And that the emerging skills would be differential to those core skills.

One very important note to consider when reviewing the information is that because we started with the IIA Competency Framework, then received feedback on skills that were important from both our interviews and advisory group, the resulting skills are skewed to those as vetted to be important. Thus, the survey values are higher than had we created a survey that sought to balance out skills that included those expected to be unimportant in the future. Given the length of the survey, we specifically filtered out skills that the interviewees and advisory group did not feel would be important. For this reason, it is unsurprising that most average values

are on the higher end of the scale. And, because of this, the most striking responses are those that are inconsistent with others.

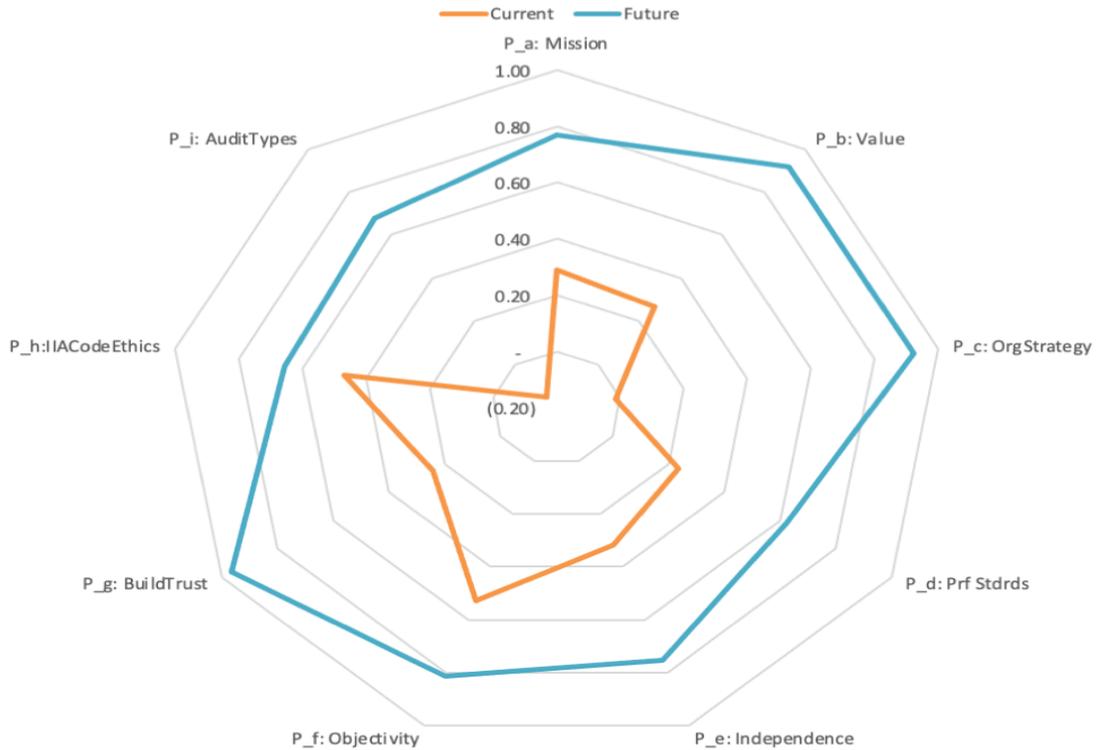
In the remainder of this section, we provide a set of summary views by the categories shown in Appendix 1 – these summaries include a normalized view of both the current and future values for each category. This view helps to visually highlight those skills that vary from other skills. Further, we standardized the data so that the comparison between current and future views would be of similar dimensions. That is, for the “Current” measures, we subtracted four units from each value. We made this choice because most of the responses had an average around the “Very important” rating of “4” (on a five-point scale where “1” was “Not Important at All” and “5” was “Essential”). Thus, because we subtracted a value of four from each, it results in a value of zero on the inside, orange line signifies a skill that is at the “Very important” choice level. A positive value indicates that the skill is moving towards an “Essential” rating. Likewise, a negative value indicates that the skill is moving towards an average rating of “Fairly important” (or less) in the current period.

The outside line, shown in blue, corresponds to the “Future” measure. This Future measure is centred on “Same importance” with a measure of “3” (on a five-point scale where “1” is “Significantly Less Important” and “5” is “Significantly More Important”). Thus, values lower than three indicate less importance in the future, while values higher than three indicate more future significance. And, because we take advantage of this neutral rating to subtract “3” from all values, a “Same Importance” rating would be a value of zero. Positive values relate to a judgement of more importance, and negative values relate to less importance in the future.

In the following pages, we provide a visual summary of the various responses by survey category as detailed on the survey example shown in Appendix 1. We also provide commentary with each graphic. The skills are detailed within the Appendix 1 document.

Category P: Professionalism

As highlighted in the IIA Competency Framework, this category provides skills to demonstrate the authority, credibility and ethical conduct related to an internal auditor.



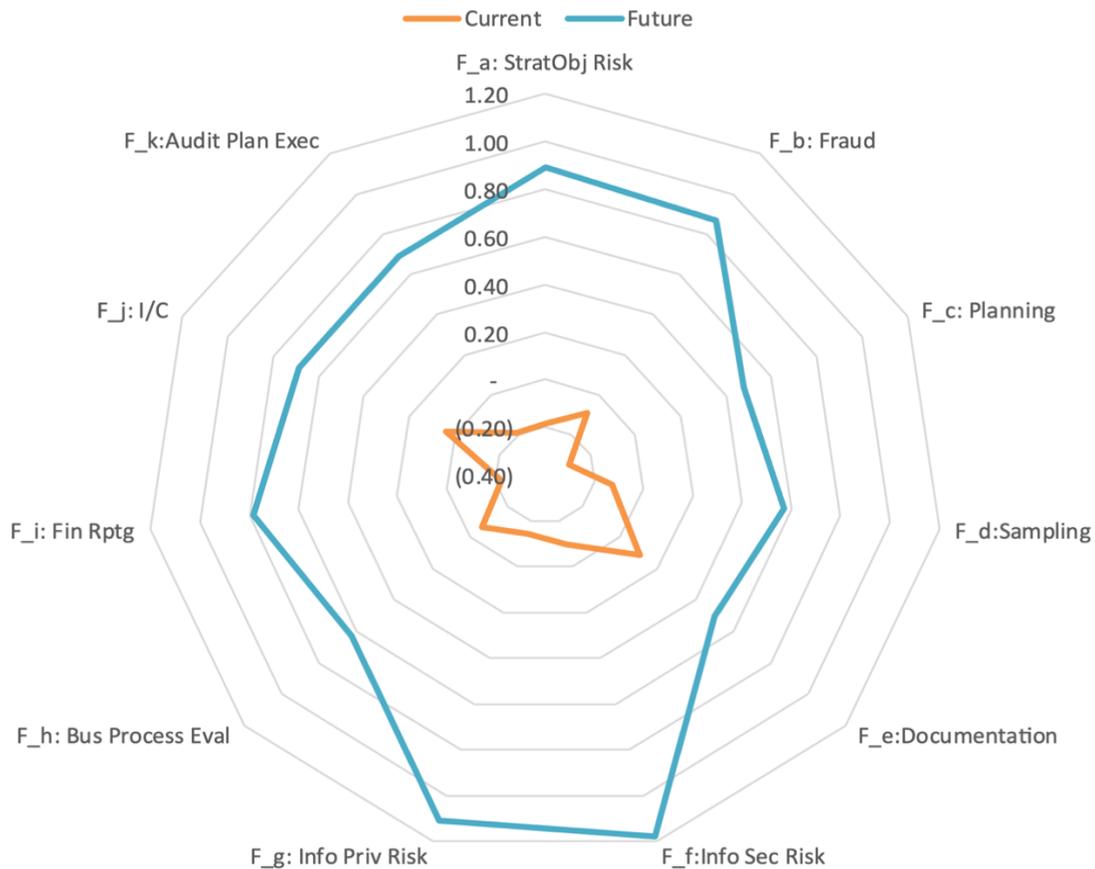
Notably, there is a significant difference in the measures of independence (P_e) and Objectivity (P_f). As noted earlier, this is likely unsurprising for internal auditors. However, it highlights the importance of possibly expanding the independence discussion to include a nuanced objectivity discussion. Is it possible that this could be balanced by minimizing the

instruction for Understanding of Different Assurance Types (P_i) given that this category has a negative value in the current period and is ranked less highly than other areas in the future as well. Again, given the nature of the measures, this likely does not mean the topic is unimportant, just that relatively it has less importance for new internal auditors as this is an area where a new internal auditor could research this topic online as necessary during their career.

There is an indication that some of the more strategic thinking skills are increasing in importance, for example, understanding how internal audit brings value to the organization (P_b), how internal audit aligns with the organization's strategy (P_c), understanding how to be a trusted partner within the organization (P_g) all have "larger" future measures based on the summary graphs. In all, there appears to be a need for future internal auditors to have a more strategic focus with a strong understanding of the distinction of objectivity versus independence.

Category F: Performance

As highlighted in the IIA Competency Framework, this category provides skills necessary for an internal auditor to plan and perform engagements.



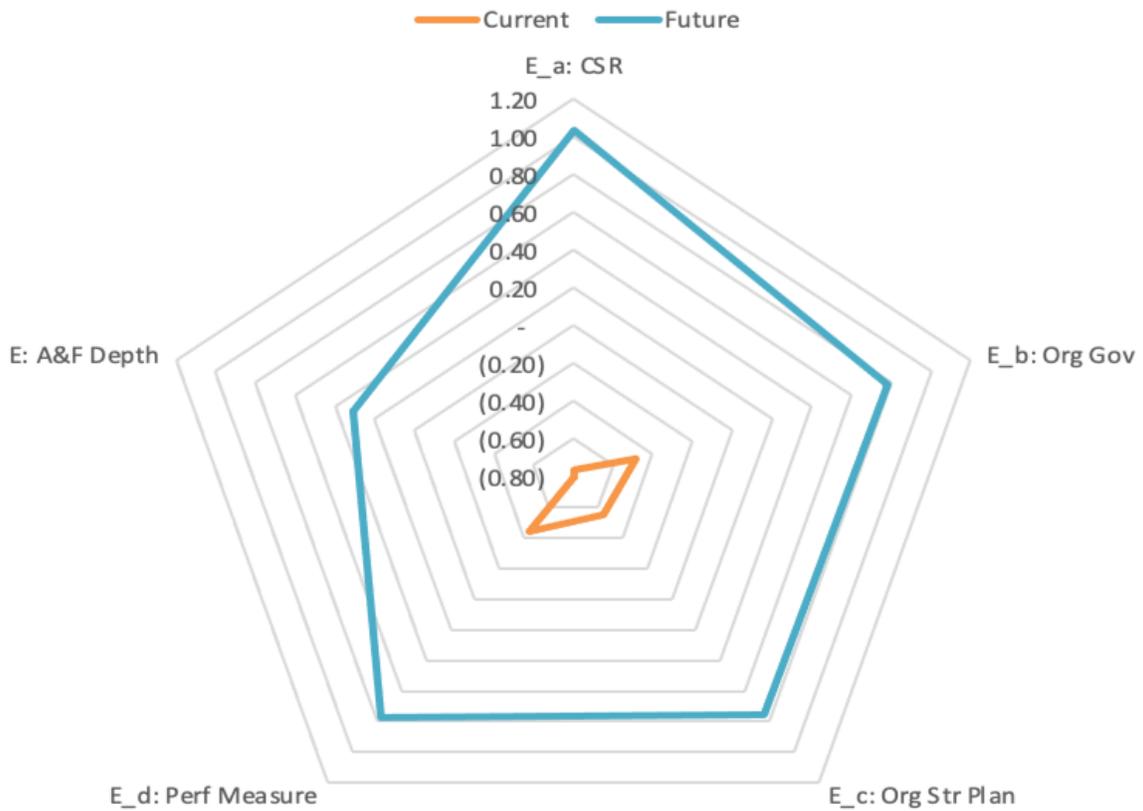
As mentioned earlier, during our advisory group meeting, it was noted that many of the core internal audit skills (e.g., Category F) are considered “table stake” items – that is, core skills now and, likely, in the future. This is visually obvious in reviewing this graphic as most of the items are either at or below the average of Very Important rating in the current period. This is also consistent with the results of our job-search exercise. That is, consistently, the job postings

assume (and require) a basic understanding of core internal audit skills. Consistently, both Documentation Requirements (F_e) and various approaches to selecting audit items (F_d) have high values for Significantly Less Important and Somewhat Less Important in the future as well.

Notably, however, Information Privacy and Information Security Risk as rated much higher in the future. This is consistent with our interview conversations as well as feedback from the advisory group that IT related topics will increase in focus in the future.

Category E: Environment

As highlighted in the IIA Competency Framework, this category provides skills related to the risks specific to a company’s industry and environment.

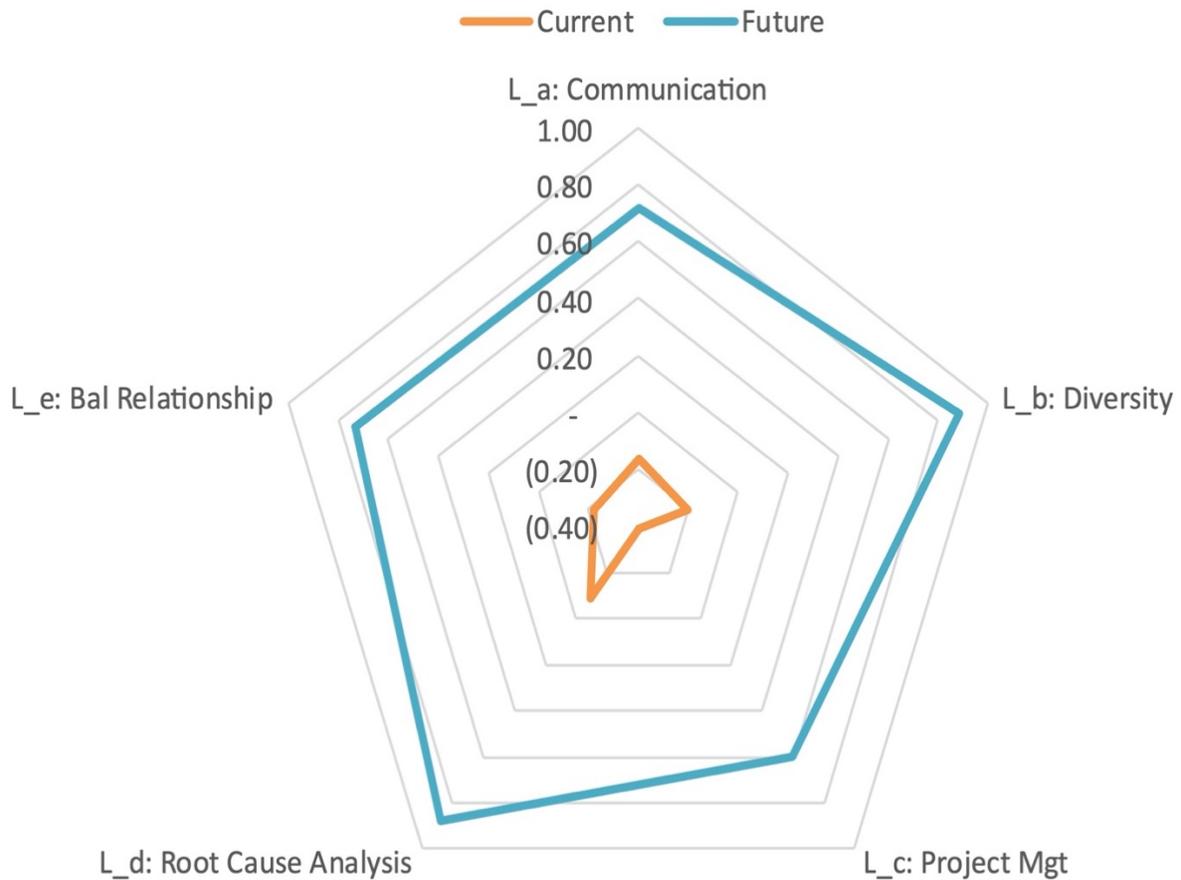


The two most striking observations from this Environment category are related to Corporate Social Responsibility (CSR; E_a) and Accounting and Finance Depth (A&F Depth). CSR currently has a lower ranking. However, in the future, it has a higher ranking than the other skills in this category.

Further, our advisory group noted that the increase in focus on CSR is likely correlated with the lower values for Depth of Accounting and Finance Understanding questions (end of E category – not shown on the graphs). The low weight in both current and future (relative to other skills) highlights the fact that internal audit requires a broader set of skills than just accounting and finance. And that these needs will likely grow in the future. While conjecture only, this may also be why Business Acumen (L_d) is ranked a bit lower as well.

Category L: Leadership & Communication 1

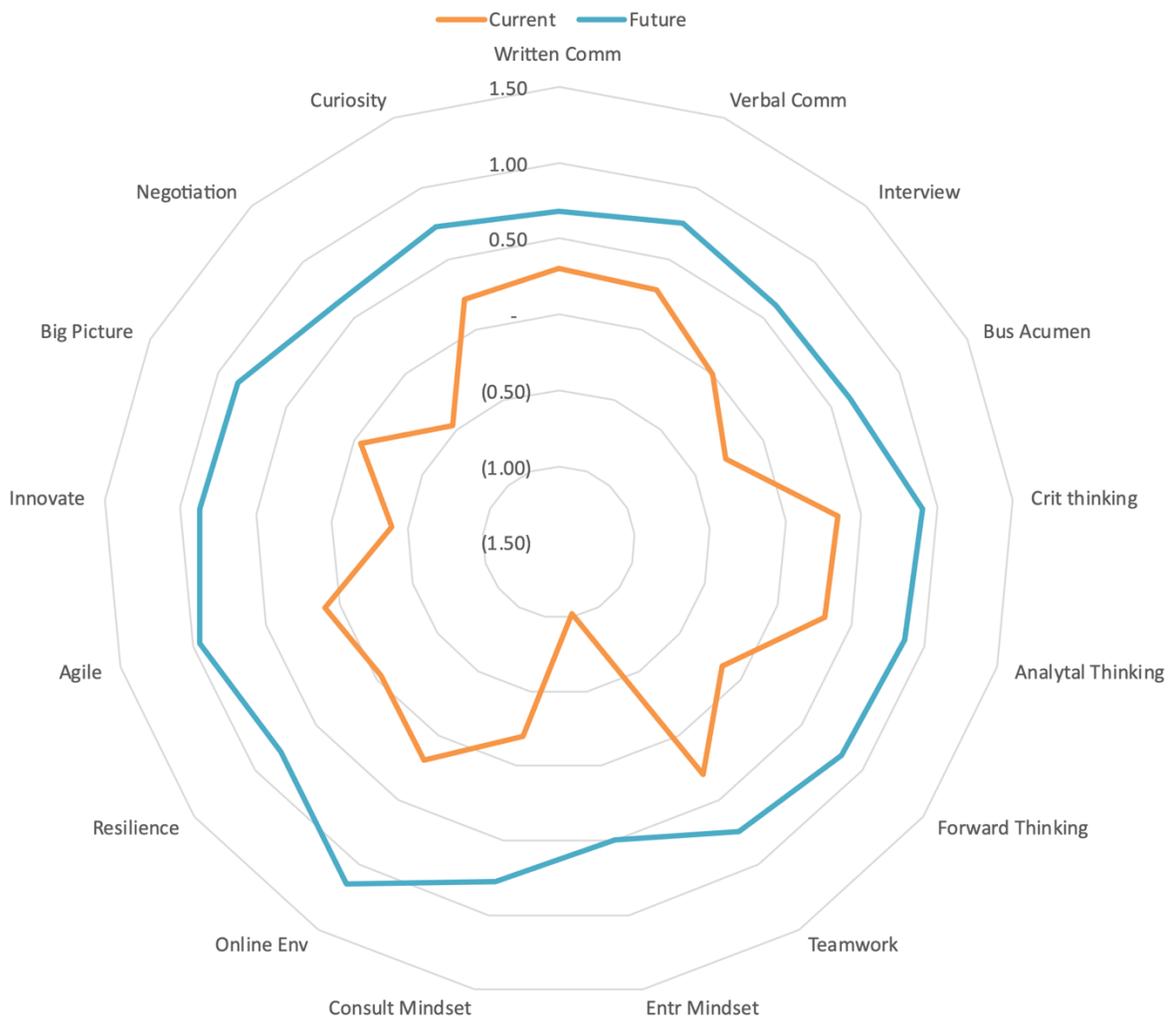
We greatly tailored the IIA competency framework related to leadership and communication to include a much deeper view of soft skills identified through our various conversations. For the purposes of these visual summaries, the first pictorial focuses on broader skills. The second pictorial summary in this category focuses on more individual skills. The skill list has been greatly expanded from the original IIA competency framework to provide additional skills for survey respondents to consider.



Consistent with the earlier table stakes discussion, this category has a low current value in the various skills. However, it is notable that Root Cause Analysis (L_d) and Diversity (L_b)

have higher values in the future. This suggests that the ability to more fully engage a diverse set of individuals while also moving past seeing what is obvious will continue to grow in importance.

Category L: Leadership & Communication 2 (Note, skill codes not included to save space. Only the abbreviated name based on full skill description is included here.)

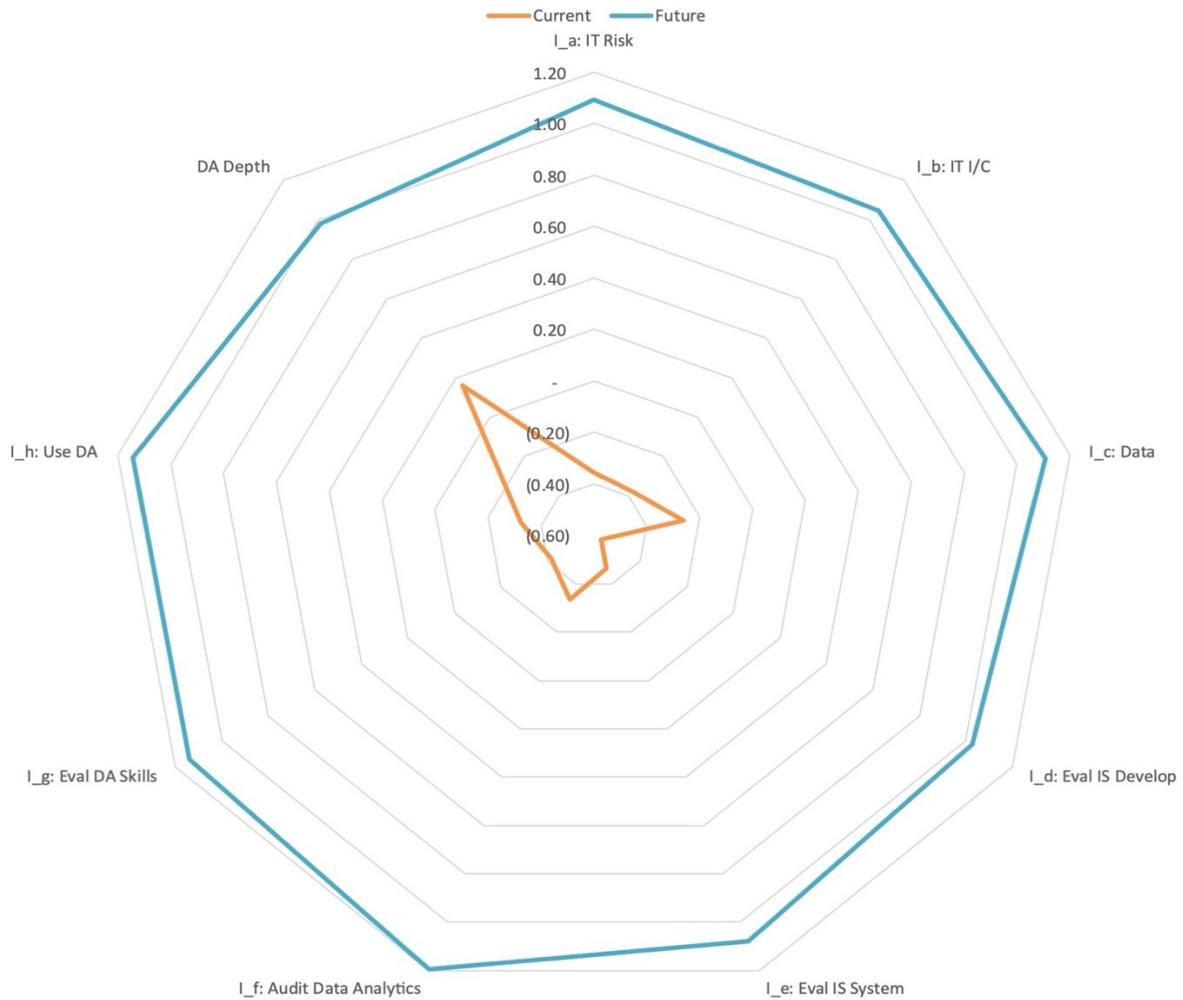


As noted earlier, this category was expanded to include a number of individual-based skills. In this category, it is interesting to note the differences between the current values for each item. For example, communication (both written and verbal) are important now and will continue to be in the future. This is similar to critical and analytical thinking skills as well as teamwork – these are all important now and will continue to be in the future. What is striking about these individual skills is that they do not fall into the same pattern of the more audit process ones that seem to be generally important now and in the future. It seems that these are of immediate and future importance. Thus, it suggests that these are skills that are emerging now and will continue to emerge in importance.

As noted before, and not surprising given the current environment, but Ability to Work in an Online Environment is noted as an emerging skill. Finally, Curiosity was one skill noted continually in our interviews as a critical skill for an internal auditor. This is supported by the survey results.

Category I: Information Technology

As noted earlier, this category is new. It was clear in our conversations that a stand-alone category related to information technology was necessary.



Most items in the Information Technology (IT) area (Category I) have a very large difference between the current period standardized value and the future standardized value. This is very consistent with both our feedback from our interviewees as well as the advisory group that this space is emerging and is perceived as more critical in the future.

Of particular note is the Depth of Data Analytics question. In contrast to the other questions in this category, this item is Very Important on average in the current period and increasing in importance in the future as well. This is likely not surprising. However, while not tabulated, it is interesting that six respondents indicated that this skill would not be necessary for the future. In looking at the corresponding text responses, one of these participants noted their rationale is that they see a specialized area, not internal audit, engaging data analytics in the future. While this is a very small number of respondents, it is not dissimilar to some of the comments we heard during our interviews. That is, there seems to be a question as to whether the need for data analytics will follow two paths. The first path assumes that internal auditors will need a deep knowledge of data analytics as they will be required to use these skills in their day-to-day activities. The second path assumes that companies will create some type of area focused specifically on data analytic expertise. In this second path, internal auditors will still need to have a strong understanding of data analytics. But they will be more focused on being able to translate the knowledge gained from this area into understanding and communicating those risks and insights for the business units. In this way, it is clear that, at minimum, while there will be an increased need for data analytics, the types of competencies that will be needed in the future is uncertain.

Open Field Questions

The survey included three open field questions. The SRC coded each response into appropriate categories, and we have listed each of the top three categories for each question.

O1: what do you see as the most important competency of an internal auditor?

1. Critical thinking / analytical skills /problem solving
2. Forward thinking /growth mindset, strategic thinking/see the big picture
3. Understanding/knowledge of business functions, operations or industry/business acumen

O2: Are there any other internal audit categories or skills we should consider, or you feel we missed?

1. Interpersonal /relationship building skills/team player
2. Understanding/knowledge of business functions, operations or industry/business acumen
3. Critical thinking / analytical skills /problem solving

O3: Do you have any specific comments related to the skills presented in this survey?

1. Technology/computer skills
2. Data analytics (manipulate, interpret data)
3. Practical Skills/Diverse Experience

These responses are consistent with the general theme that internal auditors will need to have a broader set of skills more generally. But, specifically, skills related to topics in information technology will be more critical in the future.

Conclusion

For each skill, we asked participants to rate its current importance as well as how this would change in the future. Interestingly, across all skills, on average, participants judged the future skill importance higher. Notably, the average rating of the required depth of accounting and finance knowledge was lower relative to other skills. However, other areas, such as corporate social responsibility (CSR), were rated low in the current period but much higher in the future. Conversations with the advisory group and interviewees suggested that this contrast is an acknowledgement that future internal auditors will need to have a broader set of skills than simply accounting and finance knowledge.

This observation led to a broader discussion related to the changing environment of internal auditors that highlights a move from a compliance and external audit supportive internal audit focus to a more consultative one. Thus, the internal auditor of the future will be required to have a broader knowledge of the business with an ability to interact with business units. One outcome of this change that we heard repeatedly is that while technical skills will be assumed, “soft” skills are increasing in importance and will be actively sought after by employers. Our job posting analysis supports this dynamic. It shows an expectation of audit skills but an emerging hiring advantage to those with skills that allow for better interaction with the business.

The current IIA competency framework includes only one reference to Information Technology (IT). The IIA Competency Framework groups Data Analytics, Security and Privacy, and IT frameworks together in the Environment category. Preliminary discussions with the advisory group and interviewees made it clear that we needed to expand the IT area. Thus, we added a new section to our survey covering IT. The survey indicates that while IT skills are

currently lower-ranked, the expectation is that their importance will grow significantly in the future. The differences, on average, between the current importance ratings and future importance ratings for topics in this new category are greater than those in most other areas.

The increase in importance is not just for data analytics but also data infrastructure and information security/privacy. The advisory group noted that as data governance matures, internal auditors will be increasingly looked to for leadership in this area. Discussions with the advisory group and interviewees suggested that data analytics skills can follow two paths. The first path assumes that internal auditors will need a deep knowledge of data analytics as they will be required to use these skills in their day-to-day activities. The second path assumes that companies will create some type of area explicitly focused on data analytics expertise. In this second path, internal auditors will still need to have a strong understanding of data analytics. But they will be more focused on translating their knowledge in this area into understanding and communicating risks and insights for the business units. Thus, while there will be an increased need for data analytics skills, the level of application skills needed in the future is uncertain.

There is a notable difference between the average importance of measures of objectivity and independence. Discussions with our interviewees and the advisory group suggested that this is due to the internal auditor's increased scope beyond the more traditional compliance focus to a more consultative role discussed earlier. This change will require a more nuanced understanding of the critical need to be objective, while formal structural independence is less important. This topic is an active topic of discussion in the internal audit space at the moment.

As with all survey projects, we are at the mercy of the respondents. However, in this study, each organization also had different privacy policies; we were required to send out the surveys uniquely for each group. Thus, there is no way to know if someone took the survey more

than once. Given that the survey was long and we notified each person that they may receive it multiple times and that they should only take it once, we believe that the chance for multiple data points for one individual is lessened.

References

- Bone, J. 2019. TRANSFORMING ASSURANCE: Data analytics and automation can enable internal audit to provide enhanced assurance for organizational risks. *Internal Auditor* 76 (4): 16–17.
- Christ, M. H., M. Eulerich, R. Krane, and D. A. Wood. 2020. New Frontiers for Internal Audit Research. Available at SSRN: <https://ssrn.com/abstract=3622148>.
- Christensen, B. 2020. Adapting to the Dynamic Risk Environment: Internal audit needs to move beyond analog processes to assess risks in a digital world. *Internal Auditor* 77 (5): 22–23.
- Eulerich, A., and M. Eulerich. 2020. What is the value of internal auditing? – A literature review on qualitative and quantitative perspectives. *Maandblad Voor Accountancy en Bedrijfseconomie* 94(3/4): 83–92.
- Haig, N. 2020. Building a GREAT team. *Internal Auditor* 77 (3): 40–45.
- Hogan Hayes, C. 2019. Communication Skills for Success. *Internal Auditor* 76 (5): 14–15.
- IIA (a), The Institute of Internal Auditors. 2021. Definition of Internal Auditing. <https://na.theiia.org/standards-guidance/mandatory-guidance/pages/definition-of-internal-auditing.aspx>. Accessed August 25, 2021.
- (b). 2021. Academic Relations Resources for Students. <https://global.theiia.org/edu-events/Pages/Academic-Relations-Resources-for-Students.aspx>. Accessed August 25, 2021.
- (c). 2020. Institute of Internal Auditors Competency Framework. <https://na.theiia.org/standards-guidance/Public%20Documents/Internal-Audit-Competency-Framework.pdf>. Accessed August 25, 2021.
- Pan, G., and P.-S. Seow. 2016. Preparing accounting graduates for digital revolution: A critical review of information technology competencies and skills development. *Journal of Education for Business* 91 (3): 166–175.
- Plant, K., K. Barac, and G. Sarens. 2019. Preparing work-ready graduates – skills development lessons learnt from internal audit practice. *Journal of Accounting Education* 48: 33–47.
- Renschler, M., R. Hoitash, and U. Hoitash. 2019. Internal Audit Competency Changes in Response to Financial Reporting Quality Failures. Available at SSRN: <https://ssrn.com/abstract=3229966>.
- Robert Half. 2021 Financial Salary Guide. <https://www.roberthalf.com/salary-guide/accounting-and-finance>. Accessed August 25, 2021.
- Tang, F., C. S. Norman, and V. P. Vendirzyk. 2017. Exploring perceptions of data analytics in the internal audit function. *Behaviour & Information Technology* 36 (11): 1125–1136.
- Trotman, A. J., and K. R. Duncan. 2017. Internal Audit Quality: Insights from Audit Committee Members, Senior Management, and Internal Auditors. *AUDITING: A Journal of Practice & Theory* 37 (4): 235–259.
- Turetken, O., S. Jethefer, and B. Ozkan. 2020. Internal audit effectiveness: operationalization and influencing factors. *Managerial Auditing Journal* 35 (2): 238–271.

Table 1
Interviewee Demographics

Interview #	Experience level	Years in the level	Years in internal audit	Public/ private company	Industry	Location
1	IA Director	1	3	Public	Financial services	Ontario
2	Chief Audit Executive	7	27	Public	Utilities	Alberta
3	Chief Audit Executive	1	15	Private	Medical	New Brunswick
4	Chief Audit Executive	2	4	NA	Public sector in government	Ontario
5	Partner	3	14	Private	Professional services	British Columbia
6	Board of Director	4	9	Public	Manufacturing	Quebec
7	Partner	4	25	Private	Professional services	Ontario
8	Executive Director	5	14	NA	Public sector in government	Ontario
9	Chief Financial Officer	2	0	Private	Various	Ontario
10	Senior Audit and Review Officer	11	15	NA	Public sector in government	Quebec
11	Manager	5	10	Private	Professional services	Ontario
12	Chief Audit Executive	6	28	Private	Various	Alberta
13	Chief Audit Executive	9	28	Private	Various	Quebec

**Table 2
Survey Demographics**

<ul style="list-style-type: none"> ▪ Gender <ul style="list-style-type: none"> ▪ Male: 49.77% ▪ Female: 43.04% ▪ N/A: 7.20% 		<ul style="list-style-type: none"> ▪ Where live? <ul style="list-style-type: none"> ▪ West: 27.86% ▪ Ontario: 50.39% ▪ Quebec: 14.87% ▪ East: 5.01% ▪ N/A: 1.88% 	
<ul style="list-style-type: none"> ▪ Age <ul style="list-style-type: none"> ▪ 18-24: 0.63% ▪ 25-34: 7.85% ▪ 35-44: 24.96% ▪ 45-54: 28.89% ▪ 55-64: 26.06% ▪ 65+: 4.55% ▪ N/A: 7.06% 		<ul style="list-style-type: none"> ▪ Organizational Membership <ul style="list-style-type: none"> ▪ None: 0.78% ▪ CPA only: 14.51% ▪ IIA only: 20.25% ▪ ISACA only: 2.96% ▪ CPA & IIA: 41.81% ▪ CPA & ISACA: 1.09% ▪ IIA & ISACA: 7.80% ▪ All three: 10.76% 	
<ul style="list-style-type: none"> ▪ Language <ul style="list-style-type: none"> ▪ English response: 87.05% ▪ French response: 12.95% 			
<ul style="list-style-type: none"> ▪ Industry (greater than 5% detailed) <ul style="list-style-type: none"> ▪ Government (all): 27.27% ▪ Financial Services: 22.73% ▪ Public Administration: 7.34% ▪ Professional Service: 7.17% ▪ Education: 5.77% ▪ All other: 29.72% 			

- **Employment status**
 - Full-time: 85.80%
 - Part-time: 3.74%
 - Retired: 5.15%
 - Unemployed: 1.87%
 - Full-time student: 0.47%
 - Other: 2.96%

- **Job Title (greater than 5% detailed)**
 - Analyst / Associate: 17.02%
 - Manager: 22.46%
 - Senior Manager: 13.33%
 - Director: 12.63%
 - CAE: 12.46%
 - Partner / Owner: 5.09%
 - Other: 17.01%

- **Internal audit experience**
 - Currently work in IA: 67.54%
 - Worked in IA in past: 16.58%
 - Oversight of IA: 4.71%
 - Never worked in IA: 6.98%
 - Other: 4.19%

- **Years as internal auditor (if applicable):**
 - < 1 year: 2.91%
 - 1-2 years: 7.28%
 - 3-5 years: 15.59%
 - 6-10 years: 23.08%
 - 11-15 years: 21.21%
 - 16-20 years: 14.14%
 - > 20 years: 15.80%

Table 3
Top and Bottom Selected Skills

Panel A: Most selected skills	Current					Future				
	Not at all important	Slightly important	Fairly important	Very important	Essential	Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
Skills with the highest percentage of selections for each response	Entrepreneurial mindset	Entrepreneurial mindset	Entrepreneurial mindset	Personal (e.g. soft) skills	...the importance of internal audit objectivity, including those factors that may impair, or appear to impair, objectivity.	...the value of diversity - both in person and thought.	...the different types of audits (e.g. financial, operational, compliance, consultative, value for money, etc.) and their impact on economy, efficiency, and effectiveness.	...individual engagement planning.	...information technology risk related to strategic objectives and corporate governance of the organization.	Ability to work in an online environment
Second highest	...corporate social responsibility (e.g. sustainability).	...corporate social responsibility (e.g. sustainability).	...evaluate an information system development process, including the key phases of defining requirements, design, development or acquisition, testing, implementation, and post implementation review.	Resilience (tenacity)	...the IIA's code of ethics.	Entrepreneurial mindset	Entrepreneurial mindset	...documentation requirements.	...evaluate an information system, including the related processes against criteria such as Security, Availability, Processing Integrity, Confidentiality, and Privacy, using knowledge of data requirements and risk exposures.	...apply data analytic skills, strategies, and techniques, including an ability to create appropriate procedures using Audit Data Analytics (ADA) based on identified risks.
Third highest	...evaluate an information system development process, including the key phases of defining requirements, design, development or acquisition, testing, implementation, and post implementation review.	...assess the impact that the organizational strategic planning process has on the control environment and activities.	...corporate social responsibility (e.g. sustainability).	Curiosity	...the organizational (structural) independence of the internal audit function.	...documentation requirements.	...documentation requirements.	...the IIA's code of ethics.	...evaluate an information system development process, including the key phases of defining requirements, design, development or acquisition, testing, implementation, and post implementation review.	...evaluate information security risk (including entity level, business unit level and process level risks) and their impact on the organization.

	Current					Future				
Panel B: Least selected skills	Not at all important	Slightly important	Fairly important	Very important	Essential	Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
Skills with the lowest percentage of selections for each response	...the importance of building trusted partnerships within the organization.	Critical thinking	...the importance of internal audit objectivity, including those factors that may impair, or appear to impair, objectivity.	Entrepreneurial mindset	Entrepreneurial mindset	Core internal audit skills (e.g. technical)	Curiosity	...apply data analytic skills, strategies, and techniques, including an ability to create appropriate procedures using Audit Data Analytics (ADA) based on identified risks.	...the IIA's code of ethics.	...individual engagement planning.
Second lowest	Teamwork	Written Communication	...the IIA's code of ethics.	...corporate social responsibility (e.g. sustainability).	...corporate social responsibility (e.g. sustainability).	Curiosity	Resilience (tenacity)	...evaluate information security risk (including entity level, business unit level and process level risks) and their impact on the organization.	...documentation requirements.	Entrepreneurial mindset
Third lowest	...internal audit's purpose, authority, and responsibility and how an internal auditor brings value to the strategic plan of the organization.	...the importance of internal audit objectivity, including those factors that may impair, or appear to impair, objectivity.	Analytical thinking	...the IIA's code of ethics.	...evaluate an information system development process, including the key phases of defining requirements, design, development or acquisition, testing, implementation, and post implementation review.	Teamwork	Seeing big picture / holistic view point	...corporate social responsibility (e.g. sustainability).	...the organizational (structural) independence of the internal audit function.	...various approaches to selecting items to audit (e.g. key items, full population, full sampling), including advantages and drawbacks of each.

Appendix 1 Survey

Note: This is the full survey provided to participants. The only modification is that survey pages one and two (consent and welcome information) are not included to save page space.

Thank you for participating. We have included open-ended questions at the end of the survey to capture any specific comments you might have on the listed skills, anything else we should consider, or anything we may have missed. If you have any notes on a specific skill, please note section and question/skill number for reference in your comments.

Q1

Please indicate the organizations of which you are member. Select all that apply.

- 01 CPA
- 02 IIA
- 03 ISACA
- 04 None of the above

Category I: Professionalism: Competencies required to demonstrate the authority, credibility, and ethical conduct essential for a valuable internal audit activity.

P1

Currently, how important or unimportant do you believe the following skills are for early career internal auditors?

Demonstrate an understanding of...

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	...the <i>mission</i> of internal audit and its role in corporate governance.					
b	...internal audit's purpose, authority, and responsibility and how an internal auditor brings <i>value</i> to the strategic plan of the organization.					
c	...the importance of aligning the <i>internal audit strategic plan</i> with the organization's strategy.					
d	...the IIA's <i>professional standards</i> and how the standard applies to the internal audit charter, due professional care, organizational roles and professional development.					
e	...the organizational (structural) <i>independence</i> of the internal audit function.					
f	...the importance of internal audit <i>objectivity</i> , including those factors that may impair, or appear to impair, objectivity.					
g	...the importance of <i>building trusted partnerships</i> within the organization.					
h	...the IIA's <i>code of ethics</i> .					
i	...the <i>different types of audits</i> (e.g. financial, operational, compliance, consultative, value for money, etc.) and their					

impact on economy, efficiency, and effectiveness.					
---	--	--	--	--	--

P2

Relative to today, **in 10 years**, how important or unimportant do you believe the following skills will be for **early career internal auditors**?

Demonstrate an understanding of...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	...the <i>mission</i> of internal audit and its role in corporate governance.					
b	...internal audit's purpose, authority, and responsibility and how an internal auditor brings <i>value</i> to the strategic plan of the organization.					
c	...the importance of aligning the <i>internal audit strategic plan</i> with the organization's strategy.					
d	...the IIA's <i>professional standards</i> and how the standard applies to the internal audit charter, due professional care, organizational roles and professional development.					
e	...the organizational (structural) <i>independence</i> of the internal audit function.					
f	...the importance of internal audit <i>objectivity</i> , including those factors that may impair, or appear to impair, objectivity.					

g	...the importance of <i>building trusted partnerships</i> within the organization.					
h	...the IIA's <i>code of ethics</i> .					
i	...the <i>different types of audits</i> (e.g. financial, operational, compliance, consultative, value for money, etc.) and their impact on economy, efficiency, and effectiveness.					

Category II: Performance: Competencies required to plan and perform internal audit engagements in conformance with the Standards.

F1

Currently, how important or unimportant do you believe the following skills are for early career internal auditors?

Demonstrate an understanding of...

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	...risk related to strategic objectives and corporate governance (including other lines of defense) of the organization.					
b	... <i>fraud risk</i> - including an awareness of how the fraud triangle, incentives, ineffective controls and rationalizations can impact risk of fraud.					
c	...individual engagement <i>planning</i> .					
d	...various approaches to <i>selecting items to audit</i> (e.g. key items, full population, and sampling), including advantages and drawbacks of each.					
e	... <i>documentation</i> requirements.					

Demonstrate an ability to...

		Not at all important	Slightly important	Fairly important	Very important	Essential
f	...evaluate <i>information security risk</i> (including entity level, business unit level and process level risks) and their impact on the organization.					
g	...evaluate <i>information privacy risk</i> (including entity level, business unit level and process level risks) and their impact on the organization.					
h	...identify and document potential risks for common <i>business processes</i> (e.g. sales, procurement, human resources, contracting, product development, project management, marketing, logistics, management of outsourced processes, etc.).					
i	...evaluate data requirements, business processes, and reporting systems to support reliable <i>financial reporting</i> .					

j	...document and evaluate design and operational effectiveness of <i>internal controls</i> .					
k	...create and then execute <i>audit plans</i> , including the ability to real-time update audit plans based on new information.					

F2

Relative to today, **in 10 years**, how important or unimportant do you believe the following skills will be for **early career internal auditors**?

Demonstrate an understanding of...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	...risk related to strategic objectives and corporate governance (including other lines of defense) of the organization.					
b	... <i>fraud risk</i> - including an awareness of how the fraud triangle, incentives, ineffective controls and rationalizations can impact risk of fraud.					
c	...individual engagement <i>planning</i> .					
d	...various approaches to <i>selecting items to audit</i> (e.g. key					

	items, full population, and sampling), including advantages and drawbacks of each.					
e	...documentation requirements.					

Demonstrate an ability to...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
f	...evaluate <i>information security risk</i> (including entity level, business unit level and process level risks) and their impact on the organization.					
g	...evaluate <i>information privacy risk</i> (including entity level, business unit level and process level risks) and their impact on the organization.					
h	...identify and document potential risks for common <i>business processes</i> (e.g. sales, procurement, human resources, contracting, product development, project management,					

	marketing, logistics, management of outsourced processes, etc.).					
i	...evaluate data requirements, business processes, and reporting systems to support reliable <i>financial reporting</i> .					
j	...document and evaluate design and operational effectiveness of <i>internal controls</i> .					
k	...create and then execute <i>audit plans</i> , including the ability to real-time update audit plans based on new information.					

Category III: Environment: Competencies required to identify and address the risks specific to the industry and environment in which the organization operates.

E1

Currently, how important or unimportant do you believe the following skills are for early career internal auditors?

Demonstrate an understanding of...

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	<i>...corporate social responsibility (e.g. sustainability).</i>					

Demonstrate an ability to...

		Not at all important	Slightly important	Fairly important	Very important	Essential
b	...assess the impact that the organizational governance structure has on the control environment and activities.					
c	...assess the impact that the organizational strategic planning process has on the control environment and activities.					
d	...assess the impact that the organizational <i>performance measures & performance management strategies</i> have on the control environment and activities.					

E2

Relative to today, [in 10 years](#), how important or unimportant do you believe the following skills will be for early career internal auditors?

Demonstrate an understanding of...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	... <i>corporate social responsibility</i> (e.g. sustainability).					

Demonstrate an ability to...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
b	...assess the impact that the organizational governance structure has on control environment and activities.					
c	...assess the impact that the organizational strategic planning process has on control environment and activities.					
d	...assess the impact that the organizational <i>performance measures & performance management strategies</i> have on the control environment and activities.					

E3

Currently, what depth of knowledge of accounting and finance do you believe is necessary for early career internal auditors?

- 01 None
- 02 Basic
- 03 Moderate
- 04 High
- 05 Expert

E4

In 10 years, what depth of knowledge of accounting and finance do you believe will be necessary for early career internal auditors?

- 01 None
- 02 Basic
- 03 Moderate
- 04 High
- 05 Expert

Category IV: Leadership and Communication: Competencies required to provide strategic direction, communicate effectively, and maintain relationships.

L1

Currently, how important or unimportant do you believe the following skills are for early career internal auditors?

Demonstrate an understanding of...

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	...appropriate <i>engagement communication</i> , including facilitating a management action plan for monitoring.					
b	...the value of <i>diversity</i> - both in person and thought.					

Demonstrate an ability to...

		Not at all important	Slightly important	Fairly important	Very important	Essential
c	...adequately <i>project manage</i> engagements.					
d	...analyze complex information / processes so as to make informed recommendations for improvement (e.g. feedback on "lessons learned"; "root cause analysis").					

Recognize the importance of...

		Not at all important	Slightly important	Fairly important	Very important	Essential
e	...balancing advocacy of internal audit findings while maintaining stakeholder relationships.					

L2

Relative to today, **in 10 years**, how important or unimportant do you believe the following skills will be for **early career internal auditors**?

Demonstrate an understanding of...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	...appropriate <i>engagement communication</i> , including facilitating a management action plan for monitoring.					
b	...the value of <i>diversity</i> - both in person and thought.					

Demonstrate an ability to...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
c	...adequately <i>project manage</i> engagements.					
d	...analyze complex information / processes so as to					

make informed recommendations for improvement (e.g. feedback on “lessons learned”; “root cause analysis”).					
--	--	--	--	--	--

Recognize the importance of...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
e	...balancing advocacy of internal audit findings while maintaining stakeholder relationships.					

L3

Currently, how important or unimportant do you believe the following professional/personal (e.g. soft/enabling) skills are for early career internal auditors?

RANDOMIZE ALL (a – q)

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	Written communication					
b	Verbal communication					
c	Ability to Interview					
d	Business acumen					
e	Critical thinking					
f	Analytical thinking					
g	Forward thinking					
h	Teamwork					
i	Entrepreneurial mindset					
j	Consultative mindset (e.g. strategic thinking)					

k	Ability to work in an online environment					
l	Resilience (tenacity)					
m	Agile (ability to be flexible)					
n	Ability to innovate					
o	Seeing big picture / holistic view point					
p	Negotiation skills					
q	Curiosity					

L4

Relative to today, **in 10 years**, how important or unimportant do you believe the following professional/personal (e.g. soft/enabling) skills will be for **early career internal auditors**?

RANDOMIZE ALL (a – q)

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	Written communication					
b	Verbal communication					
c	Ability to Interview					
d	Business acumen					
e	Critical thinking					
f	Analytical thinking					
g	Forward thinking					
h	Teamwork					
i	Entrepreneurial mindset					
j	Consultative mindset (e.g. strategic thinking)					
k	Ability to work in an online environment					
l	Resilience (tenacity)					
m	Agile (ability to be flexible)					
n	Ability to innovate					

o	Seeing big picture / holistic view point					
p	Negotiation skills					
q	Curiosity					

L5

In a general sense, how important or unimportant do you believe the following skills are currently for early career internal auditors?

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	Core internal audit skills (e.g. technical)					
b	Personal (e.g. soft) skills					

L6

In a general sense, relative to today, how important or unimportant do you believe the following skills will be in 10 years for early career internal auditors?

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	Core internal audit skills (e.g. technical)					
b	Personal (e.g. soft) skills					

Category V: NEW: Information Technology: Based on the feedback from our interviews, we have elevated this area to its own level of consideration. The goal is to identify skills that indicate a level of data savviness necessary for an internal auditor.

11

Currently, how important or unimportant do you believe the following skills are for early career internal auditors?

Demonstrate an understanding of...

		Not at all important	Slightly important	Fairly important	Very important	Essential
a	<i>...information technology risk related to strategic objectives and corporate governance of the organization.</i>					
b	<i>...information technology control frameworks.</i>					

Demonstrate an ability to:

		Not at all important	Slightly important	Fairly important	Very important	Essential
c	<i>...identify appropriate data, assess data quality, and clean data.</i>					
d	<i>...evaluate an information system development process, including the key phases of defining requirements, design, development or acquisition, testing, implementation, and post implementation review.</i>					

e	...evaluate an <i>information system</i> , including the related processes against criteria such as Security, Availability, Processing Integrity, Confidentiality, and Privacy, using knowledge of data requirements and risk exposures.					
f	... <i>apply data analytic</i> skills, strategies, and techniques, including an ability to create appropriate procedures using Audit Data Analytics (ADA) based on identified risks.					
g	... <i>evaluate data analytic</i> skills, strategies, and techniques in business settings.					
h	... <i>prepare and interpret information</i> and/or reports for stakeholders using data analytic skills, strategies, and techniques including data visualization where appropriate.					

12

21

January 22, 2021 V3

Relative to today, [in 10 years](#), how important or unimportant do you believe the following skills will be for early career internal auditors?

Demonstrate an understanding of...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
a	<i>...information technology risk related to strategic objectives and corporate governance of the organization.</i>					
b	<i>...information technology control frameworks.</i>					

Demonstrate an ability to...

		Significantly less important	Somewhat less important	Same importance	Somewhat more important	Significantly more important
c	<i>...identify appropriate data, assess data quality, and clean data.</i>					
d	<i>...evaluate an information system development process, including the key phases of defining requirements, design, development or acquisition, testing, implementation, and post implementation review.</i>					
e	<i>...evaluate an information</i>					

	system, including the related processes against criteria such as Security, Availability, Processing Integrity, Confidentiality, and Privacy, using knowledge of data requirements and risk exposures.					
f	<i>...apply data analytic skills, strategies, and techniques, including an ability to create appropriate procedures using Audit Data Analytics (ADA) based on identified risks.</i>					
g	<i>...evaluate data analytic skills, strategies, and techniques in business settings.</i>					
h	<i>...prepare and interpret information and/or reports for stakeholders using data analytic skills, strategies, and techniques including data visualization where appropriate.</i>					

I3

Currently, what depth of knowledge related to *data analytic* skills, strategies, and techniques do you believe are necessary for early career internal auditors?

- 01 None
- 02 Basic - ability to describe analytic tools
- 03 General - ability to utilize analytic tools
- 04 Deep - ability to design / program analytic tools
- 05 Expert - ability to use artificial intelligence (A.I.) and deep learning type tools
- 06 I don't think this skill is relevant to internal audit currently

I4

In 10 years, what depth of knowledge related to *data analytic* skills, strategies, and techniques do you believe will be necessary for early career internal auditors?

- 01 None
- 02 Basic - ability to describe analytic tools
- 03 General - ability to utilize analytic tools
- 04 Deep - ability to design / program analytic tools
- 05 Expert - ability to use artificial intelligence (A.I.) and deep learning type tools
- 06 I don't think this skill will be relevant to internal audit in 10 years

O1

From your personal perspective, what do you see as the most important competency of an internal auditor (e.g. what differentiates an internal auditor)?

O2

Are there any other internal audit categories or skills we should consider or you feel we missed? If so, please list the top 1-2.

O3

Do you have any specific comments related to the skills presented in this survey (please note the skill)?

DEMOGRAPHIC SECTION

This section asks about you and your work experience. The answers to these questions are used for broad analysis purposes only. When analyzed, all of the data will be summarized and the data will be anonymized so that no individual can be identified from these summarized results.

D1

What is your current employment status?

- 01 Full-time
- 02 Part-time
- 03 Retired **GO TO D11**
- 04 Unemployed **GO TO D11**
- 05 Full-time Student **GO TO D11**
- 06 Other, please specify: **GO TO D11**

IF UNANSWERED, GO TO D11

D2

Which of the following best describes which industry you are currently employed in?

- 01 Agriculture, Forestry, Fishing and Hunting
- 02 Construction
- 03 Education
- 04 Extractive Activities (e.g. Mining and Oil & Gas)
- 05 Financial Services
- 06 Gaming
- 07 Health Care and Social Services
- 08 Hospitality and Amusement Parks
- 09 Manufacturing
- 10 Media, Entertainment, Sports and Arts
- 11 Not-for-Profit Organizations
- 12 Professional services
- 13 Public Administration
- 14 Public Practice
- 15 Public Sector in Government (all levels)
- 16 Retail/Wholesale Trade
- 17 Scientific and Technical Services
- 18 Transportation and Warehousing
- 19 Utilities
- 20 Other, please specify:

D3

Which of the following most closely matches your job title?

- 01 Co-op / Intern
- 02 Entry Level
- 03 Analyst / Associate
- 04 Manager
- 05 Senior Manager
- 06 Director
- 07 Vice President
- 08 Senior Vice President
- 09 Chief Audit Executive ("CAE")
- 10 CFO
- 11 CEO
- 12 Other C level executive (CIO, CTO, COO, CMO, etc.)
- 13 Partner / Owner
- 14 Board Member
- 15 Educator
- 16 Other, please specify:

D4

How many years have you worked at this level?

- 01 Less than 1 year
- 02 1-2 years
- 03 3-5 years
- 04 6-10 years
- 05 11-15 years
- 06 16-20 years
- 07 More than 20 years

D5

Where is your organization headquartered?

List of Canadian provinces

U.S.

Outside Canada or the U.S.

D6

Counting all locations where your company operates, what is the approximate total number of persons who work there?

- 01 1-24
- 02 25-99
- 03 100-499
- 04 500-999
- 05 1000-4,999
- 06 5,000-9,999

- 07 10,000-49,999
- 08 50,000+

D7

Which of the following best describes your experience, if any, in an internal audit position (however your organization defines internal audit)?

- 01 I currently work in an internal audit position
- 02 I don't currently work in an internal audit position, but I have in the past
- 03 I have oversight of internal audit (e.g. audit committee, etc.) **GO TO D9**
- 04 I have never worked in an internal audit position **GO TO D11**
- 05 Other, please specify: **GO TO D11**

IF UNANSWERED, GO TO D11

D8

What are your total years of work experience as an internal auditor?

- 01 Less than 1 year
- 02 1-2 years
- 03 3-5 years
- 04 6-10 years
- 05 11-15 years
- 06 16-20 years
- 07 More than 20 years

D9

Approximately how many full-time equivalent employees (FTEs) make up your internal audit department?

- 01 1
- 02 2-5
- 03 6-10
- 04 11-25
- 05 26-50
- 06 51-100
- 07 101-200
- 08 201+
- 09 My company does not have an Internal Audit department **GO TO D11**

IF UNANSWERED, GO TO D11

D10

How much do you anticipate your Internal Audit department to grow over the next 10 years?

- 01 0%
- 02 1-5%

- 03 6-10%
- 04 11-20%
- 05 21-50%
- 06 51-100%
- 07 I expect my company's Internal Audit department to decrease in size

D11

Please indicate the gender you identify most with:

- 01 Male
- 02 Female
- 03 Prefer to self-describe: _____
- 04 Prefer not to answer

D12

Where do you live?

List of Canadian provinces

U.S.

Outside Canada or the U.S.

Prefer not to answer

D13

Which age group do you belong to?

- 01 18 to 24
- 02 25 to 34
- 03 35 to 44
- 04 45 to 54
- 05 55 to 64
- 06 65 or older
- 07 Prefer not to answer

D14

What is your ethnic or cultural identity? Select all that apply.

- 01 White
- 02 South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
- 03 Chinese
- 04 Black
- 05 Filipino
- 06 Latin American
- 07 Arab
- 08 Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.)
- 09 West Asian (e.g., Iranian, Afghan, etc.)
- 10 Korean
- 11 Japanese

- 12 First Nations, Inuit or Métis
- 13 Other, please specify: _____
- 14 Prefer not to answer

D15

Which of the following designations or degrees do you hold? Select all that apply.

- 01 CPA
- 02 CIA
- 03 CISA
- 04 CFA
- 05 MBA
- 06 CFE
- 07 None of the above